



DELIVERABLE 4.7

DISSEMINATION AND COMMUNICATION ACTIVITIES

REPORT

ENeRAG

Excellency Network Building for Comprehensive Research and Assessment of Geofluids

Authors: **Judit Mádl-Szónyi, Ildikó Erhardt, Nike Luodes, Marco Masetti, Timea Trásy-Havril**

Institution: **Eötvös Loránd University – ELTE
University of Milan – UMIL
Geological Survey of Finland - GTK**

Date: **31.03.2022**

Disclaimer

The information in this document is provided as is and no guarantee or warranty is given that the information is fit for any particular purpose. The user thereof uses the information as its sole risk and liability. The document reflects only the author's views and the Community is not liable for any use that may be made of the information contained therein.



Deliverable administration				
Deliverable No. and title	D4.7 Dissemination and Communication activities report			
Work package	WP4			
Status of the document	Final release	Due month	M42	Date 31.03.2022
Author(s)	Judit Mádl-Szónyi, Ildikó Erhardt, Nike Luodes, Marco Masetti, Timea Trásy-Havril			
Lead beneficiary	ELTE			
Dissemination level	Public			
Description of the related task and the deliverable	Dissemination and Communication activities report displays: - report on all dissemination and communication activities, - impact of social media posts and media appearance			
Participants	ELTE, GTK, UMIL			
Comments				
Version	Date	Edited by	Description	
V0.1	17.03.2022	Judit Mádl-Szónyi, Ildikó Erhardt	1 st draft	
V0.2	30.03.2022	Nike Luodes, Marco Masetti, Timea Trásy-Havril	2 nd draft	
V1.0	31.03.2022	Judit Mádl-Szónyi	Final release	

About the ENeRAG project

The 'Excellency Network Building for Comprehensive Research and Assessment of Geofluids'-ENeRAG project significantly strengthen research and innovation capacities in geofluids' research and aligned geological resource assessment of groundwater, geothermal energy and hydrothermal mineral resources at Eötvös Loránd University (ELTE, Hungary) by capacity enhancement through cooperation with Geological Survey of Finland (GTK) and University of Milan (UMIL, Italy), with 7 supporting stakeholders. The ENeRAG raises the research profile and excellence of ELTE in comprehensive understanding, tracing and modelling of geofluid systems focusing on their interrelationships through 4 staff exchanges, organisation of 5 sessions and attendance on 9 high-level international conferences; through joint open access publications (15 +1 special issue). It will ensure to fill networking gaps and deficiencies of ELTE, and enhance the S&T and innovation capacity in the field of sustainable development and eco-friendly exploitation of geofluids and their resources by 6 training workshops, 2 innovative video trainings, 1 summer and 1 winter school, expert visits, 3 laboratory and field trainings. Due to ENeRAG ELTE improves its innovative capability to gain national and international EU funding, and to furtherly widen cooperation through agreements with institutes and stakeholders. The ENeRAG contributes to improved knowledge transfer and to aligned interpretation and sustainable utilisation of geofluids in Hungary. The project and its resulted guideline strengthen the hands-on hands experience in geofluid research, legislation and exploitation. The ENeRAG guideline provides a missing novelty service, gives base for prioritization of geofluid-related resources in Hungary and in the EU. Consequently, ENeRAG improves stakeholder experience, legislation and contribute to the dissemination of knowledge toward the scientific community and the society on national and EU level.



Table of contents

1. INTRODUCTION.....	3
2. WP4, THE COMMUNICATION AND DISSEMINATION WORKPACKAGE.....	3
3. COMMUNICATION AND DISSEMINATION ACTIVITIES.....	5
3.1 Presentation of the research results on national and international conferences	5
3.2 Organisation of a problem solver student competition.....	6
3.3 Attendance on public events	7
3.4 International symposium organisation on geofluids	8
3.5 Joint scientific publication activity.....	8
3.6 Stakeholder engagement activity	10
3.7 Interface toward the society via social media and newsletters	11
3.8 Development specifically focused common research proposals.....	16



1. INTRODUCTION

Deliverable D4.7. Dissemination and Communication activities report displays a report on all dissemination and communication activities, - impact of social media posts and media appearance.

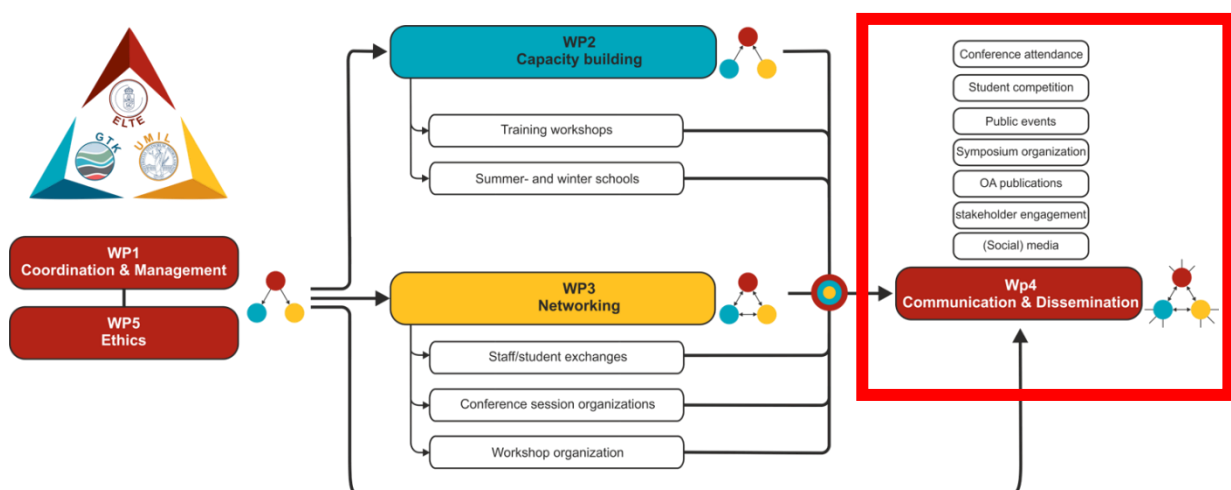
Within the ENeRAG project basically **all activities and actions** served the purpose of dissemination and communication.

This report provides a compact summary of the dissemination and communication activities supplemented with their impacts. The detailed description of the activities can be found in the following deliverables:

- 1) *D2.1 Action report, attendance list, course notes and field trip guidebooks of training workshops, summer and winter schools*
- 2) *D3.1 Action reports for staff/student exchange, questionnaires*
- 3) *D3.2 Action reports for workshops and conference sessions*
- 4) *D4.2 Communication and dissemination plan (C&D)*
- 5) *D4.3 Conference attendance, workshop, roundtable discussion, competition, public event reports*
- 6) *D4.4 Project website, e-leaflet and Newsletters, ResearchGate, LinkedIn site*

2. WP4, THE COMMUNICATION AND DISSEMINATION WORKPACKAGE

Based on the needs of ELTE Geofluids Team and capabilities of GTK and UMIL, world-wide tendencies, local requirements and on the main idea of the project, the 'Dynamic System Approach for Geofluids and their Resources', ENeRAG project was built up around 5 work packages. **WP4 was dedicated for communication and dissemination of the results.**



Regarding the shortage at the ELTE in EU level networking, in innovation experience and communication practice by environmental, energy, water and mineral policy sector, there was a need to improve networking and dissemination skills to communicate the scientific results of



ELTE and networking with GTK and UMIL toward scientific audience, stakeholders, and the whole society.

To fill the gap Priority Development Fields (PDFs) were defined which determine the main directions of development and actions.

Main development fields of WP4:

- Enhanced context-awareness in research
- Transfer of knowledge to business-based services
- Getting to the society by social networking approaches

Dissemination and communication activities served the main development fields, and they were strongly related to all other work packages with the aim to involve a wide audience including public authorities, government institutions, policy makers, the business community, the wider public and the academia.

The specific objectives of WP4:

- to develop a series of actions to guarantee a modern and up to date communication strategy to ensure project activities and results reach the target audience;
- to develop communication instruments and dissemination products to reach different categories of stakeholders to interest and involve them in the project's outcomes;
- to select appropriate scientific journals and conferences to present to the scientific community the main results of the collaboration among partners.

The target groups, the tools and channels of C&D were identified in Deliverable 4.2 (Communication and Dissemination Plan).

Within WP4 several **different activities** were planned and organised **to achieve the objectives** of the project.

- **presentation of the research results on national and international conferences**
- **organisation of a problem solver student competition**
- **attendance on public events**
- **international symposium organisation dedicated to geofluids' research**
- **joint scientific publication activity**
- **stakeholder engagement activity**
- **interface toward the society via social media and newsletter**
- **development specifically focused common research proposals**

In the following chapters, we provide a summary of these events, with statistics and impacts achieved.



3. COMMUNICATION AND DISSEMINATION ACTIVITIES

3.1 PRESENTATION OF THE RESEARCH RESULTS ON NATIONAL AND INTERNATIONAL CONFERENCES

Within the framework of the project, ENeRAG partners presented the results of the project on the topic of geofluids at the following conferences:

- Groundwater Conference, HUN – 2019 and 2021
- Petrological and Geochemical Travelling Assembly, HUN – 2019 and 2021
- Meeting of Young Geoscientists, HUN – 2019 and 2021
- Biennial Meeting of the Society of Geology Applied to Mineral Deposits – 2019
- Annual Goldschmidt Conferences – 2019 and 2020
- Annual IAH Congress – 2019, (2020) and 2021
- Annual EGU Congresses – 2019, 2020 and 2021
- Flowpath Congress – 2019
- Nordic Geological Winter Meeting (NGWM) – 2020
- World Geothermal Congress – 2020+1
- International Symposium on Managed Aquifer Recharge (ISMAR 10) – 2019
- 27th international Karstological School “Classical karst”, Postojna, Slovenia – 2019
- European Current Research on Fluid and Melt Inclusions – ECROFI – 2019
- Online Conference “Addressing Groundwater Resilience under Climate Change” – 2020
- International Symposium on Geofluids – 2021

Detailed description on these activities can be found in D3.2 and D4.3 deliverables.

Beyond the above listed conferences, the project participants also attended further conferences (extra activities), where they presented their research results on geofluids. *Details on these conferences can be found in D4.3 deliverable.*

Statistical summary of the conference attendances (without the extra activities):

- The number of conferences, where ENeRAG partners attended: **23** (6 national and 17 international)
- The number of conferences, where ENeRAG had session organization: **6**
- The number of the presentations of the partners in the conferences: **107** (65 female and 45 male presenter)
- The number of countries, where ENeRAG results were presented: **9** (+ 3 → online) (Italy, Spain, Norway, Austria, Hungary, Great Britain, Slovenia, Iceland, Belgium + online: USA, France, Brazil)

Impacts of the conference attendances:

Through the conference attendance and presentations summarized above, ENeRAG was able to achieve the following impacts:

- the scientific impact in geofluids research was augmented
- the excellency of the project was promoted
- the reputation, attractiveness and networking channels of the coordinating institution was enhanced
- the networking gaps in geofluids' research was filled at ELTE



- 🌐 opportunities opened for further international cooperation
- 🌐 the research profile and capacity has improved at ELTE
- 🌐 connections between different geofluids have better understood
- 🌐 the knowledge of the next generation has increased
- 🌐 students gained presentation experiences
- 🌐 the awareness of geofluid related topics has increased among the academia
- 🌐 the knowledge transfer between academia has realised
- 🌐 knowledge exchange between researchers from all around the world was widened

3.2 ORGANISATION OF A PROBLEM SOLVER STUDENT COMPETITION

Problem Solver Competition were organised that aimed the assessment of geofluid resources applying the dynamic system approach by bringing it to university level, and it was also encouraging students to learn about geofluid systems and utilize the acquired information in solving practical problems.

The competition was organized on two scales, i.e. in nationally (HUN) and internationally (IN), with two rounds in each. The first round was an online test of the basic knowledge on system approach of geofluid systems based on provided readings, which allows for the qualification to the second round. Then the best groups received a topic about the practical aspects and application of system approach of geofluids regarding issues and examples from their home countries. These topics must have been worked out as a 15-minute presentation (national round) and as a 5-minute pre-recorded video (international round).

Detailed description on the competition can be found in chapter 8 of the D4.3 deliverable.

Statistical summary of the competition:

	No. of competitors	No. of teams	No. of countries	Presentations/Videos
National competition (HUN)	20	10	1	5
International competition (IN)	26	13	10*	7

*countries: Netherlands, China, Egypt, India, Iran, Nepal, Nigeria, South Korea, Uganda, USA

Impacts of the competition:

- 🌐 the awareness related to geofluids was increased among university students
- 🌐 aligned cooperation in research was strengthened
- 🌐 sustainable interpretation of geofluids was learned
- 🌐 hands-on experience using scientific tools in geofluid research was learned
- 🌐 connections between different geofluids have been better understood
- 🌐 the knowledge of the students has increased
- 🌐 students gained competition experiences
- 🌐 new networking opportunity was provided between students learning similar fields
- 🌐 improving the skills of students in geofluid research not only at ELTE but in developing countries



3.3 ATTENDANCE ON PUBLIC EVENTS

In the framework of the project ENeRAG participated in the Europe-wide

- 🌍 Researchers' Night event in 2019 and 2022.

The UMIL team proposed activities focused on groundwater flow and aquifer dynamics. A wonderful physical model representing a simplified surface and subsurface N-S transect of Northern Italy was designed and displayed.

The ELTE team prepared many simple scientific experiments to draw attention to the importance of groundwater, and to present the basic principles of their behaviours. In the online event in 2020 they prepared three interesting videos about groundwater and a scientific content tale that linked to a quiz.

Detailed description on this public event can be found in chapter 9 of the D4.3 deliverable.

Beyond the project ENeRAG participated in several other public events, where the basic idea of the project was spread knowledge among the general public as well:

- 🌍 Earth Science Cavalcade 2018, Budapest, Hungary
- 🌍 Danube Day 2019, Budapest, Hungary
- 🌍 The meeting of the Friends of Gardens of Budafok-Tétény 2019, Hungary
- 🌍 Danube Day, online 2020
- 🌍 Earth Science Cavalcade, 2021 online
- 🌍 The Hungarian Science Festival 2021
- 🌍 Danube Day, online 2021
- 🌍 Earth Day, online 2021

Information on these events can be found in chapter 3.6 of the D4.3 deliverable.

Statistical summary of the public events:

- 🌍 The number of the public events, where ENeRAG attended and performed: **10** (2 in the framework of the project + 8 extra activities)
- 🌍 Estimated audience reached: ~ **4000**

Impacts on the attendance on the public events:

- 🌍 the science of geofluids and the project itself has been popularized
- 🌍 geothermal energy, sustainable groundwater utilization and their relationships to mineral resources became more obvious for the general public
- 🌍 knowledge of geofluids got to the society and individuals
- 🌍 Research profile has improved at ELTE
- 🌍 the awareness related to geofluids was increased among general public














3.4 INTERNATIONAL SYMPOSIUM ORGANISATION ON GEOFLUIDS

International Symposium on Geofluids was organised online by the ENeRAG H2020 project in collaboration with the Eötvös Loránd University (ELTE), the József and Erzsébet Tóth Endowed Hydrogeology Chair Foundation between 7-9 July 2021.















The main objective of the Symposium was to bring together scientists, professionals, and stakeholders to share and discuss all kinds of topics in geofluids, and especially groundwater, to highlight the interaction among geothermal energy, hydrocarbon, geogenic contamination and hydrothermal mineral resources.

Detailed description on the Symposium can be found in chapter 4 of the D4.3 deliverable.

Statistical summary of the symposium:

-  The number of registrants to the Symposium: **142**
-  The number of active audiences: **134**
-  The number of countries, where the audience came from: **26**
-  The number of the presenters: **68**
-  The number of oral presentations: **40**
-  The number of poster presentations: **28**
-  The number of the scientific sessions: **5**
-  The number of keynote speakers: **5**
-  The number of honorary lectures: **1**
-  The number of interactive workshops: **1**
-  The number of pre-conference workshops: **2**

Impacts of the symposium:


-  the scientific impact in geofluids research was augmented
-  the excellency of the project was promoted
-  the reputation, attractiveness, and networking channels of ELTE was enhanced
-  the networking gaps in geofluids' research was filled at ELTE
-  opportunity for further international cooperation
-  the research profile and capacity has improved at ELTE
-  connections between different geofluids have better understood
-  the knowledge of the next generation has increased
-  students gained presentation experiences
-  the awareness of geofluid related topics has increased among the academia
-  the knowledge transfer between academia and stakeholders has been realised
-  opportunity for knowledge exchange between researchers from all around the world
-  the networking channels were broadened
-  possibilities for international cooperation were found
-  the results to the academia and stakeholders were disseminated

3.5 JOINT SCIENTIFIC PUBLICATION ACTIVITY

Mainly based on the student and staff exchanges in the project a number of open access peer-reviewed joint publications have already been published between the partners, but this joint work



will continue after the project as well. There are already plans for further joint publications, which the partners are intended to implement.

 Joint publications so far (from 1 October 2018 – 31 March 2022):

1. Brigitta Czauner, Ferenc Molnár, Marco Masetti, Teppo Arola and Judit Mádl-Szőnyi (2022): [Groundwater Flow System-Based Dynamic System Approach for Geofluids and Their Resources](#)
2. Petra Baják, Katalin Hegedűs-Csondor, Mia Tiljander, Kirsti Korkka-Niemi, Heinz Surbeck, Bálint Izsák, Márta Vargha, Ákos Horváth, Tamás Pándics and Anita Erőss (2022): [Integration of a Shallow Soda Lake into the Groundwater Flow System by Using Hydraulic Evaluation and Environmental Tracers](#)
3. Attila Galsa, Ádám Tóth, Márk Szijártó, Daniele Pedretti, Judit Mádl-Szőnyi (2022): [Interaction of basin-scale topography- and salinity-driven groundwater flow in synthetic and real hydrogeological systems](#)
4. Petra Baják, Katalin Csondor, Daniele Pedretti, Muhammad Muniruzzaman, Heinz Surbeck, Bálint Izsák, Márta Vargha, Ákos Horváth, Tamás Pándics, Anita Erőss (2022): [Refining the conceptual model for radionuclide mobility in groundwater in the vicinity of a Hungarian granitic complex using geochemical modeling](#)
5. Daniele Pedretti, B Vriens, E K Skierszkan, Petra Baják, K U Mayer, R D Beckie (2022): [Evaluating dual-domain models for upscaling multicomponent reactive transport in mine waste rock](#)
6. Nico Dalla Libera, Daniele Pedretti, Giulia Casiraghi, Ábel Markó, Leonardo Piccinini and Paolo Fabbri (2021): [Probability of Non-Exceedance of Arsenic Concentration in Groundwater Estimated Using Stochastic Multicomponent Reactive Transport Modeling](#)
7. Zsuzsa Molnár, Gabriella B. Kiss, Ferenc Molnár, Tamás Váczi, György Czuppon, István Dunkl, Federica Zaccarini, István Dódonny (2021): [Epigenetic-Hydrothermal Fluorite Veins in a Phosphorite Deposit from Balaton Highland \(Pannonian Basin, Hungary\): Signatures of a Regional Fluid Flow System in an Alpine Triassic Platform](#)
8. Gabriella B. Kiss; Zsolt Bendő; Giorgio Garuti; Federica Zaccarini; Edit Király; Ferenc Molnár (2021): [Reconstruction of Hydrothermal Processes in the Cyprus Type Fe-Cu-Zn Deposits of the Italian Northern Apennines: Results of Combined Fluid Inclusion Microthermometry, SEM-CL Imaging and Trace Element Analyses by LA-ICP-MS](#)
9. Veronika Iván, Stefania Stevenazzi, Licia C. Pollicino, Marco Masetti and Judit Mádl-Szőnyi (2020): [An Enhanced Approach to the Spatial and Statistical Analysis of Factors Influencing Spring Distribution on a Transboundary Karst Aquifer](#)

These publications together with the ones that ELTE authors (not joined with partners) published can be found under the [ENeRAG community in the open repository of Zenodo](#).

 Special Issue (SI):

ENeRAG has settled down a Special Issue with [Water](#) MDPI journal, which is a rapidly evolving journal. Title of the SI: "[From Groundwater Flow System Understanding toward Sustainable Water Management](#)".

The significance of the Special Issue:

 the ENeRAG H2020 project worked together with the Regional Groundwater Flow Commission of IAH to bring to life the SI



- The initiated topic involved authors from outside of the consortium, which helped expanding the networking capacity
- There are 6 articles in the SI (this number may increase further)
- It includes a concept paper about the workflow of the ENeRAG published by the consortium members
- the members of the guest editors include members from ELTE (Judit Mádl-Szőnyi, Ádám Tóth, Brigitta Czauner) and UMIL (Marco Masetti).

Impacts of the joint publications and the Special Issue:

- strong cooperation was built between partner institutions
- the scientific impact in geofluids research was augmented
- the excellency of the project was promoted
- the reputation and attractiveness of ELTE was enhanced
- the research profile and capacity has improved at ELTE
- connections between different geofluids have better understood
- the awareness of geofluid related topics has increased among the academia
- the knowledge transfer has been realised
- the results to the academia and stakeholders were disseminated
- the capability to compete successfully for national, EU and internationally competitive research funding was improved

3.6 STAKEHOLDER ENGAGEMENT ACTIVITY

One of the aims of the ENeRAG project was to build and to maintain tactical alliances with other organisations, industry, policy makers and other relevant stakeholders.

The main aim of all activities, implemented during the project that were destined outward the project consortium is not only to create awareness for the project, but also to gather suggestions and inputs from stakeholders to guide ELTE towards the necessary development directions in the field of geofluids.

ENeRAG has planned and implemented several actions designed to engage with stakeholders to have the chance to act up on stakeholder feedback, communication improvement and to strengthen relationships.

The tools and techniques for communication and dissemination that were used for ENeRAG stakeholder engagement:

- newsletters
- public deliverables
- social- and professional media channels
- project website
- interactions (e.g.: workshops, conferences, competition)
- scientific publications
- consultations
- blogs



Specific activities where stakeholders were involved in the project:

Activity	Role of the stakeholders
Project starting events and closing conference	<ul style="list-style-type: none"> ● Participation in the project starting and closing conference ● Helped to determine the project's central questions ● Helped to finalize the Guideline for geofluid research
Student competition	<ul style="list-style-type: none"> ● Participation as members of the jury ● Provided useful recommendations for students
Conference and workshop attendances	<ul style="list-style-type: none"> ● Participation in conferences and workshops, where ENeRAG representatives were also present → good occasions for exchange of views
International Symposium on Geofluids	<ul style="list-style-type: none"> ● Participation in the Symposium ● Held presentations at the Symposium ● Joined to poster discussions, asked questions after presentations ● Actively participated in the guided interactive workshop
Publications	<ul style="list-style-type: none"> ● Joint publications under the frame of the ENeRAG project
Training workshops	<ul style="list-style-type: none"> ● Participation in training workshops that ENeRAG organized ● Joined to the discussions formulated during these events
Preparation of the Guideline	<ul style="list-style-type: none"> ● Consultation on the content of the Guideline

Impacts of the stakeholder engagement activities:

- awareness of geofluids was significant increased
- the guideline for geofluids research was developed
- the needs of stakeholders were discovered especially in MAR, geothermal energy, radioactive elements in groundwater etc.
- aligned cooperation and hands-on experience were strengthened
- joint instrument development was worked out
- the competence, the interaction and dialogue has evolved related to system understanding in geofluids and innovative techniques
- new cooperation agreements were settled down

3.7 INTERFACE TOWARD THE SOCIETY VIA SOCIAL MEDIA AND NEWSLETTERS









Using social media platforms is the easier and most effective way to get to the wider public and all target groups of the project. The social media posts helped to spread project related information to the targeted communities.



With the social media activity our aim was to raise the interest and enhance the competence as well as provide understanding on geothermal energy as renewable energy, sustainable groundwater use, mineral resources and their interrelationships.

Newsletters provided reports on the project's results for the past and upcoming events. [The newsletters are downloadable from the website of the ENeRAG](#). All newsletters were distributed by email and published via social media platforms. The newsletters were published every six months, therefore a total of seven newsletters were published during the project, which contain a summary of the events/activities, information on upcoming project related actions and the ENeRAG related publications.

ENeRAG was active on the following media platforms throughout the whole project implementation:

-  [Facebook](#)
-  [Instagram](#)
-  [LinkedIn](#)
-  [Twitter](#)
-  [ResearchGate](#)
-  [the website of the project](#)
-  Blogger
 - Blog: [Groundwater, Geoenergy, Hydrothermal minerals](#)
 - Blog (HUN): [Vízkörforgalom a felszín alatt is...](#) (*Water circulation under the surface as well...*)
-  Other press releases (*news on the website of the Eötvös University, news on the website of the Faculty of Natural Sciences (ELTE), radio interviews, external press releases, television interview, YouTube videos*)

Detailed description on the media activities can be found in D4.4 deliverable.

Statistical summary on the social media activities (on 31 March 2022):

-  The number of the posts on Facebook: **227**
-  The number of followers on Facebook: **578**
-  The number of posts likes on Facebook: **2 015**

-  The number of posts on Instagram: **213**
-  The number of followers on Instagram: **213**
-  The number of posts likes on Instagram: **1 973**

Gender

of your followers

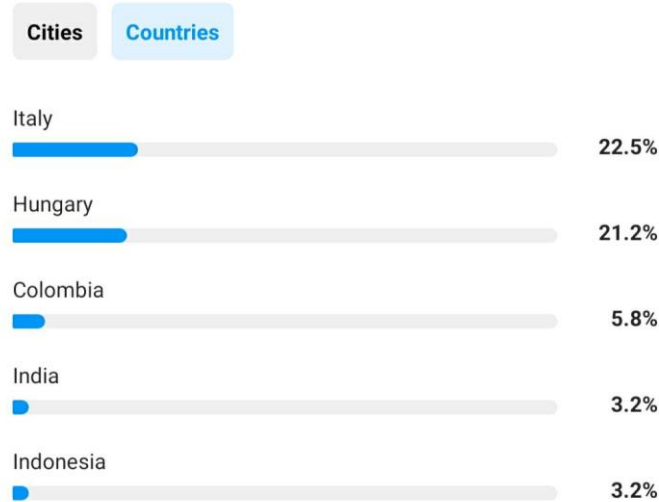


The gender distribution of our followers on Instagram









Top Locations

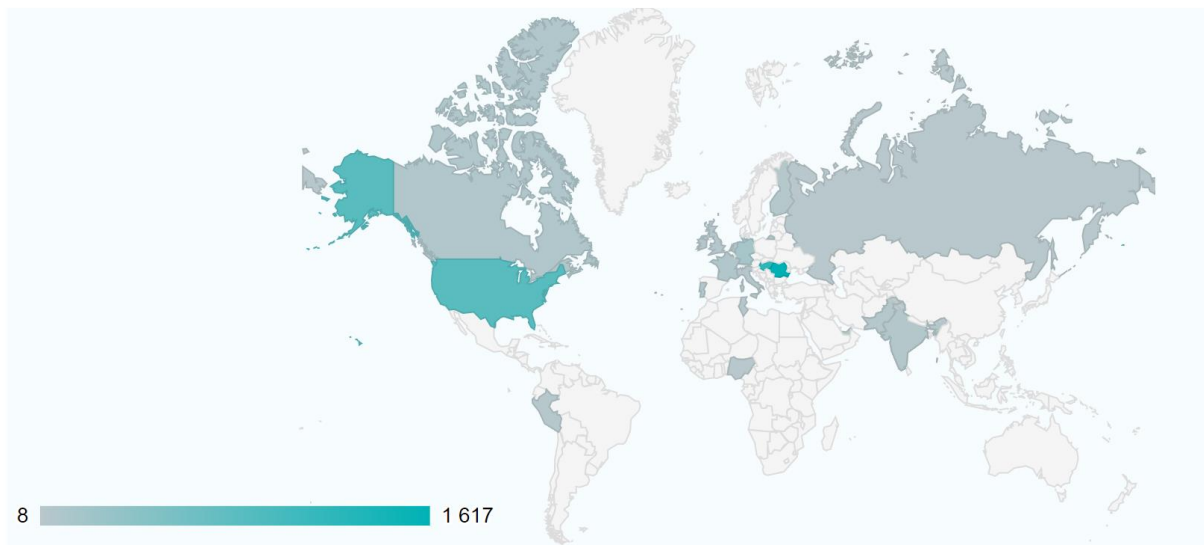
of your followers



Top locations of our followers on Instagram

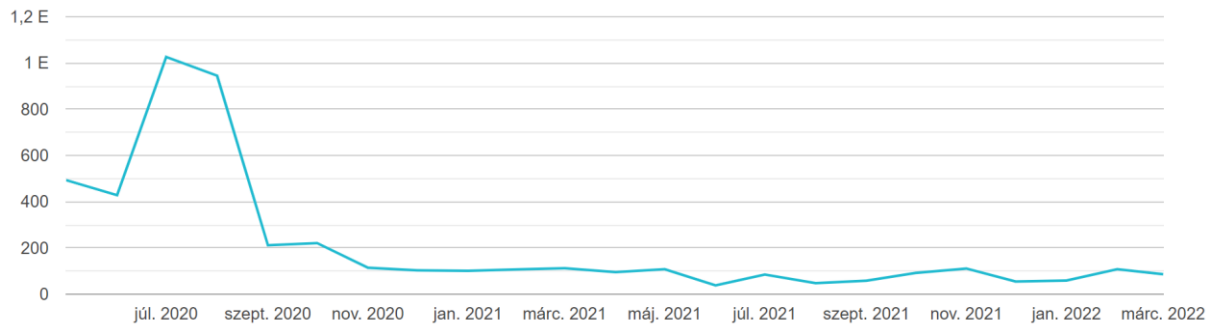
-  The number of posts on Twitter: **176**
-  The number of followers on Twitter: **122**
-  The number of tweets likes on Twitter: **399**
-  The total number of retweets: **154**

-  The number of posts on the two blogs: **116** (*between 01 May 2020 and 31 March 2022*)
-  The number of visitors on the two blogs: **19 779** (*between 01 May 2020 and 31 March 2022*)

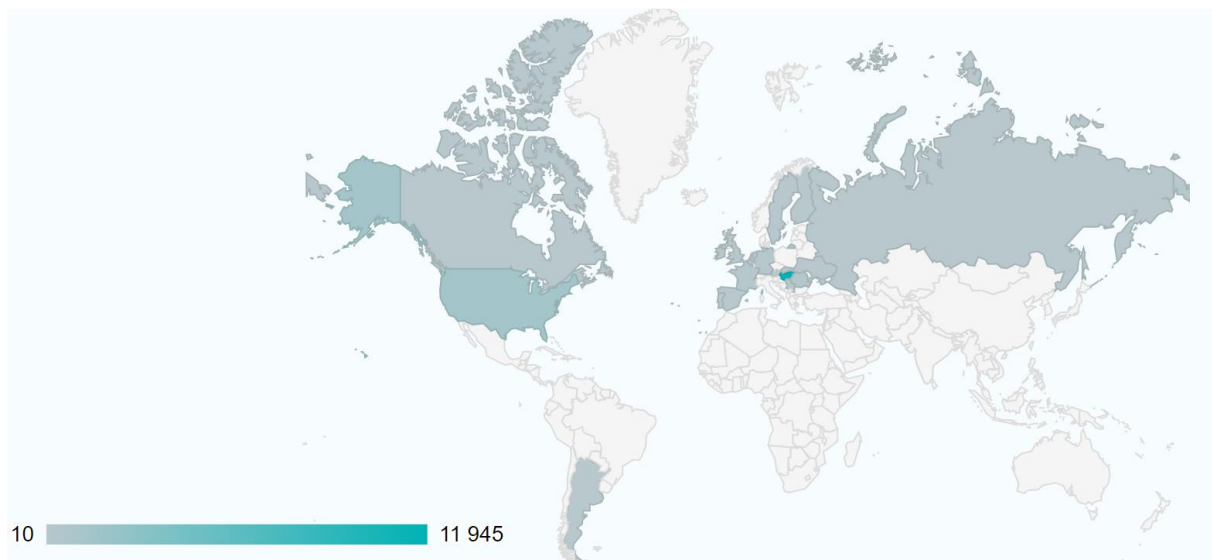




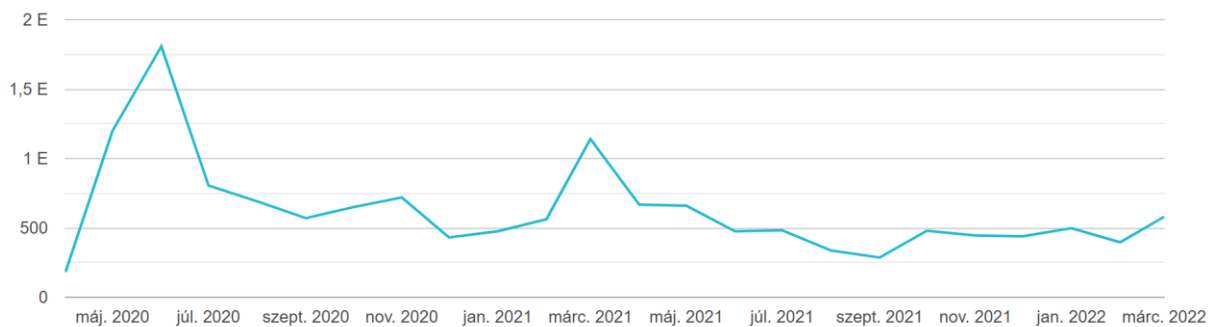
The visitors by countries on the English blog of the ENeRAG





The number of views on the English blog



The visitors by countries on the Hungarian blog

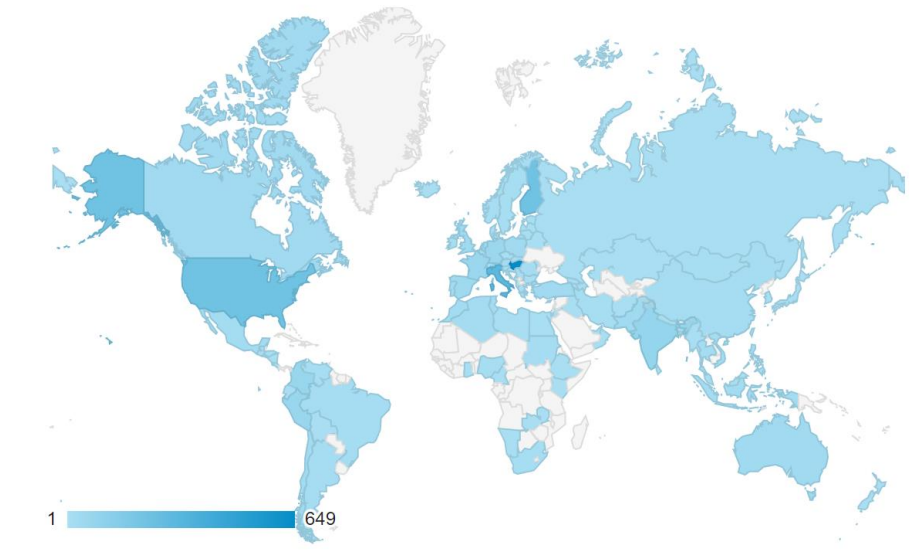


The number of views on the Hungarian blog

-  The number of posts on the website of the ENeRAG: **111**
-  The number of users on the website of the ENeRAG: **2 618** (*google analytics was set on 01 March 2020*)

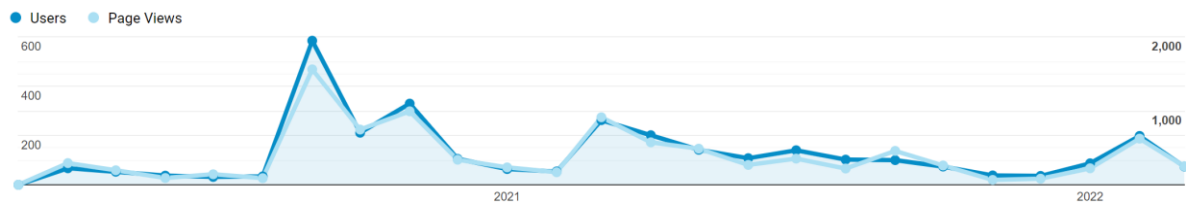


- The number of page views on the website of the ENeRAG: **9 637** (*google analytics was set on 01 March 2020*)



The users by countries on the website of the ENeRAG (*from 01.03.2020 – 31.03.2022*)

It proves perfectly that ENeRAG was able to reach almost the whole world with its activities.



Monthly page views and the number of users on the website of the ENeRAG (*from 01.03.2020 – 31.13.2022*)

- The number of posts on LinkedIn: **33**
- The number of posts on ResearchGate: **94**

Impacts on the social media activities and newsletters:

- all target group was reached with social media activities
- project events were successfully advertised
- it involved participants in the project's activities from the outside of the project
- the reputation, attractiveness, and networking channels of ELTE and the project was enhanced
- the excellency of the project was promoted
- awareness on geofluid research was enhanced
- the networking channels were broadened
- knowledge was shared among all target groups from all around the world
- the results to the academia and stakeholders were disseminated
- the next generation, ie. students and younger groups were involved and reached
- the benefits and power of social media have been strengthened in the partners



3.8 DEVELOPMENT SPECIFICALLY FOCUSED COMMON RESEARCH PROPOSALS

The partners (ELTE, UMIL, GTK) have started writing joint proposals to gain new funding(s) and to continue the common work they have started in the ENeRAG project. They consider it important to expand the idea started in the ENeRAG and bring it into research projects, which have social and market significance as well, and fits in well with the EU's green environment directives.

 Joint proposals so far:

1. National (HUN) Research proposal (OTKA 2021) – supported by the UMIL

Title: "Potential of innovative rainwater utilization for intentional groundwater recharge in changing climate for the Duna-Tisza Interfluve"







2. Horizon Europe (HORIZON-CL6-2022-ZEROPOLLUTION-01-01) R&I proposal was submitted on 15 February 2022 – all 3 partners are involved

Title: "Integrated Strategies and Innovative tools to manage groundwater contamination stressors under global and climate change"(I-SAVE)

3. Horizon Europe (HORIZON-CL4-2022-RESILIENCE-01-06) IA proposal – submitted on 30 March 2022 – GTK and ELTE were involved



Title: "I-GEMS A data-enabled risk and benefit profiling solution for exploration targets"

ELTE ENeRAG team members submitted several national and some international proposals as well. The most significant ones:

-  RRF-2.3.1-21-2022-00014 Establishment and complex development of a Hungarian National Laboratory (January 2022), "The effect of climate change on the invisible part of the water cycle, direct and indirect ecological impacts and adaptation"
-  Proposal to the UnderGRad project: "Framework for Access to the Physical Research Infrastructure of the Joint Research Centre (JRC)"
-  Hungarian Academy of Sciences, MTA Lendület Momentum programme, 16 March 2022, "Hydrogeological patterns as predictors of natural radioactivity of drinking water derived from groundwater"
-  New National Program of Excellence – BSc, MSc, PhD and postdoctoral students competed successfully on its calls
-  National Scientific Research Program (OTKA) – several proposals were submitted to this program as well
-  Internal (ELTE) calls of excellence

Moreover, ELTE ENeRAG team members actively participate with their experiences in other high prestigious ongoing projects, like [CHARM-EU](#) and [TORCH](#).

Impacts of proposals:

-  the proposal writing experience has improved
-  new consortium facilitated networking



- the impact of the ENeRAG has widened by new partners and stakeholders
- knowledge exchange took place between the forming consortium members
- innovative capability of ELTE has improved
- the capability to compete successfully for competitive research funding has improved
- research profile and capacity of ELTE has improved
- the reputation, attractiveness, and networking channels enhanced