SAPHEA - Developing a single access point for the market uptake of geothermal energy use in multivalent heating and cooling networks across Europe

OUTLINE

In a nutshell

Funding program	HORIZON-CL5-2021-D3-02-03	**Runtime**	10/2022 to 06/2025
Consortium	*Geological Survey of Austria (AT), e-think (AT), AGH University of Science and Technology (PL), University of Turin (IT), European Geothermal Energy Council (BE), VIA University College (DK), Technical University of Vienna (AT), Technical University of Munich (DE), ENGIE (FR), Geothermal Engineering Ltd. (Associated Partner, UK).*		
Scope	Integrating geothermal energy (source and storage) at its full technological range into heating (and cooling) networks at temperature ranges between <30°C and up to ~100°C (**'geoHC networks'**)		

Objectives

- *Establishing a **digital access point** for decision making support and consultancy on geothermal energy use in heating and cooling networks*

- *Adapting and **upgrading existing datasets and tools** for early stage investment decisions and strategic planning of energy suppliers, communities and municipalities*

- *Fostering **supportive market frameworks** to facilitate future investments into 'geoHC networks'*

- *Reducing social gaps and barriers to **bring 'geoHC networks' closer to regional stakeholders** across Europe*

- ***Empowering** future investors and operators of 'geoHC networks'*

Approach

- *Investigating key techno-socio-economic drivers to make 'geoHC networks' more attractive*

- *Integrating geoscientific data and knowledge into existing decision support tools*

- *Developing digital interfaces for providing guidance to stakeholders in Europe (e.g. energy suppliers or communities)*

- *Developing a web based hub as well as a network for geothermal energy use in heating and cooling networks*

- *Knowledge transfer and capacity building*
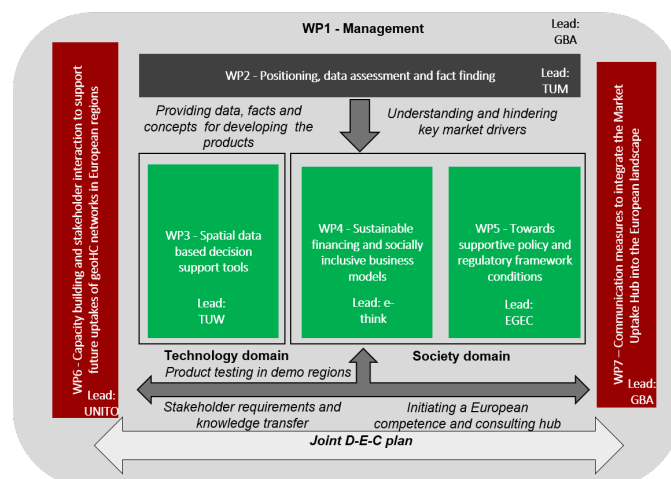
Expected outcomes

Title	Type	Title	Type
*Status report on **key market drivers***	*Report*	*Technological catalogue of **'geoHC network' schemes** at different MRLs*	*Report*
*Status report and adapted blueprints of **business models** related to geoHC networks*	*Report*	*Status report and recommendations concerning **regulatory and policy frameworks** in Europe*	*Report*
*Status report and adapted blueprints of **financial mechanisms & schemes***	*Report*	*Status report on **socio-environmental conditions** concerning the implementation of 'geoHC networks'*	*Report*
*Open-source **toolboxes** for **early stage decision support** and strategic planning*	*Tools*	***Digital Market Hub** on geoHC networks including an interactive guideline ('**Gamebook**') for strategic planning*	*Tool*
*Strategic **roadmaps** towards the integration of geothermal energy in heating and cooling networks*	*Report / Tool*	*Stakeholder **trainings and tutorials***	*Trainings*
*Dedicated **web portal and digital communication** campaigns*	*Tools*	*Targeted events introducing the annual **'Geothermal DHC' day** event*	*Events*

Why getting involved in SAPHEA

- *All outputs od SAPHEA including the digital decision support and strategic planning tools will cover all Europe on a basic level of detailed by adapting existing toolboxes,*

- *All outputs will be tested in pre-defined **'project study areas'** in Austria, Germany, Denmark, Poland, Italy, France and the UK while distinguishing between **'lighthouse-'** and **'challenge regions'***

- *We invite energy suppliers, communities and municipal energy planners from all across Europe to become a **'follower study area'** of SAPHEA and test the developed tools and to support fact finding missions*

- *SAPHEA furthermore aims at building up a **network of competence and interest** on the use of geothermal energy in heating and cooling networks in Europe – we offer various physical and digital activities to get involved into **fact finding and knowledge transfer missions** for improving the framework of 'geoHC networks' in Europe*

- *SAPHEA will further capitalize the existing, pan European research network of the EU COST Action **'Geothermal-DHC'** – for more information please visit www.geothermal-dhc.eu*

Contact

For more information on SAPHEA and your possible involvement into the project, please contact the coordinator, **Gregor Goetzl** (Geological Survey of Austria), at gregor.goetzl@geologie.ac.at.