



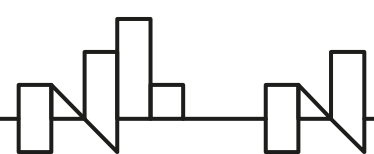
**Mineral and Energy Economy
Research Institute
Polish Academy of Sciences
(MEERI PAS)
Kraków, Poland**

**Technical study visits and stakeholder consultations in
Hungary and Slovakia**

**Szeged-Galanta-Velky Meder-Bratislava-Budapest,
9 - 12 May 2023**

Mission of MEERI PAS

- ❑ Mineral and Energy Economy Research Institute was established in 1986 in Krakow as a constituent unit of the **Polish Academy of Sciences**
- ❑ Highly interdisciplinary research activity of MEERI PAS in the area of **minerals and energy management** covers such subjects as: mining, geology, **renewable energy sources**, power and **thermal engineering**, environmental engineering, supplemented by issues related to **economics**, law, geophysics, chemical engineering, materials science, processing engineering.
- ❑ Mission of the Mineral and Energy Economy Research Institute, Polish Academy of Sciences is to deliver modern, economic, ecological and social solutions serving **sustainable development** of Poland and its regions in the **area of minerals and energy**



MEERI PAS in numbers

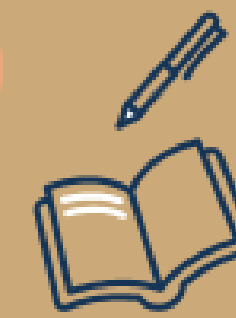
OVER
35
YEARS
OF ACTIVITY



HIGH
ACADEMIC STANDING
OF THE INSTITUTE

CATEGORY A IN
A PARAMETRIC EVALUATION
OF SCIENTIFIC UNITS

APPROXIMATELY
150
SCIENTIFIC
PUBLICATIONS
PER YEAR



100 RESEARCH PROJECTS
AND COMMERCIAL
CONTRACTS
CARRIED OUT EACH YEAR

INCLUDING
20
INTERNATIONAL
PROJECTS

MORE THAN
120 EMPLOYEES



INCLUDING ABOUT
60 PERSONS
OF SCIENTIFIC STAFF



THE INSTITUTE'S
SCIENTIFIC:

5 DEPARTMENTS
CONSISTING
OF SEVERAL DIVISIONS

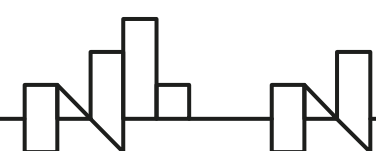


OVER
60

DOMESTIC
AND FOREIGN
RESEARCH UNITS,
IN COOPERATION

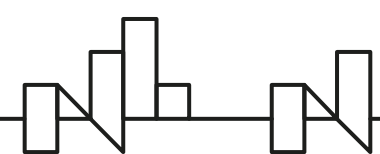
THE INSTITUTE CARRIES OUT
RESEARCH FOR MORE THAN

100 BUSINESSES IN POLAND AND ABROAD



The most important MEERI PAS achievements in the field of geothermal energy

- Design and constructing the Poland's first experimental geothermal plant Bańska - Biały Dunajec,
- The first in Poland reconstruction of existing deep well Mszczonów IG-1 for heating purposes,
- Methods and assessment of the environmental effects of RES' usage,
- Elaboration the guidelines to improve the injectivity of reservoir rocks while injecting geothermal waters in Polish geothermal plants,
- Structural and digital models of the subsurface structure of many geostructural basins in Poland,
- Numerical modelling of heat and mass flow in the geothermal reservoirs,
- Mathematical modelling of energy systems (direct use of geothermal systems), the optimal management of geothermal waters to obtain heat and electricity in selected area of Podhale,
- Elaboration an atlas of geothermal waters for the combined electricity and heat generation applying binary systems in Poland,
- Effective use of geothermal water and energy, ex. for heating, balneotherapy, wood drying, agriculture, fish farming and drinking water production on the basis of cooled geothermal water (using membrane processes),
- Demonstrating cascade use of geothermal energy.



Development of MEERI PAS

- ❑ Project entitled „Centre for Sustainable Management of Minerals and Energy is currently being implemented by MEERI PAS and co-financed from the Regional Operational Programme of the Małopolska Province 2014-2020 (EU Funds), with total cost of over 27 milion PLN
- ❑ By April 2023, a new MEERI PAS office building and laboratory will be constructed in Kraków, together with 3 new Laboratories and development of 2 existing Laboratories (including Geothermal Laboratory in Bańska Niżna – Podhale region)
- ❑ In Geothermal Laboratory, new borehole thermal energy storage (BTES) will be constructed, powered by heat from solar collectors and own geothermal borehole, and existing research stand for geothermal water treatment will be developed



Future MEERI PAS building in Kraków



Future look of MEERI PAS Geothermal Laboratory in Bańska Niżna, Podhale region

