



REFLECT DELIVERABLE D6.1

DISSEMINATION AND COMMUNICATION PLAN

Summary:

This document defines and prioritises the key objectives of dissemination of REFLECT and details the steps to be taken during the project's lifetime in order to achieve maximum impact and reach relevant audiences. It also sets the framework to facilitate communication among Consortium members, and between the Consortium and stakeholders or the general public.

Authors:

Anita Stein, European Federation of Geologists
María A. Lopez, European Federation of Geologists
Alberto Sánchez, European Federation of Geologists



Title:	D6.1 Dissemination and communication plan		
Lead beneficiary:	EFG		
Other beneficiaries:			
Due date:	31.03.2020		
Nature:	Public		
Diffusion:	all Partners and general public		
Status:	Final		
Document code:	REFLECT_D6.1		
DOI:	10.2312/gfz.4.8.2020.001		
License information:	CC-BY		
Recommended citation:	Stein, A., López, M. A., Sanchez, A., 2020, Deliverable <i>D6.1 Dissemination and communication plan</i> , H2020 REFLECT project. DOI: 10.2312/gfz.4.8.2020.001		
Revision history	Author	Delivery date	Summary of changes and comments
Version 01	Anita Stein	06.03.2020	First draft
Version 02	Anita Stein	11.03.2020	Implementing feedback from EFG internal review
Final version	Anita Stein	25.03.2020	Implementing feedback from partners' review

Approval status				
	Name	Function	Date	Signature
Deliverable responsible	Anita Stein	Communication Manager (EFG)	30.03.2020	
WP leader	Anita Stein	Communication Manager (EFG)	30.03.2020	
Reviewer	Maria A. López	Audio-visual consultant (EFG)	09.03.2020	
Reviewer	Alberto Sánchez	Project Officer (EFG)	10.03.2020	
Reviewer	Holger Cremer	Project Manager (TNO)	22.03.2020	
Project Coordinator	Katrin Kieling	Project coordinator (GFZ)	30.03.2020	

This document reflects only the author's view and the European Commission is not responsible for any use that may be made of the information it contains.

Table of contents

1	EXECUTIVE SUMMARY	4
2	OUTREACH STRATEGY.....	5
2.1	Objectives.....	5
2.2	Target audiences.....	5
2.3	Communication Tools	6
2.4	Stages.....	11
2.5	Social media strategy.....	12
2.6	Monitoring dissemination and outreach activities.....	14
2.7	Key performance indicators.....	14
2.8	Assets to be disseminated	16
2.9	Data protection	21
3	INTERNAL COMMUNICATION PLAN	22
3.1	Internal guidelines for dissemination and outreach.....	22
3.1.1	Key message	22
3.1.2	Project logo.....	23
3.1.3	Information on EU funding.....	23
3.1.4	Publications	24
3.1.5	Promotional material.....	24
3.1.6	Templates	25
3.2	Consortium organisation	25
3.3	Communication flows	28
3.4	Internal file repository	29
3.5	E-mail communication	30
4	CONCLUDING REMARK	32

1 EXECUTIVE SUMMARY

This document describes the dissemination and communication plan for REFLECT, and provides guidelines for both external and internal communication. The overall aim of this document is to define communication objectives, target audiences, core messages, and key performance indicators in order to ensure consistency of the dissemination activities and maximise the public outreach.

REFLECT's outreach activities aim at disseminating the project results during the project life-time and increase the impact after the end of the project, with the overall aim of raising awareness about the relevance of the REFLECT approach (e.g., accessible data and knowledge on geothermal fluids to be used in predictive modelling).

With this objective in mind, a preliminary set of stakeholders has been identified at the project beginning. These include the geothermal industry as a whole, but also other industries and markets which will potentially benefit from the REFLECT approach, the scientific community, public authorities and the general public, including NGOs and citizens.

The external communication strategy will use a synergetic combination of several channels and tools tailored towards each of the stakeholder groups: a project website linked with social media networks; regular press releases, newsletters, conferences and other event opportunities; publications in various media including peer-reviewed scientific journals and popular science publications. The overview of the planned dissemination activities provides a concise description of actions designed to mobilise the international community, informing them about the project objectives and expected results.

Finally, the plan also comprises a set of key performance indicators for each of the channels, which will allow to analyse the effectiveness of the planned outreach activities, specifying how each consortium member shall contribute to the overall success of the outreach strategy.

The internal communication plan defines responsibilities among project partners and consortium bodies and describes internal communication flows and monitoring instruments. Internal communication will be conducted via periodic emails sent out by the coordinator and work package (WP) leaders and periodic electronic or face-to-face meetings. Project communication documentation (including working documents, administrative papers, project minutes, deliverables and design files) is stored and shared in the internal repository on Nextcloud. The internal communication plan also details specific rules for publications, provides guidelines in terms of internal file sharing and information on templates and promotional material made available to all partners.

The implementation of the dissemination and communication plan will be monitored, updated and adapted to changing conditions during the project lifetime, and hence it will operate as a live evolving document.

2 OUTREACH STRATEGY

2.1 OBJECTIVES

The dissemination and communication plan will ensure that information is shared with relevant external stakeholders in a timely way using effective communication tools. Measures agreed on in the communication plan focus on gaining a significant impact of REFLECT and include outreach actions for deliverables and promotional material.

The objectives of REFLECT's dissemination and outreach activities are:

- Identify stakeholders and the most suitable channels to reach them, ensuring the stimulation of a two-way dialogue.
- Disseminate the project progress and results during the project life-time and increase the impact after the end of the project.
- Support other Work Packages in communicating their research to scientific and non-scientific audiences.
- Foster the connection with existing EU and member state initiatives and projects relevant to the project outcomes.
- Raise awareness and visibility on the relevance of the REFLECT approach e.g., accessible data and knowledge on geothermal fluids to be used in predictive modelling), to increase the use of geothermal energy and electricity production.
- Develop and implement an exploitation strategy to accelerate the application of REFLECT technology.

The dissemination action will support all Work Packages (WPs), ensuring visibility, accessibility and impact of the project activities. During the first part of the project, dissemination will focus on setting up a network for REFLECT and mobilising stakeholders, informing them about the project objectives and expected results. During the second part of the project when results are becoming available, the scope of dissemination will focus on the project achievements and their future application possibilities.

2.2 TARGET AUDIENCES

REFLECT's target audiences can be split into the following main groups:

- **Geothermal industry:** operators, consultants, investors, project developers, auditors (resource assessment community), technology developers, start-ups, service companies (e.g. engineering firms)
- **Other industries and markets:** mining, waste water, equipment suppliers, banks, financiers, insurance companies
- **Scientific community:** geochemists, engineers, microbiologists, geologists, physicists (academia, research organisations, research councils, research funding agencies, universities, think tanks, etc.)

- **Public authorities:** EU policy makers, national governments, regional institutions, local communities, supra-national bodies and organisations
- **General public and lobby groups:** NGOs, journalists, influencers, the citizens

The above stakeholders will constitute the target audiences of REFLECT. The needs of these audiences will be assessed more in detail in a stakeholder matrix to be published in June 2020 (Deliverable 6.2). Liaison with Stakeholders will remain active throughout the project.

2.3 COMMUNICATION TOOLS

REFLECT will make use of **different communication tools** adapted to the preferences and requirements of each target audience:

The basic communication resources targeting all audiences include a public website, print material and presence in social media:

- **Public Website:** The public website will provide information and updates about the REFLECT project, links to the public deliverables, open access and datasets generated in the project.
- **Communication toolkit:** A range of communication materials will be produced including the project's visual identity and logo, factsheets, posters, roll-up templates, two brochures (one at the project launch and one promoting the initial results after 22 months) as well as a final leaflet, which will summarise the most important results from the project for broad distribution at industry and academic level.
- **Social media:** A focus will be put on LinkedIn and Twitter to promote REFLECT activities, news and presentations given at events and workshops.
- **E-news:** Electronic newsletters will inform stakeholders on at least an annual basis about the project progress, thus completing the portfolio of electronic dissemination tools.

Communication with the scientific community will be achieved by:

- **Presentations at scientific meetings and conferences:** During the first 12 months, participation at conferences and workshops will lead to the development of posters and abstracts outlining the project objectives.
- **Scientific publications in open access journals:** REFLECT envisages 10-15 scientific publications in peer-reviewed journals. All peer-reviewed scientific publications will be published open access, thus following requirements by the European Commission.
- **Software codes** resulting from the project will be released on online repositories such as Github accompanied by a user's guide (D4.1).
- **Datasets** collected during the project will be openly accessible through different repositories ([GFZ data services](#), [4TU](#), National Geoscience Data Centre (NGDC), Zenodo, etc), depending on the usual practice of the project partners, and accompanied by report describing the metadata. Details will be provided in Data management plan (D5.4).
- **Access to the open part of the project website.**

- Spreading e-news via IGA (International Geothermal Association), ThinkGeoEnergy, and national networks, such that international and national geothermal communities will be informed.
- Liaison and collaboration with other H2020/GEOTHERMICA projects and initiatives that could complement project activities and provide synergies, and at the same time enhance dissemination of the project results to a very specialised and professional audience. The project will then be implemented in liaison with such ongoing and future investigations, avoiding overlaps and taking advantage of possible new ideas that could arise from such correspondence.

Communication at the level of industry stakeholders will be achieved by:

- The Advisory Board of geothermal operators will be invited to Advisory Board workshops and information days in order to combine their experience with the knowledge created in the project.
- Webinars dedicated to specific topics.
- Access to the open part of the project website.
- Regular news releases.
- Distribution of brochures, both printed and as downloads from the website.
- In-house newsletters: EFG publishes newsletters and circulars that reach approximately 45.000 readers. In addition, the national re-publication of these articles by EFG Linked Third Parties in their own internal newsletters will be important vehicles to drive dissemination activities. A list of major geoscience dissemination networks is included in table 1.
- Participation with a booth at geothermal fairs relevant for the geothermal industry such as GeoTHERM, EGC, or WGC.

Table 1: List of geoscience dissemination networks that will be used by REFLECT.

Name	Country	Website	Linked Third Party (LTP)
European Federation of Geologists Members			
Austrian Mining Association	Austria	http://bvo.at/	
Union Belgo-Luxembourgeoise des Géologues	Belgium-Luxembourg	www.blug-ublge.be/	YES
Българско Геологическо Дружество	Bulgaria	www.bgd.bg/	YES
Hrvatsko geološko društvo	Croatia	www.geologija.hr/hr/	YES
Česká asociace ložiskových geologů	Czech Republic	www.calg.cz/	YES
Geological Society of Estonia	Estonia	http://www.egeos.ee/eg eos/en/	
Ympäristöasiantuntijoiden Keskusliitto	Finland	www.ykl.fi/	
Société Géologique de France	France	www.sgfr.org/	

Berufsverband Deutscher Geowissenschaftler e.V.	Germany	www.geoberuf.de/	
Syllogos Ellinon Geologon	Greece	www.geologist.gr/	YES
Magyarhoni Földtani Társulat	Hungary	www.foldtan.hu/	YES
Institute of Geologists of Ireland	Ireland	www.igi.ie/	
Consiglio Nazionale dei Geologi	Italy	www.cngeologi.it/	YES
Koninklijk Nederlands Geologisch Mijnbouwkundig Genootschap	The Netherlands	www.kngmg.nl/	
Polskie Stowarzyszenie Wyceny Zloz Kopalin	Poland	www.polval.pl	YES
Associação Portuguesa de Geólogos	Portugal	www.apgeologos.pt/	YES
National Association of Professionals in Geology and Mining from Romania	Romania	http://progeomin.ro/	YES
Национальная ассоциация по экспертизе недр	Russia	www.naen.ru/	
Srpsko Geolosko Drustvo	Serbia	www.sgd.rs/	
Slovensko Geolosko Drustvo	Slovenia	www.zrc-sazu.si/	YES
Ilustre Colégio Oficial de Geólogos	Spain	www.icog.es	YES
Geosektionen	Sweden	www.naturvetarna.se/	
Schweizer Geologen Verband / Association Suisse des Géologues	Switzerland	www.chgeol.ch/	
Maden Jeologları Derneği MJD	Turkey	mjd.org.tr/tr.aspx	YES
Спілка геологів України	Ukraine	www.geolog.org.ua/en/	YES
The Geological Society of London	United Kingdom	www.geolsoc.org.uk/	

European Geosciences Organizations / Networks		
Name	Country	website
Association of European Geological Societies	EU	http://www.aegs.it
E-MRS	EU	http://www.emrs-strasbourg.com
European Association of Geoscientists and Engineers	The Netherlands	https://www.eage.org/
European Federation of Associations of Environmental Professionals	Belgium	http://www.efaep.org/
EuroGeoSurveys	Belgium	www.eurogeosurveys.org/
European Geosciences Union	Germany	www.egu.eu/
European Geothermal Energy Council	Belgium	https://www.egec.org/
Sustainable Energy Europe	EU	http://www.sustenergy.org/

International Geosciences Organisations / Networks		
Name	Country	website
African Association of Women in Geosciences	Africa	www.aawg.org/
American Geosciences Institute	USA	http://www.agiweb.org/
Asia Oceania Geosciences Society	Singapore	www.asiaoceania.org/
Association of Environmental and Engineering Geologists	USA	www.aegweb.org
Association of Geoscientists for International Development	Intl.	http://www.NERC.ac.uk/agid/
Australian Institute of Geoscientists	Australia	http://www.aig.org.au/
Canadian Federation of Earth Sciences	Canada	http://earthsciencescanada.com/cfes/
BILAT USA 2.0	USA	http://www.euussciencetechnology.eu/
CYTED	Latin America	http://www.cytmed.org/?lang=en
Directory of Geoscience Organisations of the World	Japan	https://www.gsj.jp/en/gsj-link/directory/
ENSOCIO-LA - Strategic, Sustainable R&I Cooperation with Latin America	Latin America	http://www.cytmed.org/?lang=en
ERANET-LAC	Latin America	http://www.eranet-lac.eu/
ERAFRICA	Africa	http://www.erafrica.eu/
ERA-CAN+	Canada	http://www.era-can.net
EU-Japan Centre for Industrial Cooperation	Japan	http://www.eu-japan.eu/
Federation of International Geo-engineering Societies (FedIGS)	United Kingdom	http://www.issmge.org/en/fedigs
Geological Society of America	USA	http://www.geosociety.org/
Geological Society of South Africa	South Africa	www.gssa.org.za
Geólogos sin Fronteras	Spain	http://www.geologossinfronteras.org/
Geoscientists Canada	Canada	http://www.ccpge.ca/
Infomine	Canada	http://www.infomine.com/
International Association for Engineering Geology and the Environment	Intl.	http://www.iaeg.info/
International Association of Geomorphologists	Intl.	http://www.geomorph.org/
International Association for Promoting Geoethics (IAPG)	Intl.	http://www.geoethics.org/
International Association for Geoethics	Intl.	http://www.icog.es/iageth/index.php/home/
International Geoscience Education Organisation	United Kingdom	http://www.geoscied.org/

International Geothermal Association	Intl.	https://www.geothermal-energy.org/
IUGS	Intl.	http://www.iugs.org/
IUGS Task Group on Global Geoscience Professionalism	Intl.	http://tg-ggp.org/
IUMRS	Intl.	http://www.iumrshq.org/
JEUPISTE - Japan-EU Partnership in Innovation, Science and Technology	Japan	http://www.jeupiste.eu/
OneGeology	Intl.	http://onegeology.org/
UNEP	Intl.	http://unep.org
UNESCO, Earth Sciences for Society	France	http://www.unesco.org/new/en/natural-sciences/environment/earth-sciences/
World Geologists / Geólogos del Mundo/	Spain	http://www.geologosdelmundo.org/
YES Network	Intl.	http://www.networkyes.org/

Communication at the public level will be achieved by:

- Access to the open part of the project website.
- Distribution of brochures, both printed and as downloads from the website.
- Animation video, available via the website and the YouTube channel.
- Participation in public events such as the “Long Night of Science in Berlin” (annual event for a science-interested auditorium), the “Researcher's Night” in Brussels or “Researcher's Night” at the University of Miskolc, the “Story of Sciences” at Technical University Delft, “French Sciences Days” (for public auditorium and school children), “TECH’Ecole” (for school children) and “U3A” (University for people in retirement) in Neuchatel.
- Linking with and advertising on thematic portals, such as EU portals and other news and community portals. These portals comprise among others EASME and CORDIS.

The **final conference** will be an international conference on geothermal fluid properties and optimisation of site development and operation, open for participation of international stakeholders from science, industry and other relevant parties. The conference proceedings will be available online. The website with all project information will be maintained for at least three years after the end of the project.

Other **conferences and events** where project partners actively participate include: Annual Geopower Global Congress, IUGS International Geological Congress, Goldschmidt Conference, World Geothermal Congress and Exhibition, UCTEA Geothermal Congress and Exhibition, annual Stanford Geothermal Workshop, European Geosciences Union (EGU) Annual Conference, European Geothermal Workshop, European Geothermal PhD Days (EGPD), Iceland Geothermal Conference and the European Geothermal Congress (EGC), German Geothermal Congress (DGK), Goldschmidt conference, Water-rock interaction.

2.4 STAGES

REFLECT's dissemination and outreach encompasses four main stages which are described in detail below and illustrated in Figure 1:

FIRST STAGE (PREPARATORY WORK): The aim of the first stage is to map relevant stakeholders and set up a network for REFLECT making use of social media, especially Twitter and LinkedIn. This will create the basis for an active community of stakeholders engaged in relevant topics that will discuss, comment and consult on research and policy topics at different levels through the above-mentioned channels. The existing networks of REFLECT project partners and EFG third parties (covering industry, academia, research, NGOs, funding and governmental organizations) will play a pivotal role in multiplying the communication channels activated at this stage and will contribute significantly to reaching an active audience with multiple and diverse connections to relevant stakeholders for REFLECT. EFG as communication lead will ensure that key messages are delivered effectively to target audiences, matching communication and outreach objectives with backgrounds and perspectives of the various stakeholders. This will guarantee stakeholders' focus on core messages and leverage their interest around REFLECT objectives and expected results. This communication plan and the development of the communicational toolkit will support the implementation of the first stage.

SECOND STAGE (INTENSE COMMUNICATION): It will start by the end of M12 when first project results will become available. The set of public relations actions and tools will be widened, to convey project achievements and their future extent to all identified audiences. The scope of dissemination will gain further focus on recruiting more stakeholders to the REFLECT network. The focus will be put on the use of social media, regular press releases and networking at international events.

THIRD STAGE (INTENSE DISSEMINATION): This stage will cover the entire third project year and will aim at promoting the final project outcomes to the different stakeholder groups. REFLECT will organise a series of webinars on specific topics, which allow the dissemination of REFLECT results to a wider community. Scientific dissemination will follow the standard distribution routes of presentations at national and international conferences and workshops, and by publishing in peer-reviewed journals. At the end of the project, a final conference about the REFLECT outcomes will be organised, with associated conference proceedings. The production of a short video animation and several factsheets will support a broad electronic dissemination.

FOURTH STAGE (PROJECT RESULTS APPLIED BY END USERS): After the end of the funding period, the project outcomes are expected to be actively used thanks to the exploitation plan developed. The generated thermodynamic and kinetic data will be fully open and available. The REFLECT website will be available for at least three years after the project end. The Fluid Atlas will be publicly accessible and supervised by the University of Miskolc. It can be further extended anytime by adding more detailed information, or by broadening the application by adding other data (such as geothermal formations that can be used for heat production or energy storage). The atlas therefore has great potential to become a living project for decades. Similarly, the proof-of-principle prototype downhole fluid sampler will, after the end of the project, be further developed until the finalised and field-tested sampler can be constructed and a patent has been obtained. For this, additional investments and wider testing within geothermal wells are needed.

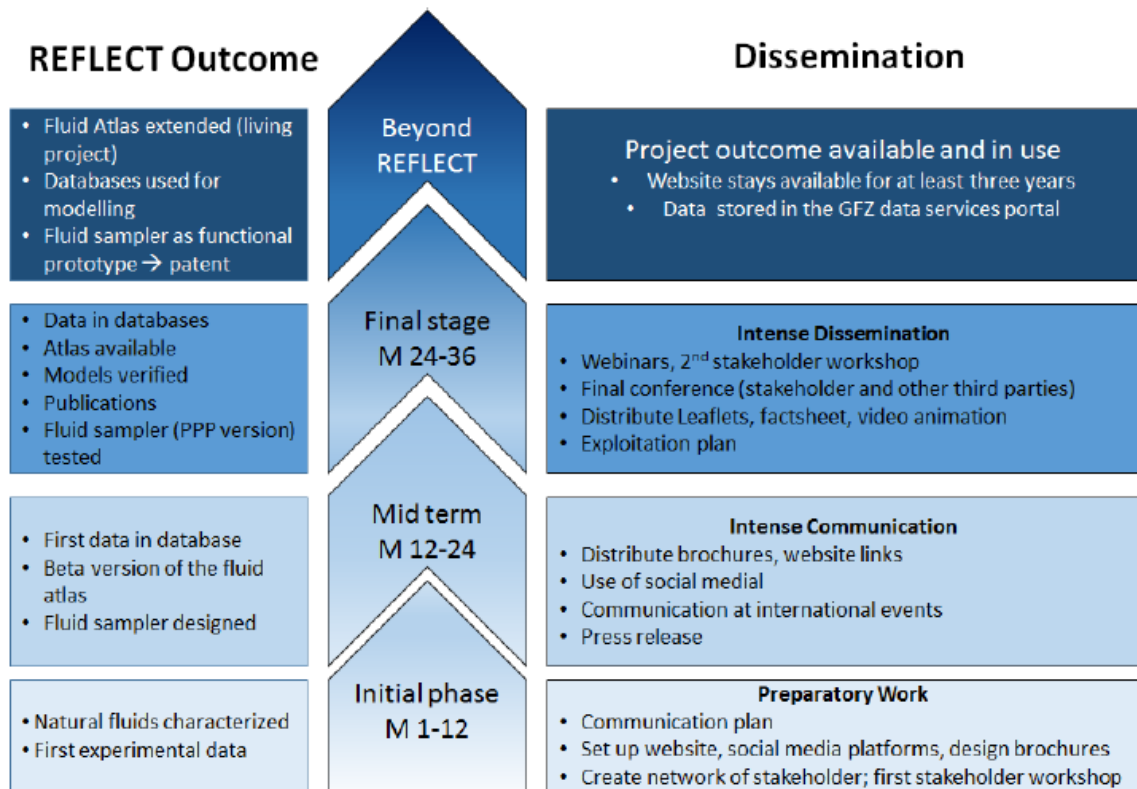


Figure 1: Different stages of communication and dissemination.

2.5 SOCIAL MEDIA STRATEGY

In general, REFLECT will create relevant posts on the website that will be spread through the social media, engaging in a meaningful rapport and enforcing quality relationships with the communities that the project aims to address, inserting images, factsheets and video material that can be shared and used later in deliverables or events with the general public.

The REFLECT social media presence will be developed in a way that it creates synergies between the project website and social media channels of the project partners and the national Linked Third Parties of EFG. It has been decided to focus on the following platforms which are most used at a professional level:

- Twitter: https://twitter.com/reflect_h2020
- LinkedIn: <https://www.linkedin.com/showcase/reflect-project>
- Youtube: still to be set up

A preliminary list of hashtags to be regularly used on all channels has been defined:

#REFLECT

#geothermal

#geothermalfluids

#lovegeothermal
 #geothermalforsociety
 #sustainableenergy
 #renewables
 #renewableenergy
 #H2020
[#H2020Energy](#)
 #EU

In addition, a list of institutions and geothermal portals will be established that should be regularly tagged while posting REFLECT contents, e.g. INEA, EGEC, Geothermal Resources Council, IGA. This will increase the visibility of REFLECT towards these institutions and multiply the social media shares.

The REFLECT social media strategy is further detailed in Table 2.

Table 2: REFLECT social media strategy.

	Twitter	LinkedIn	YouTube
Objectives/ approach	Share project news, best practices and success stories on geothermal energy, posting factsheets and infographics.	Share in depth-information about the project.	Release REFLECT audio-visual material on a regular basis
Contents	One new tweet per month during stage 1; later on 1 new tweet per week; Re-tweets of relevant content; Use of relevant hashtags; Tagging relevant institutions, projects, individual stakeholders and influencers;	Sharing factsheets, deliverables and infographics; Uploading presentations via SlideShare; Use of relevant hashtags; Tagging relevant institutions, projects, individual stakeholders and influencers.	Short animations and gifs; Interviews with project partners, Advisory Board members, stakeholders; Event live-streaming.

Language	both technical and non-technical	technical	both technical and non-technical
Target groups	professionals, policy makers, media, general public	professionals, financiers, students	professionals, policy makers, media, general public
KPI	+200 active followers by the end of the project	+500 active connections by the end of the project.	+30 subscribers by the end of the project.

2.6 MONITORING DISSEMINATION AND OUTREACH ACTIVITIES

Each partner is required to support actively the project dissemination. Consequently, a “**REFLECT dissemination report table**” has been filed in the project’s internal repository (Folder ‘WP6 – Dissemination and exploitation’ > ‘Outreach’) where each partner shall indicate on a regular basis **planned and implemented dissemination activities** such as presentations at conferences and workshops, publications in scientific journals or media for the general public, exhibitions, broadcasts on TV/radio, and others. Instructions for reporting the dissemination activities are provided at the beginning of the table and reminders will be sent to Consortium partners on a bi-annual basis.

To monitor the efficiency and success of the communication activities, the **web and social media statistics** will be recorded and analysed on a monthly basis. This regular performance check will facilitate the fine-tuning of the dissemination and outreach strategy whenever deemed appropriate.

2.7 KEY PERFORMANCE INDICATORS

The table below summarises selected key performance indicators (KPIs) that will be used to assess the performance of REFLECT’s dissemination activities. It also outlines the support expected from each partner.

Table 3: List of REFLECT dissemination channels and key performance indicators (KPIs).

Dissemination channel	KPI	Performance target(s)	Role of Partners
Project website	Number of hits, page views, and average time spent, deliverable/document downloads, emails/request for information received.	Total number by end of project - unique users: 3000, sessions: 6000, page views: 25000	Wherever possible, include the website link in email footers, communications and presentations. Supplying WP6 leader with photos, footage, text and regular updates on project activities.

Social media Twitter LinkedIn YouTube	Flow of communication; number of members/followers, number of likes and shares, network page views, page comments, re-tweets.	Twitter: 50-100 (re)tweets per year. 200+ followers by the end of the project LinkedIn: at least one post per week. +500 followers by the end of the project. +100 followers on YouTube.	“Like”/“Follow” the REFLECT accounts and post at least twice per month project relevant news in your institution’s social media accounts.
Newsletters REFLECT newsletters LTPs and Consortium members newsletters	Number of readers for the REFLECT newsletters. Number of REFLECT news in EFG’s GeoNews and Consortium members newsletters;	There will be dedicated REFLECT newsletters at least once per year. The consortium aims at publishing project related news in at least 40 newsletters per year.	Include REFLECT news at least once per semester in your institution’s newsletters.
Marketing material Project brochures Press releases/media kits	Number of brochures produced, translated, downloaded, printed and distributed.	Preparation and distribution of 2 different brochures (M6, M22) and a leaflet for operators (M36); and 1 press release every 6 months.	Display the project brochure at all relevant events that you attend or organise. Press releases should be disseminated broadly within your institution’s network and whenever possible translated to your own language.
Publications Peer-reviewed scientific papers Journal publications	Number of scientific papers and abstracts submitted, number of journal articles published, type of journals (academic, industry), impact factor of journals, number of policy papers prepared and downloaded.	8-10 peer-reviewed articles per year	Identify appropriate publication opportunities and co-author at least one article with other consortium members.
Events Workshops Conference	Number of workshops and attendance.	It is expected that 75-100 people will participate at the final International Project Conference (M36).	Support the organisation and promotion of workshops at national and international level.
Industry events	Number of webinars organised.	2-3 webinars on dedicated topics.	Support the organisation of webinars.

	Number of events where REFLECT is showcased, Number of participants to events.	2-3 contributions to industry fairs (booth or presentations)	Identify and attend relevant fairs.
Project presentations at external events	Number of conference papers and presentations, type and size of events, number of attendees	It is foreseen that REFLECT will be presented at least at 15-20 sectorial events including scientific conferences; the average number of targeted attendees per event is estimated to at least 300-500.	Support the promotion of these events within your network.

2.8 ASSETS TO BE DISSEMINATED

REFLECT’s key outputs are public and will be made available to everyone. However, tailored dissemination efforts will target specific stakeholder groups, facilitating contact with the deliverables that might have more relevance to some groups. The table below outlines this approach, and will be adjusted during the project lifetime.

Table 4: Summary of project outputs to be conveyed through dissemination activities to target audiences.

	Geothermal industry	Other industries and markets	Scientific community	Public authorities	General public
D1.1 Fluid data for geothermal sites (type A) (M19)	x	x	x	x	
D1.2 Conceptual model for the Tuzla geothermal site (M30)	x		x	x	
D1.3 Gas solubility and degassing kinetics (type A) (M24)	x		x		
D1.4 Silica solubility (M34)	x		x		
D1.5 Downhole sampler-design	x	x	x		

	Geothermal industry	Other industries and markets	Scientific community	Public authorities	General public
and test results (M34)					
D2.1 Fluid data of geothermal sites (type C) (M19)	x	x	x	x	
D2.2 Gas solubility and degassing kinetics (type C) (M24)	x		x		
D2.3 Mineral solubility and precipitation (M34)	x		x		x
D2.4 Thermophysical properties of geothermal fluids (M34)	x	x	x		x
D2.5 Database of microbes and organic compounds (M12)	x	x			
D2.6 Role of microorganisms and organic compounds (M35)	x		x		x
D3.1 Report on the collection of data on geothermal fluids at a European level (M12)	x		x	x	x
D3.2 Data compilation by REFLECT partners (M20)	x	x	X	x	
D3.3 European Fluid Atlas online available (M35)	x		X	x	x
D3.4 Operational risk map (M35)	x	x		x	x
D4.1 User's Guide of a coupled hydro-thermalchemical code for fluids (M18)	x	X	X		

	Geothermal industry	Other industries and markets	Scientific community	Public authorities	General public
D4.2 Coupled hydro-thermalchemical software (M18)	x	X	X		
D4.3 Impact of geochemical uncertainties on geothermal fluid production and scaling (M18)			x		
D4.4 Numerical modelling of the geochemical behaviour of hot (Type-A) and saline (Type-C) fluids (M35)	x		X		
D4.5 Decision support workflow for operation optimisation under fluid composition uncertainty (M35)	x				
D6.2 Stakeholder matrix (M6)	x			x	x
D6.3 Webinars (M32)			X	x	x
D6.4 Stakeholder workshops (M32)			X	x	x
D6.5 Proceeding of the final conference (M36)	x		X	x	x
D6.6 Leaflet for operators (M36)	x	x		x	
D6.8 Website (M6)	x	x	X	x	x
D6.9 Project brochure (M6)	x	x	X	x	x
D6.10 Project brochure 2 (M22)	x	x	X	x	x
D6.11 Factsheets (M30)	x	x	X	x	x
D6.12 Short video animation (M32)	x	x	X	x	x

Figure 2 also illustrates in a visual way which of the project outcomes are particularly relevant for which stakeholder groups.

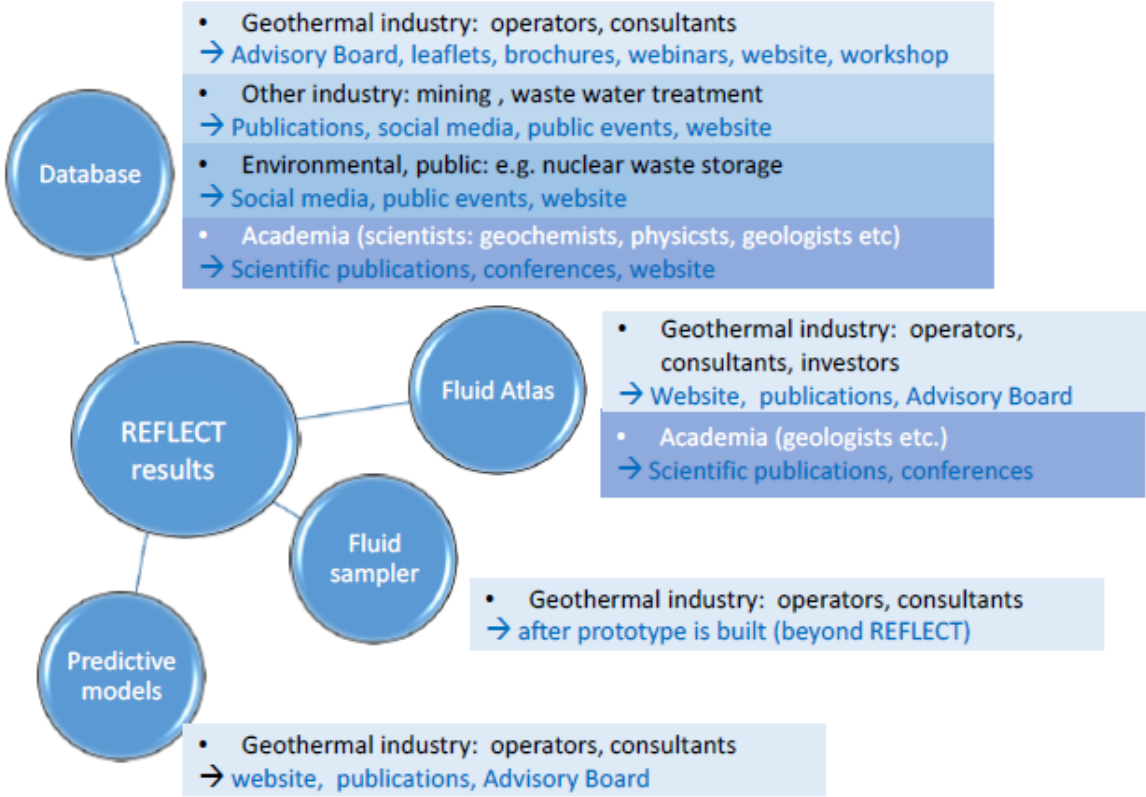


Figure 2: REFLECT results, potential users of results and dissemination channels.

The table below summarises REFLECT’s dissemination activities based on a monthly delivery schedule. The scheduling of the activities is closely aligned with key project milestones (marked in **grey**). Majority of the activities (such as social networking, personal communication etc.) are expected to intensify before and after key project outputs (**orange** and **red** cells). These timeframes should be regarded as indicative.

Table 5: Summary of project outputs to be conveyed through dissemination activities.

Month / dissemination activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36			
Milestones				Grey				Grey		Grey		Grey	Grey	Grey				Grey		Grey				Grey						Grey							Grey		
Project website					Orange	Red	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	
Project brochures						Red	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Red
Press releases	Red											Red						Red						Red														Red	
Newsletters											Red												Red													Red			
Project Workshops			Red																						Red														
External presentations	Red		Orange	Red	Red	Red	Red	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Red
Journals											Orange	Orange			Orange	Orange							Orange	Orange				Orange	Orange								Orange	Orange	
Social networking	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange

2.9 DATA PROTECTION

As of May 2018, the EU General Data Protection Regulation (GDPR) replaced the Data Protection Directive 95/46/EC. GDPR has been designed to harmonise data privacy laws across Europe and to reshape the way organisations across the world approach data privacy. In REFLECT this concerns especially:

1. Web contact forms and email subscriptions where personal data is requested and submitted by the user;
2. Exchange of stakeholder data for outreach purposes;
3. Cookies and online tracking including Social Media;
4. Event registrations including webinars;
5. Contacts from the members of the Advisory Board;
6. Use of photos or audio-visual recordings made during REFLECT events, including internal meetings.

The collection of personal data will only be made if there's an explicit authorisation by data subjects, obtained by an informed consent procedure, that will be in place in all events/interviews/workshops with all participants. The request for consent will be given in an intelligible and easily accessible form, using clear and understandable language, also detailing the purpose of data collection and treatment.

3 INTERNAL COMMUNICATION PLAN

3.1 INTERNAL GUIDELINES FOR DISSEMINATION AND OUTREACH

This sub-chapter describes the guidelines for dissemination and outreach. These are partly similar to other EU projects but some specifics exist related to the public perception of geothermal energy production. The most important aspect is the sensibility of communication with the general public. Together with the project stylebook, these guidelines will lead to a uniform presentation of REFLECT in any public document.

3.1.1 Key message

While introducing REFLECT to an audience, Consortium partners shall use the following key message:

The efficiency of geothermal utilisation largely depends on the behaviour of fluids that transfer heat between the geosphere and the engineered components of a power plant. The EU-funded REFLECT project aims at preventing problems related to fluid chemistry rather than treat them. The physical and chemical properties of fluids are often poorly defined, as in situ sampling and measurements under extreme conditions are difficult to date. Therefore, large uncertainties in current model predictions prevail, which will be tackled in REFLECT by collecting new, high-quality data in critical areas. This data will be implemented in a European geothermal fluid atlas and predictive models allowing to provide recommendations on how to best operate geothermal systems for a sustainable use.

By addressing the key problem of nearly all geothermal operations, REFLECT will have a major impact on the operational efficiency, project economics and viability as well as on the environmental footprint. By defining geothermal fluid properties and their geochemical reaction constants over a large range of salinities and temperatures, a huge knowledge gap will be closed, leading to more reliable predictions of geothermal performances. The improved databases and modelling tools can be used by geoscientists and engineers to help operators optimise power plant layout and reduce maintenance costs.

By fulfilling its goals, REFLECT intends to solve a number of severe problems of geothermal operation. This matches the goals of the EU Strategic Energy Technology (EU-SET) plan by ultimately reducing the cost of key renewable technologies and increasing the security of the energy system. In the long run, REFLECT aims to increase the number of economically viable geothermal sites. By encouraging an increase of the share of geothermal energy within the European energy market, REFLECT can thus help to reduce the consumption of fossil fuels.

3.1.2 Project logo

The project logo must be placed on all published materials (Figure 3). This includes not only promotional material, but also deliverables, event announcements, factsheets, infographics, presentations or agendas. The logo is available in different file extensions in the Nextcloud folder 'Logo'.



Figure 3: REFLECT logo.

The different logo versions will be illustrated and described in detail in the project's stylebook which will be published separately in April 2020 (Deliverable 6.7). The stylebook will furthermore provide detailed information on the project's colour palette and the fonts to be used.

3.1.3 Information on EU funding

According to the Grant Agreement¹, the following rules apply:

Obligation and right to use the EU emblem

Unless the European Commission requests or agrees otherwise or unless it is impossible, any dissemination of results (in any form, including electronic) must:

(a) Display the EU emblem and

(b) Include the following text: *"This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n° 850626."*

When displayed together with another logo, the EU emblem must have appropriate prominence. For the purposes of their obligations under this Article, the beneficiaries may use the EU emblem without first obtaining approval from the Commission.

This does not however give them the right to exclusive use. Moreover, they may not appropriate the EU emblem or any similar trademark or logo, either by registration or by any other means.

Disclaimer excluding Commission responsibility

Any dissemination of results must indicate that it reflects only the author's view and that the Commission is not responsible for any use that may be made of the information it contains. The following sentence shall be used for this purpose and is included at the beginning of each project deliverable:

¹ See ARTICLE 29 — DISSEMINATION OF RESULTS — OPEN ACCESS — VISIBILITY OF EU FUNDING.

'This document reflects only the author's view and the European Commission is not responsible for any use that may be made of the information it contains.'

Consequences of non-compliance

If a beneficiary breaches any of its obligations under Article 29 of the Grant Agreement, the grant may be reduced.

3.1.4 Publications

According to the Consortium Agreement, prior notice of any planned publication shall be given to the other project partners at least 20 calendar days before the publication. REFLECT partners have the right to object within 10 days.

According to the decisions during the first General Assembly, for conference contributions (posters and oral presentations), abstract submissions and press releases, prior notice shall be given to the project partners at least 7 days before the publication. REFLECT partners can object within 4 days. Silence means approval.

Consequently, REFLECT partners should upload their planned publications to the shared folder ('Publications') and notify the consortium. REFLECT partners should only voice objections. Approval should not be expressed in order to avoid excessive email traffic.

In addition, all dissemination material (deliverables, papers, conference papers, presentations) should be checked on plagiarism prior to their publication, using available tools. When re-producing material (figures, images, tables) from published sources, authors shall take into consideration the applicable copyright rules.

3.1.5 Promotional material

The following **promotional material** has been prepared and is available for download to the Consortium partners in the internal repository (as of March 2020):

- Brochure (March 2020) (available via Nextcloud, folder 'WP6 – Dissemination and exploitation' > 'Outreach');
- Poster template (February 2020) (available via Nextcloud, folder 'WP6 – Dissemination and exploitation' > 'Outreach');
- Generic presentation (February 2020) (available via Nextcloud, folder 'WP6 – Dissemination and exploitation' > 'Outreach');
- Press release 1 (February 2020) and press release template (available via Nextcloud, folder 'WP6 – Dissemination and exploitation' > 'Press releases');
- Logo (available via Nextcloud, folder 'WP6 – Dissemination and exploitation' > 'Logo');
- Presentation template (available via Nextcloud, folder 'WP6 – Dissemination and exploitation' > 'Templates').

The current list will be periodically updated with new versions of existing documents or new documents that will be made available to project partners.

To increase the outreach at a national level it will be preferable to translate the promotional material to as many consortium languages as possible. Upon demand, the WP6 -team will either provide the design files of the English version or support the layout creation.

3.1.6 Templates

Different templates have been made available to Consortium partners via the project's internal repository (folder 'Templates'), and the project stylebook (D6.7, M4) will specify the formatting rules for each of these.

Currently the following templates are available:

- Powerpoint template;
- Minutes template;
- Deliverable template;
- Poster template.

3.2 CONSORTIUM ORGANISATION

The REFLECT approach of redefining fluid properties at extreme conditions requires the consortium to perform a series of activities that not only demand special technologies and custom-made equipment of noncorrosive materials, but also very specific knowledge about handling of fluids, their chemical and physical reactions and appropriate models and calculations fitting to the extreme geothermal conditions.

The REFLECT consortium is a multi-disciplinary and well-established team with each partner having considerable specific expertise. Each of the partners has experience with geothermal fluids in a certain field that is of relevance in achieving the REFLECT goals. The consortium as a whole consists of 14 partners from nine different EU countries including three research institutes and geological surveys, one European organisation, four universities, and three companies (one service company and two geothermal operators).

Two of the countries with the largest geothermal energy production in Europe are also part of the consortium (Iceland and Turkey). Each of the consortium partners contributes to at least one of the seven REFLECT goals with their individual expertise. The majority of the partners (GFZ, TUD, TNO, HI, ISOR, BRGM, UKRI, IFE, IZTECH) will work on the development and generation of the thermodynamic and kinetic data that form the base of any application. To demonstrate the relevance and some utilisation of the data for geothermal operators, some partners will apply and verify them in predictive modelling (TNO, BRGM) and by establishing the Fluid Atlas (UNIM). Those applications are, in turn, of major interest to stakeholders (PGF, LVK as the project partners and the geothermal operators from the Advisory Board), because the obtained knowledge may prevent problems related to geothermal fluids and thus triggers

new geothermal energy projects. Thus, although REFLECT is within the value chain, predominantly at the level of Research and Innovation (characterising and collecting fluid data), it is very application-oriented and its results will have large and long-lasting impact on the geothermal market.

The REFLECT consortium will also benefit from the support of the different formal project bodies – General Assembly, Executive Board, Advisory Board and the Management Support Team. The organisational structure as displayed below (Figure 4) shows how procedures and decision-making mechanisms are interlinked: The General Assembly, representing all partners make the major decisions that will be communicated to the Executive Board (the WP leader) who evaluate and control those decisions and transfer them to the different tasks within the work packages. A close relationship to the operators that form an Advisory Board will be provided via the Management Support Team who communicate decisions concerning sampling at the sites to the operators. The geothermal operators in turn communicate their interest concerning certain research requests either directly to the General Assembly (at the stakeholder workshop) or via the Management Support Team.

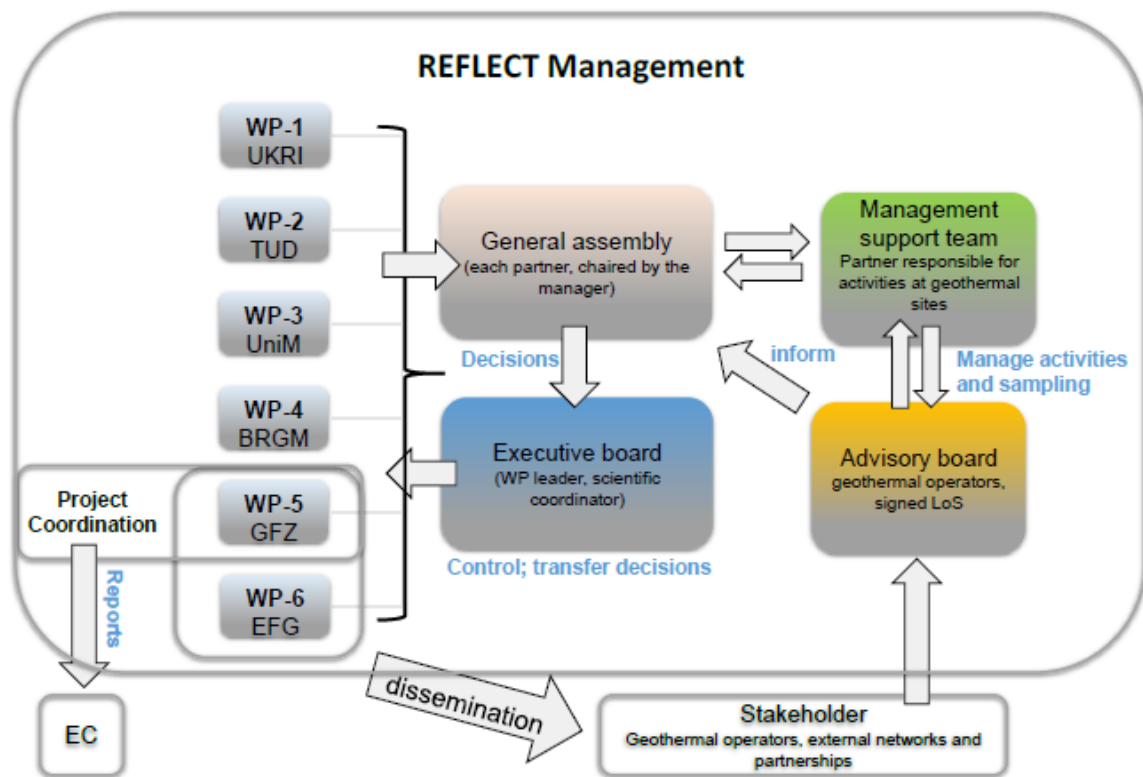


Figure 4: Management and organisational structure of REFLECT.

The **Project Coordination team** will be the direct contact for the consortium to the EC and will carry out all tasks as described in the Consortium Agreement and Grant Agreement. Tasks are divided between the Project Manager and the Scientific Coordinator, who both work together and have direct day-to-day communication, as they are based at the same institute (GFZ).

The **General Assembly (GA)** is the decision-making body of the project and chaired by the project manager. It is attended by at least one partner per institute. The general assembly will

meet every twelve months. Additional meetings by web conference or telephone might be organised when needed. The GA is responsible for:

- The overall strategic orientation and policy
- The agreement/assessment of project resources and progress
- Changes in the grant agreement
- Modifications in the timing and work programme
- Conflict resolution
- Evolution of the consortium
- Voting on external opportunities, such as potential new activities that may support the project objectives without being explicitly listed in the Grant Agreement

The **Executive Board (EB)** is responsible for the implementation and execution of the decisions made by the General Assembly. It consists of the Work Package leaders and is chaired by the scientific coordinator. Its tasks are to:

- Monitor the implementation and effectivity of the project
- Support the project manager in EC
- Collect the milestone and deliverable reports and propose, if necessary, changes to the GA
- Propose modifications of the Grant Agreement, specifically of the DoA, to the GA.
- Resolve conflicts on financial, technical, and strategic issues in accordance with the GA
- Prepare the content and timing of press releases and joint publications

The **Management Support Team** is chaired by the coordinator (GFZ) together with the task leader of T1.1 ("Sampling fluids type A", IZTECH) and T2.1 ("Sampling fluids type C", HI). Other members are those, responsible for the geothermal sites, who are in direct contact with the respective geothermal operators. The three chairs (GFZ, IZTECH, HI) will organize and manage sampling activities and collect all data on sampled geothermal fluids. These data will be stored in databases (see data management) and transferred to the WPs for data application (mainly WP 3 Fluid Atlas), or, if needed also to WP 4 (modelling).

The members of the **Advisory Board (AB)** are predominantly operators of geothermal sites across the European continent as well as one operator in overseas (Bouillante-Guadeloupe, France). Currently, operators of 13 sites have shown their interest in the project and nearly all have signed a letter of support (LoS) that states their willingness to assist in the project by allowing access to their sites for collecting samples. The role of the AB is to communicate with the Management Support Team or directly with the General Assembly on their special interest in geothermal fluids that allow the consortium to adapt their research to the most applied challenges. For this purpose, soon after the project start, an Advisory board meeting will be organized to decide on appropriate conditions and chemical systems for experimental simulation of fluid reactions. In addition to the operators, Thomas Kretschmar (CICESE, Mexico) will also act as a scientific advisor and part of the AB, due to his broad knowledge on working with supercritical fluids and silica scaling (type A), which is especially relevant for WP1.

3.3 COMMUNICATION FLOWS

Communication at the consortium level will be achieved by:

- General Assembly meetings at least once per year. There will be four joint meetings at the consortium level.
- Technical meetings, organised every 6 months at the consortium and/or WP levels. These regular meetings will address management issues as well as scientific/technical topics depending on the progress of the project.
- WP leader telephone conferences every two months.
- A project website with partner's area with restricted access, especially for exchange of documents and data.
- Mailing lists.

The type of communication to be used among Consortium members, the purpose, the target group, the author and the frequency of the communication is presented in Table 6.

Table 6: REFLECT's internal communication plan.

What/ messages	Why/ purpose	Target group	Who/ source	How/ channels	When/ Frequency
Periodic Reports	To keep track on the compliance of the project with the DoA; to keep the project partners informed of progress, issues, and solutions.	All Project partners, EC officer	Management Project coordinator Consortium members	Via ECAS system	PR1: after 18 months PR2: after 36 months
General Assembly	To ensure all team members are apprised of progress, changes, and current priorities	All Project partners	Project coordinator	Face-to-face	At least once a year
E-meetings	To ensure all team members are apprised of progress, changes, and current priorities	All relevant project partners	Project coordinator	teleconference	Every 2 months, in between the physical meetings
Executive Board	To monitor the implementation of the project	WP leaders	Project coordinator	Face-to-face meeting or teleconference	At least every 6 months
Progress report	To evaluate the project status and progress by partner	Partner main contact	Project coordinator	E-mail	Every 6 months

Email Communication	To distribute meeting minutes, alert partners of document changes posted, share information, answer questions between meetings and collect input on deliverables and its approval.	All Project partners, EC officer	Project partners, WP leaders, project coordinator	Email	As needed
Online communication via Nextcloud (optional)	Used for daily operation communication, sharing working documents, discussions and exchanging views	All Project partners	Project partners, WP leaders, project coordinator	Using online application Nextcloud	As needed
Shared Project Folder	Retains all current project documentation.	All Project partners, EC officer	Project partners, WP leaders, project coordinator	REFLECT Nextcloud	Upload revisions within 24 hours of the change.

Table 7: Foreseen internal project meetings (to be completed during the project).

Event	Location	Planned date	Organizer
Kick-off and 1 st General Assembly	Potsdam, (Germany)	29-30 Jan 2020	GFZ
WP1+WP2 meeting	Neuchatel (Switzerland)	Early June 2020	UNINE
2 nd General Assembly	Turkey (tbc)	Feb/March 2021	IZTECH (tbc)
3 rd General Assembly	The Netherlands	Jan/Feb/March 2022	TNO

3.4 INTERNAL FILE REPOSITORY

At the beginning of the project, the European Federation of Geologists (EFG) has set up a common file-sharing solution on Nextcloud for the collection of the various reports produced during the project. The shared project folder will be used as a central element of the communication between Consortium partners, and is managed by EFG. All reports, deliverables, results and relevant material will be accessible to all project partners at all time. Project partners have been invited by e-mail to join the shared project space that includes the following folders:

- WP1
- WP2
- WP3

- WP4
- WP5
- WP6
- WP7
- Deliverables
- Reports
- Meetings
- Publications
- Official internal documents

Project partners have the permission to upload any digital file (documents, pictures) by simple drag and drop. Documented user guide and online training to partners are available upon request.

Access is granted by the project coordinator of REFLECT, Katrin Kieling (GFZ), and the leader of WP6, Anita Stein (EFG). Other users than Consortium partners may be granted limited access to folders or full access to selected folders. If a member (or a grantee) is to be removed from the list (revoking her/his rights) the representative of the project partner shall send an official letter (or email) to the project coordinator indicating the request and the reason for the removal from the list.

To keep the repository functional the following guidelines are considered:

- Creation of directories/folders when needed;
- When communicating on uploaded/changed documents, indicate in which folder, if not obvious, e.g. REFLECT/Meetings/...;
- If it is needed to upload Word and/or Excel files containing complex formatting, figures, graphs etc. it must be checked whether these features are preserved when uploaded. If not, convert to pdf before uploading;
- Notifications on changed documents by email is an option, but preferred way is to include relevant authors only (to avoid notification spamming).

Further information on the internal file repository will also be provided in the Data management plan (June 2020).

3.5 E-MAIL COMMUNICATION

To increase efficiency, a standard email subject title shall be used. This will allow the project partners to quickly recognise REFLECT related emails. These should include in the subject title the project name [REFLECT] and WP number (if applicable), followed by a more specific description of the subject and a deadline for feedback or reply (if applicable). You can see here some examples of subject lines:

[REFLECT] KOM minutes draft – Comments deadline 2020/02/15

[REFLECT] WP6 – Stylebook – Review deadline 2020/04/15

[REFLECT] Happy Christmas!!!

To keep traffic down, if you have any query about an e-mail, please reply just to the sender. While sending emails, please also consider to send them only to relevant people who are concerned by the subject matter.

For project internal communication, different **mailing list** have been established:

All project partners: reflect-all@gfz-potsdam.de

WP1: wp1-reflect@gfz-potsdam.de

WP2: wp2-reflect@gfz-potsdam.de

WP3: wp3-reflect@gfz-potsdam.de

4 CONCLUDING REMARK

The guidelines for dissemination and communication advanced in this document provide to the REFLECT Consortium a clear pathway to effectively reach the project's outreach goals. The Consortium will use this plan as a baseline that will be further reviewed, revised and updated during implementation, also considering the stakeholders' interests and needs, and possible challenges that may arise during the project lifetime.

This dissemination and communication plan shall be revised periodically, taking into consideration the regular monitoring of outreach and new information acquired. This will allow the fine tuning of the communication strategy, to better serve the different stakeholder groups.