

# **THE HUMAN RESOURCES STRATEGY FOR RESEARCHERS (HRS4R)**

**AT**

**THE MINERAL AND ENERGY ECONOMY RESEARCH INSTITUTE  
OF THE POLISH ACADEMY OF SCIENCES (MEERI PAS)  
WITH RESPECT TO THE PRINCIPLES OF THE EUROPEAN CHARTER FOR  
RESEARCHERS AND THE CODE OF CONDUCT FOR THE RECRUITMENT OF  
RESEARCHERS**

**ACTION PLAN FOR 2019-2022**

**Based on the internal gap analysis of the state of implementation of  
the principles of the Charter and Code at the MEERI PAS**

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# 1. Introduction

## 1.1. General information about MEERI PAS (IGSMiE PAN)

The Mineral and Energy Economy Research Institute of the Polish Academy of Sciences (acronym MEERI PAAS) is an individual public non-profit research organisation partially financed by the public subsidies granted by the Ministry of Sciences and Higher Education. A substantial part of the income are the services and consultancy works for enterprises and administrative bodies as well as grants from competitive government-sourced and EU-sourced funding.

The studies carried out at the Institute are characterised by interdisciplinarity and complexity. They are implemented on the basis of the entire research process—from basic research to application. The scientific profile of the Institute includes the following research areas:

- Applied geology,
- Mining,
- Mining and power industry economics,
- Mineral resources management,
- Fuel and energy management,
- Renewable energy sources,
- Raw materials from secondary and waste sources,
- Geoengineering and environmental engineering.

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 economy, starting with the: forecasting, identification and exploration of mineral deposits, through to their development and the production of raw materials, and ending with processing, enrichment and recovery processes. Research and development activities also include aspects of strategy development and the assessment of the domestic mineral and energy economy, taking the latest technological developments and market, environmental, social and legal conditions into account.

The Institute's statutory research topics are currently carried out in six fields of research:

- The efficiency of mineral resources management,
- Renewable energy as a part of sustainable development,
- Information technologies in the analysis of the development of mineral resources and energy management systems,
- Regionalization of Poland's energy policy, taking economic and ecological conditions into account,
- The sustainable development of regions,
- The basics of effective waste management.

The Institute houses three laboratories:

- The Geothermal Laboratory in Bańska Niżna-Biały Dunajec

- The Laboratory of Engineering Geophysics
- The Environmental Research Laboratory

as well as its own publishing house, comprising scientific journals, monographs and publishing series.

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

## 1.2. History

The idea of establishing the Mineral and Energy Economy Research Institute of the Polish Academy of Sciences (MEERI PAS) dates back to the 1980s. In 1986, the Department of Basic Research on Mineral Resources was founded, before its transformation into the Centre for Fundamental Problems of Mineral Resources and Energy of the Polish Academy of Sciences two years later. The history of the Institute consists of several events leading to the establishment of the independent scientific and research unit of the Polish Academy of Sciences:

- 1998 – The Mineral and Energy Economy Research Institute of the Polish Academy of Sciences was founded.
- 2012 – The Institute was granted the right to confer the degree of Doctor of Mining and Engineering Geology.
- 2016 – The Institute celebrated 30 years since its foundation.
- 2017 – The European Commission awarded the Institute with the right to use the prestigious logo, HR Excellence in Research.

## 1.3. Structure

The research at MEERI PAS is carried on in four scientific Departments which are subdivided into 14 Divisions.

- The Department of Policy and Strategic Research, in which:
  - The Division of Minerals and Energy Sustainable Development,
  - The Division of Strategic Research,
  - The Division of Energy Economics,
- The Department of Minerals and Energy Market Research, in which:
  - The Division of Mineral Resources Acquisition,
  - The Division of Fossil Fuels and Energy Market Research,
  - The Division of Mineral Policy,
  - The Division of Economic Geology
- The Department of Geoengineering and Environmental Engineering, in which:
  - The Division of Applied Geochemistry and Environmental Engineering,
  - The Division of Geotechnology,
  - The Division of Geodynamics and Environmental Engineering,
  - The Division of Biogenic Raw Materials,

- The Department of Renewable Energy and Environmental Research, in which:
  - The Division of Renewable Energy Sources,
  - The Division of Environmental Studies and Waste Management,
  - The Division of Structural Analysis and Geological Cartography.

## 1.4. Employment

The Institute's employment as at 1 July 2019 is 115 persons. The staff consists of three groups of employees:

- Persons involved directly in research, employed at scientific positions: 51;
- Persons taking part in researches, employed at engineering and technical positions: 46;
- Administrative staff: 18.

The division by gender is: women - 56 persons (48.7%) and men – 59 persons (51.3%).

Over 44% of the staff are young persons (below 40 years of age).

The division of the staff by age is presented in Figure 1.

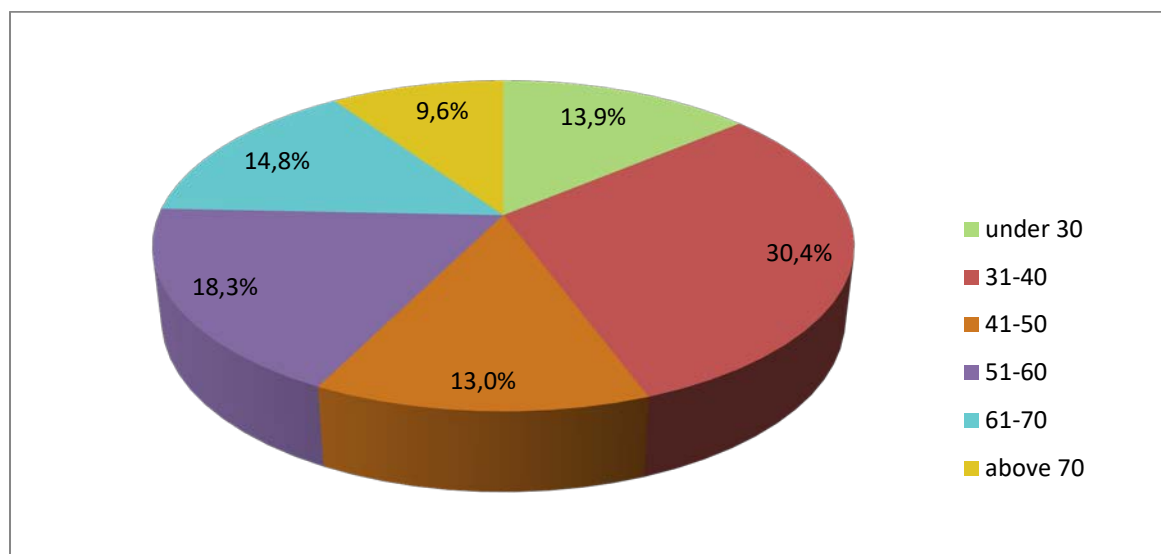


Figure 1. The age structure of the MEERI PAS employees.

As regards persons involved directly in research and development, these are (the position are decided by law):

- Assistants – 22 (for persons with an M.Sc. degree – this position may be held for 6 years and the Ph.D. degree has to be achieved by this time) ,
- Adjuncts – 11 (for persons with a Ph.D. degree – this position may be held for 8 years and the D.Sc. degree (habilitation) has to be achieved by this time),
- Associate professors – 12 (with habilitation – a scientific degree that could be achieved by Ph.D. in a special procedure foreseen by law),

- Professors – 6 (with the title of professor - granted by the president of Poland, after a special procedure foreseen by law).

This group is supported in research and development tasks by 46 engineers and technicians. A majority holding M.Sc. or Ph.D. degrees.

The structure of the staff engaged in research and development is presented in Figure 2.

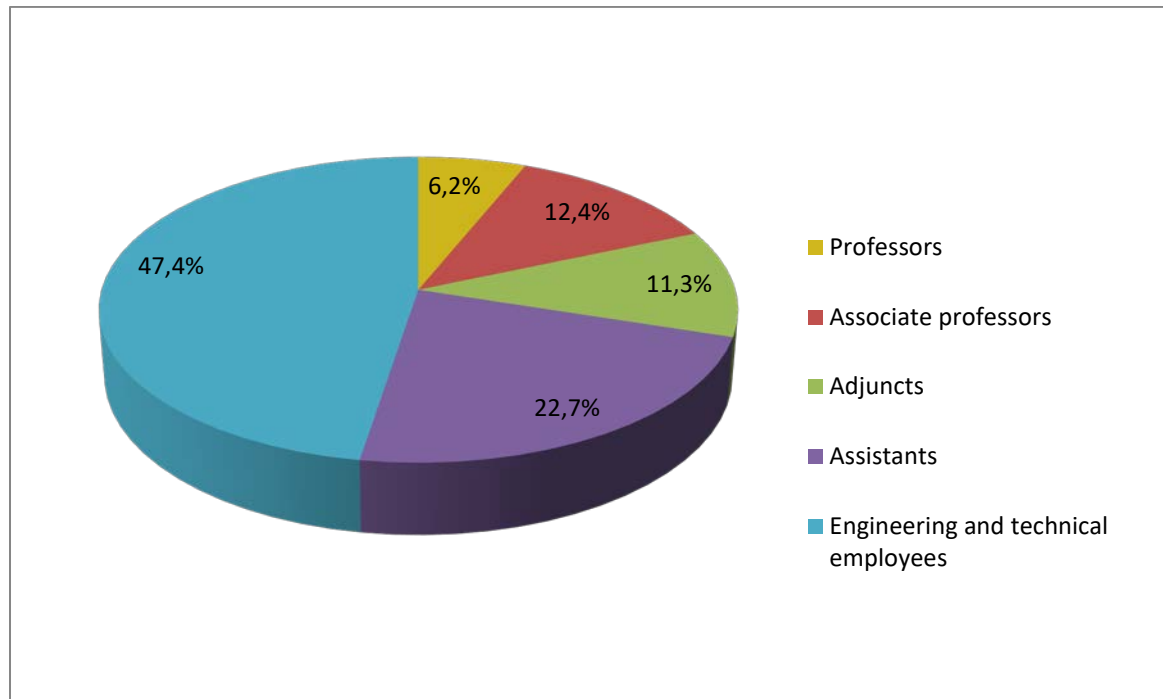


Figure 2. The structure of research and development staff of the MEERI PAS.

It has to be stated that the majority of persons are full-time employees, hired for a undefined period of time. The recalculation to full-time positions gives 102.45 FTEs, in which 81.35 FTEs are involved directly in research or take part in research (engineering and technical staff).

### 1.5. The mission of the MEERI PAS

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 raw materials and energy. This mission is implemented under the motto:

**RAW MATERIALS AND ENERGY FOR SOCIETY**

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

**SOURCES - TECHNOLOGIES - ECONOMICS - MARKET - ENVIRONMENT**

In turn, this forms a scientific triangle:

**RESEARCH - INNOVATION - EDUCATION**

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

- Creating favourable conditions for the development of scientific interests among and knowledge transfer by 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 mineral resources 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 specialises,
- Consistently increasing the number of employees in the research division of the Institute in order to implement and plan the progress of research and development projects,
- 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 organisation of conferences (especially cyclical) and the publication of dedicated, publicly available reports,
- Promoting educational activities by launching postgraduate and PhD programs in the scientific disciplines covered by the Institute.

## 2. Internal gap analysis

### 2.1. First Action Plan (Action Plan 2016-2018)

Table 1. Action Plan for the 2016-2018

Rule according to Charter & Code	Action required and decided	When	Who	State of implementation
Funding and salaries	An internal analysis of the remuneration system in the Institute and its modification	by January 2017	HR Specialist, Head of the Organisational Department, Deputy Director for Research, Deputy Director for General Affairs, Director,	Done in April 2017
	The negotiation of the new remuneration regulations with trade unions	by May 2017		
	The implementation of the new employee remuneration regulations	by January 2018		
Public engagement	The preparation and issuance of an order requiring researchers to take notes from "public engagement"	by July 2016	Deputy Director for Research, Director,	Completed in 2016

	activities and determining the procedures for their dissemination			
	The modification of the website of the Institute for better information on the "public engagement" appearances of research workers of the Institute"	by July 2016	Logistics marketing specialist, Deputy Director for General Affairs,	Completed in 2016
	The development of a new "Rules of assessment of the scientific researchers activity in the Mineral and Energy Economy Research Institute, Polish Academy of Sciences" together with the procedure of its approval by the Scientific Council and approved by the President of the Polish Academy of Sciences	by November 2017	Deputy Director for Research, Head of the Organisational Department,	Completed in 2017
	Institute will join the group of organisers of "Science Festival" in Kraków and the researchers will take part in scientific sessions of the "Science Festival" to make known their research to the public	April-May 2017	Head of the Organisational Department, Deputy Director for Research, Director,	Completed in April 2019 (implementation delayed due to organisational constrains)
Career development	Conducting consultations with the Division Heads on the overview of the situation and the progress of young scientists in the field of scientific development. Monthly verification of the scientific progress of young employees by the supervisors in addition to participating in joint research work	by July 2016	Director, Deputy Director for Research,	Completed in 2016
Access to research training and continuous development	Change of the mailing list in order to provide information about courses	Immediate	Deputy Director for Research,	Completed in 2016
	Organisation of internal training on a selected topic in 2016 in order to improve qualifications and skills of the employees	by the end of 2016	Director, Deputy Director for Research, Deputy Director for General Affairs,	Completed in 2016; repeated in subsequent years – due to positive assessment of the effectiveness of the action
	The assessment of the effectiveness of the training conducted in 2016 and to decide on the cyclical nature of such courses	by May 2017		Completed in 2017; repeated in 2018 and 2019
Complaints/ appeals	To make the possibility of mediation by "Disciplinary Proceeding Attorney" in the case of conflicts or any difficult problems clear for all the employees, so that they know that their problems may be solved without unnecessary prominence.	The nearest meeting of the Heads of Departments	Director,	Completed in 2016
		by October 2016	Logistics marketing specialist, Deputy Director for General Affairs,	Postponed due to general change of the website
Research environment	Develop and approve the expansion project of the Institute	by January 2017	Director, Deputy Director for General Affairs,	Completed in 2017
	Apply for the grant for equipment to open the laboratory of biomass combustion	September 2016	Deputy Director for Research	Completed in 2016 and in subsequent years – unfortunately the



				Institute did not received the funds
Judging merit	Acknowledge the Competition Commission for Recruitment with recommendations of the “Code of Conduct for the Recruitment of Researchers”	Always before the recruitment meeting	Deputy Director for Research	Completed
	Competition Commission will describe in the protocols from the recruitment how the recommendations of the “Code” were taken into account in the process	Always	Director, Deputy Director for Research	Completed

There are some outstanding or delayed actions:

1) Within the public engagement improvement – the action of joining “Science Festival” in Kraków was delayed. This was caused by the difficulties to reach the organisers responsible for the programme and to propose an appropriate session topic to fit the overall organisation scheme. Only in 2019 did the Institute manage to become one of the organisers. It is expected that this will be the forum for dissemination research and promotion of the Institute in the future.

2) Within the rule concerning Complaints/ appeals: the action to make employees aware of the possibility of mediation by the “Disciplinary Proceeding Attorney” in the case of conflicts or any difficult problems, so that they know that their problems may be solved without unnecessary prominence was undertaken at the due time, but the relevant information on the Institute’s website has disappeared during its rebuilding taking place in 2017.

All other actions proposed in the first Action Plan were accomplished, with their initial positive evaluation, while final evaluation will be is done during this internal audit.

### 3. Identification of Strengths, Weaknesses, Opportunities and Threads of the current practice

To prepare the internal review of the former Action Plan of the Institute, a working team was appointed by the Director. The persons appointed were: Deputy Director for Research, HR Specialist, Project Support Specialist, Secretary.

The team prepared a questionnaire on the perception of issues related to C & C by the Institute's employees. The employees of the Institute were surveyed.

The questionnaire was sent to employees, responses were collected and the working team analysed the results. Particular attention was paid to the respondents’ comments.

On this basis, an Action Plan for the future was developed. The strengths and weaknesses of the Institute’s HR policy have been identified. The bottom-up method was used in the first stage of work. After identifying the weaknesses of the Institute, the top-down method was used. In the first stage, the previous plan was reviewed. The level of its implementation was assessed. Tasks that were delayed or whose implementation was not carried out in full were identified. These elements were subjected

to a special analysis, and were included for the new Action Plan. At the end, a list of actions was developed containing the tasks to be carried out for the coming years.

All of the employed scientific and technical workers dedicated to research work were surveyed in order to assess the conformity of the principles used in the Institute with the recommendations of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers. At the meeting, which was attended by the Heads of the Divisions, the key recommendations of the Commission and the usefulness of actions to best match the functioning of the Institute to these requirements were discussed. Then the Heads of the Divisions provided the information and conclusions to all of their employees.

In the next step, a survey with 40 questions about the rules and requirements of the Charter and Code were formulated and the employees that carry on or are engaged in carrying the research were asked to answer to what extent these requirements are implemented in the Institute. Each of the question allowed one out of five answers:

**5 – very good; 4 – good; 3 – (neutral) neither good nor bad; 2 – poor; 1 – bad**

Each of the questions contained space for the respondent's comments.

The survey was sent to all employees of the Institute – including scientific, engineering and technical staff engaged in research and development works, regardless of their position and the type of employment (specified or unspecified period). A two-weeks deadline for its completion was set. The respondents returned the completed surveys by placing them into a special box in at the Secretariat of the Institute, which ensured their anonymity. When returning a questionnaire, each employee was obliged to sign on the list, which in allowed us to send a reminder to those who were late with returning the surveys, urging them to do it as soon as possible. The list with signatures was used only for statistical analysis.

A total of 83 completed surveys were returned, which represents over 85.6% of all employees involved in research work in the Institute.

The responses obtained were averaged and the results were analysed.

Among the issues examined in the survey, according to the respondents, one is not applicable at the Institute: **teaching** (the Institute does not hold classes with students) -no scores were given by responders but some comments were written. They concerned two aspects: some respondents admit that that they are employed part time at universities where they hold lectures for students and some were stressing that the time devoted by the professor to improve the knowledge of young scientists (especially assistants) should be considered as a teaching process. It was also mentioned that young scientists could be taught how to make a presentation in public and how to write scientific articles.

This last remark will be considered within the next training programs prepared at the Institute.

The average results obtained in the individual issues ranged from the lowest value of 3.89 – for the “Access to career advice” issue up to 4.85 for the “Gender balance” issue. The average score for all 39 issue was: 4.39 – which means more than good, while only 3 issue received a score lower than 4.0 (good):

- Access to career advice – 3.89;
- Complaints/appeals – 3.95;
- Funding and salaries – 3.95.

The best scores: above 4.5 (which means closer to very good than good: were given to 11 issues.

Further detailed analyses were conducted for four groups of issues in line with the recommendations presented in the Internal Review for Interim Assessment. Additionally, the change in the scores as compared to the results of the survey carried out in 2015 – 2016 were analysed.

### 3.1. Ethical and professional aspects

The issues concerning these aspects were identified and the obtained scores are given in Table 2.

Table 2. The survey results on ethical and professional aspects – The analysis of the compatibility of the MEERI PAS procedures with the recommendation of the European Charter for Researchers. Identified weaknesses (yellow) and strengths (red) in the Institute

No (as in C&C)	Rule	Rate in 2019	Rate in 2016	Change
9.	Public engagement	4.08	3.89	0.19
3.	Professional responsibility	4.33	4.45	-0.12
4.	Professional attitude	4.38	4.52	-0.14
28.	Evaluation/appraisal systems	4.42	4.36	0.06
2.	Ethical principles	4.45	4.48	-0.03
6.	Accountability	4.46	4.60	-0.13
5.	Contractual and legal obligations	4.49	4.48	0.02
8.	Dissemination, exploitation of results	4.52	4.30	0.22
7.	Good practice in research	4.57	4.45	0.12
31.	Recruitment (standards)	4.63	4.53	0.09
1.	Research Freedom	4.67	4.64	0.03
14.	Non-discrimination	4.84	4.67	0.17
All: Ethical and professional aspects		4.49	4.45	0.04

#### *Strengths and Weaknesses*

The strong side of the MEERI PAS are: Non-discrimination, Research freedom, Recruitment standards.

High average rates in 2019 and the better perception of those issues by respondents more than 3 year ago allows to conclude that those issues are properly understood and implemented by the researchers' society at the Institute.

The weaknesses of the institute are: Public engagement, Professional responsibility and Professional attitude.

These issues received the following suggestions of improvement:

#### Public engagement:

- Arrange open lectures for the society, increase participation in festivals, try to develop social media communication.

The following comments were made:

- There is no time for such activities. The basic salary is so small that I have to spend all the time doing “real” science and consultancy – to have enough money to sustain myself.
- It would be good if public engagement could be an argument for faster promotion.

There were also voices that:

- We are dealing with highly specialised research, which is too difficult for the open society.
- Many of the researchers from the Institute participate in scientific and technical councils of governmental bodies, and also in industrial and enterprise advisory councils, are the members of associations, and chambers of commerce - working there on a pro bono basis.

### Professional responsibility

One of the persons commented that they know of cases of the use of other people's achievements without referencing them and the lack of response towards and the combating of this type of behaviour, even if they are revealed.

Some other persons commented that they do not know of cases of the lack of professional responsibility.

### Professional attitude:

Although opinions that this aspect of the Institute's activity is very well regulated by the general rules (law and ministerial regulations) as well as by internal regulations of the Institute prevailed in the respondents' comments, it was also pointed out that some of the work carried out using government subsidies (statutory works of the Institute) is not sufficiently innovative.

### Remarks

As regards the public engagement issue:

The delayed action from the first Action Plan of the Institute about the participation in the science festival will be continued and developed:

- Include the Institute's research fields in the Krakow Scientific Festival to make the research known to the public.

The activities within social media have already been considered with a conclusion that this kind of promotion does not fit the Institute's area of operation and the target group will not be reached.

The Institute promotes the participation of employees in national and international bodies of specialists, especially those working for the needs of the country and local communities. Such activities are rewarded in the regular assessment of employees of the Institute. So it looks like the problem is that employees do not have detailed information about their colleagues who are publically engaged.

Therefore, the planned action includes:

- Placing a list of persons involved in works for the benefit of society on the Institute's website, promote engagement in the Institute's appraisal system

The issues of professional responsibility are of the Institute's special attention. The internal procedures oblige every author to declare what part of the work is of their own and to receive the relevant consent from the original authors in the event of using their work. The authors' statements with their signatures are collected by the Institute's administration.

The Code of Ethics for Research Workers was elaborated and published by the Polish Academy of Sciences (last edition from 2017). The following actions were decided:

- Arrange a lecture on ethics in science as part of the Institute's scientific seminars,
- Post a link to the Polish Academy of Sciences document entitled: The Code of Ethics for Research Workers on the Institute's website, and send links to it and to the C&C to all the employees with appropriate information.

The professional attitude issue has received a relatively low rating with one negative remark of a respondent on the quality of statutory research.

Tasks that are carried out as the statutory research for each division is a result of: the state of advancement of previous research on this topic, the current demand from the country's economy to solve them, the interest of the team in developing specific topics.

These pre-designed tasks are subject to discussion and final approval of the Institute's Scientific Council. The report on the implementation of the previous year's work takes place at the Institute's annual reporting seminar, in the presence of the members of the Scientific Council. Employees present the topics to the public and submit research results in written form. Then the Evaluation Commission discusses all the presented topics, selecting the best works to be awarded. The described procedure is a long-standing custom not included in the official procedure so far. Therefore, a decision was made to:

- Prepare and approve the procedure for reporting, receipt and quality evaluation of the statutory research at the Institute.

This procedure should also include the recommendation that the Commission should indicate not only outstanding works but also works which do not meet the quality standards.

### 3.2. Recruitment and selection

The opinions concerning this aspect were identified and the achieved rates are given in Table 3.

Table 3. The survey results on recruitment and selection aspects – The analysis of the compatibility of the MEERI PAS procedures with the recommendation of the Code of Conduct for the Recruitment of Researchers. Identified weaknesses (yellow) and strengths (red) in the Institute

No (as in C&C)	Rule	Rate in 2019	Rate in 2016	Change
35	Judging merit	4.33	4.47	-0.14

No (as in C&C)	Rule	Rate in 2019	Rate in 2016	Change
40	Postdoctoral appointments	4.37	4.71	-0.34
33	Selection	4.41	4.54	-0.13
34	Transparency	4.43	4.54	-0.11
39	Seniority	4.46	4.61	-0.15
36	Variation in the chronological order of CVs	4.47	4.57	-0.10
38	Recognition of qualification	4.55	4.54	0.01
37	Recognition of mobility experience	4.57	4.48	0.09
32	Recruitment (procedures)	4.63	4.53	0.09
All: Recruitment and selection aspects		4.48	4.55	-0,06

### *Strengths and Weaknesses*

Identified strengths of the MEERI PAS are: recruitment procedures as well as recruitment standards. A majority of respondents rated those aspects very well, although some suggestion of improvement, like:

- Rearrange the website, where the advertisements are placed
- Better expose the place where the appropriate regulation could be found,

were made.

Complaints were also made that new job positions are sometimes very specialised, requiring very specific skills or scientific achievements, thus limiting access to talented scientists with high development potential but without the skills or achievements to take part in those competitions.

After checking a number of competitions carried out in the past the conclusion was that the specific skills are usually demanded at positions higher than the young researchers (assistants), thus they are justified.

There were also suggestion that employers should also include a description of the working conditions, entitlements and benefits in the advertisements, including a description of career development prospects.

According to the survey respondents the weaknesses of the MEERI PAN are:

### *Judging merit*

A low assessment of this aspect was commented by respondents that they do not have knowledge on this subject.

### *Postdoctoral appointments*

The analysis of the received answers along with the received comments leads to the conclusion that many researchers believe that the limitation of the time of employment of the adjunct position to 8 years is a problem for them. They believe that this time is too short to obtain the next academic degree (habilitation).

This limit is set by law, and Institute has to obey it.

## Selection

In spite of low rating of this issue a positive comment was given. Additionally, many other respondents claim that they do not know about the process.

## Remarks

A series of answers and comments that were found in the surveys in the analysed area: recruitment and selection, in which the respondents declared that they have no knowledge of these issues, indicates that the audit method adopted (bottom-up) is not sufficient in this case.

The following persons are involved in the recruitment process:

At the stage of announcing the contest: Director, Head of the Institute's Division, who has reported the demand for an employee and administrative staff.

At the stage of settlement of the competition: The director appoints a Competition Commission - 3 persons from a group of experienced researchers (associate professors and professors) – from different divisions of the Institute. The members of the Commission are also: the Deputy Director for Research and the Head of the Division in which the chosen candidate will be employed.

As such, a majority of researchers – especially assistants, adjuncts and technical staff - are not involved in the recruitment process and do not know the procedures applied.

The assessment of compliance of the activities has been carried out by a working group appointed by the Director. The members were supposed to check the procedures applied, carefully analyse the comments received from the survey respondents, suggest the actions to improve the procedures, and finally make a check list of the OTM-R.

It should be noted that the recruitment rules of the Institute are primarily subjected to national rules applying to the employment of workers, particularly the provisions of the Labour Law. In addition, they comply with the Act on the Polish Academy of Sciences. The recruitment rules for individual scientific positions are specified in the document approved by the Scientific Council of the Institute. The general conclusion of the working group was that majority of procedures are in line with the Code of Conduct for the Recruitment of Researchers, while the problem is with their presentation on the Institute's website.

The ongoing changes in the law as well intensive re-buildings in the website structure resulted in some deviation from the OTM-R check list being noticed.

The internal review of the employee recruitment process at MEERI PAS indicated that the practices applied are usually in line with the Code for Recruitment of Researchers recommendations. The Institute has not yet developed an OTM-R policy document, which was related, among others, to legal changes in the area of science and higher education in the country. Other identified weaknesses are the absence of formally written procedures, although most of the elements of these procedures are customarily used. All these deficiencies have been identified (in a published on-line OTM-R check list) and have become part of the Action Plan to be carried out. The persons responsible for their implementation have been appointed and the control function will be performed by the "Committee Implementing the Strategy for HRS4R".

The actions proposed are the result of a careful check out of the OTM-R list.

These are:

- Appointment of a working group dedicated to HRS4R policy.
- Development of the "OTM-R Policy at the MEERI PAS", a document that will gather, organise, and, if necessary, adapt to the requirements of "The Code of Conduct for the Recruitment of Researchers", the internal ordinances and regulation in the field of recruitment of researchers, in a manner allowing its dissemination on the Institute's website.
- Development of the document: "Rights and obligations of the researchers at the MEERI PAS", a document that will gather, organise, and if necessary, adapt to the requirements of the Charter of the Researchers, the internal ordinances and regulations regarding ethical and professional aspects, working conditions as well as training and development aspects, in a way that allows its dissemination at Institute's websites).
- Update of the Ordinance of the Director of the Institute No. 1/2013 regarding the requirements in the process of recruiting scientists to the changed requirements of national law and to the Charter and the Code. Preparation of the English version of this ordinance.
- Development of a document on the rules of trainings and internships at MEERI PAS in Polish and English language versions.
- Development of a template form for the evaluation of candidates in recruitment processes and good practices in the field of return communication.
- Preparation of short information on working conditions, access to the laboratory facilities, perspectives of scientific development at the Institute for the purpose of recruitment procedure.
- Preparation of regulations regarding the awarding of employee prizes for scientific achievements and public engagement.
- Organisation of dedicated employee trainings in the field of OTM-R.

### 3.3. Working conditions

The issues concerning this aspect were identified and the achieved rates are given in Table 4.

Table 4. The survey results on working conditions – The analysis of the compatibility of the MEERI PAS procedures with the recommendation of the European Charter for Researchers. Identified weaknesses (yellow) and strengths (red) in the Institute

No (as in C&C)	Rule	Rate in 2019	Rate in 2016	Change
18	Funding and salaries	3.95	3.88	0.07
15	Research environment	4.27	4.06	0.21
13	Recognition of the profession	4.28	4.21	0.07
16	Working conditions	4.36	4.37	-0.02
17	Stability and permanence of employment	4.60	4.31	0.29
19	Gender balance	4.85	4.79	0.06
All: Working conditions		4.39	4.27	0.12



## *Strengths and Weaknesses*

Identified strengths of the Institute are: Gender balance and Stability and permanence of employment.

The weaknesses found were the following:

### Funding and salaries

Salaries at the Institute are low as compared to earnings in business and many other branches of the economy. This is due to limited resources received by the Institute from the state budget.

### Research environment

The result obtained in this aspect of the Institute activity is: 4.27. The respondents commented the modest office conditions, lack of appropriate funds to purchase modern research equipment, limited access to laboratories and lack of library space.

They also mentioned that they understand the difficulties. In the opinion of some respondents the lack of funds has a large impact on opportunities to create an appropriate work environment. Some other say that at this point, the research environment is appropriate for the resources, but not sufficient.

Despite many efforts, no co-financing has yet been obtained that could be used to improve the Institute's infrastructure. The renovation of a part of the building purchased a few years ago will start only this year and will be financed from the Institute's own financial resources.

### Remarks

As concerns Funding and salaries issue:

The problems of low salaries have already been in the Institute's Action Plan. The modification of the remuneration system in the Institute has been implemented in 2017. The lowest remuneration at each position was adjusted to fit to the minimal governmental requirements.

Meantime, in the new legal regulation on the Higher Education and Science, minimum salaries for researchers employed at universities were set. They are significantly higher than the average remuneration received by the researchers of the institutes of the Polish Academy of Sciences, which are excluded from these provisions. This causes an increase in dissatisfaction of scientific staff employed in PAS units.

It is expected that the government's modification of the Act on the Polish Academy of Sciences will eliminate these imbalances. There is also pressure for increased wages due to the overall economic situation of the country.

The works to adjust employee remuneration regulations and make the wages comparable to the ones at universities have already begun, however the changing procedure (according to law) takes a lot of time.

So, after the amendments to the Act on the Polish Academy of Sciences are adopted by the government the following action will be taken:

- The implementation of the new employee remuneration regulations

As concerns the improvement of the Research environment:

The Institute applies for external sources of financing that would be used to improve the operating conditions. Despite many unsuccessful attempts, these activities will continue. So the task was inserted into the Action Plan.

- Apply for financial subsidies/grants for the Institute's infrastructure development

### 3.4. Training and Development

The rules concerning this aspect were identified and the achieved rates are given in Table 5.

Table 5. The survey results on training and development – The analysis of the compatibility of the MEERI PAS procedures with the recommendation of the European Charter For Researchers. Identified weaknesses (yellow) and strengths (red) in the Institute

No (as in C&C)	Rule	Rate in 2019	Rate in 2016	Change
23.	Access to career advise	3.89	-	-
29.	Complaints/appeals	3.95	4.00	-0.05
20.	Carrier development	4.04	3.99	0.05
11.	Supervision and managerial duties	4.15	4.23	-0.08
26.	Supervision	4.16	4.15	0.01
12.	Continuing professional development	4.18	4.18	-0.01
10.	Relation with supervisors	4.20	4.30	-0.10
21.	Value of mobility	4.32	4.15	0.17
24.	Intellectual Property Rights	4.33	4.27	0.06
25.	Co-authorship	4.46	4.44	0.02
30.	Participation in decision-making bodies	4.48	4.44	0.04
22.	Access to research training and continuous development	4.51	3.99	0.53
All: Training and Development		4.22	4.19	0.03

#### *Strengths and Weaknesses*

The identified strength of the Institute is Access to research training and continuous development.

It has to be stressed that the substantial improvement in this issue is a result of the action undertaken in the first Action Plan. The action of organising different training and courses will be continued. The other identified strength of the Institute is Participation in decision-making bodies.

Weakness of the Institute is: Access to career advice, Complaints/appeals and Carrier development.

#### *Access to career advice*

Carrier advice and help in finding a job is not generally applicable to the Institute's employees. The vast majority of researchers are employed for an indefinite period and cases of resignation from work are very rare.

Low ratings were related to the statement that the Institute does not provide such advice, without considering whether the respondent needs such services.

## Complaints/appeals

The low rating of this issue mean that, in spite of the already completed action of informing employees about the possibility of mediation by the “Disciplinary Proceeding Attorney” in the event of conflicts or any difficult problems, the employees do not know where to go with their problems. Many respondents admitted that such a person would very necessary and could help with their problems.

## Career development

The career path for researchers is determined by the provisions of the Act on School Higher Education and Science. Changes were introduced in the new act of 2018 concerning, among others, the conditions for obtaining subsequent academic degrees. In addition, changes are expected in the Act on the Polish Academy of Sciences, where the conditions for employment at scientific positions are defined. These circumstances create a lack of confidence of the Institute's employees.

## Remarks

The issue Access to career advice was not considered in the first survey done in 2016 year as then the decision was taken to ask respondents about their feelings on this issue. A person already employed in the research team generally does not look for another job, but – as the general situation at the employment market in Poland has changed – the question was asked.

It has to be stated that some of the persons seek career advice – in the sense of discussion with mentors or more experienced colleagues on which particular field of expertise they should choose for further development.

It was decided that:

- The Directors will hold meetings with all employees of each particular Division of the Institute to discuss research and development problems of individual persons and identify those who need substantive support

It should be noted that this particular action will also belong to the training and development aspect of the C&C.

As concerns the Complaints/appeals issue: as the term of office of the currently elected person ends in 2019 it is therefore necessary to:

- Conduct an information campaign of the role of Disciplinary Proceedings Attorney as a mediator of employee issues, especially in their personal conflicts in the Institute's community and finally conduct, in a secret ballot, an election of a person who will perform this function in the next term (2020-2022).

As concerns the career development issue - employees expressed the opinions that a separate, internal document regarding employment conditions at the Institute as well as information on how participation in various forms of mobility may affect their further careers is needed.

So, the action decided is:

- Preparation (for internal use) of short information on the career development path of MEERI PAS researchers.

#### **4. External and internal circumstances accompanying the implementation of the plan in the years 2016 – 2019**

In 2016 the new Minister of Science and Higher Education announced that the government will change the Law on Higher Education and Science and will change the rules in many aspects of the functioning of scientific institutions in Poland. Extensive consultations lasted two years, during which a number of contradictory solutions were presented. Finally, the new law was promulgated in July 2018, with the date of entry into force from 1 October 2018. The act regulates the rules obeying universities, and partly, also scientific institutes of in Poland. The institutes of the Polish Academy of Sciences also expect that the new Act on the Polish Academy of Sciences will be implemented – now being in the consultation stage. The "Law on Higher Education and Science" introduces many changes that caused the necessity of adjustment of many internal regulation and procedures. These activities resulted from statutory provisions and had priority over others.

As concerns internal changes in the Institute it has to be mentioned that:

- 1) Starting from 1 January 2017 the new management of the Institute was elected for the term 2017-2020.
- 2) Starting from 1 January 2019 the new Scientific Council of the Institute was established for the term 2019-2022.

In spite of those circumstances, when looking at the first Action Plan and its implementation, it has to be stated that majority of actions has been accomplished in due time.

The unfinished, by now, legal reform in the area concerning the institutes of the Polish Academy of Sciences caused the delay in preparation OTM-R policy for the Institute. This policy exists and is available but is not published on the website as still it is not decided by parliament on such specific details in the OTM-R area like: what will the minimal remuneration for scientists at particular level of their development be (professors, associated professors, adjuncts, assistants), what other benefits will be granted by law, etc.

After the change in the position of the Director of the Institute, the entire visual identification system is undergoing a fundamental change, including logotype, website as well as promotional materials. Technical problems associated with the change decided about maintaining the Institute's internal webpages (intranet) – available only for employees, where all documents concerning recruitment policy of the Institute (as well as all other Director's ordinances) are stored chronologically. At this moment it is not clear whether the appropriate links to official HRS4R page will be available by the deadline of this audit.

#### 4.1. The new, updated Action Plan

No.	Action	GAP principle(s)	Timing Q/Year	Status	Responsible unit	Indicator/Target
1	Conducting consultations with the Heads of Divisions on the overview of the situation and the progress of young scientists in the field of scientific development. Monthly verification of the scientific progress of young employees by the supervisors in addition to participating in joint research work	Career development	Q3/2016	Completed	Director; Deputy Director for Research,	Interviews with all Heads of Divisions
2	Change of the mailing list in order to provide information about courses for the employees	Access to research training and continuous development	Q3/2016	Completed	Deputy Director for Research	All researchers informed directly, instead of only the heads of Divisions
3	Make clear for all the employees about the possibility of mediation by "Disciplinary Proceeding Attorney" in case of conflicts or any difficult problems, so that they know that their problems might be solved without unnecessary prominence - Head of Divisions (to pass the information to their employees)	Complaints/appeals	Q3/2016	Completed	Director	13 Heads of Divisions informed
4	The preparation and issuance of an order requiring researchers to take notes from "public engagement" activities and determine the procedures for their dissemination; The modification of the website of the Institute for better information on the "public engagement" appearances of research workers of the Institute"	Public engagement; Evaluation/appraisal systems	Q4/2016	Completed	Deputy Director for Research, Director	2-3 information/year on the MEERI website on public engagements of the researcher
5	Organisation of internal training on a selected topic in 2016 in order to improve qualifications and skills	Access to research training and continuous development	Q4/2016	Completed	Director, Deputy Director for Research, Deputy Director for General Affairs	15 persons - trained
6	Develop and approve the expansion project of the Institute	Research environment	Q1/2017	Completed	Deputy Director for General Affairs	Project of the Institute's infrastructure modernization

No.	Action	GAP principle(s)	Timing Q/Year	Status	Responsible unit	Indicator/Target
7	An internal analysis of the remuneration system in the Institute and its modification; the negotiation of the new remuneration regulations with trade unions; the implementation of the new employee remuneration	Funding and salaries	Q2/2017	Completed	HR Specialist, Head of the Organisational Department, Deputy Director for Research, Deputy Director for General Affairs, Director	An increase in remuneration for the group of lowest-earning employees
8	Applying for the grant for equipment to open the laboratory of "biomass combustion"	Research environment	Q3/2017	Completed	Deputy Director for General Affairs; Director	Acquiring funds
9	Acknowledge the Competition Commission for Recruitment with recommendations of the "Code of Conduct for the Recruitment of Researchers"	Judging merit	Q4/2017	Completed	Deputy Director for Research	All potential members of Competition Commission are trained
10	Competition Commission will describe how the recommendations of the "Code" were taken into account in the process of recruitment in the protocols from the recruitment	Judging merit	Q4/2017	Completed	Director, Deputy Director for Research	New template of the protocol
11	Appointment of a working group dedicated to HRS4R policy and monitoring of the Action Plan implementation	ALL principles of the C&C	Q3/2019	New	Director	Ordinance of the Director
12	Post a link to the document of the Polish Academy of Sciences "The Code of Ethics for Research Workers" on the Institute's website, and send links to it and to the C&C documents to all the employees with appropriate information	Professional responsibility; Ethical principles; Research Freedom; Accountability; Good practice in research;	Q4/2019	New	Deputy Director for General Affairs; Deputy Director for Research	All researchers are informed
13	Implementation of the new employee remuneration regulations	Funding and salaries	Q4/2019	In progress	Director	Ordinance of the Director; after the approval of the regulation by the Workers Union

No.	Action	GAP principle(s)	Timing Q/Year	Status	Responsible unit	Indicator/Target
14	Conducting an information campaign of the role of Disciplinary Proceedings Attorney as a mediator of employee issues and election of a person who will perform this function in the next term (2020-2022).	Complaints/appeal	Q4/2019	New	Director; Head of Organisational Department	Election of the new Disciplinary Proceedings Attorney for the term 2020-2022.
15	Development of the "OTM-R Policy at the MEERI PAS" that will gather, organise, and, if necessary, adapt to the requirements of "The Code of Conduct for the Recruitment of Researchers", the internal ordinances and regulation in the field of recruitment of researchers, in a manner allowing for its dissemination on the Institute's website	ALL principles of the Code	Q1/2020	New	Working group	Document "OTM-R policy at MEERI PAS"
16	Promotion of Institute's research achievements at Krakow Scientific Festival	Public engagement; Dissemination, exploitation of results	Q2/2020	Expanded	Head of the Organisational Department, Deputy Director for Research, Director	2 lectures/year
17	Placing a list of persons involved in works for the benefit of society on the Institute's website, promoting the engagement in the Institute's appraisal system	Public engagement, Dissemination, exploitation of results, Evaluation/appraisal system	Q2/2020	New	Deputy Director for Research	at least 15 engagements per year on the list
18	Prepare and approve the procedure for reporting, receipt and quality evaluation of the statutory research at the Institute	Professional attitude	Q2/2020	New	Deputy Director for Research; Director	Procedure - as part of ISO 9001 system
19	Update of the Ordinance of the Director of the Institute No. 1/2013 regarding the requirements in the process of recruiting scientists to the changed requirements of national law and to the Charter and the Code. Preparation of the English version of this ordinance	Recruitment (procedures); Recognition of qualifications	Q2/2020	New	Director	Ordinance of the Director
20	Development of a template form for the evaluation of candidates in recruitment processes and good practices in the field of return communication	Selection; Transparency	Q2/2020	New	Deputy Director for Research; Head of Organisational Department	Template form

No.	Action	GAP principle(s)	Timing Q/Year	Status	Responsible unit	Indicator/Target
21	Preparation of the short information – for internal use - on the career development path of MEERI PAS researchers.	Career development	Q2/2020	New	Director; Deputy Director for Research	Information for researchers of the Institute
22	Collect in one document the rules of trainings and internships at MEERI PAS . Developing English version	Variations in the chronological order of CVs; Recognition of mobility experience, Value of mobility; Access to research training and continuous development	Q3/2020	New	Director; Head of Organisational Department	Document "Rules of trainings and internships at MEERI PAS"
23	Preparation of an short information on working conditions, access to the laboratory facilities, perspectives of scientific development at the Institute for the purpose of recruitment procedures	Recruitment (standards)	Q3/2020	New	Deputy Director for General Affairs; Deputy Director for Research	Information
24	Development of the document " Rights and obligations of researchers at the MEERI PAS" that will gather, organise, and if necessary, adapt to the requirements of the Charter of the Researchers, the internal ordinances and regulations regarding ethical and professional aspects, working conditions as well as training and development aspects, in a way that allows its dissemination on the Institute's websites	ALL principles of the Charter	Q4/2020	New	Working group	Document "Rights and obligations of researchers in the MEERI PAS"
25	Preparation of regulations regarding the awarding of employee prizes for scientific achievements and public engagement	Continuing Professional Development; Supervision	Q4/2020	New	Deputy Director for Research; Director	Ordinance of the Director
26	Arranging a lecture on ethics in science as part of the Institute's scientific seminars (once a year)	Professional responsibility; Access to research training and continuous development	Q2/2022	New	Deputy Director for Research	30 persons trained
27	Organisation of dedicated employee trainings in the field of HRS4R policy in MEERI PAS	Recruitment (procedures); Recruitment (standards)	Q2/2022	New	Deputy Director for General Affairs	85% of researchers trained within 3 years



No.	Action	GAP principle(s)	Timing Q/Year	Status	Responsible unit	Indicator/Target
		Access to research training and continuous development				
28	Applying for financial subsidies/grants for the Institute's infrastructure development	Research environment; Working conditions	Q2/2022	Extended	Director; Deputy Director for General Affairs	Acquiring funds
29	Hold meetings with all employees of each particular Division of the Institute to discuss research development problems of individual persons and identify those who need substantive support	Access for career advise; Complaints/appeal; Career development; Supervision	Q2/2022	New	Director; Deputy Director for Research; Heads of Divisions	All employees interviewed and advised
30	Monitoring of the Action Plan implementation	ALL principles of the C&C	Q2/2022	New	Working group	Quarterly protocols

## 5. Implementation

In order to implement the assumed activities in a timely manner, aimed at a more complete implementation of the principles enshrined in The Charter and Code, a working team will be established, named "Committee Implementing the Strategy for HRS4R". The team will include: Director of the Institute, Deputy Director for Research, Deputy Director for General Affairs, Head of the Organisational Department, HR Specialist and Project Support Specialist. It has to be stated that the "Committee Implementing the Strategy for HRS4R" includes people who make key decisions at MEERI PAS (management board). This fact should ensure the efficient implementation of the proposed actions.

The "Committee Implementing the Strategy for HRS4R" will meet every quarter (or more frequently - if necessary). At each of the meetings an overview of the progress of the implementation of individual tasks will be made. The implementation of individual tasks will be recorded. Delays or obstacles will be discussed and precautionary measures will be taken. The minutes of the meetings will be a documentation of the implementation of the Action Plan. The minutes will contain reports on the work carried out so far and a list of necessary activities for the next quarter. In the event of delays, decisions will be taken that will intensify the work aimed at achieving the intended goals.

Once a year reports on the implementation process will be submitted to the members of the Institute's Scientific Council, in which selected representatives of employees, other scientific units, industry and representatives of the supreme body, the Polish Academy of Sciences, participate.

The research community was involved in the bottom-up phase of the internal review. All researchers had to become familiar with the rules of the Charter and the Code, and in the survey they had to assess how the Institute meets the C & C requirements. The implementation of the Action Plan will also take place with the participation of researchers. One of the planned actions is to conduct training on HRS4R policy with the stated target that in three years at least 85% of the researchers will be trained. The trainings will be conducted by external specialists and with the participation of members of appointed "Committee Implementing the Strategy for HRS4R".

Before the date of the external audit, we will pay particular attention to the implementation of the strategy and the publication of our procedures. We will conduct an internal audit to check whether we believe we meet the auditors' requirements.

The Institute has an Integrated Management System (ISO 9001 and 14001: 2015). Therefore, all developed HRS4R procedures will also be included in the ISO system. Under this system, an annual external audit takes place. In this way, the Institute will be audited by two independent auditing bodies. The guidance obtained from the ISO auditors will improve the adjustment process to the C & C requirements.

The Institute's policy concerning the issue enclosed in the C&C is stable. In the case of fundamental changes in Polish legislation, the need to comply with the Polish law may slightly delay the work on improving internal C & C procedures.

The expected amendments to the Act on the Polish Academy of Sciences may significantly change the conditions for the operation of the Institute. What is more, in the next year it is foreseen that a new Law concerning the Polish Academy of Sciences and its institutes will be passed and may change the role of institutes or even entirely change the organisational structure of research conduct in the PAS.

Another strategic decision may be taken, as a result of the election of Director of the Institute in 2020, but most probably the next management elected for term of office 2021 – 2024 will continue the Institute's current policy.