GEOTHERMAL DISTRICT HEATING

PERSPECTIVES FROM THE INDUSTRY
Decarbonisation of the heating & cooling market is one of the biggest challenges ahead of us.
DISTRICT HEATING

Why are we interested in it?

Where is the infrastructure?

Role of geothermal?

~400Gwt heat supplied through DH systems

Werner, 2017
DOMINANT COUNTRIES

China

Russia

Europe

Werner, 2017
Well established countries regarding Geothermal in DH:
- China
- Turkey
- Iceland
- Germany
- France
- Hungary

Newcomers regarding Geothermal in DH:
- Croatia
- Serbia
- Finland
- Denmark
- NL

IGA, World status update, 2020
WORLD GEOTHERMAL CONGRESS

has been postponed

to May 21 - 26, 2021

For more info
OUR GEOTHERMAL SECTOR IN NUMBERS

ACTIVE IN 94 COUNTRIES

CREATED 100 000 JOBS (IRENA2019)

~ 300 POWERPLANTS IN 35 COUNTRIES

15GWE INSTALLED CAPACITY (2019)

75GWT INSTALLED CAPACITY (2019)
GEOTHERMAL ENERGY
DIRECT USE CAPACITY – MW THERMAL

Source: TGE Research (2020)
HOW MUCH GW THERMAL INSTALLED IN DH SYSTEMS?

Direct use (Gwt)

IGA, World status update, 2020
``barriers and solutions to achieve a decarbonised heating and cooling systems``
INDUSTRY PERSPECTIVES

- Heat is local
- National / regional drivers
- Unclear business cases due to varying market conditions

HEAT SUPPLIERS

- 80% Public
- 20% Private

IGA, Bonn, 2020
INDUSTRY NEEDS

LEGISLATION
REGULATION
STANDARDISATION
AWARENESS

"FROM ROCK TO RADIATOR"
LET'S TAKE A LOOK AT THE EUROPEAN GREEN DEAL

EU Bill – ensure legislative framework
EU Budget – ensure capital
EU Strategy - `From ... to ....`

‘‘Working with member states is key: national strategic plans for agriculture should fully reflect the ambition of the #EGD and the Farm to Fork Strategy’’ says von der Leyen (President EC)
WE NEED A (GLOBAL) STRATEGY

- **LEGISLATION**
  - Is Heat Mined? Is geothermal renewable? Licenses, permitting

- **REGULATION**
  - Role of the regulator? Are there regulations?

- **STANDARDISATION**
  - Improve data collection. Set international standards.

- **AWARENESS**
  - Capacity-building. Training.
Standardized way of collecting global geothermal power and heat data.

The IGA Geothermal Ambassador Programme is aimed at robust and engaged data collection. By using the local to local approach, the national individual or group country representatives collect and analyze the state-of-the-art data. To ensure the high data quality a peer-review process is implemented.

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Classification of resources is the basis on which coherent and reliable energy policies are formulated by governments to sustainably manage their resources. Classification also makes it easy for industry players to assess natural resource prospects, and to appropriately allocate capital.

For geothermal energy, the IGA works with IRENA, World Bank Group and the UNECE to deploy the UNFC geothermal specifications as we have now a comprehensive system that provides coherent, reliable and globally comparable data (www.lovegeothermal.org/unfc)
``we will achieve a decarbonised heating and cooling systems with a coherent strategic roadmap that allows industry to live up to its expected role as a technology enabler of the energy transformation requirements``
THANK YOU FOR ENGAGING

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