



GreetGeo

Pannonian Basin Study Tour Croatia Bjelovar and Križevci



Funded by
the European Union

This project has received funding from the European Innovation Council and SMEs Executive Agency green research and innovation programme under grant agreement N° 101180405.

Mission

The GreetGEO project aims to enhance regional innovation ecosystems, build capacity in less developed and outermost regions, and strengthen cross-regional cooperation to foster the adoption of geothermal technologies. The project promotes sustainable energy practices, creates policy frameworks, and supports innovative small and medium-sized enterprises (SMEs) to become leaders in green energy solutions.

Key Objectives

To foster regional innovation, promote sustainable energy, enhance collaboration and develop policy frameworks.

Green Transition with Geothermal Energy

Funding Programme

European Union's Interregional Innovation Investments (I3) instrument

Funding

€ 1,493,532.22

Duration

11/2024 – 10/2026

Lead Partner

ENERGY INSTITUTE HRVOJE POŽAR, Croatia

Project Partners

LA PALMA RESEARCH CENTRE SL (ES), Hungarian Geothermal Association (HU), Elso Magyar Energetikai Fejlesztő és Szolgáltató Kft. (HU), DDRIÜ NONPROFIT KFT. (HU), Local Energy Agency Pomurje (SI), CONSORZIO PER LO SVILUPPO DELLE AREE GEOTERMICHE (IT), EUROPEAN GEOTHERMAL ENERGY COUNCIL (BE), BWB CONNECT CLG (IE), and INSTITUTO DE INOVAÇÃO TECNOLÓGICA DOS AÇORES (PT)



Project Highlights



Focus Regions

Central Europe's Pannonian Basin (Croatia, Hungary, Slovenia) and volcanic outermost regions (Azores, Canary Islands).



Pilots

Innovative pilot projects in deep and shallow geothermal applications.



Policy Impact

Development of Smart Specialization Strategy (S3) -based roadmaps for sustainable innovation.



Stakeholder Engagement

Collaboration with policymakers, researchers, SMEs, and local communities through a geothermal stakeholders database.



Scan the QR code to join and become part of the community driving Europe's geothermal transition.

Geothermal DH in the City of Bjelovar

Location of the project

Bjelovar, Croatia

Project overview

The City of Bjelovar is conducting an ambitious, multi-phase geothermal development program aimed at transforming the city into a regional leader in renewable district heating and energy independence. Alongside the already established Korenovo project, the city has also been granted the exploration block "Bjelovar" for geothermal water exploration and future exploitation. Targeted specifically at developing energy use geothermal infrastructure, this new block further expands the city's geothermal ambitions toward supplying public buildings, residential buildings, municipal institutions, and commercial zones with renewable geothermal heat.

The two major pillars of Bjelovar's geothermal strategy are:



Korenovo GT 1 (Veliko Korenovo area)

Already drilled and under development for industrial, recreational, and spa uses. Well parameters:



Exploration block "Bjelovar"

A new exploration area intended to support a city-wide geothermal district heating network.



Background of the project

Historically, Bjelovar relied on conventional fossil-fuel based heating systems. However, Geological data from over 60 years of oil and gas exploration show strong geothermal potential beneath Bjelovar. The Velika Ciglena 16.5 MW geothermal power plant, the largest in Croatia, is located within the wider Bjelovar area, confirming high geothermal productivity. This context provided the strategic basis for establishing Terme Bjelovar d.o.o. and initiating multiple geothermal energy development projects.

Impact and Strategic importance

- ✓ City Wide Geothermal District Heating
- ✓ Economic Growth and Investment Attraction
- ✓ Environmental Benefits

Project Developing Company

Terme Bjelovar d.o.o., Bjelovar, Croatia

Korenovo Geothermal Project

Location of the project

Veliko Korenovo, Croatia

Project overview

The Korenovo Geothermal Project focuses on the exploration and future utilisation of geothermal water within the “Korenovo” exploration block near Bjelovar. The project aims to verify the geothermal potential for energy production, primarily serving the Veliko Korenovo industrial zone and planned spa and tourism facilities, with additional applications including greenhouse heating, drying and storage, and geothermal-assisted cooling for logistics.

The exploration well, Korenovo GT-1, drilled and tested in 2024, has the following characteristics:

Reservoir depth: 1,290 m

Temperature: 70,1°C

Yield: 25 l/s

Thermal capacity: 4.1 MWt

Expected annual heat production: 35,920 MWh

This verified geothermal source provides low-temperature heating suitable for the business zone, spa facilities, and other auxiliary uses.

Project Developing Company

Terme Bjelovar d.o.o., Bjelovar, Croatia

Background of the project

Geological data from over 60 years of oil and gas exploration show strong geothermal potential beneath Bjelovar. The Velika Ciglana 16.5 MW geothermal power plant, the largest in Croatia, is located within the wider Bjelovar area, confirming high geothermal productivity. The broader purpose of the Korenovo GT 1 exploration well is to enable future district heating based on geothermal water, helping the City of Bjelovar transition toward renewable energy sources and long term energy independence.

Impact and Strategic importance

- ✓ Provide renewable heat to the Veliko Korenovo industrial zone
- ✓ Enable growth of geothermal agriculture
- ✓ Support new tourism and spa facilities
- ✓ Lay the foundation for a broader network of geothermal wells





Križevci geothermal project

Location of the project

Križevci, Croatia

Project overview

The Križevci Geothermal Project aims to utilise the geothermal potential of the existing well Križevčanka-1 (Kža-1) for the development of renewable heating solutions for public buildings, as well as future commercial applications such as geothermally heated greenhouses and drying facilities. The preparation of technical documentation and well testing was co-financed by the EEA and Norway Grants under the Energy and Climate Change Programme, in cooperation with the City of Križevci.

Production testing conducted in 2024 confirmed the following parameters

Reservoir depth: 1,496 m
Temperature: 79,5°C
Yield: 19 l/s

The Križevci Geothermal Project aims to utilise the geothermal potential of the existing well Križevčanka-1 (Kža-1) for the development of renewable heating solutions for public buildings, as well as future commercial applications such as geothermally heated greenhouses and drying facilities. The preparation of technical documentation and well testing was co-financed by the EEA and Norway Grants under the Energy and Climate Change Programme, in cooperation with the City of Križevci.

Background of the project

The exploration well Križevčanka-1 was drilled in 1985/86 to a depth of 1,496 m. It is located in close proximity to educational facilities, a sports hall, and a public swimming pool. Over the years, several studies and tests have been carried out, including well logging, production testing, hydrostatic pressure gradient measurements, and analyses of water chemistry and physical properties.

Impact and Strategic importance

- ✓ Reduced CO₂ emissions through replacement of fossil based heating with geothermal energy
- ✓ Strengthening energy security through local renewable sources
- ✓ Supporting climate neutral development
- ✓ Potential to integrate geothermal heating with the city's broader renewable energy system, including solar and biomass

Project Developing Company

Komunalno poduzeće Ltd., Križevci, Croatia

Follow us on social media for the latest updates and insights from the GreetGEO project!



@greetgeo

www.greetgeo.eu

Consortium