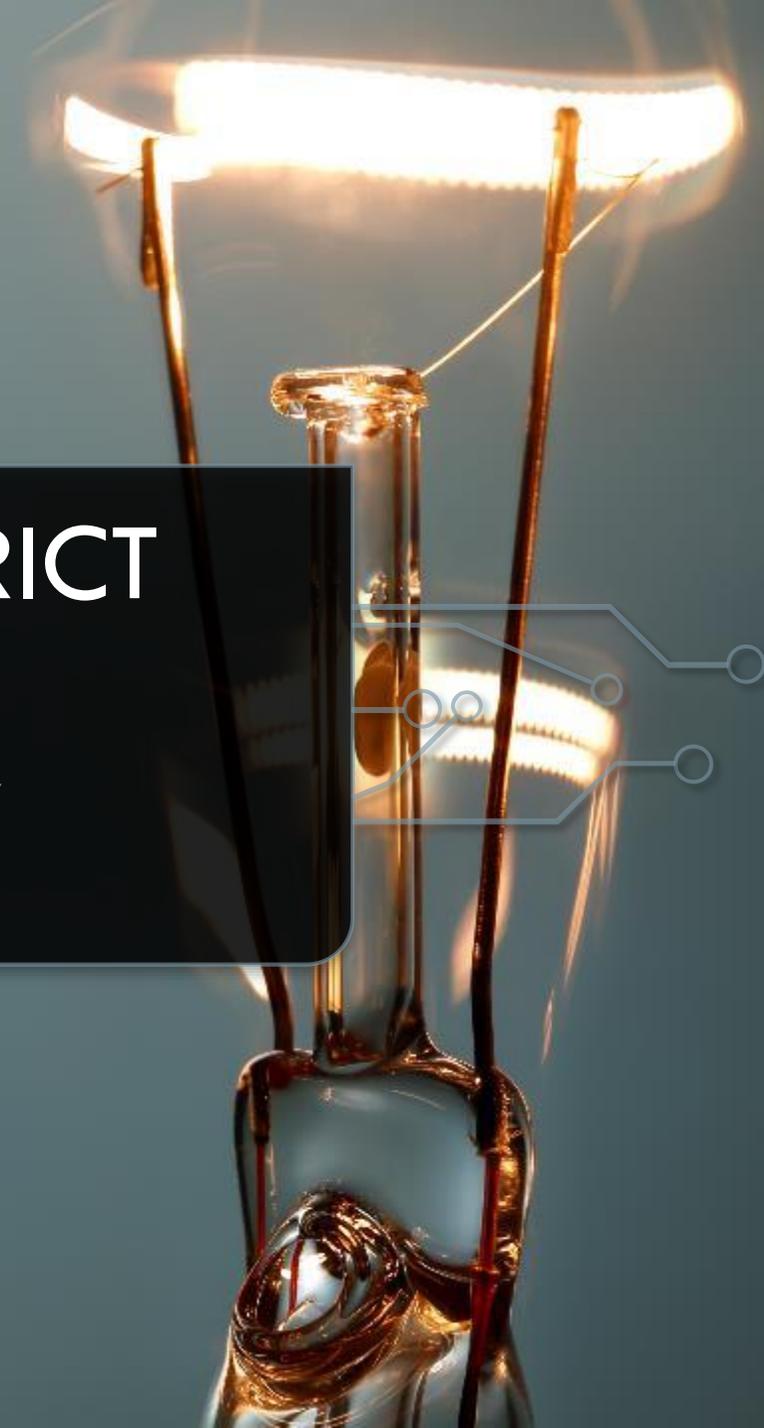




GEOHERMAL DISTRICT HEATING

PERSPECTIVES FROM THE INDUSTRY



#SDG7



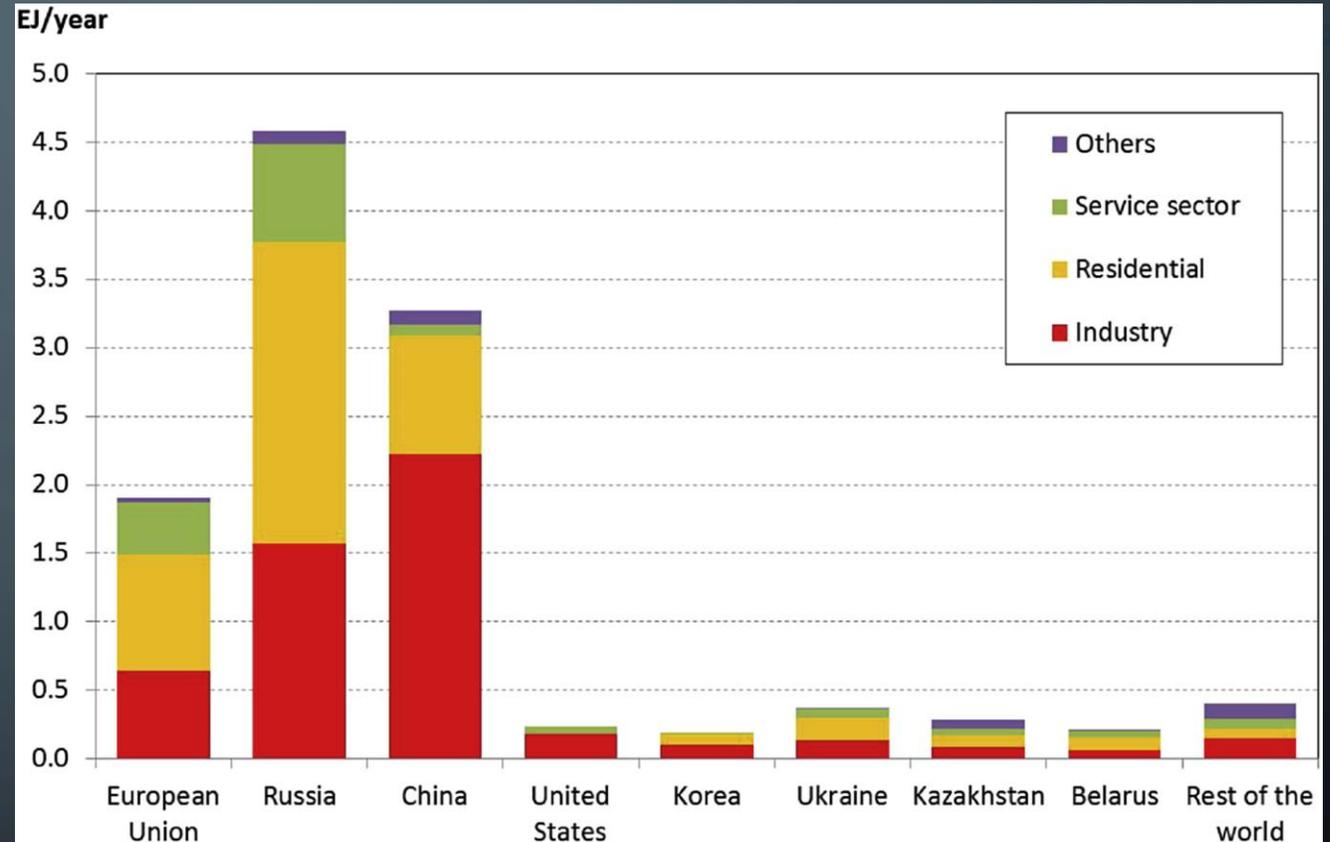
“Decarbonisation of the heating & cooling market is one of the biggest challenges ahead of us”

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

GEOHERMAL DISTRICT HEATING

China

Turkey

Iceland

Germany

France

Hungary

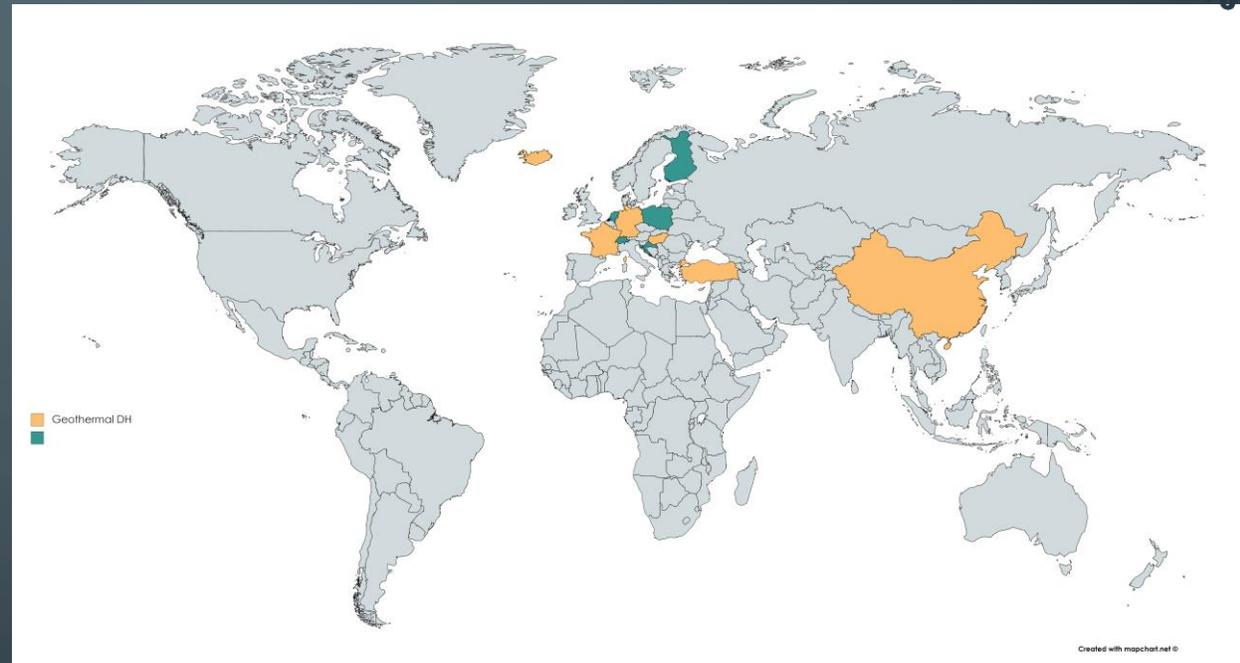
Croatia

Serbia

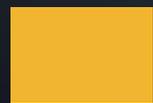
Finland

Denmark

NL



IGA, World status update, 2020



Well established countries regarding Geothermal in DH



Newcomers regarding Geothermal in DH

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)

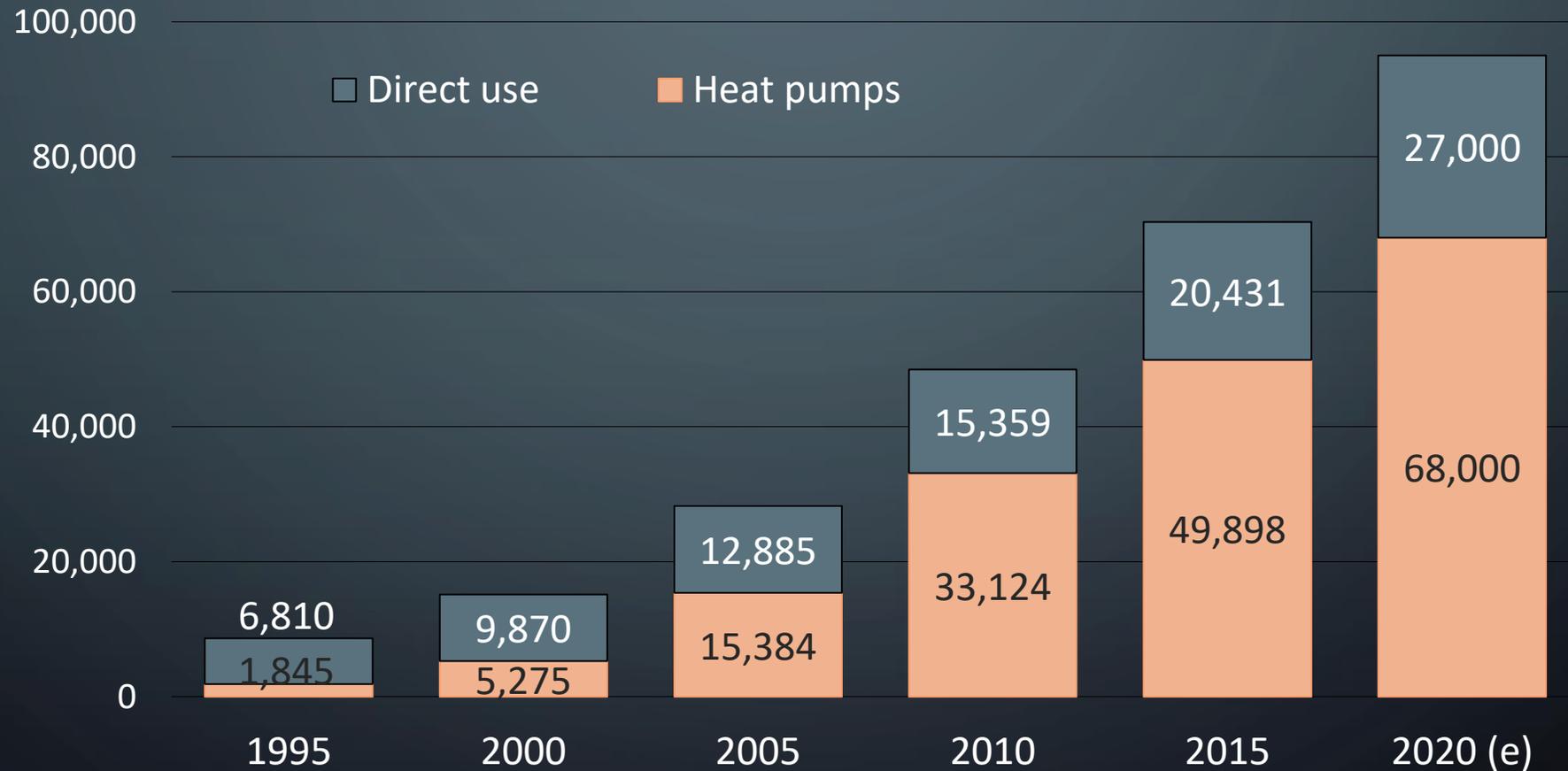
~ 300 POWERPLANTS IN 35 COUNTRIES

15GWE INSTALLED CAPACITY (2019)

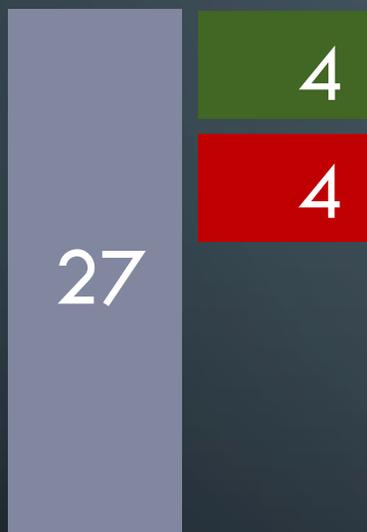
75GWT INSTALLED CAPACITY (2019)



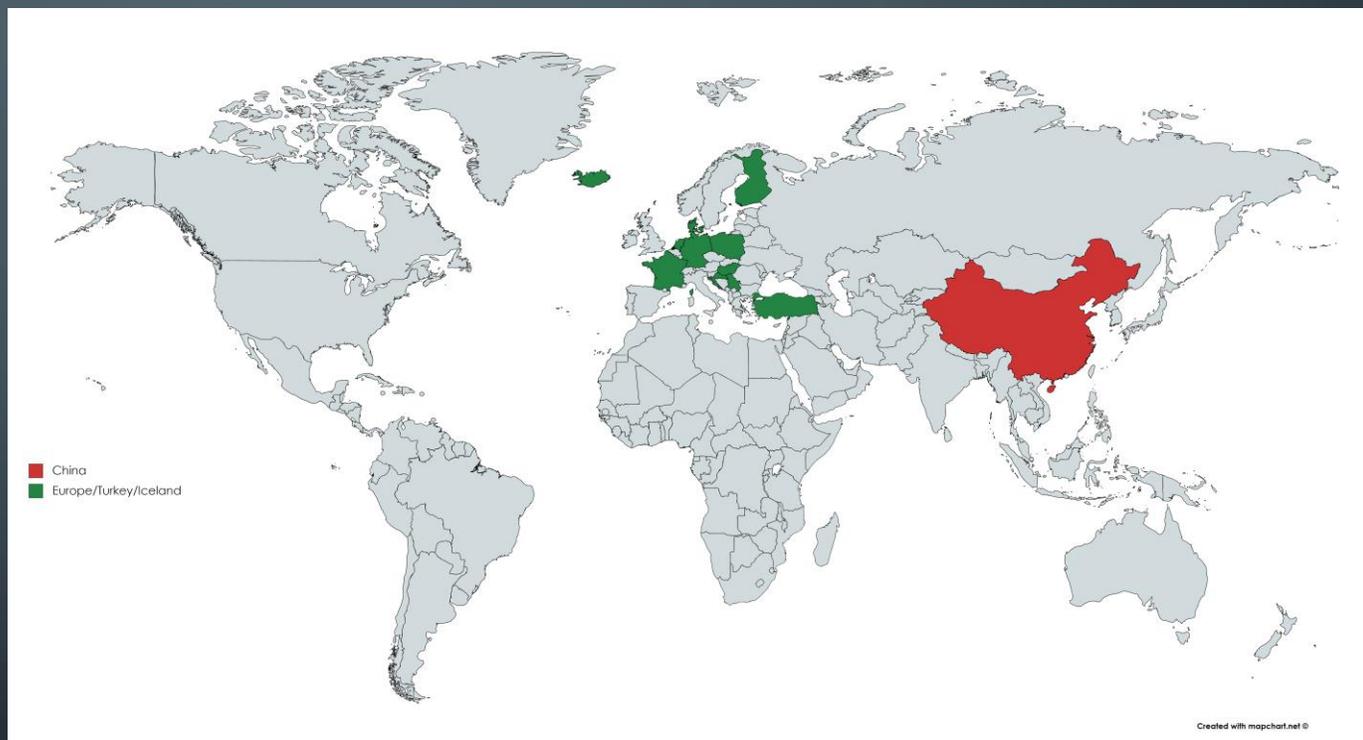
GEOHERMAL ENERGY DIRECT USE CAPACITY – MW THERMAL



HOW MUCH GW THERMAL INSTALLED IN DH SYSTEMS?



Direct use (Gwt)

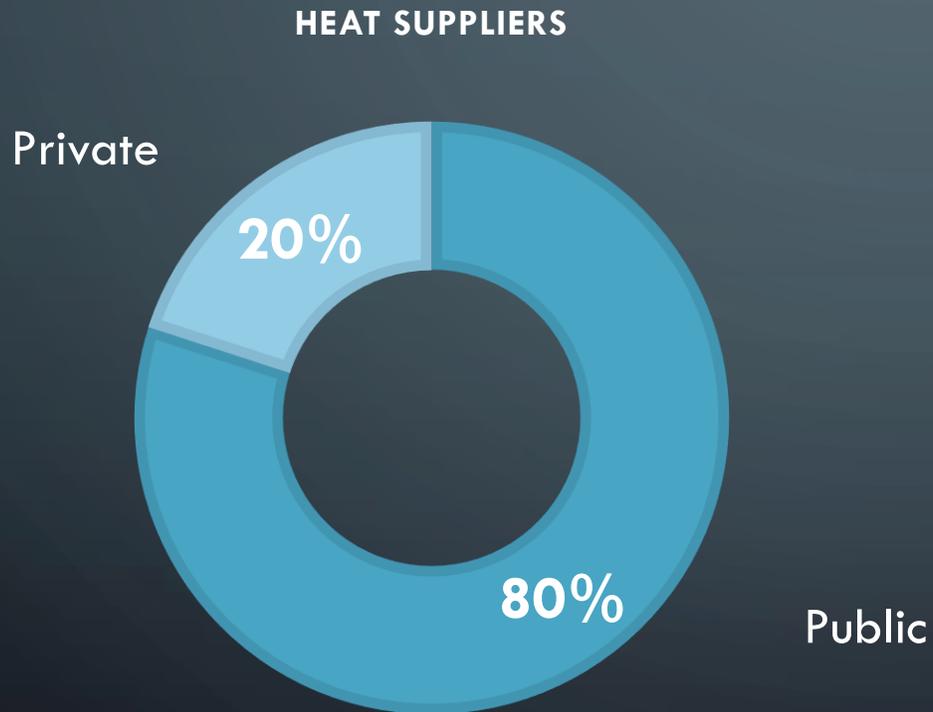


#SDG7



``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

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 ...'

From Farm to Fork

The European Green Deal

December 2019
#EUGreenDeal

European food must remain safe, nutritious and of high quality. It must be produced with minimum impact on nature.

In EU budget 2021-2027

- **40%** of Common Agriculture Policy should contribute to climate action
- **30%** of the maritime fisheries fund should contribute to climate objectives

In spring 2020, the Commission will present a Farm to Fork Strategy to:

-  make sure Europeans get affordable and sustainable food
-  tackle climate change
-  protect the environment
-  preserve biodiversity
-  increase organic farming

“ 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.

IGA Geothermal Ambassadors



STANDARDISATION

Standardized way of collecting global geothermal power and heat data.

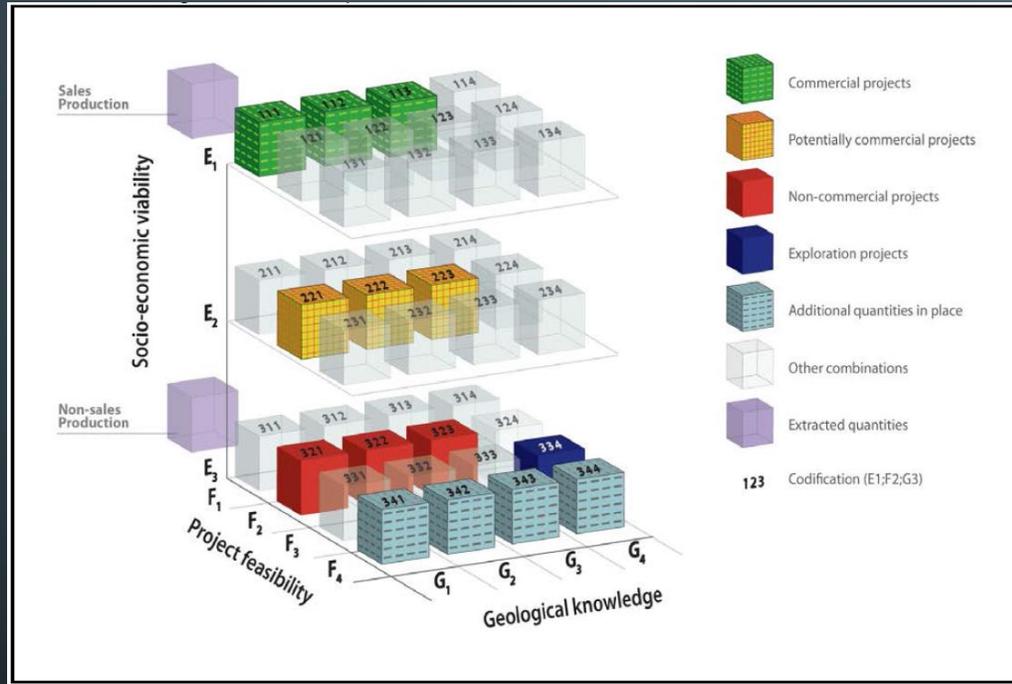
The IGA Geothermal Ambassador Programme is aimed at robust and engaged data collection. By using the local to local approach, the national individual or group country representatives collect and analyze the state-of-the-art data. To ensure the high data quality a peer-review process is implemented.

*

UNFC PILOT PROJECT



STANDARDISATION



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)

#SDG7



“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

CONTACT DETAILS

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