

Founder in Residence, Geothermal Heat - Marble

About Marble

Marble is a climate tech venture studio. Our north star is to erase billions of tons from annual greenhouse gas emissions and create a thriving future.

We partner with scientists, engineers and operators to create new deep tech companies that solve hard climate problems — slash emissions, remove carbon from the atmosphere, and cool the planet — while reshaping multi-billion \$ industries.

We're proud to be backed by leading climate investors across Europe and the US.

Unlocking Geothermal Heat

Heat makes up over 50% of global final energy consumption annually, far surpassing electricity, but remains one of the hardest segments of the energy system to decarbonise — accounting for nearly 14 gigatonnes of CO₂ emissions annually.

Despite the scale of the problem, only ~15% of global heat supply today comes from renewable sources. Against this backdrop, geothermal heat stands out as a clean, firm, and flexible heat source not influenced by fuel price volatility, and the ability to operate continuously, independent of weather or time of day.

Geothermal is particularly well-suited to decarbonise low (<100°C) and medium (100–200°C) temperature applications, which represents ~50% of all heat demand. Why? There's enough geothermal energy available at depths below 3 km and temperatures up to 200°C to exceed global demand by a factor of 1,000.

Three major end-use cases seem large enough to justify capital investment and subsurface de-risking:

- Building-scale heating and cooling: for residential, commercial, and industrial buildings, including space heating, cooling, and domestic hot water.
- District heating networks: centralised systems distributing heat to multiple buildings or neighbourhoods, complexes, or industrial parks.
- Industrial process heat (up to 200°C): supplying clean thermal energy for light processes in food and beverage, textiles, chemicals, and other industries.

Beyond its climate benefits, geothermal heat enhances energy security, reducing reliance on fossil fuels and insulating consumers from global fuel price shocks. Unlike fully electrified

solutions, it also helps alleviate grid congestion and slows the growth of peak electricity demand.

And yet, we've barely scratched the surface. Despite its long history, geothermal heat demand amounts to only ~1.1 EJ, less than 0.5% of the heat consumed annually today. Very few companies have reached meaningful scale today, as projects are often hindered by high upfront costs, suboptimal drilling techniques, long permitting and installation times, and resource development risk, impeding widespread adoption.

The Opportunity

We are interested in a broad range of opportunities to leverage untapped geothermal heat potential with compelling economics.

We are particularly interested in approaches which derisk project development, reduce drilling times, and bring down the upfront cost of geothermal projects that can be applied to broad geographies, especially in Europe and the US.

However, we're also open to creative approaches which could bring next-gen geothermal heat to meaningful scale.

Examples of opportunities we are considering:

- Improved well characterisation and planning to de-risk the exploration phase by developing pre-drilling techniques, refining modelling techniques, and improving site identification and characterisation.
- Accelerated drilling and installation to reduce upfront costs, drilling times, and installation complexity through novel drilling techniques and improved well completion methods.
- Efficient heat delivery systems to maximise heat recovery and optimise well sizing through innovations in transfer fluids, heat exchangers, and systems integration.
- High-temperature geothermal for industry to reach temperatures potentially beyond 200°C needed for industrial processes through advanced materials, novel working fluids, and hybrid systems (e.g. geothermal + heat pumps).
- Enhanced well monitoring and modelling to support maintenance, reduce downtime, and prolong well lifespan through real-time thermal monitoring and digital twin-based performance models.
- Integrated thermal management systems to optimise heat delivery by combining sensors, controls, and predictive software to dynamically respond to real-time demand, load forecasts, and network feedback. Ideal for centralised and district heating networks.

- Integrated geothermal heat with storage to maintain well stability and minimise operational costs by integrating thermal storage solutions in regions with imbalanced heating/cooling demands and variable electricity pricing.

We are looking for a Founder in Residence to join Marble and explore these approaches further and accelerate the geothermal renaissance for energy abundance.

→ [Apply Here](#) or see the [Programme Structure](#)

Skills & Profile

We are looking for an entrepreneurial engineer with relevant technical expertise and/or industry experience in the geothermal sector, or related fields (e.g. oil & gas, mining) with a creative take on the problem. Your mission: to further explore some of the opportunities listed above and create a high-impact climate company with Marble.

You may come from geothermal directly, or from an adjacent field where your technical background and experience can bring a fresh perspective to the challenges of scaling geothermal heating.

Examples of relevant backgrounds:

- Project engineering / management with industry experience in end-to-end development of natural resource or energy infrastructure projects (e.g. geothermal, oil & gas).
- Geothermal / petroleum / reservoir engineering with applied industry experience in well design, drilling techniques, or production systems. Exposure to novel geothermal startups or subsurface innovation is a plus.
- Geological / resource characterisation with expertise in subsurface modelling and exploratory drilling, thermal resource assessment, well siting and characterisation, or geological mapping.
- Mechanical / chemical / process engineering with experience in designing, modelling, or deploying thermal systems, heat pumps, HVAC components and in systems integration.
- Materials science / engineering specialised in material compatibility, heat transfer optimisation, thermal insulation, corrosion resistance, or piping systems. Relevant for well linings, closed-loop systems, and fluid transport.
- Modelling / control / software engineering with expertise in thermal modelling, simulation, system optimisation, digital twins, or control systems. Ideal for predictive maintenance

tools, software-integrated heating networks, or dynamic thermal control platforms.

- Startup founder / operator / investor with previous experience building in deeptech or climate, ideally in geothermal, oil and gas, energy systems, or advanced materials.

We encourage you to apply even if you don't feel you meet all requirements. Above all, we value intelligence, creativity and Founder Potential.

Especially if you recognise yourself below:

- You can't wait to start your own company (or your next one)
- You are a pragmatic optimist on a mission to tackle climate change
- You are outcome focused and action oriented – you make things happen
- You are a great communicator – you can convince others to follow you
- You love to break down ambitious goals into actionable milestones
- You understand that innovation starts with people – not ideas

What We Offer

As a Founder-in-Residence, you will join other stellar individuals who also believe in the need for deep tech solutions to solve hard climate problems.

Together, we would be scoping high potential approaches before converging on the most promising one and finding your future co-founders.

We offer (among other things):

- A €2,500 to €3,000 monthly allowance during the programme
- A €250,000 pre-seed investment on startup creation if you're successful. You and your team will own 80% of the company at pre-seed.
- Full-stack support in our venture creation programme
 - Mentorship and guidance at every step of the way

- Hands on support across technology and market research, landing interviews with experts and customers, techno economics, roadmap and scale up strategy, IP strategy, team building, advisor sourcing, and more
 - Access to an unparalleled network across science, industry, talent, investors, mentors, climate tech founders, curated vendors and suppliers
 - Access to our research insights, knowledge base and founder resources
 - Weekly check-ins, work sessions in our Paris HQ (or remote) and continuous peer learning with other programme participants
 - Seed Fundraising support after the programme. Introductions to the best seed investors from our network and help with term sheet negotiation.
 - **Founder Visa sponsorship** if you wish to relocate to France. Remote participation is possible, preferably from Europe and with regular in-person meetings.
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How to Apply

We are looking for the best candidate – so you are welcome to apply as soon as possible.

[→ Apply Here](#) or see the [Programme Structure](#)

We believe that a diverse group of minds is key to solving the climate crisis. We encourage women and people of colour to apply.

Studies have shown that under-represented candidates are less likely to apply for an opportunity unless they feel they meet every single qualification.

We are committed to building a diverse, inclusive and mission-driven cohort. If you're excited about the programme but your past experience doesn't align perfectly with what you read on our website, we encourage you to apply anyways!

FAQs

For a full list of FAQs, please visit our [website](#).