



HUMAN RESOURCES STRATEGY FOR RESEARCHERS

The European Charter for Researchers

and

The Code of Conduct for the Recruitment of Researchers

INTERNAL GAP ANALYSIS AND ACTION PLAN

Lublin, 2015

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I. INTRODUCTION

The Institute of Agrophysics Polish Academy of Sciences was established in 1968, initially as a Department of Agrophysics, by Professor Bohdan Dobrzański - remarkable Polish scientist, pedologist, rector of two universities in Lublin. Professor B. Dobrzański was also the first Head of Department of Agrophysics. In 1989 the Institute was awarded the right to confer the degree of PhD in the field of agronomy and in 1992 to confer the degree of DSc in the field of agronomy-agrophysics. In 1990 the Institute was named after its creator – Bohdan Dobrzański Institute of Agrophysics. The Institute became a legal entity and was entered in the Register of Institutes of the Polish Academy of Sciences in 1998 and was conferred a budget and premises in Warsaw by the government. Another important step in Institute's improvement was initiation of Doctoral Studies in 2004.

The contemporary era in the Institute have begun just before Polish accession to the European Union and the resulting integration of the Institute with the European Research Area. In 2003, after a positive evaluation of the contest application, the Institute of Agrophysics obtained status of a European "**Centre of Excellence for Applied Physics in Sustainable Agriculture**" under the 5th Framework Programme. Centre of Excellence AGROPHYSICS is a unit conducting scientific research, developing modern technologies in accordance with international standards and using the research facilities of co-operating institutions for joint projects. The status of the Centre of Excellence allows the Institute to receive funds from the European Union and the Polish State Committee for Scientific Research to support the innovative activities of the Institute, promotion of its research, and further development of technologies and products both domestically and abroad. The most visible and spectacular element of this process was the opening of access to Structural Funds and other EU programs directed towards the development of research infrastructure. A number of the Institute's laboratories have been completely renovated and equipped with modern facilities. Between years 2008-2015 the Institute of Agrophysics PAN (IA PAS) participated in the implementation of 3 infrastructural projects from the Operational Programme Development of Eastern Poland 2007 – 2013 which constituted an essential and comprehensive investment:

- Project "Infrastructure development and laboratories refitting of the Centre of Excellence AGROPHYSICS" (duration 2008-2010). Total value of the project amounts 25 million PLN.
- Project "Regional Laboratory of Renewable Energy" (duration 2009-2011). Total value of the project amounts 25 million PLN.
- Project "Centre of Research & Innovation of the Institute of Agrophysics PAS in Lublin" (duration 2012-2015). The budget of the project was over 26 million PLN.

The main aim of the projects was to create a strong research centre in Lublin dealing with the issues of renewable energy, the environment and food production.

In May 2015 IA PAS has begun implementation as a partner the HORIZON 2020 project iSQAPER. The most important aims the project will work on are to:

- Integrate existing soil quality related information
- Synthesize the evidence for agricultural management effects provided by long-term field trials
- Derive and identify innovative soil quality indicators that can be integrated into an easy-to-use interactive soil quality assessment tool
- Develop, with input from a variety of stakeholders, a multilingual Soil Quality Application (SQAPP) for in-field soil quality assessment and monitoring
- Test, refine, and roll out SQAPP across Europe and China as a new standard for holistic assessment of agricultural soil quality
- Use a trans-disciplinary, multi-actor approach to validate and support SQAPP.

The total budget of the project is 6,9 million EUR (budget of the IA PAS 185 000 EUR).

In 2013 the IA PAS celebrated its 45th anniversary.

Research activity of the IA PAS

The basic tasks of the Institute include scientific research, cognitive and application and training staff within the scope of physics in solving problems of management and environmental protection, sustainable agriculture and agri-food processing. Currently the Institute focuses on the physical characteristics of processes and materials relevant to the management of natural environment (tackling soil degradation, monitoring environmental hazards), agricultural production and processing agricultural goods and use of plant for biomass energy. It includes development and further improvement of the physical measuring methods as well as computer modelling of physical processes in the

environment and postharvest processing of agricultural products. In recent years very much attention is devoted to issues concerning food quality - starting with the stage of agricultural products, through the storage period, processing, until the final product. The results of agrophysical research are being used in the farming practice and in other fields, so as: pedology, land reclamation, agricultural chemistry, agro ecology, plant breeding, agricultural engineering, and agri- food technology. They are used in interpretation of influences/impacts, the design, the control and the optimization of processes in nature/environment.

Research staff

The Institute has employed 95 employees, including 49 scientists (12 professors, 10 associated professors, 23 adjuncts and 4 assistants) who are representing various education background: physics, chemistry, agriculture, biology, engineering, geography, mathematics and horticulture. Scientific Board of the Institute is entitled to award the PhD and DSc degrees in the field of agronomy-agrophysics. The Institute conducts PhD (Doctoral) studies which give the opportunity to the young people to develop the scientific interests. The majority of PhD Students have been employed by the Institute. The Institute is contributing towards the Lublin education centre the highly qualified research personnel (professors, rectors and deans of faculties of universities in Lublin).

Research projects

The Institute has long-standing scientific cooperation with more than 60 research centres, in Poland and abroad. In years 1991-2015 at the Institute were implemented over 180 research projects funded by the Ministry of Science and Higher Education, National Centre for Research and Development, National Science Centre (currently 11 research projects). The Institute has carried out over 30 international projects (FP5, FP6, COST, SMOS, FACCE JPI, HORIZON 2020, ESA), and 8 projects in the last time. One of the most important project was the "Centre of Excellence for Applied Physics in Sustainable Agriculture"; acronym AGROPHYSICS. The Centre of Excellence ended in 2006 and was funded under the 5th Framework Programme of the EU. The main objective of the Centre of Excellence is doing research and education activities for the applied physics in the sustainable agriculture.

Innovations

Studies carried out at the Institute give measurable innovative results that support agri-food sector in solving technological issues. Transfer of knowledge generated at the Institute in the years 1970-2015 includes 127 patents and 15 innovative solutions. An example of the innovative solution is the monitoring system for chemical and physical characteristics of soil with access through the Internet (based on TDR-Time Domain Reflectometer technology). The scheme has been developed and produced at the Institute of Agrophysics PAS and it is being sold to many centres in Poland and abroad.

An another example is a project carried out in the frame of the Initiative Technology - the biodegradable vegetable "Oil-ester" lubricating oil replacing petroleum-based oil. This oil after improving has spreadable desirable properties and can replace petroleum-derived oils which are harmful to the environment.

Currently, under the developmental project "Organic production of rapeseed oil with unique health-promoting properties" financially supported by the Innovative Economy Operational Programme, a pilot innovation-production-technology line has been developed to produce health-promoting consumable oil from organically grown rapeseed varieties.

II. METHODOLOGY

Overview of tools applied

In order to define high quality Action Plan on the basis of current level of implementation of Charter & Code rules in the IA PAS there were few tools applied, as mentioned below:

- ❖ Working Group
- ❖ Desk research
- ❖ Open meeting with key informants
- ❖ Survey

WORKING GROUP

The Working Group [WG] was established of representatives of key informants (scientific and administrative position at IA PAS):

- ↳ Coordinator: Assoc. Prof. DSc. Artur Zdunek – Deputy Director for Scientific Affairs
- ↳ Professors: Prof. Cezary Sławiński – Director, Assoc. Prof. DSc Piotr Baranowski - Head of PhD Studies
- ↳ PhD Students representative: Justyna Szerement
- ↳ Administration:
 - Anna Wiśniewska - Senior HR Specialist
 - Anna Wiczorek – Project coordinator [Research Support Department, RSD]
 - dr Urszula Majewska – PhD Studies Secretary

Working Group was the key source of high quality quantitative data that allowed to conduct internal analyses and finally to define Action Plan. There were two meetings of working group organised during which participants were analysing convergences to and deviations from the Charter & Code principles and existing in-house procedures. After that the working group has given recommendations how to improve IA PAS internal rules' and principles' contingency with those included in the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers. Results from the WG meetings have confirmed that there is a lot of space for the HR processes improvement, which may cover both technical and essential issues.

DESK RESEARCH

The first step of the internal gap analysis was a meticulous comparison of principles indicated in the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers and the existing rules and practices of the IA PAS. The analysis was conducted on the basis of the following documents:

- ❖ **national law**, including:
 - Act on the Polish Academy of Sciences
 - Law on Higher Education
 - Law on Academic Degrees and Title and Degrees and Title in the Arts
 - Act on the Principles of Financing Science
 - Act on the National Science Centre
 - implementing regulations for the above acts
- ❖ **Polish Academy of Sciences Regulations**, including:
 - Charter of the Polish Academy of Sciences
- ❖ **IA PAS regulations**, including:
 - Charter of the Institute of Agrophysics of Polish Academy of Sciences
 - Scientific Board Regulations
 - Terms of periodic evaluation of scientific employees
 - Procedures of conducting contest for a position
 - Terms and proceedings relating to: PhD course, postdoctoral degree programme and for assigning the title of professor
 - Organizational regulations
 - The remuneration policy with attachments
 - Terms and conditions for the granting and payment of additional annual remuneration
 - Labour Regulations
 - Terms of intellectual property rights and the principles of commercialization of the results of research and development activities of IA PAS

- Regulations on requirements for applicants applying for a scientific position
- Procedures for the application process and statutory reporting activities
- Terms of PhD studies in IA PAS
- Terms and conditions of functioning of the Laboratories of IA PAS
- Detailed terms and conditions of functioning of the Laboratories of IA PAS Institute of Agrophysics, Polish Academy of Sciences
- Interdepartmental Laboratory of Numerical Modeling of IA PAS regulations
- Organizational and functional regulations of the Centre of Research & Innovation of IA PAS
- Public procurement Regulations

OPEN MEETING WITH KEY INFORMANTS

In October, 5th, 2015 the Working Group organised an open meeting on Human Resources Excellence in Research. All of IA PAS' employees were invited, including scientific and administrative staff, and PhD students. The meeting consisted of two parts. First, the participants were informed that IA PAS has adopted a Human Resources Strategy developed by the European Commission to encourage research institutions to implement the European Charter and Code of Conduct for the Recruitment of Researchers. At the meeting, it was also explained that the main reason for all actions undertaken to implement the HR Excellence Research logo are aimed improvement of working conditions for IA PAS' researchers, those already working at the Institute and future colleagues. The participants were then asked to complete an anonymous survey, in which they evaluated the level of implementation at IA PAS of the 40 rules included in the Charter & Code. They were also encouraged to evaluate the importance of the rules for themselves and express their opinions and suggestions on actions to be taken.

Of the total number of 123 IA PAS employees and PhD students invited to the meeting, 54 were present. Most of the present people have expressed positive opinion on implementing the Charter & Code rules in IA PAS.

SURVEY

The survey was carried out between 5-16th of October 2015. After the open meeting with key informants, via e-mail the on-line survey was sent to all employees and PhD students. The on-line survey was prepared in English by using Google Apps tools. English version of the survey ensured full coverage of the target group (the Polish version of the Charter & Code and translation of the survey was attached to the email). The survey consisted of 40 questions covering rules of Charter & Code and 3 general questions to define profile of respondents. There was also one question in which all respondents were asked to express their opinion and propose any action to implement at the IA PAS to improve Charter & Code rules. The 40 questions set forth in the survey were divided into four dimensions in line with the Charter & Code:

- | | |
|-------------------------------------|---|
| I. Ethical and professional aspects | III. Working conditions and social security |
| II. Recruitment | IV. Training |

For each of the 40 items, the participants were asked to evaluate both the level of implementation at IA PAS and the importance of each item for an individual:

LEVEL OF IMPORTANCE: To what extent do you agree with the statement:

- 1 – I totally disagree
- 2 – I disagree
- 3 – neither agree, nor disagree
- 4 – I rather agree
- 5 – I totally agree

LEVEL OF IMPLEMENTATION: What is your knowledge and opinion related to the level of implementation of the principle in IA PAS at the date of survey:

- 1 – New to the Institute (unknown)
- 2 – It is known but still out of formal regulation
- 3 – Dead record but exist in formal regulations
- 4 – Implemented but executed irregularly
- 5 – Fully implemented and respected

After one reminder, 76 responses have been obtained. The total group of respondents was representative enough in all sub-group of staff employed and PhD students to define general conclusion and further recommendation to the Action Plan.

III. SURVEY FINDINGS

III.1. Characteristics of survey respondents

The survey was carried out between 5-16th of October 2015. Before closure of the survey one reminder was sent. As a result 76 responses have been obtained. Characteristics of the respondents is presented below.

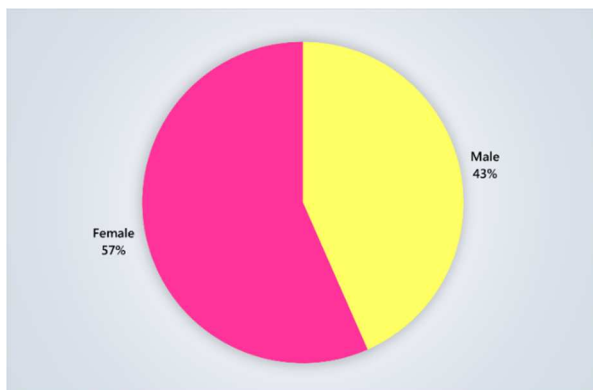


Fig. 1 Gender of respondents

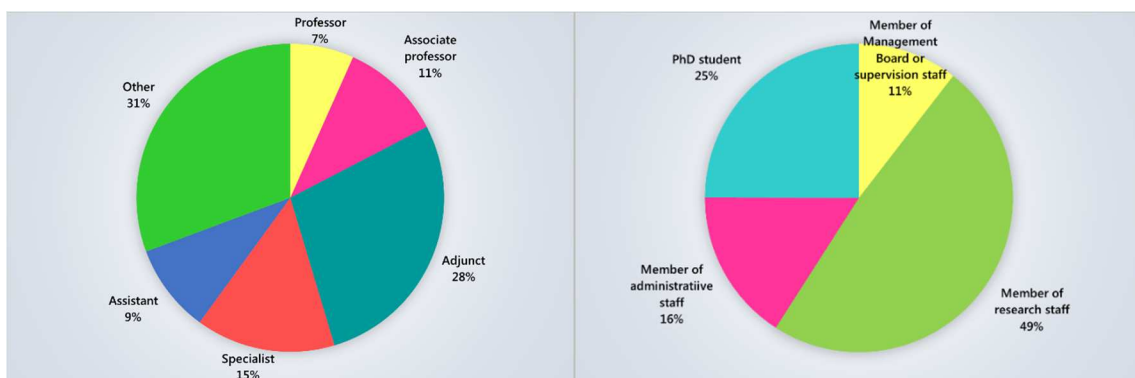


Fig. 2 Respondents division among their professional profile (in % left hand side), and formal status in the IA PAS (in% right hand side)

The group of respondents is consistent with overall characteristics of scientific workers in the Institute. Thus, it may be assumed as representative.

III.2. Survey results

Opinions about importance and implementation of Charter & Code principles

Taking into account responses defined in each context of assessment (level of importance and level of implementation), concrete answers are connected in order to define opposite feeling of the respondents:

LEVEL OF IMPORTANCE: To what extent do you agree with the statement:



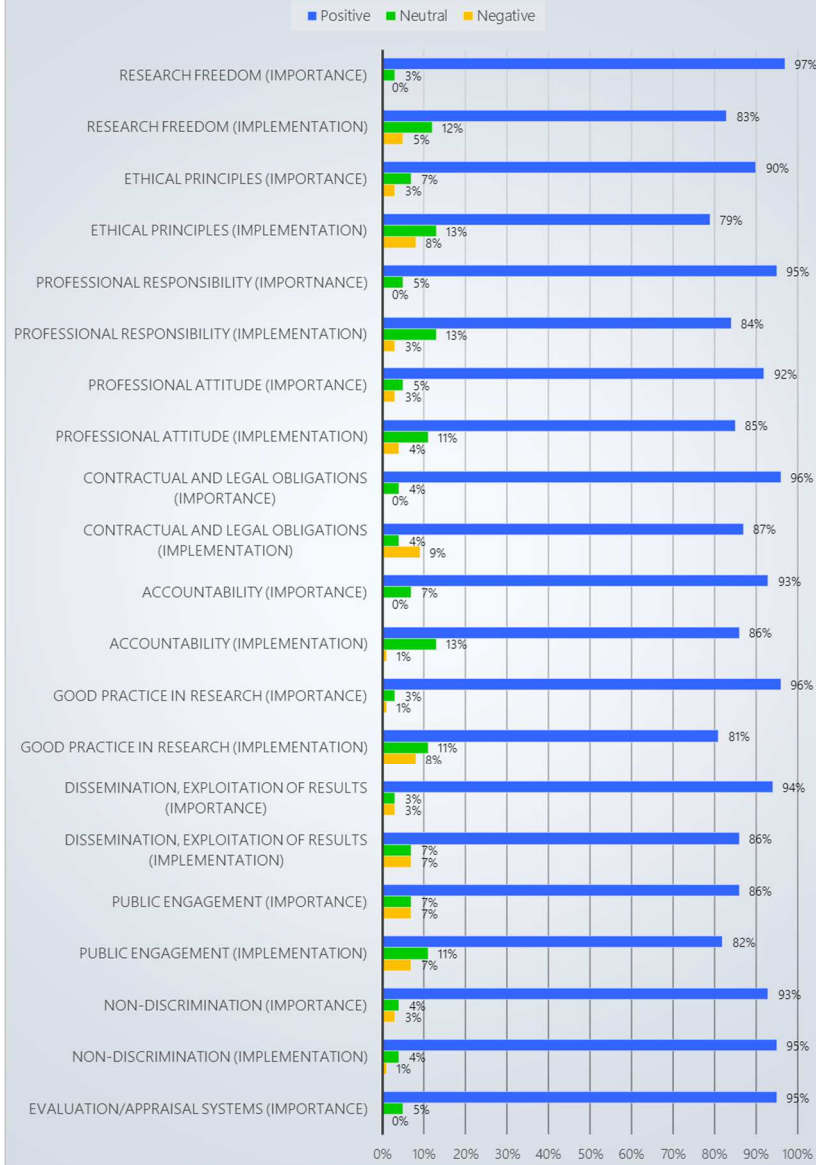
LEVEL OF IMPLEMENTATION: What is your knowledge and opinion related to the level of implementation of the principle in IA PAS at the date of survey:



Results of the survey consequently defined areas of necessary improvement in awareness rising (as a result of assessment of importance aspect) and HR managing tools to better incorporation of Charter & Code principles in Institute realities (assessment of implementation) through simple criteria - work/not work (positive/negative). It will simplify further interim assessment of implementation of Action Plan as defined in formal rules of European Commission.

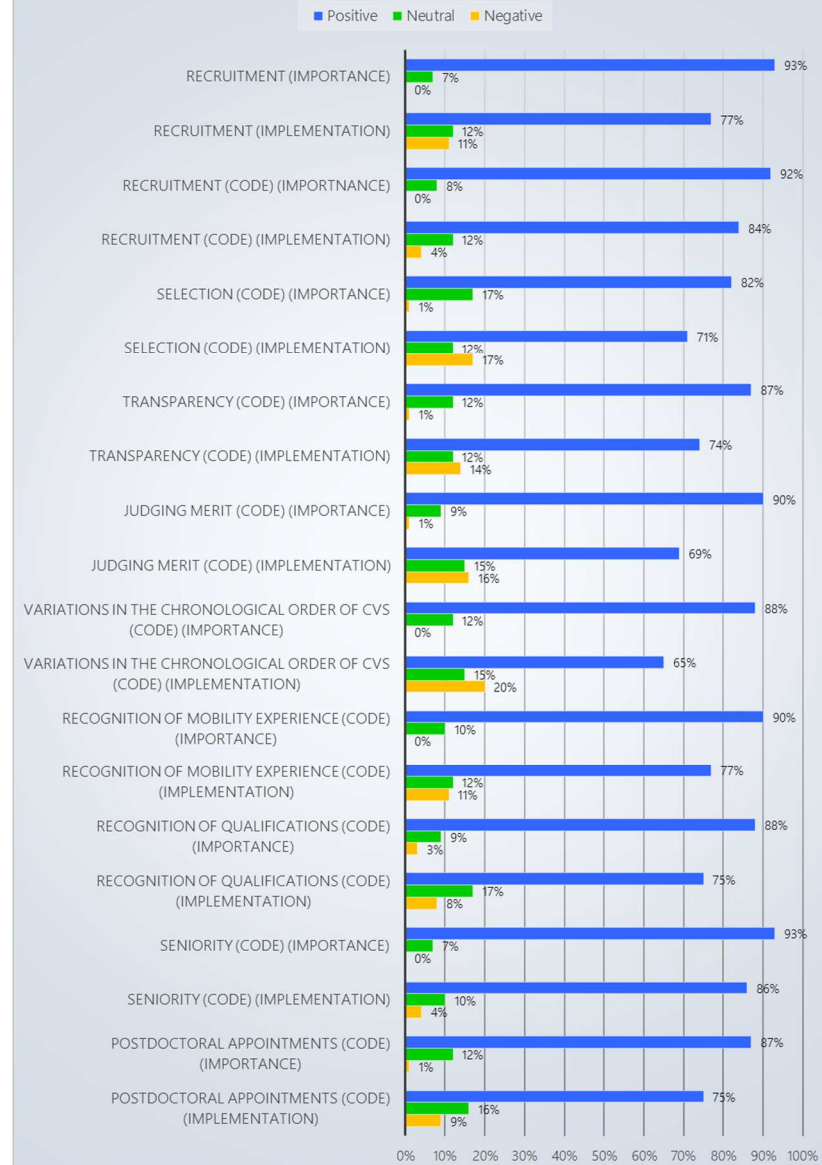
The following graphs present detailed answers grouped as positive and negative dedicated to each principles of Charter & Code.

I. ETHICAL AND PROFESSIONAL ASPECTS

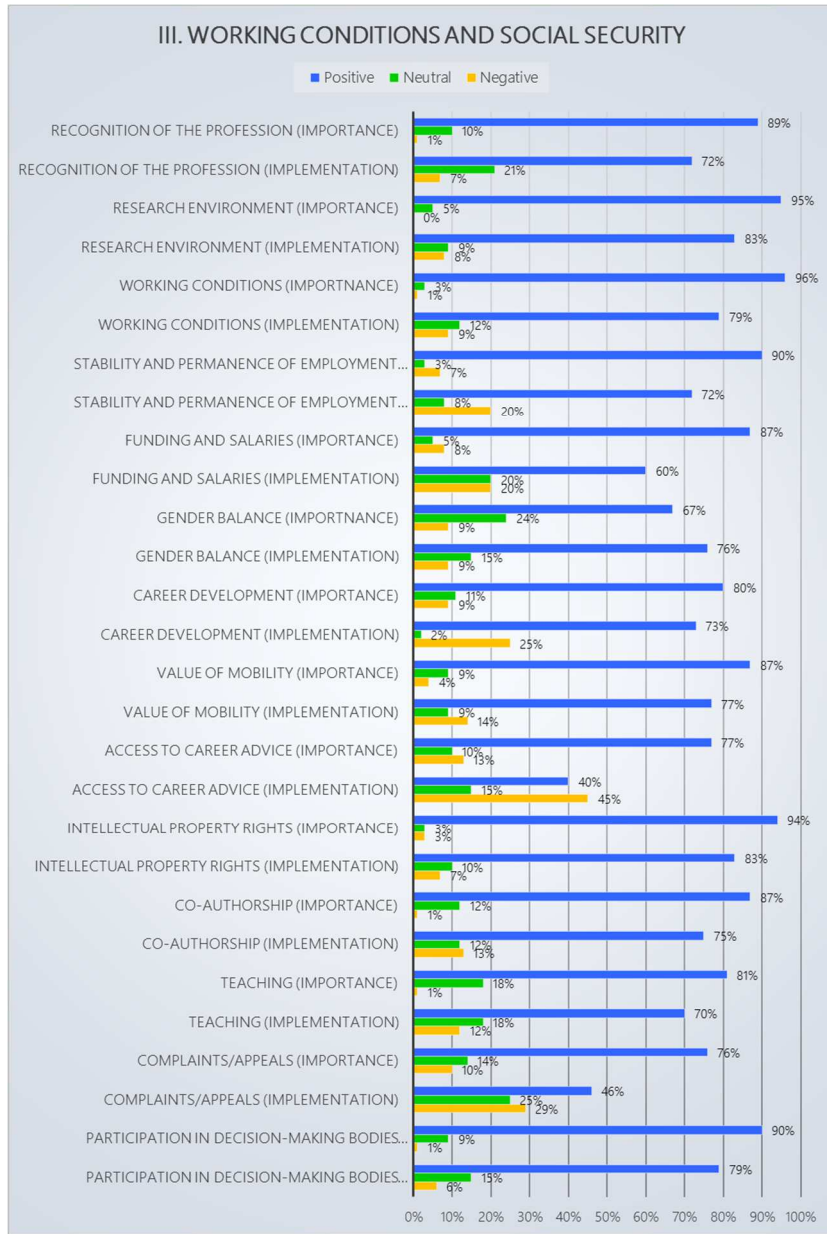


Source: On-line survey.

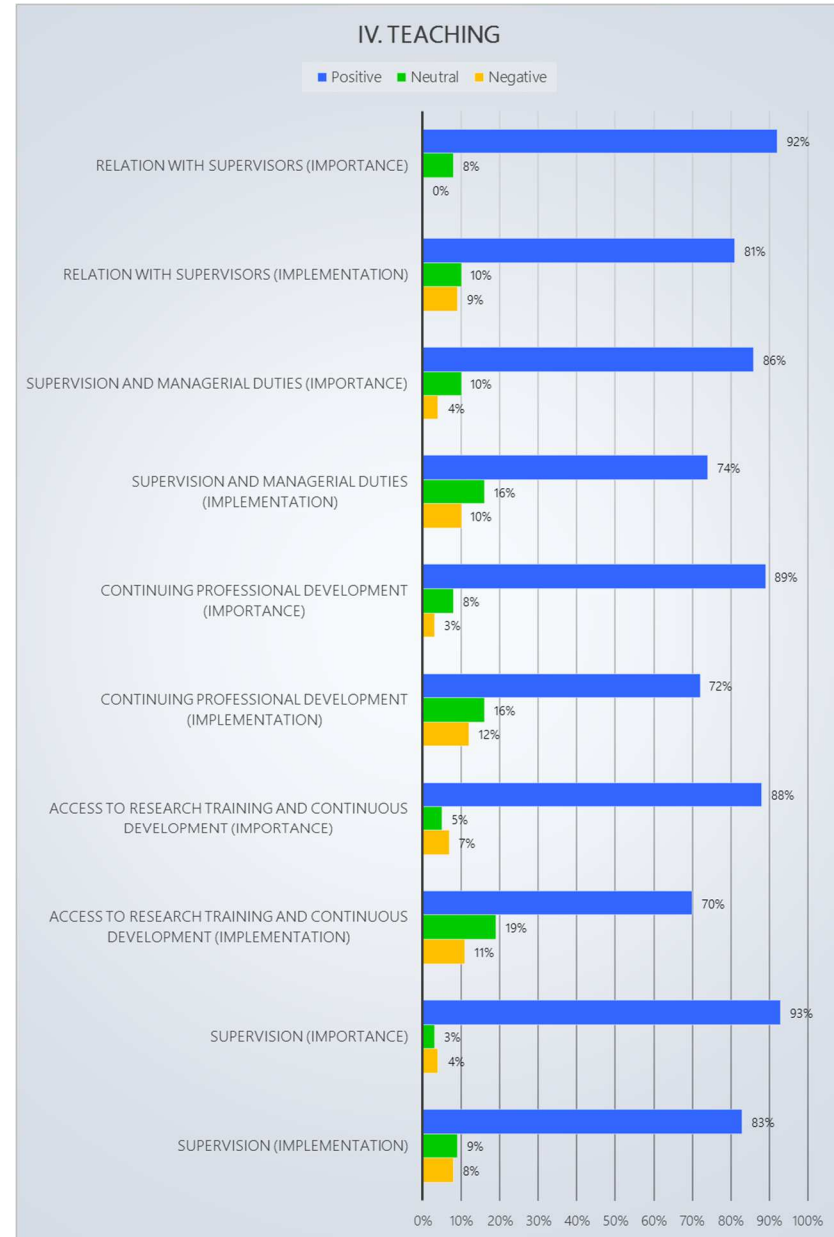
II. RECRUITMENT



Source: On-line survey.



Source: On-line survey.



Source: On-line survey.

Key recommendation to Action Plan

Internal survey results have confirmed findings of the analysis of convergences to and deviations from the Charter & Code principles and existing in-house procedures. The most important conclusion of all conducted internal analysis is that there is a strong necessity of improvement of HR management in IA PAS. Basing on the aforementioned results, in each of four Charter & Code dimensions there are principles requiring direct focus and dedicated actions. Principles which obtained high score of level of importance and level of implementation still demand defining soft measures as meetings and other awareness raising activities in order to build common understanding of problems and create social acceptance to further changes.

Consequently, each principle will be take into consideration while improving HR management in IA PAS.

On the basis of aforementioned results of internal survey and WG discussions, strengths and weaknesses have been defined, which describe state of the art of HR management in IA PAS.

STRENGTHS:

- ✓ Positive attitude of scientific staff and other employees of the IA PAS to HR management and its future improvement based on Charter & Code principles;
- ✓ Good starting point for improvement of HR management confirmed by existing in-house procedures and rules keeping in line with Charter & Code;
- ✓ Good access to people responsible for HR in the Institute eager to changes defined in Charter & Code;
- ✓ On-going process of improvement of procedures and tools dedicated to different aspects of HR management;
- ✓ Positive attitude of senior scientists for implementing the HR Strategy;
- ✓ Direct access to good practices in HR management through close links of Institute's staff with other research institutions in Europe with sophisticated HR culture.

WEAKNESSES:

- × Still limited awareness of research staff of the possibility to improve HR in their workplace.
- × Deficiency of soft skills related to HR management resulting from focusing by the scientific staff on research projects by management staff;
- × Deficiency of roles that allow to differentiate managing and scientific duties/activities of management and supervision staff;
- × Anxiety of the scientific staff that implementation of the HR Excellence Strategy will generate much more bureaucracy and will be implemented in formal manner;
- × Disaffection of young scientists to career development possibility, particularly mobility.

IV. INTERNAL GAP ANALYSIS

IV.1. Ethical and professional principles

RESEARCH FREEDOM

C&C principle:

Researchers should focus their research for the good of mankind and for expanding the frontiers of scientific knowledge, while enjoying the freedom of thought and expression, and the freedom to identify methods by which problems are solved, according to recognised ethical principles and practices.

Researchers should, however, recognise the limitations to this freedom that could arise as a result of particular research circumstances (including supervision/guidance/management) or operational constraints, e.g. for budgetary or infrastructural reasons or, especially in the industrial sector, for reasons of intellectual property protection. Such limitations should not, however, contravene recognised ethical principles and practices, to which researchers have to adhere.

Existing Institutional rules and/or practices:

The principle of research freedom is well-established at IA PAS. Researchers are free to express their ideas, identify scientific questions, and propose methods of research. Researchers may conduct research on their own initiative after obtaining the consent of the Director within the scientific unit at which they are employed. In this case, to ensure compatibility with the research programme, internal regulations and financial capabilities of the scientific unit, the topic, methodology, and infrastructural and financial conditions of the proposed research should be introduced to the Director and the researcher is obliged to get a consent. The scientific autonomy of the recipient is protected by funding agreements with individual beneficiaries and research institutions.

Researchers are mainly aware of the regulations of limitations, both the national and international law and the internal regulation: the IPR regulation, limitations, the laboratory regulations and the contracts conditions. In April 2015, the Scientific Board has adopted the IPR regulation.

Within IA PAS' structure there is no separate position dedicated to IPR regulations. Responsibilities concerning IPR are scattered between different departments, which is insufficient. There is a strong need of centralising all tasks regarding IPR within competences of one position.

Actions required:

- ❖ The consent template for Research will be prepared and introduced to the researchers (RSD, HR Specialist; February 2016)
- ❖ Creation of the position of IPR Advisor (Director, HR Specialist; March 2016)
- ❖ Regular workshops dedicated to the IPR regulations - once a year every year (IPR Advisor; June 2016 – begging of the action, June 2017)

ETHICAL PRINCIPLES

C&C principle:

Researchers should adhere to the recognised ethical practices and fundamental ethical principles appropriate to their discipline(s) as well as to ethical standards as documented in the different national, sectoral or institutional Codes of Ethics.

Existing Institutional rules and/or practices:

In 2012, on the basis of **The European Code of Conduct for Research Integrity**, the Scientific Ethics Committee has published The Code of Ethics, which is available in electronic version on the webpage of PAS.

IA PAS is governed by the Act on the Polish Academy of Science where the art. 39 delivers clear regulation about ethics. According to the article, the Scientific Ethics Committee shall deliver opinions on matters concerning breaches of scientific ethics by an employee of a higher education institution, scientific unit of the Academy, particularly in proceedings instituted by disciplinary committees. The Scientific Ethics Committee may, on its own initiative, refer matters concerning breaches of scientific ethics by the employees to competent disciplinary committees with a recommendation a recommendation for an investigation. The disciplinary committee shall submit the information on the outcome of such an investigation, after its completion, to the Scientific Ethics Committee without undue delay. There is established COMMITTEE FOR THE ETHICS IN SCIENCE 2015-2018 (for PAS).

The IA PAS requires that its winners and beneficiaries follow and disseminate the highest ethical standards and the fundamental principles of good practice in science, apply standards of professionalism, and recognise the contribution of their rivals and predecessors to obtained research results. Any symptoms of scientific misconduct including fabrication or falsification of data when conducting research and presenting the results, or when applying for funding, are inadmissible. The researchers of IA PAS represent the high standards of professional responsibility and in particular avoiding plagiarism and respecting other researchers and intellectual property.

Actions required:

None.

PROFESSIONAL RESPONSIBILITY

C&C principle:

Researchers should make every effort to ensure that their research is relevant to society and does not duplicate research previously carried out elsewhere.

They must avoid plagiarism of any kind and abide by the principle of intellectual property and joint data ownership in the case of research carried out in collaboration with a supervisor(s) and/or other researchers. The need to validate new observations by showing that experiments are reproducible should not be interpreted as plagiarism, provided that the data to be confirmed are explicitly quoted.

Researchers should ensure, if any aspect of their work is delegated, that the person to whom it is delegated has the competence to carry it out.

Existing Institutional rules and/or practices:

Essential obligations of scientific staff are specified in the Charter of IA PAS and Organizational Regulations. These obligations include conducting research and development work (without limitations), announcing, disseminating and exploiting their research results and participating in educational tasks undertaken by the unit. Moreover, individual obligations of each scientist are defined in terms of the employee's duties under the employment contract.

Actions required:

None.

PROFESSIONAL ATTITUDE

C&C principle:

Researchers should be familiar with the strategic goals governing their research environment and funding mechanisms, and should seek all necessary approvals before starting their research or accessing the resources provided.

They should inform their employers, funders or supervisor when their research project is delayed, redefined or completed, or give notice if it is to be terminated earlier or suspended for whatever reason.

Existing Institutional rules and/or practices:

This requirement is always discussed on a case by case basis. All researchers are obliged to inform their supervisors about any delays and obstacles that may jeopardise the proper completion of the research project. Scientist are also obliged to give notice to their supervisors if the research projects are to be determined earlier or suspended for whatever reason. In order to inform the research environment of IA PAS, once a year (in December) there are organised seminars during which scientific teams present progress of the research projects they are involved in.

Actions required:

- ❖ Scientific internal seminars on research project progress and conducted by scientific teams organised every half of a year (RSD; January 2016 – beginning of the action, June 2016, January 2017, June 2017)
- ❖ Developing ordinances on:
 - the circulation of documents related to grants funding research projects and accepting the principles of financial expenses (Director, RSD; August 2016)
 - the obligation to inform the Research Support Department with complex applications for all research projects (Director, RSD; January 2016)

CONTRACTUAL AND LEGAL OBLIGATIONS

C&C principle:

Researchers at all levels must be familiar with the national, sectoral or institutional regulations governing training and/or working conditions.

This includes Intellectual Property Rights regulations, and the requirements and conditions of any sponsor or funders, independently of the nature of their contract. Researchers should adhere to such regulations by delivering the required results (e.g. thesis, publications, patents, reports, new products development, etc.) as set out in the terms and conditions of the contract or equivalent document.

Existing Institutional rules and/or practices:

IA PAS researchers at all levels are familiar with the national, sectoral or institutional regulations governing training and/or working conditions. Before signing the employment contract, the HR Specialist explains the rights and responsibilities of the employee. Each newly hired employee confirms the above with a signature on an appropriate document.

IA PAS establishes a Regional Contact Point for Research Programmes of the EU [RCP] which operates within the framework of regional and local contact points network, which cooperates with the National Contact Points for Research Programmes of the EU. The main tasks of the RCP include:

- ✓ conducting organizational and informational activities on participation in Framework Programme projects, technical development and presenting EU policies and strategies;
- ✓ support of Polish institutions willing to participate in Horizon 2020 calls and assistance in preparation of documents related to participation in Horizon 2020 proposals;
- ✓ promoting the Horizon 2020 activities by trainings, participation in trade fairs and conferences, and publishing;
- ✓ dissemination of Horizon 2020 calls;
- ✓ providing consultations on Horizon 2020 calls;
- ✓ cooperation with a network of regional, sectoral and local contact points;
- ✓ support in project partners searching;
- ✓ promotion of Polish scientific institutions and enterprises.

Moreover, those interested in obtaining research external funding, Research Support Department delivers all necessary information about the structural and other external funds, e.g. Horizon 2020, the EEA and Norway Grants etc., the provision elongates to national and Community law, and Community policies, including regulations concerning competition, public procurement, environmental protection and gender equality.

Action required:

- ❖ The IPR workshops - once a year each year for a permanent scientific staff (IPR Advisor; June 2016 – beginning of the action, June 2017) and obligatory training for newly employed researchers (IPR Advisor; June 2016)
- ❖ Open meetings on external funds for research - once a year every year (structural funds, European funds etc.) - once a year every year (RSD; May 2016 – beginning of the action, May 2017)

ACCOUNTABILITY

C&C principle:

Researchers need to be aware that they are accountable towards their employers, funders or other related public or private bodies as well as, on more ethical grounds, towards society as a whole. In particular, researchers funded by public funds are also accountable for the efficient use of taxpayers' money. Consequently, they should adhere to the principles of sound, transparent and efficient financial management and cooperate with any authorised audits of their research, whether undertaken by their employers/funders or by ethics committees.

Methods of collection and analysis, the outputs and, where applicable, details of the data should be open to internal and external scrutiny, whenever necessary and as requested by the appropriate authorities.

Existing Institutional rules and/or practices

The issue of accountability addresses all researchers. The accountability towards employers is established in the Organizational Regulations; accountability towards funders or other related public or private bodies is established in

contracts. The necessity of commercialisation, the patent strategy, the management of the research and the disseminations were discussed.

As the scientific unit of the Polish Academy of Science, IA PAS is obliged to adhere to the principles of sound, transparent and efficient financial management and cooperate with any authorised audits of their research, whether undertaken by their employers/funders or by ethics committees. The management of assets of IA PAS, including assets of particular departments and laboratories, and of other organisational units within IA PAS, is conducted in accordance with the principles of expediency, economy and parsimony and in accordance with the requirements of efficient management.

Action required:

None.

GOOD PRACTICE IN RESEARCH

C&C principle:

Researchers should at all times adopt safe working practices, in line with national legislation, including taking the necessary precautions for health and safety and for recovery from information technology disasters, e.g. by preparing proper back-up strategies. They should also be familiar with the current national legal requirements regarding data protection and confidentiality protection requirements, and undertake the necessary steps to fulfil them at all times.

Existing Institutional rules and/or practices:

IA PAS as a research institution and employer is obliged to secure safe and healthy working conditions. There are two types of trainings on the aforementioned topic:

- ✓ initial training for newly hired employees;
- ✓ periodic training every five years.

During the initial training, newly hired employees also are acquainted with safe and healthy conditions referring to the position they are taking up.

If there is a need reported by the supervisor, the specific training on health and safety conditions is organised.

Action required:

- ❖ Workshop on technical aspects of data protection and confidentiality protection (IT Specialist; October 2016)
- ❖ Developing procedure regarding data protection and confidentiality protection (IT Specialist; June 2016)

DISSEMINATION, EXPLOITATION OF RESULTS

C&C principle:

All researchers should ensure, in compliance with their contractual arrangements, that the results of their research are disseminated and exploited, e.g. communicated, transferred into other research settings or, if appropriate, commercialised. Senior researchers, in particular, are expected to take a lead in ensuring that research is fruitful and that results are either exploited commercially or made accessible to the public (or both) whenever the opportunity arises.

Existing Institutional rules and/or practices:

Essential obligations of scientific staff are specified in the Charter of IA PAS and Organizational Regulations. These obligations include conducting research and development work (without limitations), announcing, disseminating and exploiting their research results, and participating in the educational tasks undertaken by the unit.

In April 2015 new IPR ordinance was established. The attorney-at-law supports researchers in IPR protection and commercialization process (if necessary).

IA PAS focuses on achieving high level of public awareness by managing external communication with both the scientific and industrial community.

Web page provides information about researches' efforts and ongoing and past projects. Publications, reports and presentations are the natural way of dissemination as the researchers are obliged to disseminate or exploit their scientific results. The results of dissemination are published on IA PAS' web page (only in Polish):

- publications: <http://www.ipan.lublin.pl/pl/info/publikacje>
- reports and reporting sessions: <http://www.ipan.lublin.pl/en/info/research>
- patents: <http://www.ipan.lublin.pl/en/info/patents>
- implementations: <http://www.ipan.lublin.pl/en/info/major-implementation#ad-image-0>

- expertise: <http://www.ipan.lublin.pl/en/info/expertises>

In 2014, IA PAS researchers' published and presented at conferences together 216 presentations (114 national conferences, 102 abroad conferences). 72 publications were published in journals with "impact factor" (Journal Citation Reports), 19 monographs (books and chapters in books).

IA PAS also publishes its own research journals i.e. Acta Agrophysica, International Agrophysics [IF 2014: 1.117], Acta Agrophysica Monographiae.

Action required:

- ❖ To rebuild and improve the web page (Polish and English version) to be more intuitive (PR Specialist; April 2016)
- ❖ To create a new position of the Business Development Specialist (Director, HR Specialist; March 2016);
- ❖ To develop detailed commercialisation procedures of the research results (Business Development Specialist; June 2016)

PUBLIC ENGAGEMENT

C&C principle:

Researchers should ensure that their research activities are made known to society at large in such a way that they can be understood by non-specialists, thereby improving the public's understanding of science. Direct engagement with the public will help researchers to better understand public interest in priorities for science and technology and also the public's concerns.

Existing Institutional rules and/or practices

IA PAS is actively involved in awareness raising activities regarding the importance of innovative science for the society through organization of events such as: open days, science festival, and open lectures.

Researchers ensure that their research activities are made known to society by publications, participation in the popular broadcasts and taking part in fare trades.

IA PAS organizes and participates in numerous events aiming at strengthening of the links between research and industry such as: conferences, brokerage events, innovative Polish and European trade fairs. In 2015 Institute has participated in i.e.:

- ✓ International Workshop for Young Scientists in (Gödöllő, Hungary 2015),
- ✓ International Trade Fair Inno-Tech-Expo (Kielce, Polska 2015),
- ✓ International Scientific Conference "Zeolites in Agriculture Environmental Protection and Building" - organizer (Lublin, Poland, 2015)
- ✓ XIX Festival of Sciences in Jabłonna (Poland, 2015)
- ✓ 29th Congress of the Polish Society of Soil Science (Wroclaw, Poland, 2015)
- ✓ Lublin Science Festival (Lublin, Poland,) 2015
- ✓ The Science Picnic of Polish Radio and the Copernicus Science Centre (Warszawa, Poland, 2015) - Europe's largest outdoor event aimed to promote science. Every year, it attracts crowds of visitors to Warszawa

and in Brokerage Events in Belgium (Brussels).

Action required:

- ❖ Engaging mass and social media to improve public's understanding of science, e.g. Facebook, Twitter (PR Specialist; February 2016)
- ❖ Improving YouTube Channel (PR Specialist, ongoing – up to date)
- ❖ Organisation of local brokerage events once a year each year (PR Specialist; November 2015 – beginning of the action, November 2016, November 2016, November 2017)

NON-DISCRIMINATION

C&C principle:

Employers and/or funders of researchers will not discriminate against researchers in any way on the basis of gender, age, ethnic, national or social origin, religion or belief, sexual orientation, language, disability, political opinion, social or economic condition.

Existing Institutional rules and/or practices:

IA PAS is a part of the Polish Academy of Science which consists of national members (including both full and corresponding members) and foreign members. Since its establishment, the Polish Academy of Sciences has

considered international scientific cooperation as an indispensable tool for fostering steady progress of research in Poland. Hence its efforts have always aimed at establishing an extensive network of contacts with foreign partners which would be independent from political influences. While developing international academic cooperation based on the principle of partnership and benefits for all participants, the Polish Academy of Sciences consolidates both traditional bilateral contacts, and multilateral relations through the membership of over 100 international scientific organizations as well as by participating in an increasing number of research projects conducted by all-European organizations.

IA PAS does not discriminate researchers in any way on the basis of gender, age, ethnic, national or social origin, religion or belief, sexual orientation, language, disability, political opinion, social or economic condition. There is no evidence of any discrimination against researchers on any other basis.

Action required:

None.

EVALUATION/APPRaisal SYSTEMS

C&C principle:

Employers and/or funders should introduce for all researchers, including senior researchers, evaluation/appraisal systems for assessing their professional performance on a regular basis and in a transparent manner by an independent (and, in the case of senior researchers, preferably international) committee.

Existing Institutional rules and/or practices:

According to the national law, a scientific committee examining important problems within the discipline represented or within related scientific disciplines and holding debates, discussions and academic conferences for this purpose; disseminating the results of the debates, discussions and academic conferences.

Moreover, the Scientific Board of IA PAS conducts current supervision over its activities, including without limitation attention to the high quality of its scientific activities and the development of the persons who start their academic careers referred to in Article 2 Item 3 of the Act of 30 April 2010 on the National Science Centre.

The Scientific Board of IA PAS also establishes periodic evaluation of all researchers, including senior researchers. Professors and associated professors are evaluated at least once every four years, adjuncts and assistants – once every two years. The evaluations form is a parametric tool and encompasses the following activities of the employee:

- ✓ Scientific and creative achievements
- ✓ Scientific development
- ✓ Material effects of scientific activities
- ✓ Other forms of activity.

Detailed procedures and frequency of evaluation is set forth in the Terms of periodic evaluation of scientific employees. Scientific staff of the Academy has the right to appeal against the evaluation of their professional activities, and, in particular, the evaluation of their work. An appeal is lodged with the Vice-President of the Academy who supervises the work of the relevant division. In IA PAS there are also special meetings organised in order to improve the above principle. The following bodies may be involved in the evaluation process: the Disciplinary Board, Board of Appeal and the Selection Committee.

Action required:

- ❖ Ordinance on terms of periodic evaluation of scientific employees covering engineering technicians and technicians by the evaluation system (redefining) (Commission for Evaluation of Activity of Researchers, Director, Scientific Board; January 2016)
- ❖ Unifying the procedures for Polish and foreign scientists by establishing an English version of key documents and procedures (Commission for Evaluation of Activity of Researchers; June 2016)

IV.2. Recruitment

RECRUITMENT

C&C principle:

Employers and/or funders should ensure that the entry and admission standards for researchers, particularly at the beginning at their careers, are clearly specified and should also facilitate access for disadvantaged groups or for researchers returning to a research career, including teachers (of any level) returning to a research career.

Employers and/or funders of researchers should adhere to the principles set out in the Code of Conduct for the Recruitment of Researchers when appointing or recruiting researchers.

Existing Institutional rules and/or practices:

The national law (The Act on Polish Academy of Science and the Labour Law) describes conditions of recruitments. Moreover IA PAS has established the following legal documents:

- Regulations on procedures of conducting contest for a scientific position
- Regulations on terms and conditions for the granting and payment of additional annual remuneration

Action required:

- ❖ Developing relevant rules of:
 - Ordinance on procedures of conducting contest for a position in English (HR Specialist; February 2016)

RECRUITMENT (CODE)

C&C principle:

Employers and/or funders should establish recruitment procedures which are open, efficient, transparent, supportive and internationally comparable, as well as tailored to the type of positions advertised.

Advertisements should give a broad description of knowledge and competencies required, and should not be so specialised as to discourage suitable applicants. Employers should include a description of the working conditions and entitlements, including career development prospects.

Moreover, the time allowed between the advertisement of the vacancy or the call for applications and the deadline for reply should be realistic.

Existing Institutional rules and/or practices:

IA PAS as the public Institute of Polish Academy of Science establishes recruitment procedure which is open, efficient, transparent, supportive and internationally comparable. The advertisements are public on the webpage of IA PAS, and on other public national portals.

IA PAS established Rules of the selection proceedings in case of employing to the scientific positions at IA PAS and a general procedures of conducting contest for a position at IA PAS.

Information about the vacancy covers requirements of: position with the scope and specifics of the tasks, competences of the applicant, list of required documents confirming qualifications of the applicant, determine date and place of delivering the required documents and time of the recruitment results.

Requirements towards a vacancy applicant depends on the position. Generally they are specified in the form of: scope of researches to be carried out by a successful applicant, and general requirements on completed studies, academic degree and scientific specialty. The requirements on completed studies and scientific specialty is defined in a very general way. For each position there also specific requirements established.

In October 2015 new regulations on specifying applicants' selection criteria, mobility recognition and excluding reputation-based selection were adopted.

Employees awareness on new regulations is established by informing them by e-mails and posting notices on the bulletin board.

Action required:

- ❖ To create the employment policy specifying applicants' selection criteria, mobility recognition and excluding reputation-based selection - adopt it; (Director; Commission for Evaluation of Activity of Researchers; HR Specialist; October 2015)

SELECTION (CODE)

C&C principle:

Selection committees should bring together diverse expertise and competences and should have an adequate gender balance and, where appropriate and feasible, include members from different sectors (public and private) and disciplines, including from other countries and with relevant experience to assess the candidate. Whenever possible, a wide range of selection practices should be used, such as external expert assessment and face-to-face interviews. Members of selection panels should be adequately trained.

Existing Institutional rules and/or practices:

Applicants for the vacancy are selected on the basis of submitted documentation and a successful interview. PhD students are also offered a studentship for the duration of the course.

Applicants for the scientific position such as associate professor, adjunct and assistant, are required to submit the following documents confirming his/her competences:

- ✓ An application for employment on the particular position;
- ✓ Curriculum vitae;
- ✓ A copy of a document confirming assignment of postdoctoral degree and (if applicable) the title of professor (in case of applying for the position of associate professor) or a copy of a document confirming assignment of PhD degree or postdoctoral degree (in case of applying for the position of adjunct) or a copy of a document confirming assignment of master degree (in case of applying for the position of assistant)
- ✓ Tabular summary of scientific achievements;
- ✓ List of publications included in the database of Web of Science (in case of applying for the position of associate professor and adjunct);
- ✓ Research plan for the next three years;
- ✓ Autoreport in Polish and English;
- ✓ Survey on scientific achievements;
- ✓ Personal questionnaire;
- ✓ Research supervisor opinion or opinion of the previous employer;
- ✓ Other additional documents.

Candidate for PhD Studies is required to submit the following documents:

- ✓ A University diploma or certified duplicate (not just a photocopy) inclusive of the academic record;
- ✓ Curriculum Vitae;
- ✓ Letter of recommendation from the supervisor of the Master Degree thesis;
- ✓ Application to the Director of this Institute;
- ✓ Filled enquiry (attachment);
- ✓ An extract from the student's registration book (with average of grades), certified by the appropriate Dean's Office - the original of master thesis for inspection by the Selection Committee during the interview;
- ✓ Information on received academic scholarships;
- ✓ Certificates confirming obtained knowledge of modern foreign languages;
- ✓ Proposition of research topics;
- ✓ Four photographs;
- ✓ A photocopy of the passport (for non-Polish citizens);
- ✓ Additional documents which may be important in the recruitment process.

In both aforementioned cases, copies of the documents can be submitted personally or sent by a traditional way. After determining the number of candidates the time for an interviews is set. IA PAS informs candidates about the interview by a phone. The qualification interview for a position is conducted by a commission consisting of at least 3 members including Head of the Department and member of the Commission for the evaluation and development of scientific staff of the IA PAS' Scientific Board. The qualification interview for PhD Studies is conducted by a Selection Committee consisting of 3 members, including Deputy Director for Scientific Affairs as a chairman of the Committee, Head of PhD Studies and one of the younger researchers holding an academic title or degree of associated professor. Usually the qualification interview is conducted on-site at the institute. However, there is possibility to conduct a qualification interviews via Internet. This kind of an interview is possible in exceptional cases with approval of the Director but should be well motivated and the Institute certainly will not accept it as a rule. The final acceptance of the candidate is decided by the Director of IA PAS.

In October 2015, IA PAS changed the regulations on requirements for applicants applying for a scientific position of associate professor, adjunct or assistant. The regulations are publicly available at the IA PAS' web page.

Action required:

- ❖ To enable candidates for a position and for phd students to submit all required documents via Internet (PR Specialist, HR Specialist, IT Specialist; April 2016)
- ❖ To respect gender issues within the selection process by preparing specified form on the matter (HR Specialist, IT Specialist; September 2016)

- ❖ To unify all ordinances and regulations in Polish and English (HR Specialist; June 2016)

TRANSPARENCY (CODE)

C&C principle:

Candidates should be informed, prior to the selection, about the recruitment process and the selection criteria, the number of available positions and the career development prospects. They should also be informed after the selection process about the strengths and weaknesses of their applications.

Existing Institutional rules and/or practices:

Information about the application procedure, as well as the assessment process and criteria, is available on IA PAS' website. The information is very detailed in each case because of the lack of one procedural polity adopted as the Ordinance. The feedback about the strengths and weaknesses of candidates and evaluation chart of the candidate is delivered on the request of the applicant via e-mail or by traditional mail - as a good practice.

Action required:

- ❖ To adapt the good practices as an ordinance (HR Specialist; October 2016)
- ❖ To put the regulations on the web page / e-mails on request (HR Specialist; November 2016)

JUDGING MERIT (CODE)

C&C principle:

The selection process should take into consideration the whole range of experience of the candidates. While focusing on their overall potential as researchers, their creativity and level of independence should also be considered.

This means that merit should be judged qualitatively as well as quantitatively, focusing on outstanding results within a diversified career path and not only on the number of publications. Consequently, the importance of bibliometric indices should be properly balanced within a wider range of evaluation criteria, such as teaching, supervision, teamwork, knowledge transfer, management of research and innovation and public awareness activities. For candidates from an industrial background, particular attention should be paid to any contributions to patents, development or inventions.

Existing Institutional rules and/or practices:

The Commission for the Evaluation and Development of Scientific Staff of IA PAS has established Recommendations on the scientific achievements of candidates opening the PhD or postdoctoral course in the IA PAS or applying at the request of the Scientific Board for the title of Professor. The aforementioned rules refer mainly to bibliometric indices. Rules of the selection proceedings in case of employing to the academic positions are established as an ordinance. Rules of the selection proceedings in case of employing to the non-academic position at IA PAS are used as a good practice.

In October 2015 new Ordinance on regulations on requirements for applicants applying for a scientific position of associate professor, adjunct or assistant was introduced. The Ordinance specifies selection procedure of scientific staff. It was also published on IA PAS' website and sent by email to all employees.

Action required:

- ❖ To adopt the documents related to the selection procedure and publish on IA PAS website and disseminated among IA PAS employees; (Director, Commission for Evaluation of Activity of Researchers; October 2015)

VARIATIONS IN THE CHRONOLOGICAL ORDER OF CVS (CODE)

C&C principle:

Career breaks or variations in the chronological order of CVs should not be penalised, but regarded as an evolution of a career, and consequently, as a potentially valuable contribution to the professional development of researchers towards a multidimensional career track. Candidates should therefore be allowed to submit evidence-based CVs, reflecting a representative array of achievements and qualifications appropriate to the post for which application is being made.

Existing Institutional rules and/or practices:

IA PAS does not have a special regulation related to the form of CV. Nevertheless, as a good practice - the procedure enables a candidate to describe his/her achievements, participation in research projects, scientific interests and research plans (kind of evidence-based CV). Therefore, WG did not suggest any changes in reference to application requirements.

In its selection procedures, IA PAS takes into consideration career breaks due to childcare. It also allows for diversified career models, with non-academic experiences. Having in mind the recommendation of Ministry of Higher Education and the cooperation between industry and researchers, IA PAS encourages researchers to present their industry experience (taken into consideration).

In order to improve chances of persons experiencing a break in his/her career or with variations in the chronological order of CV - improvement of IA PAS information policy is going to propose a special clause in the recruitment documents - as recommendations.

Action required:

None.

RECOGNITION OF MOBILITY EXPERIENCE (CODE)

C&C principle:

Any mobility experience, e.g. a stay in another country/region or in another research setting (public or private) or a change from one discipline or sector to another, whether as part of the initial research training or at a later stage of the research career, or virtual mobility experience, should be considered as a valuable contribution to the professional development of a researcher.

Existing Institutional rules and/or practices:

Researchers of IA PAS are supported and encouraged to participate in business trips / domestic and foreign internships and to be professionally mobile. The Institute helps with visa matters issues all necessary documents. If a student does not live in Lublin, on his/her request, the PhD Secretary helps in finding appropriate accommodation in lodgings or in other universities' students' homes, which took place a few times in the past.

Recruitment procedures recognize rule of mobility of experience, i.e. through introducing: (a) obligation to submit by an applicant research plan incl. information on professional interests, achievements, participation in research projects and research plans, (b) obligation to take into account by Selection committee research plan, specifying personal achievements and experiences regardless to the fact where they were collected.

Action required:

- ❖ To adopt Rules of the selection proceedings in case of employing to the academic positions at IA PAS in view of Code of Conduct for the Recruitment of Researchers (Commission for Evaluation of Activity of Researchers, October 2015)

RECOGNITION OF QUALIFICATIONS (CODE)

C&C principle:

Employers and/or funders should provide for appropriate assessment and evaluation of the academic and professional qualifications, including non-formal qualifications, of all researchers, in particular within the context of international and professional mobility. They should inform themselves and gain a full understanding of rules, procedures and standards governing the recognition of such qualifications and, consequently, explore existing national law, conventions and specific rules on the recognition of these qualifications through all available channels.

Existing Institutional rules and/or practices:

Polish law regulations provide some for appropriate assessment and evaluation of the academic and professional qualifications (Act on Academic Degrees and Academic Title, and on Degrees and Title in Art; Regulation of the Minister of Science and Higher Education on criteria for assessing the achievements of the person applying for postdoctoral appointment). IA PAS masters Rules of the selection proceedings in case of employing to the academic positions at IA PAS and in October 2015 established new rules regarding requirements for applicants applying for a scientific position of associate professor, adjunct or assistant. However, the aforementioned rules require adjustment to the Code for Recruitment of Researcher, ex: the qualification interview is conducted by a commission consisting of at least 3 members including i.e. Deputy Director for Scientific Affairs as a chairman of the Selection Committee, Head of the PhD Studies. Usually the qualification interview is conducted on-site at the institute. However, there a possibility to conduct a qualification interviews via the internet. This kind of an interview is possible in exceptional cases with approval from the Director but should be well motivated and the Institute certainly will not accept it as a rule.

Nevertheless requirements towards a vacancy candidate are specified in the form of: scope of researches to be carried out by a successful applicant, and general requirements on completed studies, academic degree and scientific specialty. The requirements on completed studies and scientific specialty is defined in a very general way.

Action required:

None.

SENIORITY (CODE)

C&C principle:

The levels of qualifications required should be in line with the needs of the position and not be set as a barrier to entry. Recognition and evaluation of qualifications should focus on judging the achievements of the person rather than his/her circumstances or the reputation of the institution where the qualifications were gained. As professional qualifications may be gained at an early stage of a long career, the pattern of lifelong professional development should also be recognised.

Existing Institutional rules and/or practices:

IA PAS fully respects the rule. Each new research vacancy is defined on the basis of deep analyses of essential needs and possible conditions for new employee. Consequently the person recommended to the position is defined taking into account qualifications and achievements.

Action required:

None.

POSTDOCTORAL APPOINTMENTS (CODE)

C&C principle:

Clear rules and explicit guidelines for the recruitment and appointment of postdoctoral researchers, including the maximum duration and the objectives of such appointments, should be established by the institutions appointing postdoctoral researchers. Such guidelines should take into account time spent in prior postdoctoral appointments at other institutions and take into consideration that the postdoctoral status should be transitional, with the primary purpose of providing additional professional development opportunities for a research career in the context of long-term career prospects.

Existing Institutional rules and/or practices:

Polish law regulates detailed conditions under which postdoctoral appointments are made (Act on Polish Academy of Science, Act on Academic Degrees and Academic Title, and on Degrees and Title in Art; Regulation of the Minister of Science and Higher Education on criteria for assessing the achievements of the person applying for postdoctoral appointment). IA PAS has no influence on appointment criteria.

Action required:

None.

IV.3. Working conditions and social security

RECOGNITION OF THE PROFESSION

C&C principle:

All researchers engaged in a research career should be recognised as professionals and be treated accordingly. This should commence at the beginning of their careers, namely at postgraduate level, and should include all levels, regardless of their classification at national level (e.g. employee, postgraduate student, doctoral candidate, postdoctoral fellow, civil servants).

Existing Institutional rules and/or practices:

The national law regulates requirements on completed studies and scientific specialty sufficiently to recognize researchers as professionals (Act on Polish Academy of Science, Act on Academic Degrees and Academic Title, and on Degrees and Title in Art).

According to the applicable law, scientific units of the Polish Academy of Sciences may employ the following groups of employees:

- 1) scientific staff
- 2) research and technical staff

- 3) library, scientific documentation and information staff
- 4) engineering and technical staff
- 5) staff responsible for organisational, economic and administrative matters
- 6) workers and service staff.

Scientific staff may be employed in the following positions:

- 1) full professor
- 2) associate professor
- 3) visiting professor
- 4) adjunct
- 5) assistant.

Research and technical staff may be employed in the following positions:

- 1) chief specialist on environmental research equipment
- 2) specialist.

Furthermore, there are internal regulations of IA PAS presenting the gradation and post for 49 researchers, 13 Engineers and technicians, 33 administrative and support staff, and 28 PhD students.

Action required:

None.

RESEARCH ENVIRONMENT

C&C principle:

Employers and/or funders of researchers should ensure that the most stimulating research or research training environment is created which offers appropriate equipment, facilities and opportunities, including for remote collaboration over research networks, and that the national or sectoral regulations concerning health and safety in research are observed.

Funders should ensure that adequate resources are provided in support of the agreed work programme.

Existing Institutional rules and/or practices:

IA PAS is one of the best-equipped institute in Poland. At present 26 laboratories in IA PAS are equipped with advanced techniques, for example: 2 atomic force microscopies, confocal microscope, FTIR and Raman and fluorescence spectrometers, chromatography, mass spectrometry, devices for mechanical testing and rheology, modelling tools (finite elements modelling, discrete elements modelling and density functional theory. In 2015, IA PAS opened new facility - Centre of Research & Innovation in equipped with seven high level laboratories and two classrooms:

- | | |
|---|--|
| ✓ Laboratory of Extrusion | ✓ Laboratory of Soil Erosion |
| ✓ Laboratory of Energetic Biomass | ✓ Laboratory of Microbiology and Biochemistry |
| ✓ Laboratory of Functional Food | ✓ Unit of Nanomaterials Structure and Properties |
| ✓ Laboratory of Growth and Culture of Algae | ✓ Unit of Material Preparation |
| ✓ Laboratory of Plant Growth and Adaptation to Environmental Conditions | |

Earlier, in the years 2008-2011 the Institute of Agrophysics PAN (IA PAS) participated in the implementation of 2 infrastructural projects from the Operational Programme Development of Eastern Poland 2007 – 2013 which constituted an essential and comprehensive investment:

- ✓ Project "Infrastructure development and laboratories refitting of the Centre of Excellence AGROPHYSICS" (duration 2008-2010). Total value of the project amounts 25 million PLN.
- ✓ Project "Regional Laboratory of Renewable Energy" (duration 2009-2011). Total value of the project amounts 25 million PLN.

All aforementioned infrastructure projects contributed a lot of investment in laboratories and other essential equipment. Consequently researchers have access to well defined and prepared working space and environment. They confirm it by presenting excellent research results e.g. in scientific publication. Many of the members of international projects and research teams.

The employers of the IA PAS have to apply requirements stipulated by Polish and European Public Procurement Law and inside procedures.

IA PAS is an active partner of pan-European and local platforms: the Bio-Based Industries Consortium, Polish Technological Platform for Bioeconomy, Lublin Biotechnology Cluster, Centre for Environmental Research and Innovative Food Technology for Life Quality Improvement (EnFoodLife).

Action required:

None.

WORKING CONDITIONS

C&C principle:

Employers and/or funders should ensure that the working conditions for researchers, including for disabled researchers, provide where appropriate the flexibility deemed essential for successful research performance in accordance with existing national legislation and with national or sectoral collective-bargaining agreements. They should aim to provide working conditions which allow both women and men researchers to combine family and work, children and career. Particular attention should be paid, inter alia, to flexible working hours, part-time working, tele-working and sabbatical leave, as well as to the necessary financial and administrative provisions governing such arrangements.

Existing Institutional rules and/or practices:

National law regulates partly the above rules (Act on Polish Academy of Science, Act on Academic Degrees and Academic Title, Labour law; Regulation of the Minister of Science and Higher Education on criteria for assessing the achievements of the person applying for postdoctoral appointment) and in details IA PAS regulation:

- Labour Regulations;

The following rules are used:

- flexible working hours - used at the employee's request to the Director of IA PAS,
- part-time working, - labour code, changing working time at the employee's request to the Director of PAS, often used in PAS;
- Tele-working - we have no example of a person with a signed telework agreement, consent of the individual are expressed on the work at home for scientists by the Director of PAS;
- sabbatical leave - Act on the Polish Academy of Sciences - 36 days annual leave, vacation Labour Code, training leave for 30 days scientists used but the lack of a specific provision;

Action required:

- ❖ Putting on the website of the relevant regulation and all necessary forms concerning training leave (HR Specialist, January 2016)

SABILITY AND PERMANENCE OF EMPLOYMENT

C&C principle:

Employers and/or funders should ensure that the performance of researchers is not undermined by instability of employment contracts, and should therefore commit themselves as far as possible to improving the stability of employment conditions for researchers, thus implementing and abiding by the principles and terms laid down in the EU Directive on Fixed-Term Work.

Existing Institutional rules and/or practices:

Polish law regulates conditions of stability and permanence of employment by the following Acts:

- Act on Polish Academy of Science,
- Act on Academic Degrees and Academic Title, and on Degrees and Title in Art.

IA PAS respects this rule.

Action required:

None.

FUNDING AND SALARIES

C&C principle:

Employers and/or funders of researchers should ensure that researchers enjoy fair and attractive conditions of funding and/or salaries with adequate and equitable social security provisions (including sickness and parental benefits, pension rights and unemployment benefits) in accordance with existing national legislation and with national

or sectoral collective bargaining agreements. This must include researchers at all career stages including early-stage researchers, commensurate with their legal status, performance and level of qualifications and/or responsibilities.

Existing Institutional rules and/or practices:

The national law (Act on Polish Academy of Science, Labour law, securities system etc.). Moreover in IA PAS there are -remuneration divided into statutory salary, bonuses, compensation design - regulated in:

- Ordinance No. 34/2015 of Director of 29 September 2015 on the entry into force of Annex No. 5 and the announcement of the consolidated text of the Remuneration Regulations in IA PAS
- Ordinance No. 79/2014 of Director of 31 December 2014 on the principles of the Director's bonus for scientific activity documented by publications in journals with Impact Factor
- Ordinance No. 37/2013 of Director of 23 August 2013 amending an Ordinance No. 20/2012 on the Director's bonus for scientific activity, as a result of which the Institute has been awarded a research project
- Ordinance No. 6/2008 of Director of the Institute of Agrophysics PAS on the bonus for patent

Employees of the Academy are entitled to a set of different bonuses, e.g.:

- seniority bonus;
- an employee of the Academy who retires due to old age or incapacity for work are entitled to a one-time severance payment amounting to three months' salary calculated in accordance with the principles applicable to determining payment in lieu of leave;
- member of scientific staff employed on a full-time basis who has been employed at an institute for at least three years shall be entitled to paid convalescence leave not exceeding one year in accordance with the principles and procedure set forth in the Law on Higher Education of 27 July 2005.

Action required:

None.

GENDER BALANCE

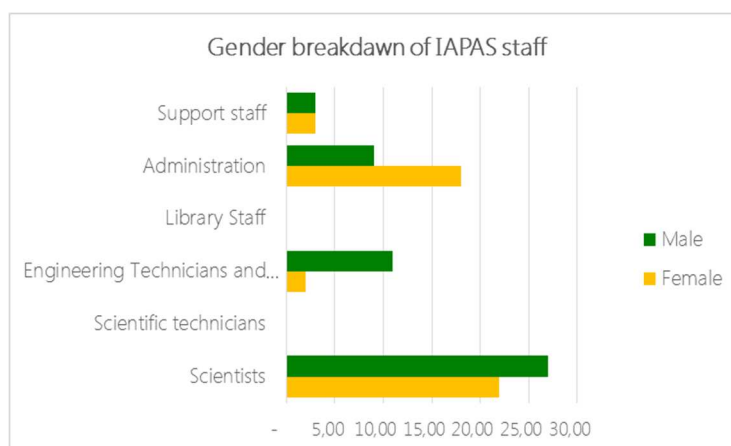
C&C principle:

Employers and/or funders should aim for a representative gender balance at all levels of staff, including at supervisory and managerial level. This should be achieved on the basis of an equal opportunity policy at recruitment and at the subsequent career stages without, however, taking precedence over quality and competence criteria. To ensure equal treatment, selection and evaluation committees should have an adequate gender balance.

Existing Institutional rules and/or practices:

In general statistics there are 95 employees in IA PAS: 50 males and 45 females. Breakdown of them taking into account PAS employee regulation is presented below.

Gender breakdown of IA PAS' employees (due to Polish Academy of Sciences rules)			
Category	Female	Male	All
Scientists	22	27	49
Scientific technicians	-	-	-
Engineering Technicians and Technicians	2	11	13
Library Staff	-	-	-
Administration	18	9	27
Support staff	3	3	6
Σ	45	50	95



WG suggested to ensure participation within the Selection Committees (for a position and for a PhD studies) female representatives to create more women-friendly environment.

Action required:

- ❖ Women will be encourage (e-mails before elections) (Director, RSD; January 2016)
- ❖ To develop gender policy in Polish and English (Director, RSD; September 2016)

CAREER DEVELOPMENT

C&C principle:

Employers and/or funders of researchers should draw up, preferably within the framework of their human resources management, a specific career development strategy for researchers at all stages of their career, regardless of their contractual situation, including for researchers on fixed-term contracts. It should include the availability of mentors involved in providing support and guidance for the personal and professional development of researchers, thus motivating them and contributing to reducing any insecurity in their professional future. All researchers should be made familiar with such provisions and arrangements.

Existing Institutional rules and/or practices:

National law specifies necessary conditions that have to be fulfilled in order to the carrier development. In IA PAS the specific area of career development is not formalized. The natural role of Group Leaders and Head of Departments is to mentor their co-workers. Researchers may address all trainings they need, then the HR Specialist or Project Support Department organise trainings *ad hoc*. Employers also take part in trainings organised by Foundation for Polish Science. Trainings on the Participant Portal and ongoing calls under Horizon 2020 are organised by the Regional Contact Point. Research Support Department is regularly distributing by emails information about available posts/fellowships/trainings and workshops on career development.

Action required:

- ❖ To organise series of open workshops for researchers on work, teams, projects, time management, and patenting and commercializing research results (Deputy Director for Scientific Affairs; February 2016 – beginning of the action; February 2017)

VALUE OF MOBILITY

C&C principle:

Employers and/or funders must recognise the value of geographical, intersectoral, inter- and trans-disciplinary and virtual 12 mobility as well as mobility between the public and private sector as an important means of enhancing scientific knowledge and professional development at any stage of a researcher's career. Consequently, they should build such options into the specific career development strategy and fully value and acknowledge any mobility experience within their career progression/appraisal system.

This also requires that the necessary administrative instruments be put in place to allow the portability of both grants and social security provisions, in accordance with national legislation.

Existing Institutional rules and/or practices:

The researchers of IA PAS are supported and encouraged to participate in business trips / domestic and foreign internships and to be professionally mobile. The recruitment procedures recognize rule of mobility of experience, i.e. through introducing:

- obligation to submit by an applicant research plan incl. information on professional interests, achievements, participation in research projects and research plans,
- obligation to take into account by Selection Committee research plan, specifying personal achievements and experiences regardless to the fact where they were collected.

Action required:

None.

ACCESS TO CAREER ADVICE

C&C principle:

Employers and/or funders should ensure that career advice and job placement assistance, either in the institutions concerned, or through collaboration with other structures, is offered to researchers at all stages of their careers, regardless of their contractual situation.

Existing Institutional rules and/or practices:

The IA PAS support in an action mentioned above. However, there is informal mechanism of supporting scientific and other types of career. Moreover, it was noticed that final phase of the doctorate is difficult because of exams, public defence preparation and the perspective of the end of employment. Therefore, WG recommended taking measures aimed at setting up regular counselling services for the employees of IA PAS.

Action required:

- ❖ Counselling services: links redirecting to web portals concerning meetings, twinings and opportunities, e. g. EURAXESS (HR Specialist, PR Specialist; April 2016)

INTELLECTUAL PROPERTY RIGHTS

Employers and/or funders should ensure that researchers at all career stages reap the benefits of the exploitation (if any) of their R&D results through legal protection and, in particular, through appropriate protection of Intellectual Property Rights, including copyrights.

Policies and practices should specify what rights belong to researchers and/or, where applicable, to their employers or other parties, including external commercial or industrial organisations, as possibly provided for under specific collaboration agreements or other types of agreement.

Existing Institutional rules and/or practices:

Since the novelty if IPR regime in the Act of Polish Academy of Science come in force, the new IPR Regulations was drafted and adopted on 2015. The issue of property rights is most crucial in the case of technology transfer projects. The new regulation raises many questions, so the discussion is open. The Attorney-at-law tries to support the researchers on theirs work.

The issue of intellectual property rights training will be proposed in future.

Action required:

- ❖ Training on IPR (IPR Specialist; June 2016 – beginning of the action, June 2017)

CO-AUTHORSHIP

C&C principle:

Co-authorship should be viewed positively by institutions when evaluating staff, as evidence of a constructive approach to the conduct of research.

Employers and/or funders should therefore develop strategies, practices and procedures to provide researchers, including those at the beginning of their research careers, with the necessary framework conditions so that they can enjoy the right to be recognised and listed and/or quoted, in the context of their actual contributions, as co-authors of papers, patents, etc., or to publish their own research results independently from their supervisor(s).

Existing Institutional rules and/or practices:

The new regulation was adopted. Researchers are obliged to meticulously follow the principles that apply to authorship of scientific publications. Plagiarism in any shape or form is forbidden. Researchers must comply with the principle of respect for intellectual property rights and shared ownership in the case of research conducted in cooperation with their students, other scientists, or supervisors. The principles come in force.

Action required:

None.

TEACHING

C&C principle:

Teaching is an essential means for the structuring and dissemination of knowledge and should therefore be considered a valuable option within the researchers' career paths. However, teaching responsibilities should not be excessive and should not prevent researchers, particularly at the beginning of their careers, from carrying out their research activities.

Employers and/or funders should ensure that teaching duties are adequately remunerated and taken into account in the evaluation/appraisal systems, and that time devoted by senior members of staff to the training of early stage researchers should be counted as part of their teaching commitment.

Suitable training should be provided for teaching and coaching activities as part of the professional development of researchers.

Existing Institutional rules and/or practices:

Essential duties of scientific staff shall include the performance of the tasks set forth in the Charters of scientific units, including without limitation conducting research and development work, announcing and disseminating their results and participating in the performance of the educational tasks undertaken by the unit in question. Scientific staff shall undergo periodic evaluation by the Scientific Board, which shall cover results of their work; adjuncts and assistants shall undergo evaluation at least every two years, and professors shall undergo evaluation at least every four years. The detailed procedure and frequency of evaluation is set forth by the Scientific Board of the institute in the rules approved by the Vice-President of the Academy who supervises the work of the relevant division.

In individual evaluation of researchers the following factors are taken into account: no. of publications, incl. articles, monographs and reviewed conference works, granted patents, quotations, lectures delivered at international conferences.

Besides that there is unwritten rule that factors other than specified above may be taken into account. Customarily, these factors include teaching or supervision responsibilities.

Action required:

None.

COMPLAINTS/APPEALS

C&C principle:

Employers and/or funders of researchers should establish, in compliance with national rules and regulations, appropriate procedures, possibly in the form of an impartial (ombudsman-type) person to deal with complaints/appeals of researchers, including those concerning conflicts between supervisor(s) and early-stage researchers. Such procedures should provide all research staff with confidential and informal assistance in resolving work-related conflicts, disputes and grievances, with the aim of promoting fair and equitable treatment within the institution and improving the overall quality of the working environment.

Existing Institutional rules and/or practices:

Disputes/appeals are solved individually by supervisor, leader or Director. Only in cases referring to disciplinary responsibility of scientific employees there is authorized commission (Disciplinary Committee and Board of Appeal), which solves problems and consider appeals of the employees who are endangered with disciplinary punishment.

Action required:

None.

PARTICIPATION IN DECISION-MAKING BODIES

C&C principle:

Employers and/or funders of researchers should recognise it as wholly legitimate, and indeed desirable, that researchers be represented in the relevant information, consultation and decision-making bodies of the institutions for which they work, so as to protect and promote their individual and collective interests as professionals and to actively contribute to the workings of the institution.

Existing Institutional rules and/or practices:

In IA PAS there are two decision-making bodies: Director and the Scientific Board. The Director manages the Institute and is supported by the Scientific Board which performs a current supervision over the activities of the Institute. The Scientific Board also ensures high level of the scientific activities and career development especially of researchers starting their scientific career. The Scientific Board consists of representatives of some groups of employees, i.e. research employees and PhD students. Moreover, PhD students are allowed to present their opinion and suggestions through self-governmental body (*PhD Students Council*) directly to the Director or supervisors.

Action required:

None.

IV.4. Training

RELATION WITH SUPERVISORS

C&C principle:

Researchers in their training phase should establish a structured and regular relationship with their supervisor(s) and faculty/departmental representative(s) so as to take full advantage of their relationship with them.

This includes keeping records of all work progress and research findings, obtaining feedback by means of reports and seminars, applying such feedback and working in accordance with agreed schedules, milestones, deliverables and/or research outputs.

Existing Institutional rules and/or practices:

IA PAS is very much aware of the importance of appropriate supervision for the development of early-stage researchers. Experiences related to supervision and supporting young researchers make one of the obligation for senior researchers.

PhD students are obliged to report their work progress and research findings to their supervisor and Director of PhD Studies. WG suggested to implement the same regulations with regard of Assistants.

Action required:

- ❖ To develop regulations on structured and regular relationship with supervisors of assistants (Director, Commission for Evaluation of Activity of Researchers; December 2016)

SUPERVISION AND MANAGERIAL DUTIES

C&C principle:

Senior researchers should devote particular attention to their multi-faceted role as supervisors, mentors, career advisors, leaders, project coordinators, managers or science communicators. They should perform these tasks to the highest professional standards. With regard to their role as supervisors or mentors of researchers, senior researchers should build up a constructive and positive relationship with the early-stage researchers, in order to set the conditions for efficient transfer of knowledge and for the further successful development of the researchers' careers.

Existing Institutional rules and/or practices:

The researchers are trying to perform their duties best.

Action required:

- ❖ Professional trainee courses on HR management and mentoring, internal evaluations of multifaceted role as supervisors, multi-personal supervisions programme for young researchers, local HR events connected with case studies (Deputy Director for Scientific Affairs; February 2016 – beginning of the action, February 2017).

CONTINUING PROFESSIONAL DEVELOPMENT

C&C principle:

Researchers at all career stages should seek to continually improve themselves by regularly updating and expanding their skills and competencies.

This may be achieved by a variety of means including, but not restricted to, formal training, workshops, conferences and e-learning.

Existing Institutional rules and/or practices:

IA PAS is pursuing necessary means to provide researchers with best possible training and professional development support. IA PAS offers support for researchers at all stages of their scientific career.

Action required:

None.

ACCESS TO RESEARCH TRAINING AND CONTINUOUS DEVELOPMENT

C&C principle:

Employers and/or funders should ensure that all researchers at any stage of their career, regardless of their contractual situation, are given the opportunity for professional development and for improving their employability through access to measures for the continuing development of skills and competencies.

Such measures should be regularly assessed for their accessibility, take up and effectiveness in improving competencies, skills and employability.

Existing Institutional rules and/or practices:

All researchers at any stage of their career, regardless of their contractual situation, are given the opportunity for professional development and for improving their employability through access to measures for the continuing development of skills and competencies. IA PAS runs the doctoral studies. On the IA PAS website there are information about [PhD studies](#).

Action required:

- ❖ To improve PhD studies website and adjust it into English version (PR Specialist; April 2016)
- ❖ To develop an ordinance on hedging funds in each department for professional trainee courses for researcher of each stage of carrier development e.g. commercialisation and market, promotion of the research, presentation development, communication (Director, April 2016)

SUPERVISION

C&C principle:

Employers and/or funders should ensure that a person is clearly identified to whom early-stage researchers can refer for the performance of their professional duties, and should inform the researchers accordingly.

Such arrangements should clearly define that the proposed supervisors are sufficiently expert in supervising research, have the time, knowledge, experience, expertise and commitment to be able to offer the research trainee appropriate support and provide for the necessary progress and review procedures, as well as the necessary feedback mechanisms.

Existing Institutional rules and/or practices:

IA PAS is aware of the importance of appropriate supervision for the development of early-stage researchers. The structure of IA PAS is described on the web page of IA PAS (divided on scientific divisions). This is included in the national law system for higher education - as for IA PAS - the part of the Polish Academy of Science Act.

Action required:

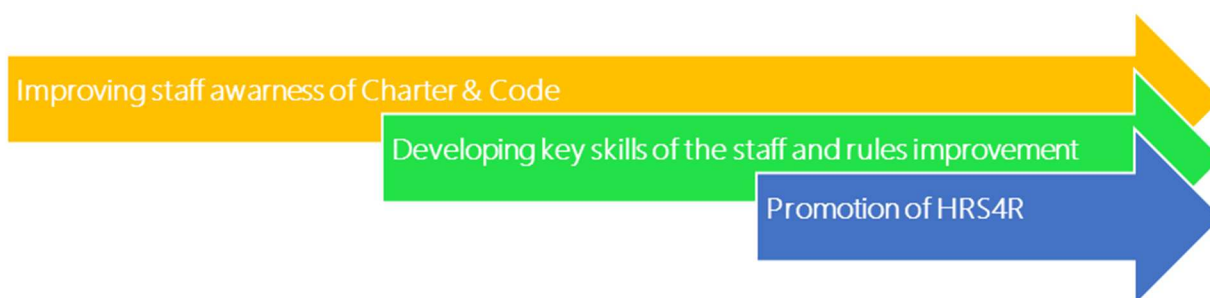
None.

III. ACTION PLAN

Implementation of the Human Resources Strategy for Researchers (hereinafter: HRS4R) is connected with the following 3 key areas:



Data gathered during the internal analysis has confirmed that IA PAS has to pay particular attention on improving some of existing HR management processes and procedures in order to adjust to the Charter & Code principles in the near future. The process will concentrate on 3 general aspects (see below):



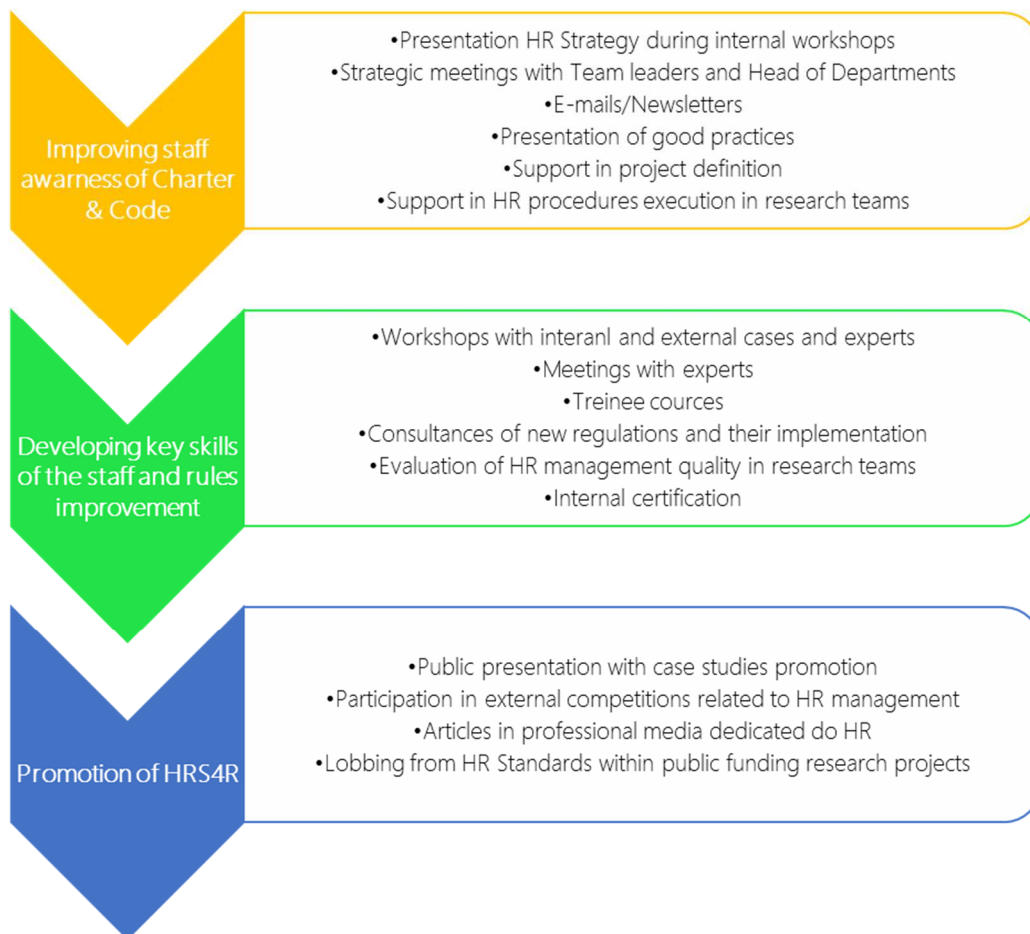
Each of the aspects indicated in the above diagram, require to define and implement a set of tools. This will acknowledge to perform a new high quality HR management in IA PAS. Scientific staff of IA PAS is equipped in competencies which determine a starting point for further development and stimulating process of changes. Thus, staff competencies constitute the core of HRS4R.

The fundamental problem is the awareness of scientific staff of HR management and its influence on personal and scientific/research team (as whole) development. Subsequently, it is required to focus on stimulating visible changes through skills development and redefining some rules (with continuing engagement of research staff). Finally, this will allow to promote precise cases and HR Strategy as well.

The whole process will last up to 4-5 years. Planning all actions to be implemented, it is necessary to take into consideration all fluxes of the staff, resulting from e.g. promotion of young researchers and retirement of senior's.

Each of aforementioned aspects require special tasks and tools that in details will be prepared by Working Group in cooperation with team leaders on the basis of different occasions generated by internal and external processes and projects. The general role of the Working Group, in reference to each of the aspects, regarding implementation of the HRS4R is to incorporate existing processes, especially in awareness raising stage, in order to obtain effects in quick and efficient way. Implementing of the action plan step by step will provide to a non-invasive creation of essential changes in HR management and awareness of researchers. What is crucial for researchers, changes that will take place are not very time consuming, which is essential for research processes.

The last aspect reflects to the necessity of defining and executing dedicated new processes with strong attention on changing Institute's rules and promotion of the HRS4R. Taking into consideration a general rule of exploiting existing processes set of general tools has been defined to be executed (see the graph below):



From organizational point there have been defined several units as jointly responsible for the proper implementation of HRS4R:

- HR Department (HR Specialist)
- Research Support Department [RSD]

Moreover, new web page of IA PAS will be provided both in Polish and English to ensure common understanding of HR management and support researchers in finding valuable sources of knowledge. As mentioned above, in order to ensure an effective and sustainable implementation of the HRS4R several units of IA PAS will be involved in implementation of the HRS4R (see the graph below):



Representatives of all aforementioned units are included in Working Group and will be working as managing body for the whole implementation process. Evaluation will be conducted on the basis of temporary interim reports and internal surveys. After 2 years there will be external evaluation due to the formal rules related to European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers.

ACCEPTANCE

The Institute of Agrophysics of the Polish Academy of Sciences represented by Director Professor Cezary Sławiński, fully accepts the Human Resources Strategy for Researchers.

Lublin, 18th December 2015



Professor Cezary Sławiński

Director of the Institute of Agrophysics
of the Polish Academy of Sciences