Invitation to the first Geothermal-DHC regional cluster workshop

"Geothermal energy – unleashing the potential of supplying district heating and cooling networks in the Baltics"

Date and time of the workshop: 30th of September 2022, 09:00 – 17:00 (local time)
Location: Zundes krastmala 8, Riga, Latvia
Registration: https://form.jotform.com/221452253131341

About the workshop

Geothermal energy offers many advantages for the clean and sustainable energy transition by covering the demand of low temperature heat 10°C up to 150°C. Geothermal energy is a long-term stable and reliable heat source providing high system efficiencies and low surface space occupation. However, the overall share of geothermal inside the H&C market is still less than 2%, and in the Baltics almost negligible.

Our workshop focuses on a science to policy and industry dialogue on the opportunities and prevailing barriers towards a better integration of geothermal energy in multivalent heating and cooling networks at various temperature levels. These sessions will cover presentations regarding the state of the art in the Baltic countries and sharing the experience and consultancy on the introduction of geothermal energy followed by a moderated panel discussion focusing on strategies and needed measures to better integrate this technology into the DHC market in the Baltic region. Event will be held in a hybrid mode (in person and online).

Preliminary program of the workshop

9:00 – 9:30	Opening of the venue, registration and get together
9:30 – 9:45	**Opening of the workshop and welcome addresses** Riga Technical University, Aleksandrs Zajacs COST Action Geothermal-DHC: Gregor Goetzl (chair)
Morning session – international lectures on low temperature heating and cooling grids in context of (shallow) geothermal energy	
9:45 – 10:10	Introduction to low-temperature heating and cooling grids (5G DHC) in the context of shallow geothermal energy use, **Rao Martand Singh (NTNU, Norway)**
10:10 - 10:35	Main conclusions from the IEA DCH TS2 Guidebook on low temperature district heating implementation, **Kristina Lygnerud (IVL / Lund University, Sweden)**
10:35 - 11:00	Geothermal DHC lighthouse projects at low-temperature levels (5GDHC) in Denmark**, Soren Skjold Andersen (Termonet, Denmark)**
11:00 - 11:30	**Coffee break and poster session 30 min**
11:30 - 11:55	Current developments and boundary conditions for the implementation of low temperature heating and cooling networks in Germany, **Ruediger Grimm (geoENERGIE Konzept GmbH, Germany)**

11:55 - 12:20	Economic aspects and business models with focus on DHC networks, **Peter Anderberg (Heat Academy, Sweden)**
12:20 - 12:30	**Final Q&A round,** Moderator, all presenters of the morning sessions
12:00 - 13:30	**Lunch break**
Afternoon session: Regional knowledge exchange workshop - the possible future role of geothermal in low temperature heating networks in the Baltics	
13:30 - 13:35	Welcome address to the afternoon session
13:35 - 13:55	Introduction keynote on the current situation of the heating & cooling sector in the Baltic Regions - state of DHC in the Baltic region, **Anna Volkova (TalTech, Estonia)**
13:55 - 14:15	Geothermal potential in Baltic region (temperatures, properties of rocks, reservoir characterization), **Alla Shogenova (TalTech, Estonia)**
14:15 - 14:35	Geothermal situation in Estonia - state of the art, **Alvar Soesoo (TalTech, Estonia)**
14:35 - 15:05	**Coffee break and poster session**
15:05 - 15:25	Barriers and Opportunities for Geothermal Energy in Lithuanian District Heating Networks, **Rokas Valančius (KTU, Lithuania)**
15:25 - 15:45	Transformation of the energy market and diversification of the source**s, Prof. Olegs Linkevičs (JSC Latvenergo, Latvia)**
15:45 - 16:05	Challenges for the existing gas transmission & storage infrastructure and development of new business opportunities, **Dr. Ivars Ščerbickis (JSC «Conexus Baltic Grid», Latvia)**
16:05 - 16:50	**Panel discussion:** "*Pathways to introduce geothermal energy supported DHC networks and use of geological potential in heating sector*" All speakers will be involved.
16:50 - 17:00	**End of the workshop – farewell**

** Topics might be subject to change*

Participating at the workshop is free of charge.

Contributions from Baltic region countries* are encouraged! The contribution can be in form of poster or oral presentation and must be related to the topic of "Geothermal energy use for heating and cooling in the Baltic region". Number of accepted applications is not limited. Certain budgetary constraint for reimbursement of travel expenses will be considered after the end of registration period. Abstracts can be submitted in the registration form and will be collected until **9 September 2022**.

*Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Sweden

Linked event: 5th International Conference "Innovative Materials, Structures and Technologies" (IMST 2022), 28 – 30 September

This workshop is a side event to the 5th International Conference "Innovative Materials, Structures and Technologies" (IMST 2022) organized by Faculty of Civil Engineering of Riga technical University on 28th-30th September 2022 - https://imst.rtu.lv/important-dates/. All accepted abstracts will be included in the printed conference abstract book. Full papers will be peer-reviewed, and the accepted papers are planned to be published in IOP Conference Series: Material Science and Engineering indexed by SCOPUS and Web of Science.

Conferences participation fees starts from 250 Euro.

Registration to the 5th International Conference "Innovative Materials, Structures and Technologies": https://imst.rtu.lv/registration-to-imst2022/