

**Events :** Last Geoboost Meeting

**News:** UK Geoenergy Observatory investigates use of acoustic sensing for shallow geothermal monitoring

**New Geoboost Deliverable:** Financial Analysis and Policy Recommendations

**Geoboost Brochure:** Grounded in Innovation: Geothermal Heat Pumps for Europe's Clean Energy Future

Don't forget the **MOOC!**

## EVENTS

### Last meeting of the Geoboost EU Project's Partners

The final meeting of the GEOBOOST project partners took place in Valencia, Spain, on 3 December 2025.

This meeting marked a final opportunity for partners to **come together and reflect on the achievements and contributions of the GEOBOOST project**. Over its lifetime, the project brought together stakeholders united by a shared vision: **removing the barriers that still hinder the widespread deployment of geothermal energy in Europe, while supporting public administrations and technical professionals in the transition towards more sustainable and energy-efficient buildings**.

Following the partners' meeting, the event "**Geothermal Energy and Sustainable Buildings: Local Actions for Global Goals**" was held the next day. The event highlighted how geothermal energy can transform public buildings and cities, showcasing the link between Europe's climate and energy objectives and concrete actions implemented at the local level.

## UK Geoenergy Observatory investigates use of acoustic sensing for shallow geothermal monitoring

Studies are ongoing at the [UK Geoenergy Observatory](#) in Cheshire to investigate the use of distributed acoustic sensing (DAS) to detect subsurface temperature changes in geothermal environments. DAS sensing has already been used extensively in many subsurface settings, but it is yet to be widely developed for monitoring of shallow geothermal operations. The current study uses a high-resolution, fibre-optic DAS sensing system installed in [the boreholes at the Cheshire observatory](#).

[Know more](#)

## GEOBOOST DELIVERABLE

### New Geoboot Delivable: Financial Analysis and Policy Recommendations

Geothermal heat pumps (GHPs) are a key technology for a decarbonised future. Yet despite their clear technical potential, deployment still faces persistent barriers to wider uptake across Europe. These include **high upfront costs, uncertainty around operational expenditure, insufficiently mature financial mechanisms and business models, and uneven regulatory and market conditions.**

In light of these challenges, the GeoBOOST Deliverable 4.2 (“Report on the financial framework including a catalogue of strategies and measures for fostering future investments”) focuses on strengthening the financial case for GHPs and improving equitable access by addressing three main objectives:

1. Current public subsidy schemes across our partner countries have been examined to better understand opportunities and gaps in how different Member States support GHPs for heating and cooling.

2. The deliverable introduces a **novel affordability assessment methodology**. With the so-called “affordability score”, different heating and cooling technologies can be compared on equal footing across countries – accounting for capital and operating costs, energy prices, and socio-economic context under 2023 conditions. The results show that when assessed over their lifetime, GHPs consistently outperform fossil alternatives. The full implementation of the methodology is freely available on [Zenodo](#).

3. The deliverable makes **14 policy recommendations** (including both government levers and market-enabling actions) intended to reduce financial hurdles, stimulate long-term investment, and better align capital and operational expenditure interests. These recommendations, which are rated against their potential impact on three criteria, are illustrated in the graph below.

Deliverable 4.2 can be found in the [project website](#).



## Deliverable 4.2, Financing Europe's Geothermal Future: 14 Policy Recommendations for Geothermal Heat Pump Adoption

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EU Policymakers & Institutions	National & Local Governments	Financial Institutions & Investors	End-users (Homeowners & Building Managers)
<p><b>1. Create a dedicated EU heat pump financing facility</b> offering low-interest loans, credit lines and guarantees to underpin on-bill and green mortgage programmes, with a quota for low-income households. Cost Burden: ● Risk: ● Fair Access: ●</p> <p><b>2. Harmonise and enable innovative business models</b> EU-wide through guidance or directives, and provide a “Green Heat Toolkit” with templates (legal language for on-tax assessments, on-bill tariffs, standard HaaS contracts) to reduce setup efforts for countries. Cost Burden: ● Risk: ▲ Fair Access: ▲</p> <p><b>3. Rebalance energy taxes</b> by accelerating the ETD revision to cut electricity levies, raise fossil fuel duties, and <b>use ETS2/SCF revenues</b> to support clean and affordable heating and cooling. Cost Burden: ● Risk: ▲ Fair Access: ▲</p> <p><b>4. Encourage Member States to set indicative GHP deployment milestones</b>, track them through NECP progress reports and plan financing to meet them. Cost Burden: ▲ Risk: ▲ Fair Access: ■</p>	<p><b>5. Scale and implement diverse incentive programs</b> that combine grants (considering vulnerable groups), zero-interest loans and tax credits. Cost Burden: ● Risk: ▲ Fair Access: ●</p> <p><b>6. Mandate utility participation</b> to require or incentivise offers for on-bill financing and HaaS models, with consumer protections. Cost Burden: ● Risk: ● Fair Access: ▲</p> <p><b>7. Resolve split incentives</b> by using “green lease” frameworks allowing landlords to share savings with tenants and implement condominium voting rules for collective GHP retrofits. Cost Burden: ▲ Risk: ▲ Fair Access: ●</p> <p><b>8. Fund one-stop shops</b> to guide homeowners and building managers through technical assessment, installer selection and financing. Cost Burden: ▲ Risk: ● Fair Access: ▲</p> <p><b>Traffic light rating legend:</b> ● = strong/primary effect ▲ = partial/supporting effect ■ = little/none effect</p>	<p><b>9. Launch green home finance products</b> as refurbishment mortgages and long-tenor renovation loans for GHPs, with preferential capital treatment or public guarantees. Cost Burden: ● Risk: ● Fair Access: ▲</p> <p><b>10. Issue GHP-themed green bonds</b> or securitised loan portfolios, leveraging EU Taxonomy certification to attract low-cost institutional capital. Cost Burden: ● Risk: ▲ Fair Access: ■</p> <p><b>11. Aggregate and de-risk</b> by pooling many small projects into diversified funds, and tap into EFSI-style guarantee instruments and performance insurance. Cost Burden: ▲ Risk: ● Fair Access: ■</p>	<p><b>12. Proactively seek new offers</b> to be aware of emerging financing offers that can make a GHP system viable. Cost Burden: ▲ Risk: ▲ Fair Access: ▲</p> <p><b>13. Organise collectively</b> as energy communities or neighbourhood groups to access bulk-purchase discounts and develop or join thermal energy networks. Cost Burden: ● Risk: ▲ Fair Access: ▲</p> <p><b>14. Demand performance guarantees</b> to safeguard contracts come with service-level commitments and maintenance provisions, and use certified installers. Cost Burden: ▲ Risk: ● Fair Access: ▲</p>



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## GEOBOOST BROCHURE

### Grounded in Innovation: Geothermal Heat Pumps for Europe's Clean Energy Future

GEOBOOST achievements are now available in the **GEOBOOST Brochure**, with materials offered in **English, Polish, German, and Spanish**.

#### The brochure presents:

- Financing recommendations to support geothermal investments
- Life-cycle cost comparisons of heating technologies
- Best-practice business models
- Opportunities to build geothermal expertise through the GEOBOOST MOOC.

Through knowledge sharing, policy innovation, and user-focused tools, GEOBOOST is helping Europe unlock the full potential of the ground beneath our feet—advancing clean, affordable, and resilient energy systems for the decades ahead.

#### [Check the Brochure now!](#)



# NEWSLETTER

## DON'T FORGET THE MOOC!

**GEOBOOST MOOC – Free Online Course on Geothermal Heat Pump (GHP) Technologies**

**Empower Your Career with Geothermal Knowledge**  
Starts: October 1, 2025 | Duration: 6 Weeks | Language: English | Platform: edX  
(All videos have multilingual subtitles)



**About GEOBOOST**  
The GEOBOOST Project, funded by the European Union, is developing a modular, EU-wide online training program to promote Geothermal Heat Pump (GHP) systems. This initiative provides standardized, high-quality education while adapting to local needs across Europe.

**Who Should Join?**  
This Massive Open Online Course (MOOC) is designed for:  
• Drillers  
• Installers, Designers & Energy Consultants  
• Policy Makers & Authorities  
• Decision Makers & Planners



**Course Content – 5 Modules Over 6 Weeks**  
The course follows a chronological structure, guiding learners through a step-by-step weekly sequence:  
• Weeks 1–2: Module 1 – Introduction to Geothermal Fundamentals  
• Week 3: Module 2 – Energy Efficiency Strategies for Buildings with GHP Systems  
• Week 4: Module 3 – Borehole Heat Exchangers  
• Week 5: Module 4 – Groundwater Heat Exchangers  
• Week 6: Module 5 – Horizontal Collectors  
Modules are taught by renowned experts from more than 7 countries, including professionals from leading universities and companies in the geothermal sector.

**ENROLL NOW**



Join us to help shape the future of sustainable energy in Europe. Learn from the best – wherever you are.

