

# Accelerating the Heating and Cooling Transition



Joint Call 2021  
Kick-off meeting of granted projects

Project presentation pitch

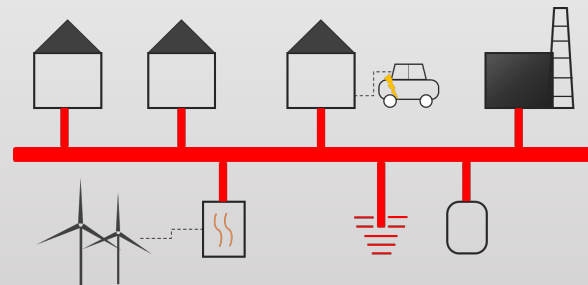
17 November 2021





# GeoCoHorT

*"Geothermal Community Heat Technology and Transfer"  
Accelerating 4GDH by demonstrating integration with shallow  
geothermal*



# Intro

- The project leader:
  - Valentina Zaccaria, Associate Professor
  - Mälardalen University (Sweden)
- The consortium:
  - Micro Energy Generation Association – NGO (Ireland)
  - Tyndall National Institute IERC/ University of Cork (Ireland)
  - National Energy Technology Laboratory – U.S. Department of Energy (U.S.A.)



# Scientific Challenges

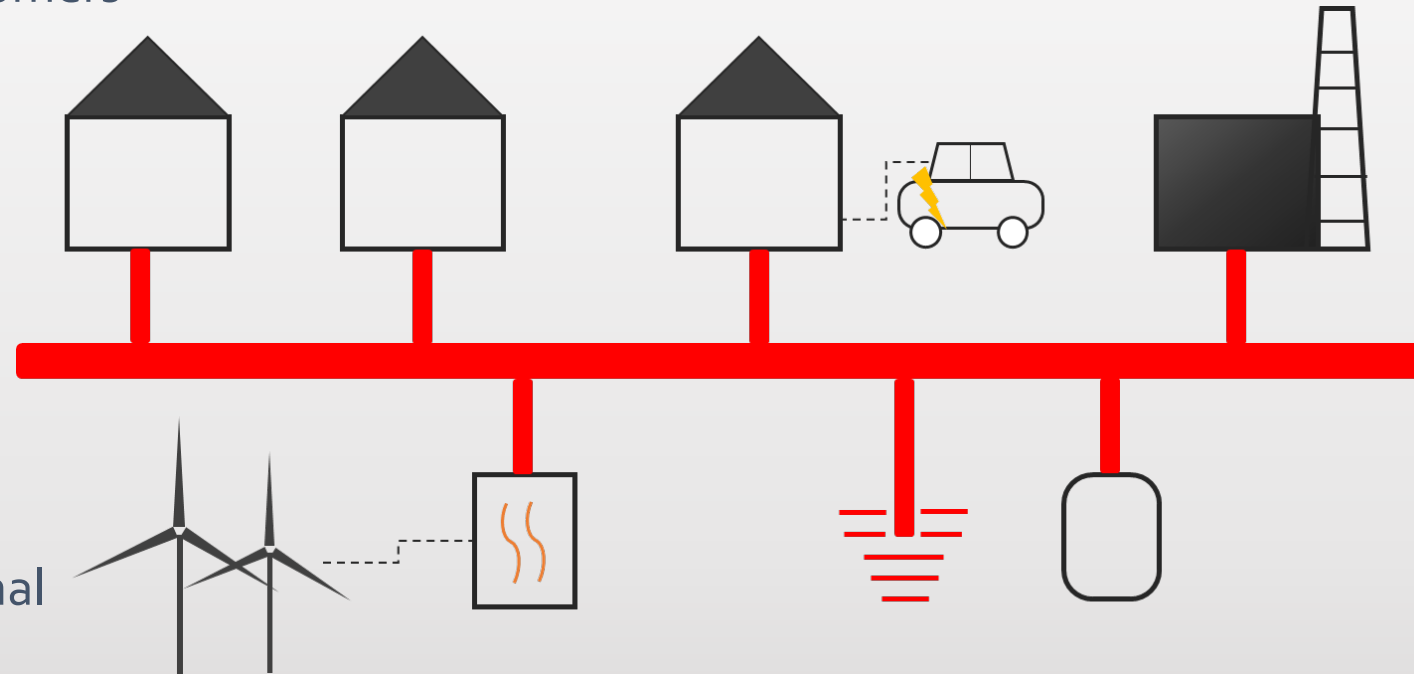
WHAT?	WHO?	HOW?
Rivers/lakes temperature rise due to global warming	Community	Extract and recover heat
Exploitation of low temperature non-conventional heat sources	Heat sector	Heat pump assisted 4th gen district heating
Integration of prosumers in the DH network	Consumers & utility sector	Flexible energy storage solutions
Limited renewable heat and sustainability in the heat sector	Heat sector	Micro-grid solutions and planning tools

# Solution to be provided

- Micro district heating network demonstration and prosumers analysis

- Integration of waste heat sources
- Optimization tool for community planners and utility sector

Matching tool



- Extraction of geothermal heat from the river
- Heat pump powered by intermittent renewable energy (flexible storage)