



Energy, Innovation and Bilateral Cooperation

25 March 2025 Bucharest

Geothermal Bridge Initiatives-GBI



- Funded through the **EEA & Norway Grants mechanism**, promoted by the National Energy Authority of Iceland, and implemented by UEFISCDI in collaboration with GEORG and the GEOTHERMICA Initiative from Iceland.
- Objectives:
 - To promote **collaboration between Iceland and Romania** for the utilization of geothermal energy as a renewable energy source;
 - To establish **a framework for strategic cooperation between Iceland and Romania in the energy sector**, including climate change, energy security, and sustainable development.

GBI: Main achievements



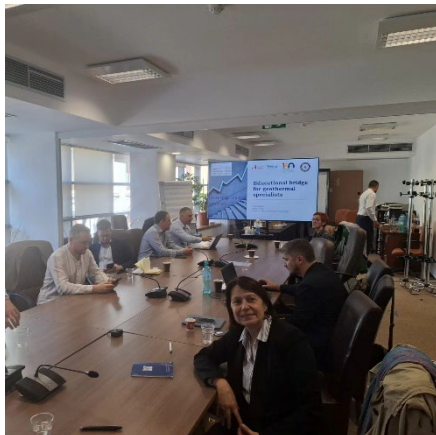
1. **Study visit in Reykjavik, Iceland, between 2nd-5th September:** training, communication, change of experience, visiting different facilities as practical example of cascading use of geothermal energy



GBI:Main achievements



2. Workshop organized in Bucharest between 15th -17th October 2024, followed by a site visit at geothermal infrastructure used for heating the “Emergency Hospital «[Prof. Dr. Agrippa Ionescu](#)», [Balotesti, Ilfov County](#)”, and a visit at the [swimming pool of the city of Otopeni](#) where it is proposed to use geothermal energy as a heating source.



GBI:Main achievements



- **3. Workshop and study visit in Oradea, between 28th -29th January 2025**, organized with the support of Oradea City Hall and Clustherm Transylvania.



GBI: Interviews with Romanian experts participated to the study visiting in Iceland (1)

1. What was your experience like

-pleasantly surprised by the *acceptance of the population regarding the use of geothermal water / geothermal energy*.

2. What did this visit mean to you and to your organization

*A broader vision of what we could do better, through the *cascade use of geothermal water*, adapted to the conditions in Romania:*

3. How do you see the future of geothermal in Romania

- in Romania, *the existence of geothermal resources is limited to few arias* and the temperatures of the *geothermal waters are between 40-110o C*.
- for a sustainable and profitable exploitation of geothermal resources, we must consider the following aspects: *costs for investments in geothermal and to train specialists*

4. What would in your opinion be the next steps.

- Modification of rigid *legislation* regarding the exploitation of geothermal
- Introducing in schools the *importance to protect the environment*,
- Absorption of *European funds* for various investments:

Geologist engineer: Laviniu Mihit, Clustherm Transylvania; Kiss Andrea; Mechanical engineer Daniel Țigan/ Oradea city Council

GBI: Interviews with Romanian experts participated to the study visiting in Iceland (2)

1. What was your experience like?

- highly enriching and inspiring;
- learned more about the advanced geothermal technologies and innovative practices.
- gave us valuable insights into how geothermal energy is harnessed efficiently, from exploration to distribution and its uses;
- meeting with experts and seeing firsthand how Iceland integrates geothermal energy into various sectors was a transformative experience.

2. What did this visit mean to you and to your organization?

- to strengthen our expertise and to explore how we can apply the advanced technologies we saw in Iceland to Romania's context.
- opened doors for international collaboration and has inspired new ideas for improving geothermal distribution systems and maximizing resource utilization.

3. How do you see the future of geothermal in Romania?

- Romania has untapped geothermal potential;
- the geothermal waters cannot be found on a large surface of the country, the exploitable *geothermal gradient can be found in different regions in dry rocks at depths of 3000 to 4000 meters*, and could also be harvested through closed loop systems.
- the right legislative support and investment in infrastructure needed;
- the geothermal energy can play a significant role in reducing Romania's carbon footprint and enhancing energy security. The future will also involve integrating geothermal energy into power generation, into developing new/existing heating systems in urban and rural areas, and processing factories, greenhouses and more. *Eng. Marian Bordeianu, Eng. Nicu Prodescu, Transgex Company*

GBI: Interviews with Romanian experts participated to the study visiting in Iceland (3)

1. What was your experience like?

- understand *how the country integrates geothermal energy education at multiple levels*, from academic institutions to industry training programs.
- impressed by how the *educational system collaborates closely with geothermal plants and research facilities*, creating a hands-on learning environment for students. The focus on sustainability, innovation, and community engagement stood out.

2. What did this visit mean to you and to your organization?

- an important step in *expanding the cooperation at the academic level between the University of Bucharest (UB), Faculty of Physics and Reykjavik University, International School of Energy*.
- to continue and develop new partnerships with Icelandic universities and geothermal research institutions, which could lead to *collaborative research projects, student exchange programs, and shared expertise in renewable energy*. *The meeting with colleagues from Romania, from UBB, Oradea, Otopeni, was also valuable*, because it facilitated an important dialog between actors with concerns in this field.

3. How do you see the future of geothermal in Romania?

Educational initiatives will play a key role in this, as building a skilled workforce will be crucial for developing and operating geothermal facilities. If Romania can *establish strong academic-industry partnerships*, similar to what we observed in Iceland, we could see *rapid progress in the geothermal sector*.

Dr. Adriana BĂLAN, Dr. Sanda VOINEA, University of Bucharest, Faculty of Physics

GBI: Conclusions



- Participation in *this study visit created valuable opportunities for the initiation of joint projects between Romania and Iceland*
- We see a promising future for geothermal in Romania, particularly in the areas of **heating, tourism, and agriculture** (greenhouse heating).
- Regions like Bihor, Ilfov, Timiș, Arad, and Hunedoara have strong potential.
- The main success factor is the people who, in our case, they are professional, enthusiastic and visionary.

