Management board of the Institute

Krzysztof Galos
D. Sc., Eng., Associate Professor,
Director of the Institute

Lidia Gawlik
D. Sc. Eng., Associate Professor,
Deputy Director for Science

Michał Kopacz
Ph.D., Eng.,
Deputy Director for General Affairs
30 years of activity

Over 100 employees, including about 50 persons of scientific staff

Approximately 150 scientific publications per year, including over 30 at JCR list

50 cooperation with several foreign and over 30 domestic research units

High academic standing of the Institute (category “A” in a parametric evaluation of scientific units)

The Institute’s scientific

4 departments, consisting of several divisions

90 research projects carried out each year, including 5-10 international projects

The Institute carries out research for more than 100 businesses in Poland and abroad
From tradition to modernity

The idea of establishing the Mineral and Energy Economy Institute, Polish Academy of Sciences (MEERI PAS) dates back to the 1980s.

In 1986, the Department of Basic Research on Mineral Management was founded, transformed two years later into the Centre for Fundamental Problems of Mineral and Energy Management of the Polish Academy of Sciences.

From 1986 to 2004, the Director of the Institute was Prof. Roman Ney; from 2005 to 2016, it was Prof. Eugeniusz Mokrzycki and, since 2017, it has been Ass. Prof. Krzysztof Galos.

At present, the Institute is an important research and development institution, contributing to scientific and research progress in the field of mineral and energy management, in Poland and abroad. In the last parametric evaluation of scientific units, the Institute was awarded the “A” category.

It is worth mentioning that the Institute also houses three laboratories:

- Geothermal Laboratory in Bańska Biały Dunajec,
- Laboratory of Engineering Geophysics,
- Environmental Research Laboratory.

1986
The Department of Basic Research on Mineral Management of the Polish Academy of Sciences

1988
The Centre for Fundamental Problems of Mineral and Energy Management of the Polish Academy of Sciences

1998
Mineral and Energy Economy Research Institute, Polish Academy of Sciences

2016
30 years’ anniversary of the Institute foundation
The mission of the Institute is to provide modern, economically viable, environmentally friendly and socially attractive scientific solutions for the sustainable development of the country and its regions in the field of minerals and energy.

This mission is implemented under the motto:

MINERALS AND ENERGY FOR SOCIETY

This is delivered through rationally designed actions and interrelated research, as well as organizational, technical and economic activities, in the following areas:

RESOURCES - TECHNOLOGIES - ECONOMICS
- MARKET - ENVIRONMENT

In a scientific triangle:

RESEARCH - INNOVATION - EDUCATION
Diamonds of the Institute

The most valuable capital of the Institute is its employees, whose number currently exceeds 100.

The scientific staff consists of 45 employees, including:

- 7 Professors,
- 12 Associate Professors,
- 11 Adjunct researchers,
- 15 Assistant researchers.

The other employees provide scientific, technical and administrative support to the scientific staff. Very high expertise of our employees is supplemented by many years of experience in the implementation of research and development.

The substantive competence of our employees is systematically developed in the course of applied research, research and development, training and through active contacts with entrepreneurs, inscribed in the specifics of the activity of our Institute.

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<td>Doctors Ph.D.</td>
<td>Master's degrees M.Sc.</td>
<td>Others</td>
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Minerals and energy for society

The research carried out at the Institute are characterized by interdisciplinarity and their complex character. They cover a full cycle of R&D processes - from basic research to application, with a particular emphasis on their usefulness.

The interdisciplinary nature of the Institute's activities includes in particular such disciplines as:

- Mining and geoengineering,
- Geology,
- Power engineering,
- Environmental engineering,
- Geophysics

and issues related to: economics, law, chemical technology, process engineering, materials engineering and cartography.

The scientific profile of the Institute includes the broadly understood issues of mineral and energy management, starting with the forecasting, identification and exploration of mineral deposits, through their development and the acquisition of raw materials, and ending with processing, enrichment and recovery processes. Research and development activities include also different aspects of the strategy development and assessment of the domestic mineral and energy management, taking into account the newest technological developments and market, environmental, social and legal conditions. The current scope of statutory research covers six basic thematic areas, as shown in the diagram.

The Institute specializes in basic studies and applied research in the field of geothermal energy. It is worth emphasizing that our employees pioneered the use of geothermal energy for heating. Within the framework of the Institute's activities, the first Polish experimental geothermal plant in Bańska-Biały Dunajec was launched in 1993. As of today, this installation is also used as a geothermal laboratory.
Excellence in science

Focusing on the scientific development of the employees is a key element in many of the initiatives implemented by our Institute, that aim to bridge the generational gaps and support the development of researchers.

It is worth emphasizing that persons under the age of 35 make up about 40% of the total number of employees.

In the field of scientific excellence, the Institute implements supportive actions:

- Supporting the completion of doctoral and postdoctoral dissertations
- Promoting extraordinary publications
- Recruitment of young researchers
- Promoting extraordinary publications
- Recruiting the completion of doctoral and postdoctoral dissertations

The quality and the scientific level of our employees are verified by the internal staff appraisal system, which promotes self-development within a specific career path. It is also worth mentioning that, for several years, the Institute has also been a member of the Euraxess Researchers in Motion network, thus supporting researcher mobility and dissemination of knowledge in Europe.

The efforts of our Institute were recognized by the European Commission, which, after analysing our overall personnel policy, and as a result of the implementation of the Commission’s guidelines contained in the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, awarded us the prestigious HR Excellence in Research in 2017, confirming that the Institute carries out its scientific work to the highest quality.

Young People in Science

Within the framework of cooperation with universities, the Institute is involved in the organization of scientific internships and placements, providing development opportunities for future researchers. Every year, the Institute is visited by several students, including those pursuing a Ph.D., who wish to develop their academic interests. The best of them are given the opportunity to work in our unit.
Scientific achievements in numbers

In the course of 30 years of activity, the Institute has systematically built up its reputation as an important centre, shaping scientific progress in the area of its main activity in both Poland and abroad.

We are satisfied that the number of scientific publications by our employees is growing, reaching an average of almost 150 publications per year. The number of publications listed in Journal Citation Report (JCR), which is of particular importance in the international arena, is also increasing; 31 articles by employees of the Institute were published in JCR journals in 2016. Over 35% of them are publications with more than 25 points awarded by the Ministry of Science and Higher Education. The number of monographs published in both Polish and English is also significant (several works per year).

Statistics of publications of MEERI PAS employees in 2013-2016

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<th>ITEM</th>
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Publications of MEERI PAS employees in 2009 and 2016

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<tr>
<td>CHAPTERS IN MONOGRAPHS</td>
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<td>35</td>
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</tbody>
</table>

Number of publications of MEERI PAS employees in JCR journals from 2012 to 2016

Statistics of JCR publications according to points awarded by Ministry of Science in 2013-2016 years

- 15 PTS 24%
- 20 PTS 40%
- 25 PTS 8%
- 30 PTS 7%
- 35 PTS 9%
- 40 PTS 6%
Dissemination of science

The Institute has its own publishing house, that issues scientific journals, monographs and book series.

Among the scientific journals, the quarterly published Gospodarka Surowcami Mineralnymi - Mineral Resources Management, is indexed in the Web of Science. In recent years, the score for this journal, according to the Ministry of Science and Higher Education, was in the range of 15-20 points, while the impact factor oscillated between 0.5 and 0.6.

Other scientific journals available to Polish and foreign scholars are:

- Polityka Energetyczna - Energy Policy Journal: 10 points - according to the Ministry of Science and Higher Education,
- Zeszyty Naukowe IGSMiE PAN - Bulletin of the Mineral and Energy Economy Research Institute, Polish Academy of Sciences (published irregularly): 9 points - according to the Ministry of Science and Higher Education,
- Technika Poszukiwań Geologicznych, Geotermia, Zrównoważony Rozwój - Geological Exploration Technology, Geothermal Energy, Sustainable Development (semi-annual): 6 points - according to the Ministry of Science and Higher Education.

Since its foundation, the publishing house has developed and published its own publishing book series, including Studia Rozprawy Monografie - Studies, Dissertations and Monographs (over 200 volumes since 1988) and Surowce Mineralne Polski - Mineral Raw Materials of Poland (12 volumes since 1996). In addition, the publishing house publishes monographs (scientific publications of the employees of the Institute and, to a lesser extent, employees of universities and other research institutes).
Domestic and foreign cooperation

Research and development activities are an important aspect of the functioning of the Institute. Over the last four years, our institution has carried out nearly 300 research and development projects, including:

- Nearly 25 key international projects,
- About 20 major domestic projects,
- 180 research services for Polish business entities,
- 75 studies for governmental units and regional and local authorities.

The Institute receives funds from public and private sources by participating in the European Union Framework Programmes, using structural funds, grants and corporate funds. In recent years, the Institute has participated in about 40 international projects implemented through the combined efforts of science and industry.

Several of them were co-funded by the European Union and carried out by international consortia. Participation in international consortia creates a space for building and strengthening relationships with foreign partners and enables the transfer of knowledge and experience.

Cooperation with business entities is very important for the functioning of the Institute. The MEERI PAS is involved in the implementation of 50-60 research and development projects for business entities every year. The Institute’s portfolio is also enriched by three patents granted by the Patent Office of the Republic of Poland and the World Intellectual Property Organization.

We cooperate with both domestic and foreign scientific units, like from Germany, Ireland, the United Kingdom, Belgium, Spain, Portugal, France, Norway, Denmark, Greece, South Africa and the United States. Our industrial partners represent all of the major companies in the mining, mineral and energy sectors, as well as state offices and institutions, and the largest consulting companies. Our relationship with these entities is often confirmed by letters of intent and cooperation agreements.
At the crossroads of science and industry

Organizing and participating in congresses and conferences have been regular features of the Institute’s activities for many years. Our employees are involved in the organization of occasional international congresses and conferences and numerous national initiatives.

The most important of these are:

- **World Mining Congress,**
- **Polish Mining Congress,**
- **Polish Geothermal Congress,**
- **International Mining Forum.**

The Institute also organizes regular conferences:

- **Since 1979:** Zagadnienia Surowców Energetycznych i Energii w Gospodarce Krajowej (Issues of Fuels and Energy in the Domestic Economy),
- **Since 1990:** Aktualia i Perspektywy Gospodarki Surowcami Mineralnymi (Topicalities and Perspectives of Minerals Management),
- **Since 1992:** Szkoła Eksplatacji Podziemnej (School of Underground Mining),
- **Since 1997:** Warsztaty Górnicze - Zagrożenia Naturalne w Górnicztwie (Mining Workshop - Natural Hazards in Mining).

Occasionally, conferences on environmental issues, mineral resources, energy, waste, recycling, the low-carbon economy and the circular economy are organized. Conference materials, both in printed and electronic formats, are also available on conference websites, providing a valuable source of information.
Towards the future

The Institute’s mission is to continually develop our employees. We strive to make our institution a workplace where ethical values are respected. Our actions are aimed at increasing the scientific prestige of the Institute in both national and international research arenas.

We intend to pursue this mainly through:

- Creating favourable conditions for the development of scientific interests and knowledge transfer for all our employees,
- Cultivating and promoting ethical behaviour when performing scientific activities and creating a forum for the free exchange of ideas,
- Facilitating cooperation with other scientific institutions on research projects at a national and European level, in particular, in the field of innovative research on the broadly understood management of minerals and energy,
- Developing relationships with other scientific institutions and industry in the country and abroad through the joint implementation of research and development projects,
- Developing existing laboratory equipment and associated research and development services in the fields in which the Institute specializes,
- Constantly increasing the number of academic staff of the Institute, adjusted to ongoing and planned directions of research,
- Expanding the importance and prestige of journals published by the Institute in the international arena,
- Conducting systematic research and developing databases using modern information technologies,
- Disseminating scientific achievements and knowledge through the organization of conferences (especially cyclical) and the publication of dedicated, publicly available reports,
- Promoting educational activities by launching postgraduate and Ph. D. programmes in the scientific disciplines covered by the Institute.
Together, we can do more

The Institute is particularly interested in facilitating cooperation with academic institutions and enterprises through the implementation of joint projects.

We want to be optimistic about the future and build lasting relationships, based on the knowledge and experience of our employees.

The invitation to cooperate with the Institute is particularly addressed to:

- Entrepreneurs from the mining and energy industries,
- Universities and other research and development institutions,
- Young scientific workers, Ph. D. students and students from technical universities who are thinking about their own scientific development,
- Anyone else interested in mutual and fruitful cooperation.
Thanks to constantly developing competences among our employees, the Institute can offer knowledge and skills in the field of the mineral and energy economy, sustainable development, minerals and energy security in Poland, and waste management.

The Institute continues to develop competences in:

- Methods of forecasting, prospecting, identifying, exploring and classifying mineral deposits, their protection and rational management,
- Renewable energy sources, in particular, geothermal, hybrid and biomass sources,
- Geophysical studies on the assessment of the structure and properties of soil and rock mass,
- Minerals and energy policy,
- Methods for optimizing the management of the deposits, exploitation, enrichment and processing of minerals,
- The valuation of investment projects in the mining, fuel and energy sectors,
- The assessment of the formal, legal, technical, technological and environmental conditions of mineral resources acquisition,
- Research and forecasts of mineral and energy markets,
- The development of energy economy models, optimization using mathematical methods, and the assessment of the impact of national and international regulations on the fuel and energy sector,
- Life cycle analyses and environmental impact assessments,
- Recycling of scrap and waste materials,
- The assessment of the potential use of waste mineral raw materials and accompanying minerals,
- The assessment of the quality of the soil-water environment,
- Utilisation and reuse of substances using zeolites.

If you would like to cooperate with us, please visit our website:
www.min-pan.krakow.pl

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