



SEPTEMBER 2025 - N.1 |

ALPHA NEWSLETTER

ADVANCING 5TH-GENERATION DISTRICT HEATING AND COOLING NETWORKS IN ALPINE SPACE

Buildings consume 42% of EU energy, with heating and cooling accounting for a major portion. Alpine countries have set ambitious net-zero targets for heating and cooling to combat climate change in our vulnerable macro-region. However, the adoption of optimal solutions, such as heat pumps and renewable energy systems, is lagging in the Alpine Space. ALPHA addresses this issue by enhancing implementation capacities. The project designs pathways for decarbonising the Alpine heating, cooling, and building sectors. It also paves the way for an enabling policy and financing framework for the Alpine macro-region.

THE PROJECT

Priority 2

Carbon-neutral and resource sensitive Alpine region

S. O. 2.1

Promoting energy efficiency and reducing greenhouse gas emissions

ERDF
1.548,342 €

Duration
Sept 2024
August 2027

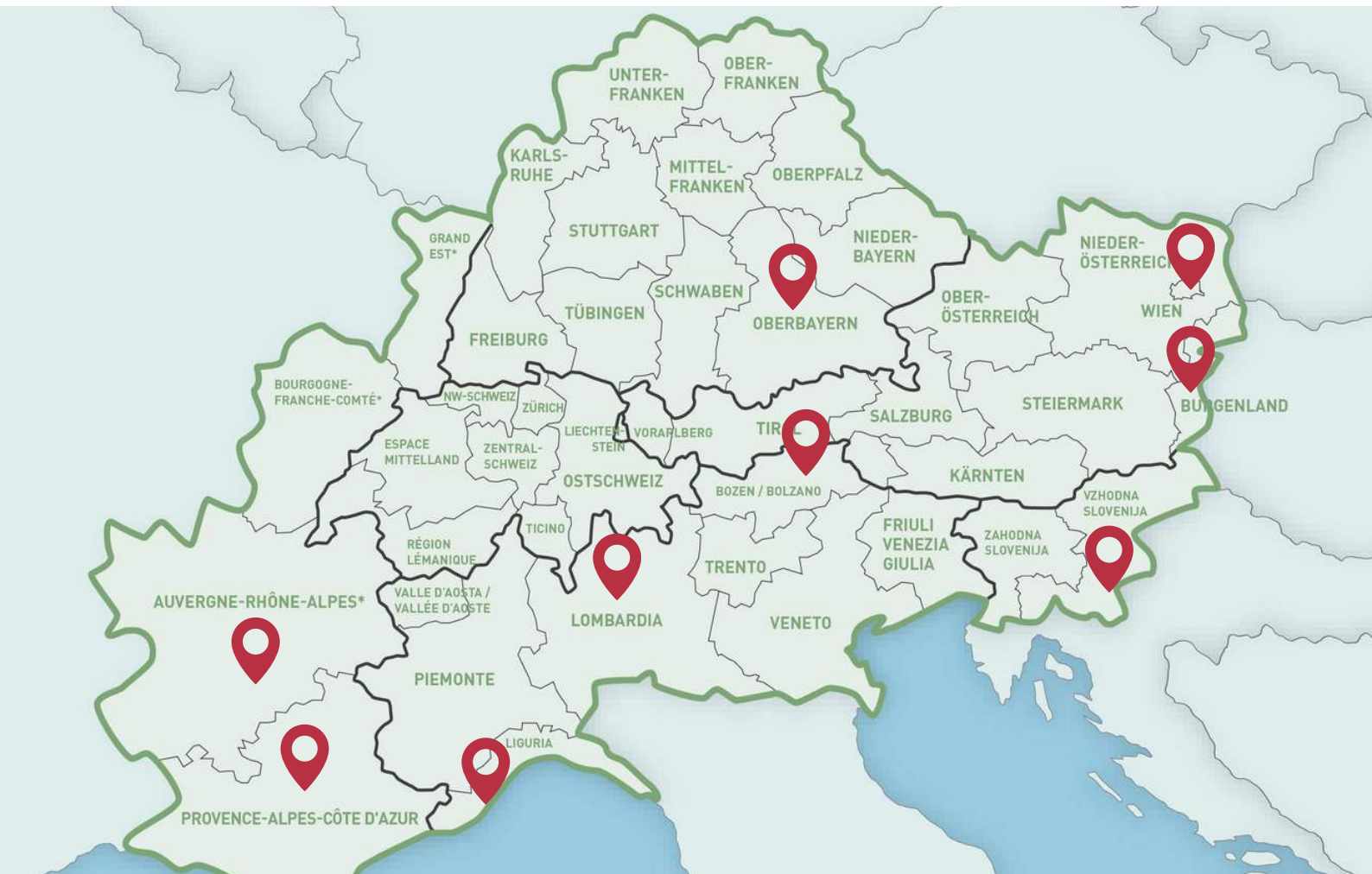


www.alpine-space.eu/project/alpha/



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Countries & Partners



ALPHA brings together 9 partners from all 5 Interreg Alpine Space EU countries. **The project aims to contribute to the reduction of greenhouse gas emissions and to increase energy efficiency** through the use of 5th generation district heating and cooling networks in the Alpine territories of Italy, Austria, Germany, France and Slovenia.

Funded under the European Interreg Alpine Space programme, ALPHA (Advancing 5th-Generation District Heating and Cooling Networks in Alpine Space) aims to simplify and accelerate the adoption of 5GDHC technologies. By the end of the project, **the partners will jointly implement a common decarbonisation plan across selected pilot territories** within the participating countries.

[Discover more about the project here!](#)

[Link](#)



Lombardy Foundation
for the Environment
LEAD PARTNER



Liguria Region



Eurac Research



National Institute
of Applied Science - Lyon



Chamber of Commerce and
Industry of Nice Côte d'Azur



Technical University
of Munich



Austrian Society for
Environment and Technology



European Center for
Renewable Energy Güssing

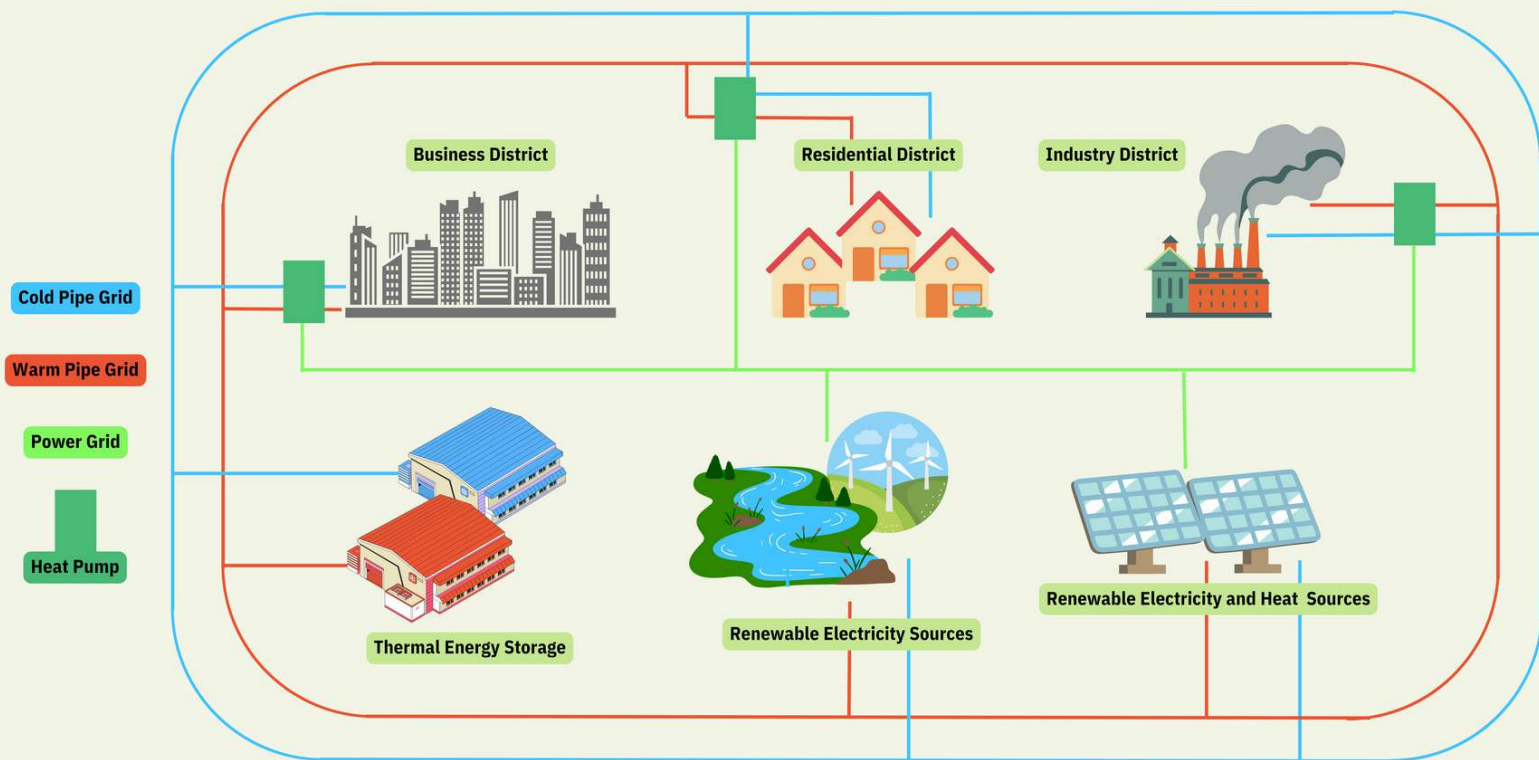


Municipality
of Trebnje

A new generation Technology

5GDHC systems operate through low-temperature networks that minimise energy losses and allow bi-directional energy flow, enabling end-users to both receive and supply energy based on demand. These systems contribute to climate change mitigation by reducing greenhouse gas emissions, enhancing energy system efficiency, supporting the transition to sustainable energy models, and fostering innovative business opportunities. Examples include the use of thermal energy storage to balance supply and demand or uninsulated pipelines to further reduce energy losses.

The 5GDHC System

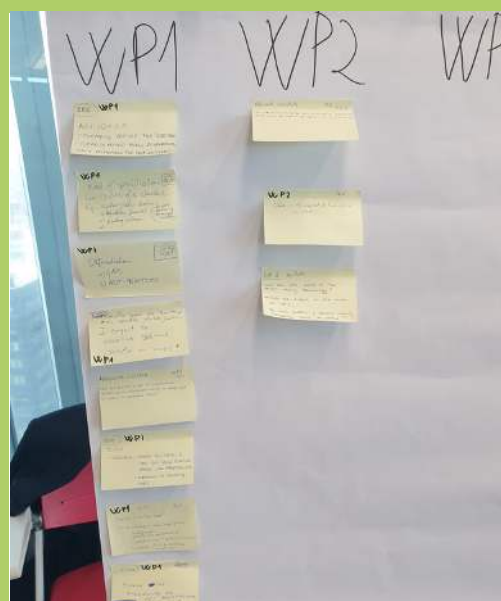


ALPHA Main Goals



- Simplify and accelerate the adoption of 5GDHC technologies
- Implement a common decarbonisation plan across selected pilot territories
- Closing the energy loop
- Using low-grade sources for low-grade demand
- Decentralised and demand-driven energy supply
- Local sources as a priority

ALPHA Project Meetings, from Milan to Vienna

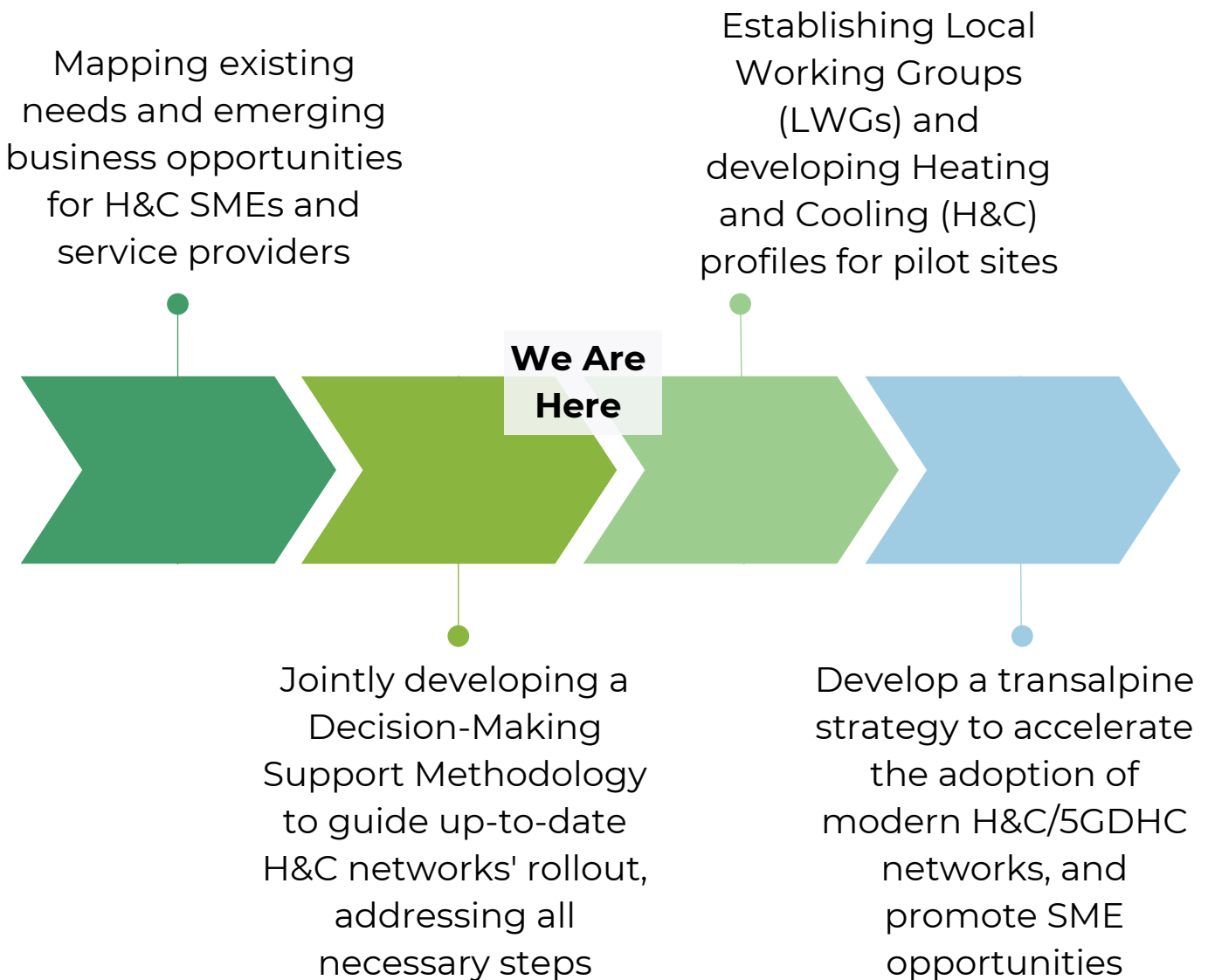


Vienna Study Visit - 3th - 5th June 2025

The ALPHA project partners gathered in Vienna at the beginning of June—not only an opportunity to review the progress of the work, but also a chance to experience the innovations of 5GDHC technology firsthand. Discover more:

- [ALPHA meeting: Austria and Vienna's efforts toward a sustainable future](#)
- [Village im Dritten: from a former railway yard into a vibrant residential neighborhood](#)
- [Roots energy: a cutting-edge approach to sustainable building modernization](#)
- [Retrofitting for the future: the Smart City Baumgarten case study in Vienna](#)

Timeline of ALPHA project



Focus on regulatory gaps and best practices in 5GDHC

Just over six months after its launch, the ALPHA project produced its first documents, the result of the partners' work, in dialogue with policymakers and stakeholders.

[Read the article here!](#)

Next Step: Germany

The next project meeting will take place on December 4–5, 2025, in Munich, Germany. We will keep you updated.

For more info send an email to: alpha.alpine.space2023@gmail.com

