Main achievements towards implementing geothermal risk mitigation schemes in GEORISK partner countries

**Poland** 

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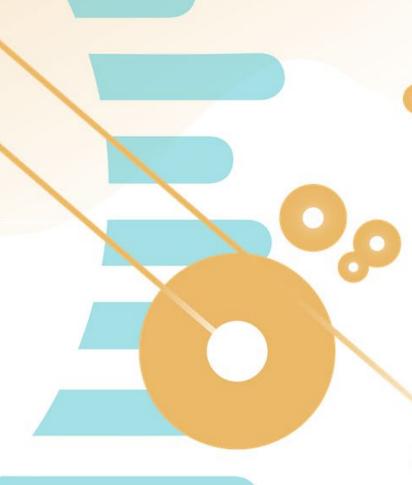
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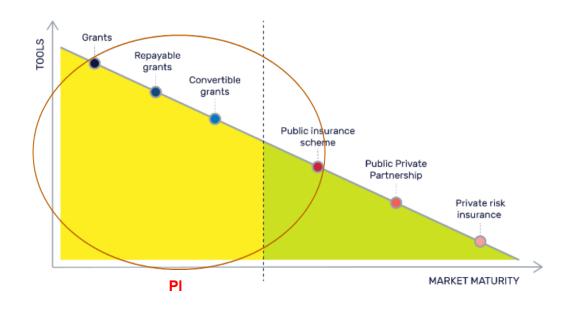


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## Poland – a two-track situation of geothermal energy market



### 1. Six geoDH installations operating for many years (since 1993–2013):

=> Need to consider a support / RMS in a form of public risk insurance fund (short-term, e.g. next exploitation drillings; long-term for operation stage)

### 2. Several – a dozen geothermal installations at initial development stages:

=> Public support (grants, loans) relevant to early development stage introduced gradually on a wide scale, 2016 -2021. Main beneficiaries: local governments, some other entities. Do not meet all needs and types of particular investors / operators active for many yrs => time to consider geothermal risk insurance fund (short-, long-term). Later, such GRIFS will be of purpose also for installations constructed thanks to current public support



# Poland – key role of several public support priority programs to accelerate geothermal projects development (heating / cogeneration) – 2016 – 2021

- Geology and mining [...]: ~15 exploration wells drilled
- Polska Geotermia Plus: drilling 2<sup>nd</sup> well; extension, retrofitting geoDH; construction new geoDH, CHP, power plants
- Accessing geothermal waters in Poland, 2020-2025, Aug 2021: decisions on funding 15 wells, 240 mio PLN / €55 mio
- FM European Economic Area, by March 2021: Constructing heat sources using geothermal energy

Total (grants, loans): > 1 billion PLN (2016-2021)\* to accelerate geothermal investments on a juvenile market. Beneficiaries: local governments (mainly), other entities



Coming years – expected connecting geothermal to next district heating systems

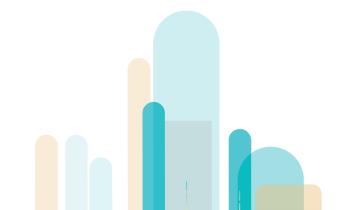
These programs act also as kinds of RMS (short–term) for first geothermal research / exploration drillings (beneficiaries / specially local governments bear almost no risk in case of negative well)

Investors other than LGs are eligible for loans (grants+partial loans).

Not all needs can be covered by these programs: for operating geoDH => GRIF is more and more necessary - the long-term operational / resource / technical risk, also short-term GRIF is of purpose (as pointed out for yrs)

## Need to establish a short / long term GRIF – feedbacks from operators, potential investors cooperating with IGSMiE PAN team

"To accelerate the geothermal energy market development and to attract more investors it is necessary to introduce gradually relevant types of supportive measures / RMS incl. grants, loans and than Geothermal Risk Insurance Fund" (following e.g. the GEORISK proposals)





## Main Project achievements towards implementing geothermal RMS in Poland

- Risk Register for geothermal projects
- Overview, lessons learnt and best practices of RMS in Europe (France, the Netherlands, Hungary)
- Framework proposal how to establish a geothermal risk insurance fund in Poland
- Results of 10 yrs operational and financial simulation of proposed GRIF
- GEOriskREPORT online tool
- Cooperation with outstanding experienced experts and operators (=> justifying the need to establish a GRIF)
- Raising a RMS / GRIF topic once again among key decision-makers and stakeholders, providing concrete arguments and proposals
- Effect => GRIF included e.g. into proposed geothermal roadmap for Poland by 2040, NRP (under elaboration in the Ministry of Climate and Environment, consultations expected)
- Decision-makers await for key Project outcomes



## **Closing remarks**

- GEORISK one of the most important EU "geothermal" projects: aimed to create an overall environment facilitating the acceleration of geothermal energy development in many countries
- GEORISK provided consistent background and RMS/GRIF proposals to create proper conditions for the long-term stable geothermal investments and its acceleration in Poland (after necessary adaptation to legal, administrative and formal regulations – national, EU)
- It is important that decision-makers take advantage of our proposals.
  There are indications that it is and will be so.





