

INSTITUTE OF ORGANIC CHEMISTRY POLISH ACADEMY OF SCIENCES

THE HUMAN RESOURCES STRATEGY FOR RESEARCHERS INCORPORATING

EUROPEAN CHARTER FOR RESEARCHERS AND THE CODE OF CONDUCT FOR THE RECRUITMENT OF RESEARCHERS

Internal Survey Results and the Corresponding Updated Plan of Action

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INTRODUCTION

The Institute of Organic Chemistry of the Polish Academy of Sciences (IOC PAS) is an independent non-profit research unit run by the Polish Academy of Sciences (PAS). Since its establishment in 1964, the mission of the Institute has been to conduct scientific research at the highest level in the field of broadly understood organic chemistry and related fields, as well as educating young research staff.

The Institute runs the oldest 4-year doctoral studies in Poland, which has been operating continuously since 1966. Together with the statutory changes in Poland, in 2019 the IOC PAS with other scientific units founded the Warsaw PhD School of Natural and BioMedical Sciences [Warsaw-4-PhD]. During its teaching activity, the Institute educated 420 doctors and 69 habilitated doctors.

The Institute is a category A research unit according to the parameterization of the Ministry of Sciences and Higher Education. In the national rankings, the IOC PAS is classified in the first place in the category of scientific institutes conducting research in the field of organic chemistry and second in the chemistry research category. In the international ranking of the quality of scientific institutions, SCImago Institutions Rankings (SIR), for 2019, the IOC PAS took fourth place in terms of innovation among scientific institutions in Poland and eight in the overall SIR ranking.

Currently conducted research at the IOC PAS concern the most important problems and issues of modern organic synthesis, catalysis and searching for new materials. The research staff employed at the Institute consists of 19 research groups led by scientists who are recognized internationally. The research topics are adapted to the most current vision of the international scientific community and includes, among others:

- organic synthesis methodology
- supramolecular chemistry
- photoredox catalysis
- C-H activation
- synthesis and application of functional dyes
- organocatalysis
- the use of enzymes in organic synthesis
- synthesis of natural and bioactive compounds
- structure and spectroscopy of organic compounds
- computer aided organic synthesis (CHEMATICA)

The results of research work carried out at the Institute are published in approximately 90-120 scientific articles annually and are highly recognized in the national and international scientific community (total number of citations = 46,080, H_{index} = 27). Moreover, over the past two years, the Institute of Organic Chemistry PAS has published over 25 articles in journals included in the Nature Index, including two articles in Nature and Science in 2020.

For years, the IOC PAS has been developing innovative synthetic technologies, such as the methodology of synthesizing simple carbohydrates (Achmatowicz, 1971), vicarious nucleophilic substitution of hydrogen (Mąkosza, 1978), synthesis of aza-crown ethers (Jurczak, 1985), development of new catalysts for olefin metathesis reactions (Grela, 2002), synthesis of corroles (Gryko, 2006) or, recognized by the *Chemistry World* journal as one of the top 10 discoveries of 2016, development of the CHEMATICA – program for planning organic syntheses (Grzybowski, 2016).

The Institute successfully applies for research grants, both domestic and foreign. The Team Leaders from our Institute have won over the last 5 years, three prestigious TEAM grants (funded by the Foundation for Polish Science), 54 grants from the National Science Center and 7 from the Ministry of Science and Higher Education.

Additionally, the IOC PAS participates in many international research projects. In the years 2003-2006 the Institute was the international coordinator of the CEDNETS research project (Centre of Excellence in Developments of New Therapeutics from Sugars) implemented under the 5th Framework Programme of the European Union. Moreover, in the 6th edition of the EU FP, IOC PAS participated in the implementation of 4 projects (2006-2008, NANOQUANT, NORMOLIFE, REVCAT, ERA CHEMISTRY projects) and one in the 7th edition (2008-2011, project HI-CAT). Currently, the IOC PAS is part of the consortia implementing 3 ITN (Innovative Training Networks) projects as part of Maria Skłodowskiej-Curie Actions of the Horizon 2020 – NOAH, PHOTOREACT, CHAIR projects.

The IOC PAS is the most internationally recognized centre in Poland conducting research in the field of organic chemistry. Outstanding staff scientists employed at the Institute over the years have been cooperating with over 20 leading research institutions and universities from around the world, including among others: California Institute of Technology (Caltech), Harvard University, The Scripps Research Institute, ETH in Zurich, University of San Antonio, University of Regensburg, University of Kyushu and National Taiwan University. The effect of the cooperation includes joint scientific publications, grant applications and the possibility of organizing short internships for IOC PAS employees.

EMPLOYMENT STRUCTURE

IOC PAS currently employs 162 researchers including PhD Students:

- 19 professors (full professors and associate professors) (12%),
- 15 adjuncts (9%),
- 72 assistants (44%),
- 56 PhD Students (26 of them have part-time employment as assistants as well) (35%).

This means that our Institute is very "young". 73% are early-stage researchers (ERS), below 35 years old. This makes IOC PAS a place with exceptionally enthusiastic attitude towards science, full of new ideas and real development potential. This also, to some extent, results with lower awareness of existing rules, rights and obligations related to employment issues.

There are also employed 24 persons of technician staff, 22 of administration staff, 2 of library staff, and 8 of supporting staff. That makes together 192 employees. The percentage of women employed in the Institute is 41% and 28% among research staff. There are 18 researchers from abroad (11%).

STATUS OF THE ACTION PLAN IMPLEMENTATION AND CURRENT SITUATION

The Director of the IOC PAS signed a letter of endorsement to the principles of the *European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers* in November 2016. On July 24th, 2017, our Institute received the "*HR Excellence in Research*" award from the European Commission and began the Implementation Phase. The process of implementing the HR strategy was described in the Interim Report, sent to the European Commission in October 2019. Following suggestions from the EC Consensus Report, the IOC PAS published the extended version of *Interim report on Internal Action Plan implementation* in March, 2020.

Shortly after receiving the EC Consensus Report, the process of implementing HR Strategy in the Institute has been disturbed by the global pandemic of SARS-CoV-2. At that moment, the creation of the Updated Action Plan was postponed to 2021. The Institute's authorities focused on providing employees with safe working conditions and adjusting the existing regulations to the conditions of remote work. Despite the many restrictions imposed by the national authorities, the Institute makes every effort to ensure that the work in every aspect, including the implementation of the HR strategy, proceeds without major disruptions.

The Working Group, aware of the changing expectations of employees, also due to the prevailing pandemic, held a meeting at the end of December 2020 to discuss the plan of action for the upcoming period. By joint decision of the Group, the necessity to conduct a survey among employees was determined to best suit the Updated Action Plan to their needs. Additionally, the need to update the plan to suggestions from the EC Consensus Report and dynamically changing conditions, including the employment structure, legal regulations and personnel changes at the Institute, was noticed.

INTERNAL ANALYSIS

METHODOLOGY

WORKING GROUP

The composition of the Working Group has changed in December 2020 due to personnel changes at the Institute:

Steering Committee:

Prof. Daniel Gryko
 Prof. Jacek Młynarski
 Dr Piotr Lipkowski
 Drugowski
 Director of the IOC PAS (R4)
 Research Director (R4)
 Deputy Director

Working Group:

Prof. Jacek Młynarski
 Prof. Dorota Gryko
 Head of the PhD Studies (R4)
 Dr hab. Wojciech Chaładaj
 Research staff representative (R3)
 Dr Cina Foroutannejad
 Research staff representative (R2)
 Mgr Mateusz Garbacz
 PhD Students representative (R1)
 Dr Katarzyna Goliszewska
 Representative of the administrative staff, HR Coordinator
 Dr Aleksandra Butkiewicz
 Representative of the administrative staff, Secretary of the WG
 Mgr Katarzyna Piskorek-Widmańska
 Representative of the administrative staff

QUESTIONNAIRE SURVEY

The Working Group prepared the questionnaire based on the C&C principles. The survey was available both in Polish and English through the online tool, Survey Monkey, and sent to all researchers. The survey consisted of 38 questions covering all aspects from C&C, divided into 4 parts. Respondents were asked to assess their awareness of the C&C principles and the level of their implementation in the IOC PAS by answering questions in the following rating scale:

- 1 definitely not
- 2 − no
- 3 sometimes, to some extent
- 4 yes
- 5 definitely yes
- 0 not applicable/no opinion

A score of "0" was included to enable answer in case of no opinion, and excluded from further analysis.

Additionally, all respondents were encouraged to express additional thoughts in the comment section added to each question.

As the HR Strategy Survey was the first online survey using Survey Monkey tool at the IOC PAS, before sending it a meeting with all employees was organized. During the meeting, the most important issues related to the implementation of the HR Strategy were recalled and the purposes and method of conducting the survey were explained. The survey was started on 29th January 2021 and the data were collected for over two weeks. Before survey closure two reminders were sent to those respondents who had not completed it yet.

WORKING GROUP CONSULTATIONS

After preliminary analysis of the data, the questionnaire results were presented to the members of the WG for further analyses. The meeting of the WG was held on 5th March 2021, via online platform. The results were assessed based on the average rating level:

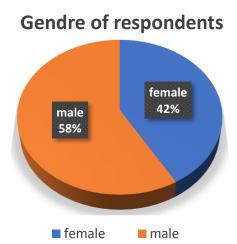
- above 4.0 good results, improvements optional and with low level of priority
- 3.5 4.0 average results, aspects requiring improvements with moderate level of priority
- below 3.5 low results, aspects requiring strong improvements with high level of priority

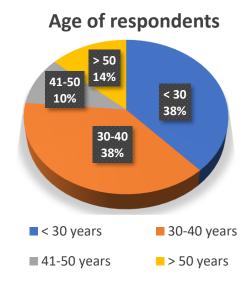
Additionally, irrespective of the assessment of a certain aspect by the employees, the Working Group suggested changes to the Action Plan corresponding to the new regulations and changing conditions at the Institute. Based on the survey results and the consultations among Working Group members, a document containing Updated Action Plan for years 2021-2023 was prepared and presented to the IOC PAS Director for final approval.

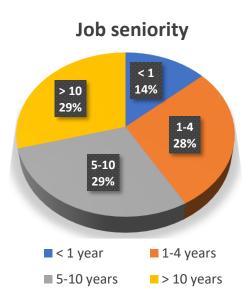
SURVEY RESULTS

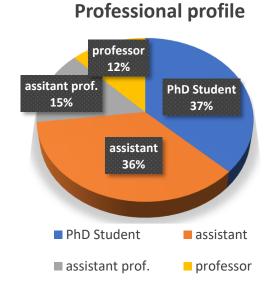
RESPONDENTS PROFILE

The questionnaire was completed by 113 employees out of 162 (70%). The survey was anonymous however data on gender, age, professional profile and job seniority of respondents in the IOC PAS were collected. Below the characteristics of respondents are specified:









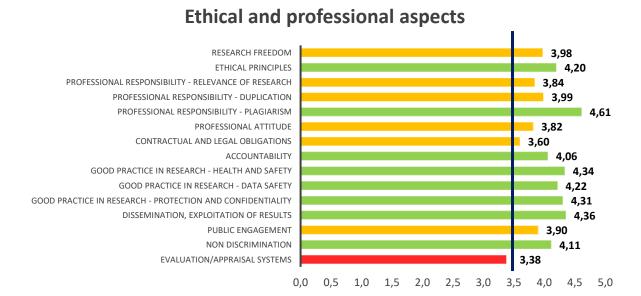
The overall results of the survey were, whenever possible, compared with the results obtained in 2016 when the first survey was conducted. Changes in the individual indicators were used to assess the level of implementation of the HR strategy.

ETHICAL AND PROFESSIONAL ASPECTS

This part of the survey has got the average result of 4.0, slightly better in comparison with 2016 (average from the category 3.9). The awareness of ethical principles and professional responsibility among our employees is high and increases among young researchers during the implementation of the HR Strategy. Our employees adhere to the highest standards of conducting scientific research, avoid plagiarism or duplication of results. The questions regarding good practices in research, including health and safety, data protection and security, received a higher score than in 2016 proving that the informational campaign is meeting its goals. To ensure that all principles will be respected in the future, the WG suggested the continuation of organizing regular seminars on ethical and professional aspects once a year.

The Working Group noticed that, as a rule, lower scores in this part were given by new employees who had been working at the IOC PAS for less than 1 year, especially in terms of contractual and legal obligations. This result demonstrates the need to create an efficient system for providing all important information and administrative procedures when hiring new employees e.g., by creating "Welcome Packages".

The lowest result, as in 2016, was given to the principle regarding evaluation/appraisal system. Despite significant improvement in this area (average result 3.4 vs. 2.9 in 2016), the level of implementation is still not satisfactory for all employees. In the course of implementing the HR strategy, after consultation with the employees, the system of their evaluation was changed in accordance with legal obligations. The main objection appearing in this survey is the uncertainty among employees resulting from rapidly changing regulations on a national level. The Working Group decided that special attention should be paid to information campaigns regarding the evaluation system and gave the highest priority to implementing this change.

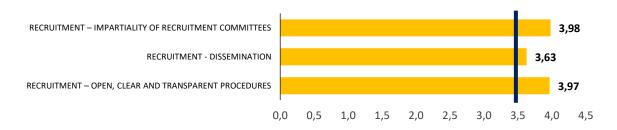


Despite the high result of the survey in the question regarding discrimination in the IOC PAS (average 4.11), WG noticed the issue with potential discrimination against foreigners. The rapidly increasing number of foreigners among our employees forces the necessity to adjust the current communication practices, commonly used documents, forms, declarations and rules to the needs of a multicultural community. The WG, taking care of equal treatment of all employees, in the Updated Action Plan took into account actions to promote bilingual communication among all employees and the need to prepare translations of all necessary documents.

RECRUITMENT

A small percentage of researchers, mainly senior scientists, take part in recruitment processes at the IOC PAS. For this reason, in the survey addressed to everyone, only a few points were taken into account to assess how employees evaluate the recruitment processes as a whole. The results indicate that the overall assessment is satisfactory, and the existing procedures are considered open, clear and transparent (average score 4.0). The employees have no doubts about the impartiality of the recruitment committees. In their opinion, an area for improvement is the dissemination of available vacancies, which should be more widely advertised, especially in the international research community.

Recruitment



A more detailed analysis of the requirements of the *Code of Conduct*, such as selection, transparency, judging merit, variations in the chronological orders of CVs, recognition of mobility experience, recognition of qualifications, seniority and postdoctoral appointments was carried out by the Working Group. These issues are specified in the Open, Transparent and Merit-Based Recruitment of Researchers (OTM-R) Procedures adopted at the IOC PAS in accordance with the HR Strategy. In the opinion of the Working Group, in majority of cases the recruitment processes comply with the adopted regulations, however some exceptions occur. To strengthen the implementation of OTM-R procedures at the Institute, the new regulations for recruitment for scientific positions will be created. Moreover, the useful templates for job advertisements, information for candidates, appeal procedures or candidate evaluation forms will be created to facilitate compliance with all regulations.

In the opinion of the WG, the implementation of HR Strategy in the field of recruitment brings very positive results in the form of employing the increase number of the best scientists from around the world. More scientists respond to job advertisements, which allows the Recruitment Committees to choose the most suitable candidates.

WORKING CONDITIONS AND SOCIAL SECURITY

Implementing the HR Strategy adopted at the IOC PAS resulted in an improvement in the average assessment of working conditions (3.8 vs. 3.6). Although the level of awareness of the applicable rules and regulations regarding funding and salaries or complains/appeals procedures has increased significantly (average score 3.5 vs. 2.7 in 2016), still not all employees are fully aware of the existing rules. According to the Working Group, an aspect that requires special attention is the process of familiarizing new employees with the applicable regulations. One of the most important actions will be the creation of practical guides for new employees in the form of "Welcome packages", checklists containing the most important procedures necessary to complete at the beginning of employment or "FAQ" Section on our internal website.

On the other hand, employees highly evaluated the research environment, flexibility of working conditions and gender equality. The Institute also maintains the highest standards in terms of co-authorship and protection of intellectual property rights.

Working conditions and social security



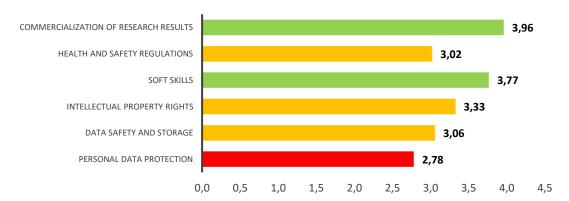
TRAINING

The employees assessed the training-related aspects very well, and the rating was comparable to the result from 2016 (average score 4.0). Researchers value contact with their immediate supervisors, who always provide them with advice and provide the best substantive support. The knowledge, experience and commitment of the supervisors are rated very highly, and the team management skills are slightly lower, which is an area of improvement for the upcoming future.



In recent years, the availability of workshops and trainings has improved significantly, especially in the field of soft skills. This conclusion is confirmed by the increase in the average assessment of access to research training and continuous development (score 3.6 vs. 3.3 in 2016). The Working Group plans to continue the internal training organization programme, and the offer will be adjusted to the needs of employees. According to the survey results, training in the commercialization of scientific research results and soft skills is the most desirable. On the other hand, employees showed a low level of interest in training in the field of personal data protection, data safety and storage or health and safety regulations.

Possible training areas



UPDATED ACTION PLAN 2021-2023

The employment structure at the IOC PAS has slightly changed in recent years. Early-stage researchers (ESR) are still the most numerous group of employees, including both ESR having the status of PhD students and those employed as assistants. A new aspect for the Institute is the rapidly increasing number of employed foreigners, which is a result of open, transparent, and merit-based recruitment procedures implemented in accordance with the adopted HR Strategy. The main challenge for the period 2021-2023 is to adapt the working conditions at the Institute to the needs of the international community. The survey showed that foreigners are not fully aware of all issues connected to *C&C* and are often not well informed about all procedures and practices at the IOC PAS. The challenge, especially in the context of the need to work remotely during the global pandemic, is the efficient familiarization of new employees with all applicable rules, among whom the knowledge in this area is the lowest. Additionally, the survey showed that some of the actions adopted in the HR strategy do not function properly and do not fully meet our goals. Improving these elements is a key point of the Working Group's strategy in the Updated Action Plan for the period 2021-2023.

I. ETHICAL AND PROFESSIONAL ASPECTS

1. RESEARCH FREEDOM

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Sciences The Law on Higher Education and	Researchers are free to express their ideas, propose the research topics and methods (a bottom-up approach). The general limitation is that these topics should adhere to the general mission of the IOC PAS. The annual research plan of statutory scientific tasks proposed by researchers is approved every year by the	Continuation of internal programme – "Competition for funding research projects" for PhD students and young researchers	every year
Sciences	IOC PAS Scientific Council (IOC PAS SC). Researchers may also carry out research on their own initiative and apply to different funding institutions (national and foreign) after obtaining the consent of the Director or his Deputy for Scientific Research. The scientific autonomy is not limited, though the compatibility with	holding a PhD degree.	Research Director

Science	external/internal regulations and infrastructural/financial capabilities of the	
Act on the National Science	research programme should be identified before final consent. The above C&C	
Centre	statement and rules related to the obligations of researchers are generally	
Centre	declared in national acts. The IOC PAS staff and researchers work in accordance	
Legal documents regulating the	with the policies and procedures of the Institute to ensure all research is carried	
functioning of funding	out to the highest standards of national and international best practices.	
institutions	New practices	
	incw practices	
	To increase the level of research independence among ESRs, in 2018 the IOC PAS	
	established a programme for PhD students – "Competition for funding research	
	projects". It is an internal competition in which each PhD student can propose a	
	research project. Every year, several of the best projects are funded by the IOC PAS,	
	and the grants include funding for chemicals, additional bonuses for Principal	
	Investigator and funding for conferences or other training courses proposed by the	
	candidate. In 2019, the programme was further extended and people already	
	holding a PhD degree can apply for funding. The sustained high assessment of this	
	aspect in the survey (score 4.0) proves that employees appreciate the actions taken	
	by the Institute.	

2. ETHICAL PRINCIPLES

Researchers should adhere to the recognized 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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
	The IOC PAS is under the supervision of the Polish Academy of Sciences (PAS), the well-respected scientific institution recognized as an authority in the Polish society. The Institute conducts scientific research in full compliance with the regulations from the Code of Ethics for Research Workers prepared by the Science Ethics Committee and enacted by the General Assembly of the Polish Academy of Sciences in December 2016.	None.	

The IOC PAS requires researchers to adhere to the recognized ethical practices and	
fundamental ethical principles in science as well as to the ethical standards	
documented in the Code of Ethics for Research Workers. The full text of this	
document is available on the IOC PAS website. The results of the questionnaire	
(score 4.2) clearly show that the principle is important, recognized and fully	
approved by all groups of employees. The researchers respect the regulations and	
represent high ethical standards.	

3. PROFESSIONAL RESPONSIBILITY

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences The Law on Higher Education and Science Charter of the Polish Academy of Sciences Act on the Principles of Financing	The IOC PAS works with its employees to apply the most professional standards in research and teaching activities. This is facilitated by the work of a number of commissions and the supporting policies and procedures in the IOC PAS. The IOC PAS supports the academic staff members to pursue research in their field of expertise. In carrying out their research, all members must adhere to the highest standards of research ethics, and work in accordance with the terms of the IOC PAS research policies and national law. Research and innovation activities are subject to regular external reviews by the	The seminars organized once a year to raise the awareness of professional responsibility and ethical principles in researchers work. The seminars will be combined with an informational meeting for new PhD students and employees and will take	On regular basis, once a year, at the beginning of each academic year
Science	Ministry of Science and Higher Education.	place at the beginning of each	
Act on the National Science Centre	The IOC PAS requires researchers to respect the principles of professional responsibility, compliance with rules of intellectual property and joint data	academic year.	Head of the PhD Studies
Copyright and Related Rights Act	ownership, avoiding plagiarism or duplication of results. The IPR regulations were		
Regulations for the protection and usage of the intellectual property	approved by the IOC PAS SC in 2013 and adopted. The researchers represent the high standards of professional responsibility including avoiding plagiarism and respecting other researchers and intellectual property rights. There have been no		

at the IOC PAS	cases of plagiarism in the entire history of the IOC PAS.	
	The results of the questionnaire (score 4.1) clearly indicate that this principle is	
	fully approved by the researchers at the IOC PAS and the level of awareness among	
	ESRs has increased during the implementation of the HR Strategy (score 4.0 vs. 3.8	
	in 2016). To ensure that all principles will be respected in the future, the WG	
	suggested the continuation of organizing regular seminars on ethical and	
	professional aspects once a year.	

4. PROFESSIONAL ATTITUDE

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences	The researchers in the IOC PAS are familiar with the strategic goals of its research environment. The issue is often discussed during the meetings between the	Creation of "Welcome Packages" for new employees	III/IVQ 2021
The Law on Higher Education and Science Charter of the Polish Academy of Sciences Act on the Principles of Financing Science Act on the National Science Centre Funding agencies regulations (NAWA, FNP, EU agencies) Act on the Principles of Financing Science	Management and the Team Leaders. The information about the strategic goals set by the Ministry and the funding agencies is distributed via e-mail by the Management and Grant Unit. Before applying to various funding institutions (national and foreign) researchers are obliged to obtain the approval of the Grant Commission (4 senior researchers nominated by the Director of the IOC PAS) and finally Director or his Deputy for Research. Specific requirements for the project calls announced by various funders are checked, and the ability to fulfil them at the IOC PAS is evaluated individually. The researchers receive professional administrative support from the departments involved in the procedures, mostly from the Grant Unit, as well as the Accountancy Office and Grant Committee. IOC PAS researchers are obliged (by Directorial Regulations and agreements with	that would improve the onboarding of new researchers. The packages should contain information on the most important internal procedures, such as applying for grants, reporting on the course of scientific research, strategic goals of the Institute etc.	HR Unit, Secretariat, Grant Unit

(both statutory tasks as well as projects financed by external funders).	-		
Researchers are also obliged to give notice if the projects were to be completed	Creation of an "FAQ Section"		
earlier or suspended for whatever reason.	on the internal website. The	IQ 2022	
New practices	section will provide answers to		
	the most frequently asked	HR Unit,	
Following actions proposed in Action Plan for years 2017-2019, new practices were	questions regarding internal	Secretariat,	
introduced. The Grants Unit regularly publishes information on the possibilities and	procedures, grant issues,	Grant Unit	
mechanisms of funding on the Intranet website. On the internal website, templates	working conditions and will be		
of documents necessary to be submitted before applying for grants and facilitating	updated on a regular basis.		
the application process are available, including:			
Research project submission forms			
 Declarations necessary for applying for certain grants 			
Data Management Plan			
 Forms for the recruitment of employees in grants 			
The documents are updated according to the changes in financing conditions.			
The results of the survey indicated that the awareness of internal procedures and			
rules among new employees is very low (score 3.1 among employees working less			
than 1 year). After consultations in the Working Group, it was concluded that the			
process of onboarding new employees should be improved. Creation of "Welcome			
Packages" containing documents specifying the most important internal			
procedures was postulated. Additionally, the WG suggested to create a "FAQ			
Section" on the internal website to facilitate access to the information regarding			
grant issues, internal regulations, working conditions etc. for all employees.			
grant issues, internal regulations, working conditions etc. for all employees.			

5. CONTRACTUAL AND LEGAL OBLIGATIONS

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who	
Act on the Polish Academy of Sciences	IOC PAS researchers at all levels are familiar with the national, regional, or institutional regulations governing training and/or working conditions. The	Creating a document specifying the patent application process at	II/IIIQ 2021	
The Law on Higher Education and Science Charter of the Polish Academy of	IPR regulations have been approved by the IOC PAS SC in 2013 and subsequently implemented. In case of the research projects funded by the external agencies, researchers sign the additional agreement containing	the IOC PAS.	Research Director	
Sciences Act on the Principles of Financing	appropriate information about specific regulations and requirements. All reports, financial matters, and tasks throughout the project are supervised and finally verified by the funding organization.	Introducing changes to the process of announcing an	IQ 2022	
Science Act on the National Science Centre	New practices In accordance with the HR Strategy adopted at the IOC PAS, new practices	internal competition - "Competition for funding	Research Director	
Funding agencies regulations (NAWA, FNP, EU agencies) Act on the Principles of Financing Science	were implemented in the period 2017-2019. The Institute has organized several meetings and internal workshops regarding statutory expenses, intellectual property rights, funding opportunities and requirements in national and international agencies. From 2020, current funding	research projects". The competition must be announced one month in advance to enable the preparation of applications.		
Regulations for the protection and usage of the intellectual property at the IOC PAS Regulations of the Warsaw PhD	opportunities are additionally sent in the Grant Newsletter to all researchers. Moreover, the possibility to participate in training courses organized by NCN, NAWA, FNP and other financing institutions is regularly sent via e-mails to all employees. During the global pandemic, meetings and seminars are held almost exclusively online, which facilitates access to information for all	Meetings with people representing various funding institutions regarding funding opportunities and requirements.	On regular basis/whenever necessary	
School	groups of researchers. Such actions will be held on regular basis in the future. The survey results draw the attention of the WG to additional aspects that	Informing all researchers about funding opportunities and requirements – Grant	Grant Unit, Secretariat	

need to be improved. The comments suggested that the patent policy at the	Newsletter, information	
IOC PAS is not clear for all employees, therefore the document specifying	regarding possible trainings,	
these issues should be prepared. Some adjustments were also proposed in	seminars, workshops.	
the announcement procedure of the internal competition – "Competition for		
funding research projects".		

6. ACCOUNTABILITY

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of	The issue of accountability addresses all researchers. The accountability towards	None.	
Sciences	employers is established in the internal regulations; accountability towards		
The Law on Higher Education and	funders or other affiliated public or private bodies is established in contracts		
Science	signed between IOC PAS and the funding institution. As a research unit of the		
	Polish Academy of Science, IOC PAS is obliged to adhere to the principles of		
Charter of the Polish Academy of	sound, transparent, and efficient financial management and to cooperate with		
Sciences	any authorized audits of its research, whether undertaken by their		
Act on the Principles of Financing	employers/funders or by ethical committees. The management of the assets of		
Science	the IOC PAS, including assets of particular departments and laboratories, as well		
Act on the National Science Control	as other organizational units of the IOC PAS, is conducted in accordance with		
Act on the National Science Centre	the principles of expediency, economy and parsimony and in accordance with		
Regulations of other research	the requirements of efficient management.		
funding agencies (NAWA, FNP, EU	In the survey, this aspect received a significantly higher score than in 2016		
programmes)	(score 4.1 vs. 3.6) proving that among all groups of employees, the level of		
Regulations of the Warsaw PhD	awareness of their accountability toward the Institute, funding agencies and		
	society as a whole has increased. The Working Group believes that this is the		

School	result of the general improvement of employees' awareness of the C&C	
	principles and this aspect does not require dedicated actions.	

7. GOOD PRACTICE IN RESEARCH

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Sciences The Law on Higher Education and	The employer is responsible for safe working conditions. The regulations are explained to new employees/PhD Students by the HR Unit, the Work Safety and Sanitation Inspector, and finally by the direct supervisor/group leader. The appropriate regulations are available on the IOC PAS web site. In addition	Regular, information campaigns on safe data storage and Internet security, especially in case of any data phishing	On regular basis/whenever necessary
Science Charter of the Polish Academy of Sciences Health and safety instructions	to the obvious regulations of the Labour Code and other national regulations, more detailed actions are performed by the Work Safety and Sanitation Inspector, the Fire Control Inspector, and the Plenipotentiary of the Director for Protection of Classified Information to train researchers and other IOC PAS	attempts.	IT Unit
Data Management Plan at the IOC PAS	staff in the necessary health and safety precautions (regular training every 2 years).	Introduction of changes to the archiving of analytical data —	IQ 2021
Act on the Principles of Financing Science	All research groups have access to the secure internal network storage space, which should be used for backup of the important data. Additionally, service labs have their own storage devices for saving all performed measurements.	central archiving and storing of all results by the analytical team (LASB Unit). The changes will	Research Director,
Act on the National Science Centre Funding agencies regulations (NAWA, FNP, EU programmes)	New practices As a result of the actions proposed in the HR Strategy for the period 2017-2019, an information campaign sent by e-mail to all employees was	include implementing a new sample naming system, storing in appropriately named folders etc.	LASB Unit
	implemented. The e-mails contain information about Internet security (especially in the case of data phishing attempts), safe data storage or, if necessary, appropriate instructions. The data management plan is available on the internal website and specifies good practices to secure data storage		

and backup.

After the outbreak of the SARS-CoV-2 pandemic, new actions were implemented. The IT Unit created the instructions necessary for remote work (secure remote connections to servers, using online tools for videoconferencing etc.). Additionally, pandemic versions of health and safety instructions were created to ensure safe working conditions for all

The results of the questionnaire show that the researchers of the IOC PAS well know and respect these principles and adhere to existing rules in every aspect, including health and safety (score 4.3), data security (score 4.2) and data protection and confidentiality (4.3). The Working Group is satisfied with the implementation of this principle and believes that safety awareness campaigns should be continued. In addition, it was suggested to introduce improvements in the archiving of analytical data, changes in the sample naming system and the central archiving of all results by the analytical team.

8. DISSEMINATION, EXPLOITATION OF RESULTS

employees.

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
•	Essential obligations of researchers are specified in the Code of Ethics for Research Workers and in the IOC PAS Regulations. These obligations include	Creation of a new, bilingual website which will present the	I/IIQ 2021
The Law on Higher Education and Science	conducting the research and development work, announcing, disseminating, and applying the research results. Following the regulations of the periodical evaluation of researchers, the IOC PAS is focused on achieving the high level of	activities of the Institute, both in Polish and English.	Director, Secretariat
Sciences	dissemination of research results to the scientific community and the general public. Despite the fact that the IOC PAS conducts mostly basic research, the Institute staff is encouraged to apply for patents. The IPR regulations have been		

Science	approved by the IOC PAS SC in 2013 and subsequently implemented			
Act on the National Science Centre Funding agencies regulations	Regulations include the intellectual property rights, principles of commercialization of the results of research, and development activities.	Strengthening the Institute's activity in social media -	On regular basis	
(NAWA, FNP, EU programmes)	The most valuable way of results' dissemination to the scientific community are publications, conferences, and workshops. This activity is high ranked in the	publishing information about the achievements, publications or	Secretariat,	
Code of Ethics for Research Workers	scientific evaluation of the employees. Every year over 100 scientific papers are published by the IOC PAS staff in peer-reviewed journals and the researchers present about 100 communications and posters on international and domestic conferences and workshops. Several workshops and conferences have been organized/co-organized by the IOC PAS.	awards of the Institute's employees on Facebook and Twitter accounts.	Person responsible for social media	
	New practices After the launch of the new website in April 2017, our scientists' achievements	Adopting Open Access Policy at the IOC PAS and identify a	IQ 2021	
	and successes are more visible and accessible to the wide public. Additionally, since 2020, the Institute's activity in social media has increased significantly. A person responsible for disseminating information via Facebook and Twitter accounts on the research conducted at the IOC PAS and publications published by our researchers, has been appointed.	person responsible for open access to scientific publications and research data.	Research Director, Library	
	According to our employees, the level of dissemination and exploitation of results at the Institute is very high (score 4.4), however more international work should be done. One of our priorities for the upcoming future is to create a new, bilingual website. This action had been proposed before but was postponed due to the pandemic. Dissemination of the result will also be strengthened by adopting an Open Access Policy, which will make scientific publications and research results available not only within the scientific community, but also in the entire society that supports science.			

9. PUBLIC ENGAGEMENT

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences The Law on Higher Education and Science	The IOC PAS researchers are actively involved in dissemination of the research activities and presentation of the Institute to the public. The IOC PAS organizes and participates in numerous events aiming at improving the public's understanding of science, such as science festivals, days of science etc. IOC PAS also organizes classes and workshops for talented and interested in science youths from the secondary schools and colleges. New practices	Continuation of the programme of cooperation with Warsaw high schools – lectures + internships at the IOC PAS for talented young people.	Lectures during the school year, internships during summer or winter breaks
	During the implementation of the Action Plan for years 2017-2019, the Institute undertook some additional actions regarding public engagement. The programme of cooperation with Warsaw high schools was extended and our senior researchers gave lectures in several schools, as well as summer and winter internships at the Institute were organized. Additionally, the IOC PAS joined the Scientific Partnership in our district, which aims to create new opportunities for sharing specialist, scientific knowledge. Unfortunately, the Partnership has been suspended due to the pandemic and the date for resuming actions is unknown. The level of the Institute's involvement in public engagement is assessed positively by the researchers (score 3.9). The intention of the WG is to further improve this aspect by implementing the Open Access Policy and continuing cooperation with Warsaw high school.		Director, Secretariat, Head of the PhD Studies

10. NON DISCRIMINATION

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
•	The IOC PAS fully respects all national laws regarding non-discrimination of	Translation of all important	IIQ 2021
Sciences The Law on Higher Education and Science Charter of the Polish Academy of Sciences	researchers on the basis of gender, age, ethnic, national or social origin, religion or belief, sexual orientation, language, disability, political opinion, social or economic status. The Institute makes every effort to ensure that all employees are treated equally and have the same rights and obligations. In the entire history of the IOC PAS, there have been no cases of discrimination against employees in any field.	as internal documentation into English.	Translation Agency – coordinated by Secretariat
Code of Ethics for Research Workers	Despite the high score given by our employees in the survey (score 4.1), the WG noticed the need to propose new actions regarding this principle. In 2020, the number of foreigners employed at the IOC PAS increased significantly, which forces our Institute to introduce organizational changes. So far, we have transformed doctoral studies into studies conducted entirely in English and we have taken steps to create a bilingual website. Foreigners should have, however, full access to all important documents and regulations in English and internal communication should be understandable to all employees. The Working Group recognizes the urgent need to translate the most important documents and legal acts into English and to promote bilingual communication among the employees of the IOC PAS.	Promoting bilingual communication among employees of the IOC PAS through informative campaigns. Requests to use bilingual communication will be sent to all employees, along with appropriate reminders if necessary.	IIQ 2021 (followed by reminders if necessary) HR Unit

11. EVALUATION/ APPRAISAL SYSTEMS

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences The Law on Higher Education and Science	Following the Act of 30 April 2010 on the Polish Academy of Sciences, the IOC PAS SC established the Regulations for the periodic evaluation of researchers (signed by the IOC PAS Director and approved by the PAS Vice-President). Senior researchers - professors and associated professors are evaluated every four years, adjuncts and research assistants are evaluated every two years. The	Information campaign about the Regulations for the periodic evaluation of researchers at the IOC PAS Such campaign should be conducted prior to the	2021-2023 (before evaluation)
Act on the Principles of Financing Science Regulations for the periodic evaluation of researchers at the IOC PAS Regulations for awarding bonuses to employees of the IOC PAS	evaluation is a parametric tool and includes the following activities of the researchers: • Scientific achievements • Scientific development • Educational activity • Material effects of scientific activities (management of research projects) • Other forms of activity The evaluation is carried out by the SC Commission (Research Director, Head of appropriate Department, and two professors elected by the IOC PAS SC). The detailed procedures are outlined in Regulations for the periodic evaluation of researchers.	evaluation to make all employees aware of the existing regulations.	Director, Secretariat
	New practices Due to the introduction of a new Law on Higher Education and Science, the Institute had to change the employee evaluation system to adapt it to the Ministry's requirements. There have been major changes in recent years: • June 2019 – new Regulations for the periodic evaluation of researchers at the IOC PAS – introduction of a new evaluation form • October 2020 – new Regulations for the periodic evaluation of		

researchers at the IOC PAS – introduction of a new point system	
Additionally, new Regulations for awarding bonuses to employees of the IOC	
PAS were introduced in May 2019. Each change is communicated to the	
employees at the time of its introduction. The IOC PAS makes every effort to	
ensure that the employee evaluation system complies with the requirements of	
the Ministry and at the same time meets the needs of our employees.	
The results of the survey indicate that there is a sense of uncertainty among our	
employees (score 3.4), which is natural in such a rapidly changing environment.	
The rules of evaluation are clear and transparent, and the results are discussed	
annually at a meeting with all employees. The applicable regulations are	
available on the website. The Working Group may additionally disseminate the	
available information by e-mail or information meetings.	

RECRUITMENT (CHARTER AND CODE)

12. RECRUITMENT

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences	The conditions of the recruitment are specified by the national law, mainly the	Creating new Regulations for	I/IIQ 2021
The Law on Higher Education and	Act on the Polish Academy of Sciences and the Labour Law. Moreover, the IOC PAS has its own legal documents:	recruitment for scientific positions at the IOC PAS.	Director,
Science	Ordinance from 19.11.2010 of the Director of the IOC PAS, introducing		HR Unit
Labour Code	the Rules of the selection procedures in case of employing to the academic positions at the IOC PAS		
Law on Academic Degrees and			

Title and Degrees and Title in the	Ordinance of the PhD study from 16.01.2015			
Arts	New practices	Preparation of a questionnaire	III/IVQ 2021	
Funding agencies regulations (NCN, NAWA, FNP, EU programmes) OTM-R procedures at the IOC PAS The regulations of recruitment to Warsaw PhD School	The implementation of the HR Strategy during the period 2017-2019 resulted in the greatest changes in recruitment processes. The IOC PAS has adopted all the principles of Open, Transparent and Merit-Based Recruitment of Researchers (OTM-R), which are clearly specified in the informative documents posted on our website. The legal documents specifying the selection procedures at the IOC PAS became obsolete at the time the policy was adopted, therefore the WG suggested creation of the new regulations. The Director's Ordinance of the recruitment process for PhD studies was replaced by the regulations of recruitment to Warsaw PhD School.	for newly recruited employees for the evaluation of the recruitment processes at the IOC PAS.	HR Unit	
	All persons participating in the recruitment processes have been trained in the field of adherence to the <i>Code of Conduct for the Recruitment of Researchers</i> . The adopted procedures ensure equal treatment of all candidates for research positions, including teachers and disadvantaged groups.			
	Available positions are advertised to the public on the IOC PAS website, via the Euraxess portal, the Ministry of Science and Higher Education or websites of the funding agencies (whenever possible). Additionally, the employees are encouraged to advertise job offers via social media. All the actions taken resulted in a huge increase in the employment of foreigners in 2020. This fact confirms that recruitment procedures are open and allow access to employment for all groups of scientists.			

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The results of the survey confirmed that, in the opinion of our employees, the recruitment procedures at the Institute are clear, open and transparent (score 4.0), and that the recruitment committees are impartial in assessing the candidates (score 4.0). According to the researchers, the dissemination of job vacancies could be improved (score 3.6), which should take place after the bilingual website will be published. Additionally, the Working Group concluded that the introduction of recruitment surveys for newly recruited employees can

help identify our strengths and weaknesses in this area and allow for further	
improvement.	

13. RECRUITMENT (CODE)

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences The Law on Higher Education and Science Labour Code Law on Academic Degrees and Title and Degrees and Title in the Arts Funding agencies regulations	New practices Following actions proposed in Action Plan for years 2017-2019, the IOC PAS adopted all principles of Open, Transparent and Merit-Based Recruitment of Researchers (OTM-R). Informative leaflets were published on our website, both in Polish and English. The IOC PAS recruits to the academic positions exclusively via open competitions with calls posted on the Institute website, the website of the Ministry of Science and Higher Education, the Euraxess portal and, if possible, websites of the funding agencies. The job advertisements include all the necessary information, as specified by the <i>Code</i> . The selection of the candidates	Actions required Creating new Regulations for recruitment for scientific positions at the IOC PAS. The Regulations should include new job advertisement template which will cover all points necessary by the Code.	When/Who I/IIQ 2021 Director, HR Unit
(NCN, NAWA, FNP, EU programmes) OTM-R procedures at the IOC PAS The regulations of recruitment to Warsaw PhD School	is performed by the Recruitment Commission appointed at the request of the Principal Investigator. The recruitment procedures of the IOC PAS are open, transparent, internationally comparable, and tailored to the type of position advertised. The researchers fully appreciate the adopted policies and positively evaluate the recruitment processes (score 4.0). The Working Group however, after indepth analysis, recognizes that in case of some recruitment processes not all provisions were fully applied. Therefore, the WG suggested to create new Regulations for recruitment for scientific positions at the IOC PAS and new		

useful templates to facilitate the p	rocesses. Templates will include new job	
advertisement, which will cover all n	ecessary points, according to the Code.	

14. SELECTION (CODE)

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 should be realistic.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences	New practices	Include the principles regarding	I/IIQ 2021
The Law on Higher Education and Science Labour Code Funding agencies regulations (NCN, NAWA, FNP, EU	In accordance with the OTM-R procedures adopted at the IOC PAS, the members of the recruitment committees represent diversity in terms of knowledge and professional experience. The committees have an adequate gender balance, and the members represent different organizational units within the Institute. External experts are always welcome in all recruitment processes.	committees in the new Regulations for recruitment for scientific positions at the IOC PAS.	Director, HR Unit
programmes) OTM-R procedures at the IOC PAS The regulations of recruitment to Warsaw PhD School	The recruitment processes at IOC PAS usually consist of two stages – evaluation of submitted applications and interviews with selected candidates. Interviews are held in person or via videoconference. These principles are fully recognized at the IOC PAS. To ensure full compliance with the rules in the future, the WG suggested to incorporate this point in the new recruitment regulations.		

15. TRANSPARENCY (CODE)

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences		Include the principle of transparency in the new	I/IIQ 2021
The Law on Higher Education and Science	In accordance with the OTM-R procedures adopted at the IOC PAS, job advertisements should include information on the selection criteria, the number of available positions or career development prospects. The Institute has also	Regulations for recruitment for scientific positions at the IOC PAS. Creation of useful	Director, HR Unit
Labour Code Funding agencies regulations	implemented a policy of informing all candidates about the result of the recruitment process, as well as strengths and weaknesses of their applications.	templates for job advertisements and information for all	
(NCN, NAWA, FNP, EU programmes)	The Working Group however, after in-depth analysis, concludes that in some recruitment processes not all provisions have been fully applied. Therefore, the WG suggested to create new Regulations for recruitment for scientific positions	candidates about the results of their application.	
OTM-R procedures at the IOC PAS The regulations of recruitment to Warsaw PhD School	at the IOC PAS and new useful templates to facilitate the processes. The templates will contain possible selection criteria and templates to inform applicants about the result of the recruitment process.		

16. JUDGING MERIT (CODE)

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences		Include detailed criteria for the	I/IIQ 2021
Sciences	In line with the OTM-R procedures at the IOC PAS, during the selection of	into account the whole range of	

			1
The Law on Higher Education and	candidates the Recruitment Commission takes into account the whole range of	their competences, in the new	Director,
Science	experience of the candidates. Particular attention is paid to the candidate's	Regulations for recruitment for	HR Unit
Labour Code	educational background, scientific achievements, career path, experience in a	scientific positions at the IOC	The Office
Labour Code	particular area, participation in research projects, publications, patents and	PAS.	
Funding agencies regulations	qualifications (including courses, trainings, diplomas). Depending on the		
(NCN, NAWA, FNP, EU	position available, teaching, supervision, or management abilities (in case of		
programmes)	senior researchers) or teamwork abilities (in case of ESRs) are evaluated. In each		
OTM-R procedures at the IOC PAS	aspect assessed, the quality of achievements is taken into account, not their		
OTHER PROCESSING SECTION OF AS	quantity.		
The regulations of recruitment to			
Warsaw PhD School	Candidates to the positions financed by the funding agencies may be obliged to		
	meet additional criteria required by these funding agencies.		
	Detailed guidelines for the evaluation of candidates, in line with the provisions		
	of the <i>Code</i> , will be included in the new regulations for the recruitment for		
	scientific positions at the IOC PAS.		

17. VARIATIONS IN THE CHRONOLOGICAL ORDER OF CVS (CODE)

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences		Include the principle of not	I/IIQ 2021
	The principle of not penalising career breaks or variations in the chronological order of the CVs of Candidates in their evaluation has been included in the Open, Transparent and Merit-based Recruitment procedures at the IOC PAS. When assessing the scientific achievements and professional experience of the Candidates, the Recruitment Commission takes into account breaks in the professional career, converting the achieved achievements into the effective working time of the Candidate.	variations in the chronological order of CVs in the new Regulations for recruitment for scientific positions at the IOC PAS.	Director, HR Unit

programmes)	In order to strengthen the implementation of this principle, it will be included in	
OTM-R procedures at the IOC PAS	the new Regulations for recruitment for scientific positions at the Institute of	
OTIVI-R procedures at the IOC PAS	Organic Chemistry of the Polish Academy of Sciences.	
The regulations of recruitment to		
Warsaw PhD School		

18. RECOGNITION OF MOBILITY EXPERIENCE (CODE)

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences The Law on Higher Education and Science Labour Code Funding agencies regulations (NCN, NAWA, FNP, EU programmes) OTM-R procedures at the IOC PAS The regulations of recruitment to Warsaw PhD School	New practices During the recruitment of researchers at the IOC PAS, the factor of their mobility is appreciated by the Recruitment Committee (as a good practice). The principle of recognizing mobility as a valuable contribution to the professional development of a researcher has been included in the OTM-R procedures at the IOC PAS. To further strengthen the implementation of this principle, the new regulations will include the mobility factor as one of the mandatory points in the candidate's assessment.	Include mobility as a mandatory point in the candidate's assessment in the new Regulations for recruitment for scientific positions at the IOC PAS.	I/IIQ 2021 Director, HR Unit

19. RECOGNITION OF QUALIFICATIONS (CODE)

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences The Law on Higher Education and Science	Polish law regulates 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).	None.	
Labour Code Funding agencies regulations (NCN, NAWA, FNP, EU programmes)	Funding agencies usually are very strict about qualifications required to the offered position. IOC PAS, when assessing the academic and professional qualifications of the candidates, complies with all applicable regulations, both national and required by each funding organization.		
OTM-R procedures at the IOC PAS The regulations of recruitment to Warsaw PhD School			

20. SENIORITY (CODE)

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences	The IOC PAS does fully respect these rules. At our Institute during recruitment or promotion the required level of qualifications corresponds to the		I/IIQ 2021
The Law on Higher Education and	requirements for the position and is not set as a barrier. The new research	in the recruitment process in the	Director,

Science	position is defined and announced after detailed analysis and defining clear	new Regulations for recruitment	HR Unit
Labour Code	needs and requirements of the vacant position. During recruitment and	for scientific positions at the IOC	
Labour Code	evaluation, personal achievements of the researcher are taken into account	PAS. The prohibition of assessing	
Funding agencies regulations	rather than his/her background or the reputation of the institution where the	the reputation of the institution	
(NCN, NAWA, FNP, EU	qualifications were gained. These principles have been included in the OTM-R	in which the candidate worked,	
programmes)	procedures at the IOC PAS.	or the reputation of their former	
OTM-R procedures at the IOC PAS	To further strengthen the implementation of this principle, the new Regulations	supervisors must be included.	
·	for recruitment for scientific positions at the IOC PAS will include a provision		
The regulations of recruitment to Warsaw PhD School	defining the criteria for assessing candidates in the recruitment process,	Creating a new template of the	I/IIQ 2021
Walsaw Fild School	including the prohibition of assessing the reputation of the institution in which	job advertisement that will	,,,,,,
	the candidate worked or the reputation of their previous supervisors.	clearly define the required and	
	Additionally, the template of the job advertisement will be changed, to clearly	desired qualifications for the	Director,
	define the required and desired qualifications for a specific research position.	advertised research position.	HR Unit
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21. POSTDOCTORAL APPOINTMENTS (CODE)

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Sciences The Law on Higher Education and Science	The Postdoctoral appointments' criteria are regulated by the Polish law (the Act on Polish Academy of Sciences, the Act on Academic Degrees and Academic Titles, and the Act on Degrees and Titles in Art; Regulation of the Minister of Science and Higher Education on criteria for assessing the achievements of the person applying for postdoctoral appointment). Some additional requirements are provided by funding agencies. The IOC PAS has no influence on the appointment criteria.	None.	
Regulation of the Minister of			

Science and Higher Education				
La	abour Co	ode		
F	unding	agencies	regula	ations
1.	•	NAWA,	FNP,	EU
р	rogramn	nes)		

WORKING CONDITIONS AND SOCIAL SECURITY

22. RECOGNITION OF THE PROFESSION

All researchers engaged in a research career should be recognized 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).

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences The Law on Higher Education and Science Labour Code Charter of the Polish Academy of Sciences	The IOC PAS puts the great emphasis on the recognition of research as a profession and the appreciation of researchers at all stages of their career. The Institute's staff and the PhD students are treated as professionals and are also required to recognize the research achievements and scientific independence of other scientists, especially young researchers, regardless of their job position, academic titles or legal circumstances. Experienced researchers as well as the early-stage researchers and their contribution to research activities are highly appreciated at the Institute. The results of the survey (score 3.9) prove that, in general, this principle is well recognized among the employees of the IOC PAS. Slightly lower results among PhD students and early-stage researchers suggest that they would like to be more appreciated by their supervisors. The need to appreciate work done by PhD students and treat them in a professional manner will be reminded at regular meetings with Team Leaders.	Reminding employees to appreciate and professionally treat all co-workers, especially early-stage researchers, during regular meetings with Team Leaders.	On regular basis, during meetings with Team Leaders Director

23. RESEARCH ENVIRONMENT

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.

		T	
Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences	The IOC PAS is one of the best-equipped chemical institutes in Poland. There are ca. 80 laboratory rooms in the IOC PAS, fully equipped for efficient and safe	Creation of a complete list of	IIIQ 2021
The Law on Higher Education and Science Labour Code Charter of the Polish Academy of	performance of all types of organic chemistry experiments. Additionally, in the Institute of Organic Chemistry PAS operate 6 specialized laboratories providing analytical services for research groups of the Institute as well as external units: scientific and industrial, operating either on a commercial basis or within scientific cooperation. The equipment of all laboratories meets the highest standards and is operated by highly qualified scientific and technical staff.	types of scientific research at the IOC PAS. Such list should be available to all scientists.	Procurement Department
Sciences	 Nuclear Magnetic Resonance Laboratory offers full range of one-and two-dimensional NMR experiments in the liquid phase for almost all the nuclei with a non-zero spin. The NMR spectra are routinely 	Creation of central list of chemicals belonging to all Research Teams. The list should be available on the Institute's servers for all scientists.	IVQ 2021 – IIQ 2022
	recorded at room temperature, but they can be also conducted in a wide range of temperatures from -120 °C to 120 °C. The measurements in the solid state (CPMAS) are also carried out. We have one 600 MHz, two 500 MHz, one 400 MHz and the old one 200 MHz apparatus.		
	FI) Two of these machines are GC-MS systems and two other - HDIC-	Introduction of online forms for all analytical analysis requests.	IIIQ 2021
			LASB Unit

- measurements together with fragmentation studies (MS/MS and MS³ spectra) are widely used for establishing structures of unknown compounds.
- Laboratory of Optical Spectroscopy performs measurements of the IR and UV-VIS spectra as well as measurements of the circular dichroism spectra, both electron (ECD), and vibrational (VCD). Additionally, measurements of optical rotatory dispersion (ORD) are performed.
- X-Ray Diffraction Laboratory is equipped with modern Bruker AXS diffractometer with area detector APEX II which allows for advanced X-ray diffraction characterization of monocrystalline organic and metalorganic materials. Application of Cu-radiation is particularly useful in studies of small to medium size (10-500 atoms) organic molecules, including assignment of absolute configuration.
- Laboratory of Elemental Analysis performs elemental compositions measurements of organic compounds including the following elements: C, H, N, S, Cl, Br, I and F.
- Laboratory of organic synthesis under very high pressure allows to conduct the experiments under the pressure > 10 000 atm.

All employees have full access to the internal network and the Internet, including free on-line access to practically all important research journals and chemical databases. It is possible also to access the IOC PAS network from the remote locations, which enables an access to all available resources. All employees have an access to the IOC PAS computer cluster for performing molecular modelling and other types of calculations.

New practices

Shortly after the outbreak of the global SARS-CoV-2 pandemic, a number of facilities were introduced at the Institute to facilitate remote work. The IT Team developed instructions on the usage of remote desktops, secure connections to the Institute's servers, and the usage of videoconferencing tools. Since the work

of chemists cannot be performed remotely, all the recommended precautions have been introduced, such as hand disinfectants, protective masks, plexiglass protections, and care was taken to ensure that there were not too many scientists in the laboratories at the same time. Internal documentation flow was improved by introducing electronic signatures.

The comments collected in the survey drew the attention of the Working Group to the need for further improvements in this area. It was postulated to create a central list of all chemicals, as well as a complete list of research infrastructure owned by each Research Team. Additionally, employees suggested that the introduction of online forms for all analytical analysis requests would significantly improve conducting research on everyday basis. In the opinion of the WG, all the proposed solutions will contribute to the improvement of the work of researchers at the Institute, which is why they were introduced into the HR Strategy for years 2021-2023.

24. WORKING CONDITIONS

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Sciences	The working conditions are regulated by the national law (Act on the Polish Academy of Sciences, Labour Code) and internal labour regulations. The IOC PAS	Creating "Welcome Packages" for new PhD students and	III/IVQ 2021
The Law on Higher Education and Science	provides working conditions which allow (within the capabilities of formal regulations) both female and male researchers to combine family and work, raising children, and developing a professional career.	employees. The packages should contain basic information on the working conditions at the	HR Unit, Secretariat,
Labour Code Charter of the Polish Academy of	The following formal work arrangements are in use: • Part-time work (requested by the employee, accepted by the Director	Institute.	Grant Unit

Sciences	of the IOC PAS)		
Labour regulations at the Institute	Flexible working time (requested by the employee, accepted by the		
of Organic Chemistry PAS	 Director of the IOC PAS) Sometimes it is possible to perform work at home (e.g. literature study, preparation of the manuscripts, computational work) 	Creating a "checklist" which will facilitate the process of familiarizing a new employee	IVQ 2021 – IQ 2022
	 36 days annual leave, vacation Labour Code training leave for 30 days Due to the specificity of organic chemistry, severely physically handicapped people are not allowed to work in the laboratories for security reasons. However, the IOC PAS buildings are adapted to enable access for people with physical impairments. In the case of disability of the employee we are able to provide a suitable position e.g. in theoretical chemistry team. At the same time, among the new employees there are practically no people with disabilities, because they are very few among the graduates of chemistry. New practices 	with internal regulations. The checklist will contain all the necessary formalities that a new employee should complete – e.g. crating an email address, subscribing to mailing lists, providing basic information to the administration etc.	HR Unit, Secretariat
	Due to global pandemic of SARS-CoV-2, additional rules for remote work have been introduced. As far as possible, and whenever it does not affect the proper course of work, researchers are advised to work remotely, especially senior scientists. The administrative unit works in shifts to ensure the proper service of the Institute, and at the same time the safety of its employees.		
	The results of the survey indicate that scientists at the IOC PAS appreciate flexible working conditions (score 4.2) and are very satisfied with the approach of their superiors that allows then to combine work with family responsibilities. New employees (working less than 1 year) presented a lower level of awareness regarding the working conditions. The WG suggested to create "Welcome Packages" for new employees to facilitate their introduction to internal rules and regulations. Additionally, a checklist summarizing all steps that a new employee should perform at the beginning of employment will be created.		

25. STABILITY AND PERMANENCE OF EMPLOYMENT

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences	The Institute offers the work contracts in compliance with the national regulations. The time of employment on adjunct position is limited by national	The document specifying	IIQ 2021
The Law on Higher Education and Science Labour Code Law on Academic Degrees and Title and Degrees and Title in the	law. Positions financed entirely by the project funds are subjected to the project regulations and require the project-specific contract, which is temporary by its nature. The IOC PAS usually encourages researchers to find new opportunities of funding after the completion of a project. Some of the PhD students (applies to PhD students who are not at the Warsaw PhD School) are offered a 2,5 year part-time assistant position. Additionally, a	development path in the Institute will be issued. The document will specify the employment possibilities for people holding a PhD degree.	Research Director
Arts Regulations of the Warsaw PhD School	three-month employment contract is offered by the IOC PAS to most PhD students, after successful defence of a doctoral thesis, which gives time to find the post-doctoral position and enhance mobility.	Include the most important regulations regarding	IQ 2022
	New practices According to the new Regulations of the Warsaw PhD School, adopted in 2019, PhD students cannot be employed at scientific positions. However, PhD students can be employed to conduct scientific research in a specific research project which is a practice implemented at the IOC PAS whenever possible. Moreover, PhD students from Warsaw PhD School can be part-time employed after the positive mid-term evaluation.	employment of the PhD students in the "FAQ Section" on the internal website.	HR Unit, Secretariat, Grant Unit
	The results of the survey (score 3.7) show that there is considerable uncertainty among early-stage researchers and PhD students about the issue of their employment. This situation is caused by changes in the doctoral education system introduced by the Ministry of Science and Higher Education and the uncertainty as which regulations apply to which students. The Institute, aware of the need to clarify these issues, introduced new regulations in January 2021		

by the Director's Ordinance. However, the explanatory document appeared	
shortly before the survey was conducted and not all students were fully aware	
of the new rules. The ordinance also regulates the issue of extending doctoral	
studies, which is so important for all students.	
The WG suggested to include the most important regulations regarding	
employment of PhD students in the "FAQ Section on internal website".	
Moreover, the WG maintained the necessity to create a document specifying	
possibilities of the further development path and employment at the Institute.	

26. FUNDING AND SALARIES

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of	Labour conditions at the IOC PAS are fully consistent with Polish employment	Informative action for all Team	On regular
Sciences	standards. This issue is regulated by the national law (Act on Polish Academy of	Leaders about the obligation of	basis, during
	Sciences, Labour Code, security system) and by relevant internal rules (The	informing scientist at their	Team
The Law on Higher Education and	remuneration Regulations/Director's Ordinances). Researchers are fully	research groups about bonuses	Leaders
Science	covered by the Polish social security system (health insurance, family	policy, changes in remuneration.	meetings
Labour Code	allowance, paid maternity leave etc.). This includes researchers at all stages of		with the
The remuneration Regulations at	their career including the early-stage researchers. PhD students are covered by		Management
the IOC PAS	health insurance and personal accident insurance.		
	Statutory salaries are based on fixed wage scales. There is little flexibility		Director
Director's Ordinances regarding	regarding wage setting because of the formal procedures. Additional		
renumeration system	remuneration is usually related to additional actions or research projects		
Regulations of the Warsaw PhD	(grants) realization. There is also annual premium depending to some extent on		
School	basic salary and on scientific effects. All employees benefit the additional,		
	private health packages (that can be by low-cost expanded to the family		
	members) and sport packages. There is also a possibility of receiving financial		

support for employee in a difficult life situation or in case of mishap. The Benefits and Loan Desk along with the social fund are additional means of support available at the IOC PAS. The funds are distributed by relevant independent committees.

PhD Students from outside Warsaw have a possibility to stay, for a small fee, in the Institute hotel during their studies at the IOC PAS. Scientists from abroad also have such a possibility until they find a suitable place of residence in Warsaw.

New practices

Following the needs of our employees, in January 2021, new regulations regarding subsidies for languages learning (including Polish language for foreigners) were introduced. Moreover, in accordance with the new government regulations, in 2021 the Employee Capital Plans will be introduced at the IOC PAS.

The results of the questionnaire and consultations with researchers show that the employees appreciate the funding and salaries conditions at the Institute and are satisfied with the additional benefits. The main concern is related to the policy regarding the annual bonuses and awareness in this area (score 3.5). The information about bonuses is provided to all Team Leaders during meetings with the Institute's Management, however the WG noticed the issue with transferring information to all employees. The aim of the WG is to improve this aspect in the future.

27. GENDER BALANCE

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences The Law on Higher Education and Science Labour Code Charter of the Polish Academy of Sciences	The IOC PAS strives to maintain gender equality at all levels of staff. This is achieved by an equal opportunity policy at recruitment and in the subsequent stages of the career; however, quality and competence criteria are still the most important factor. The principles of equal treatment in employment and non-discrimination are included in the relevant regulations. The recent statistics show that around 41% of all employees at the IOC PAS are females, and among researchers 28% are females. In general, women are well represented in most committees, e.g. in the Scientific Council or Recruitment Committees. However, women are still slightly underrepresented among the highest professional researchers, which is common in the entire scientific community in Poland. The results of the survey clearly indicate that, according to the employees, the principle of gender equality is fully respected at the IOC PAS – both in terms of working conditions (score 4.3) and the equal opportunities for professional development (score 4.2). Importantly, very similar assessments were given by both women and men, which confirms the lack of discrimination.	None.	

28. CAREER DEVELOPMENT

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who	
Act on the Polish Academy of Sciences	National law specifies the requirements that must be met in order to pursue the development of a research career. It is common practice at the IOC PAS that	The document specifying possibilities of the further	IIQ 2021	
The Law on Higher Education and Science Law on Academic Degrees and Title and Degrees and Title in the Arts Labour Code	senior scientists/Team Leaders/Heads of departments/Directors are mentors to younger co-workers/researchers. The administrative unit supports researchers in the career development through the regular distribution of available positions/scholarships/training workshops (also those related to career development). Researchers may apply to the Director for financial support for the participation in such events. Based on the available funds, the IOC PAS Management tries to support young scientists and scientists with fixed-term	development path in the Institute will be issued. The document will specify the career paths for people holding a PhD degree.	Research Director	
Charter of the Polish Academy of Sciences Regulations of the Warsaw PhD School	Contracts. New practices With the establishment of the Warsaw PhD School, the Institute introduced the obligation to create Individual Career Plans for all PhD students. Each doctoral student has his/her research supervisor and assistant supervisor who advise on scientific development. The results of the questionnaire show that the evaluation of this principle has	Introduction of Individual Career Plans for all young researchers, especially those without a status of PhD student. The Plans should be developed together with a direct supervisor at the beginning of employment.	On regular basis, at the beginning of employment Team Leaders	
	significantly improved during the implementation of the HR Strategy (score 4.1 vs. 2.8 in 2016). The WG believes that the introduction of Individual Career Plans has helped young scientist to define a clear and transparent path for their professional development. The Working Group intends to introduce similar plans for all young researchers, including those who do not have a status of a PhD student. Additionally, for people holding a doctoral degree, the document specifying possibilities of the further development path in the Institute will be issued.			

29. VALUE OF MOBILITY

Employers and/or funders must recognize the value of geographical, intersectorial, inter- and trans-disciplinary and virtual 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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences The Law on Higher Education and Science Charter of the Polish Academy of Sciences	The IOC PAS recognizes the value of geographical, intersectoral, inter- and trans-disciplinary and virtual mobility as well as mobility between the public and private sectors as an important means of enhancing scientific knowledge and professional development at every stage of a researcher's career. The IOC PAS researchers at all stages of their careers are encouraged to apply for and participate in short- and long-term internships; the mobility experience is always regarded as a valuable contribution to the professional development of IOC PAS employees and candidates in the recruitment process. The IOC PAS participates in research exchange programmes, including among others, a bilateral cooperation with the Czech Republic and South Korea. IOC PAS	Implementing PhD exchange programme with leading research centers – California Institute of Technology (Caltech), University of Nagoya.	2022-2023 (depending on pandemic situation) Director, Research Director, Head of PhD
	employees are also beneficiaries of programs enabling foreign internships, such as "Mobility Plus", "The Bekker Programme", "START" or "Etiuda". Mobility between the public and private sectors is also possible, several doctoral students from the Institute have completed internships in pharmaceutical companies in recent years.	Internships in the private sector,	Studies 2022-2023
	The information about different types of internships or mobility stays is provided regularly by the Grant Unit via email, on the Intranet page and FB site. New practices To support the mobility of researchers in an even more active way, in 2019 the IOC PAS signed preliminary agreements with the University of Nagoya and the California Institute of Technology for joint research projects carried out as part	especially in the pharmaceutical sector, for PhD students – such internships will be possible as part of doctoral studies at the PhD School.	Director, Head of the PhD Studies

of the mutual exchange of doctoral students. The idea behind the project is to
carry out research tasks with the greatest possible added value for both
institutions by sending 2-3 doctoral students a year for three-month research
visits to these excellent scientific centers. At the same time, it is planned to host
2-3 doctoral students (from each center) at the IOC PAS. The implementation of
the programme has been postponed due to a global pandemic.

The results of the survey in terms of the implementation of this principle were not fully satisfactory (score 3.7), therefore the Working Group suggested further improvements. Following consultation with the employees, it was proposed to increase the possibility of mobility between the public and private sectors, with particular emphasis on internships in private sector for early-stage researchers.

30. ACCESS TO CAREER ADVICE

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Labour Code Charter of the Polish Academy of Sciences	Advice on the development of a scientific career or job search assistance is provided to the researchers of the IOC PAS, regardless of their contractual situation, on an informal level, more of a good practice rather than a formal rule. Senior scientists/Team Leaders/Heads of departments/Directors are often the best advisers for younger co-workers/researchers. Researchers may apply to the Director for financial support for the participation in scholarships/training workshops. Based on available funds, the IOC PAS Management tries to support applicants, in particular young scientists. New practices Since 2017, the process of informing employees about research funding opportunities, internships, research vacancies or scholarships has been highly intensified. A "Grants" tab has been created on the Institute's website, where		On regular basis Grant Unit, Secretariat, HR Unit

employees can find up-to-date information on all open calls. Additionally, the Secretariat or the Grant Unit inform researchers about new funding opportunities via e-mailsrom 2020, current funding opportunities are sent in the Grant Newsletter to all researchers. Information activities also refer to European grants, which was not a common practiced before. The survey results indicate that employees would value the better access to career advice (score 3.1). Since the Institute is a research institution, in our opinion, our activities should focus on facilitating the access of scientists to the advice in terms of their research careers, which mainly includes applying for funds. To further improve this aspect, sending regular Grant Newsletters will be continued. Additionally, employees of the Grant Unit will be trained in providing more adequate assistance in applying for funding, especially in international programmes. They will help researchers in preparing applications which should facilitate the entire process. As far as possible, the grant application process will also be supported by professional external companies, which will allow scientist to familiarize themselves with the best practices when submitting grants.			
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	The survey results indicate that employees would value the better access to career advice (score 3.1). Since the Institute is a research institution, in our opinion, our activities should focus on facilitating the access of scientists to the advice in terms of their research careers, which mainly includes applying for funds. To further improve this aspect, sending regular Grant Newsletters will be continued. Additionally, employees of the Grant Unit will be trained in providing more adequate assistance in applying for funding, especially in international programmes. They will help researchers in preparing applications which should facilitate the entire process. As far as possible, the grant application process will also be supported by professional external companies, which will allow scientist	preparing the necessary documents. The assistance will be provided by external institutions, as well as Grant Unit employees, who will be properly trained.	,

31. 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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Copyright and Related Rights Act Act on the Polish Academy of Sciences The Law on Higher Education and Science	The IOC PAS SC approved the IPR regulations in February 2013. These regulations govern the procedures resulting in establishing the protection of intellectual property and the rules for division of possible benefits resulting from exploiting the rights to inventions etc.	None.	

Regulations for the protection and usage of the intellectual property at the IOC PAS Regulations of the Warsaw PhD School As planned in the Action Plan for years 2017-2019, the IOC PAS organised dedicated workshops to raise the researchers' awareness regarding IPR regulations: • December 2017 - workshop regarding IPR – "Intellectual property protection and patenting practice" The results of the questionnaire show that the IOC PAS researchers highly evaluate the implementation of this rule in our Institute (score 4.2). Additional questions suggest that there is no need to organize additional workshops regarding the Intellectual Property Rights.	Charter of the Polish Academy of	New practices	
	Sciences Regulations for the protection and usage of the intellectual property at the IOC PAS Regulations of the Warsaw PhD	As planned in the Action Plan for years 2017-2019, the IOC PAS organised dedicated workshops to raise the researchers' awareness regarding IPR regulations: • December 2017 - workshop regarding IPR – "Intellectual property protection and patenting practice" The results of the questionnaire show that the IOC PAS researchers highly evaluate the implementation of this rule in our Institute (score 4.2). Additional questions suggest that there is no need to organize additional workshops	

32. CO-AUTHORSHIP

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).

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Copyright and Related Rights Act Act on the Polish Academy of Sciences The Law on Higher Education and Science Charter of the Polish Academy of Sciences Regulations for the protection and usage of the intellectual property at the IOC PAS	This principle is regulated by the Code of Ethics for Research Workers and the Regulations for the protection and usage of the intellectual property at the IOC PAS. Researchers are obliged to meticulously follow the principles which apply to the authorship of scientific publications. Plagiarism in any shape or form is forbidden. Researchers must comply with the principle of respect of intellectual property rights and shared ownership in regard of research conducted in cooperation with their PhD students, other scientists, or supervisors. Coauthorship is viewed positively at the IOC PAS when evaluating the research staff. The researchers are also encouraged to apply for funding for joint research projects with other research groups within or outside the IOC PAS. The results of the questionnaire show that IOC PAS researchers strongly agree	None.	

Code of Ethics for Research	with this principle, the level of implementation at the IOC PAS is satisfactory	
Workers	(score 4.3) and properly included in the evaluation system (score 4.1).	

33. TEACHING

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of Sciences	The IOC PAS is a research institute, therefore teaching is not the primary responsibility of the researchers. However, in the programme of the PhD	Inclusion of teaching activities in the evaluation system of	IVQ 2021
The Law on Higher Education and Science Charter of the Polish Academy of	Studies at the IOC PAS there is an obligatory one-semester teaching practice at the Faculty of Chemistry, University of Warsaw. It should be emphasized that any individual teaching activity of the researchers	researchers – additional points should be awarded to researchers involved in giving	Director
Sciences Regulations of the Warsaw PhD	is very positively assessed by the IOC PAS Management. Different types of teaching activities are carried out by the Institute's researchers. Many of them deliver lectures to the students of different universities in Poland, supervise	lectures, supervising PhD theses etc.	
School	them in obtaining Bachelor and Master of Science degrees. The IOC PAS researchers are actively involved in teaching activities at the IOC PAS PhD Studies, and this is adequately renumerated. Moreover, time devoted by senior		
	members of the staff to the training of early-stage researchers/supervising PhD theses is viewed as an important part of teaching.		
	New practices With the establishment of the Warsaw PhD School, new rules for assessing		
	lectures have been introduced. All senior researchers giving lectures to PhD students are evaluated after the end of the semester and receive feedback from the students.		

The results of the survey suggest that, in the opinion of our employees, their	
teaching activities are not fully considered in their evaluation (score 3.2). This	
point should be assessed during the annual evaluation of scientists and	
additional points for the involvement in teaching should be awarded.	

34. COMPLAINS/ APPEALS

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of	Complaints/appeals are generally solved individually by supervisors, group	Creation of a document	III/IVQ
Sciences The Law on Higher Education and Science	leaders/heads of departments/the Head of the PhD Studies/Directors. According to the Act on the Polish Academy of Sciences the disciplinary spokesman of the Council is elected by the IOC PAS Scientific Council to independently investigate and assess complaints of researchers, including	describing possible procedures for resolving disputes, complains and appeals.	HR Unit, Secretariat
Charter of the Polish Academy of Sciences	conflicts between scientific supervisors and early-stage researchers. PhD students can present their opinion and suggestions through the PhD	If necessary, introduce a new	2022-2023
Labour Code Director's Ordinances regarding the Disciplinary Committee for	Students Council, directly to the Director or to their supervisors, as well as the Head of the PhD Studies. PhD students can also benefit from the peer tribunal to solve conflicts between scientific supervisors and other researchers.	ordinance changing the rules for selecting persons acting as ombudsmen.	Director
PhD students and employees of	There is also the possibility to watch out for help to the Peer Court (for PhD		
the IOC PAS	Students). This solution was introduced in March 2015.	Include information about	III/IVQ 2021
Director's Ordinances regarding Disciplinary Spokesmen for PhD students and employees of the IOC PAS	New practices The consultations revealed that the principle regarding complains and appeals is especially important for PhD students. In 2018, a meeting with PhD students was organised, during which an impartial person (ombudsman-type) was selected to represent their interests. In addition, the PhD students selected a person for the	students and employees.	HR Unit, Secretariat, Grant Unit

position of the disciplinary spokesman for doctoral students at IOC PAS – established by the Ordinance of the Director in February 2019.

In February 2019, new members for the Disciplinary Committee for Employees and Disciplinary Committee for doctoral students were selected, as well as for both Appeal Disciplinary Committees. Doctoral students can still benefit from the Peer Court and the Appeal Peer Court. Shortly before our survey was taken (February 2021), due to personal changes at the Institute, new Disciplinary Spokesmen for PhD students and researchers were chosen.

The results of the survey show, that the actions undertaken by the Institute had some effects (score 3.5 vs. 2.7 in 2016), however the implementation is still not sufficient. The creation of a document describing possible procedures for resolving disputes, complains and appeals is in progress. The Working Group also debated why complaints do not go to employee-elected ombudsmen. It has been suggested that, if the situation will continue in the case of newly selected persons, the Institute should change the rules of selecting impartial persons - for researchers from the administrative department, and for the administrative department - from among scientists.

35. PARTICIPATION IN DECISION-MAKING BODIES

Employers and/or funders of researchers should recognize 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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of	There are two main decision-making bodies at the IOC PAS: the Director and the	Information on the composition	III/IVQ 2021
Sciences	Scientific Council. The Director manages the Institute and is aided by the Deputy	of all decision-making bodies and	
Charter of the Polish Academy of	Directors and the Scientific Council. The IOC PAS SC is responsible for	representatives of each group of	HR Unit,
Sciences	supervising continuously the scientific activities of the Institute. The SC of the	employees should be included in	Secretariat,
Sciences	Institute is the highest decision-making body responsible for the acceptance of	the "Welcome Packages" for new	Grant Unit

Labour Code

the research programmes and annual reports, granting PhD degrees and other scientific activities. The Scientific Council also ensures a high level of execution of these activities including career development. The Scientific Council consists of the IOC PAS staff representing the entire research community of the Institute (senior researchers, representative of the PhD Students, representative of the junior researchers) and recognized external senior researchers with areas of expertise relevant to the research conducted at the IOC PAS (one-third of the council members). The proportion between the SC members from different groups of researchers is regulated by the Act on the Polish Academy of Sciences and the IOC PAS has only a limited influence on it.

Active contribution to the functioning of the Institute and individual and collective interest protection and representation are also provided by:

- Regular meetings of the Institute's Management with Team Leaders
- Periodic Committees (teams) for specific tasks appointed by the Director.
- Moreover, the PhD students can present their opinion and suggestions through self-governmental body (PhD Students Council) directly to the Director or supervisors and the Head of the PhD Studies.

New practises

Following the action proposed in the Action Plan for years 2017-2019, the Employee Representatives Committee was established in April-June 2019. The Committee was elected in the voting of all IOC PAS employees and is composed of both researchers and administrative employees. The Committee is obliged to consult the new regulations concerning employees. Its activities are additionally supported by the HR Working Group, and its suggestions are consulted with the Advisory Board composed of the Directors of the IOC PAS. The composition of the Committee changes in the event of personnel changes at the Institute.

In the survey conducted in 2021, the result given for this principle was significantly higher (score 3.9) than in 2016 (score 3.3), which proves the

employees.

appreciation of the improvements in the IOC PAS policy by the employees.	
Slightly lower scores were given by new employees, showing that they are not	1
fully aware of their representation in all decision-making bodies. Brief	1
information should be included in the "Welcome Packages" for new employees.	1
	•

TRAINING

36. RELATION WITH SUPERVISORS

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Sciences The Law on Higher Education and Science Charter of the Polish Academy of Sciences Law on Academic Degrees and Title and Degrees and Title in the Arts Regulations of the Warsaw PhD School	The IOC PAS is very much aware of the importance of appropriate supervision for the development of the early-stage researchers. Every PhD student has the scientific supervisor (senior scientist) from the beginning of the study, who is often supported by a secondary supervisor with a PhD degree. They should consult each other and regularly evaluate the progress of the doctoral research, but also give assistance to the young people in any matter they may need help with. This principle was additionally formalized in the Regulations of the Warsaw PhD School adopted in 2019, which require that each PhD student has a supervisor and an assistant supervisor. The person appointed formally to consult and support the PhD students and to evaluate the progress (based on supervisor reports) is the Head of the PhD Studies at the IOC PAS. PhD students, on the other hand, are obliged to report the progress of their work and research findings to their supervisor and the Head of the PhD Studies. Other early-stage researchers (assistants) are supported and evaluated regularly by direct scientific supervisor and by the	None.	

 Team Leader. The Research Director formally supervises the functioning of the	
PhD Studies and regularly consults the Head of the PhD Studies.	
New practises	
The supervisor's opinion is provided to PhD students twice a year and attached to	
the semester report on the progress of their research work. The opinion should	
indicate the strengths and areas of further development of the PhD student.	
All PhD students at the Warsaw PhD School are additionally subject to mid-term	
evaluation in the middle of their studies. Students prepare a report on the	
conducted research and received a positive or negative opinion of the	
Committee. The evaluation takes into account the opinions of the supervisor and	
assistant supervisor.	
The results of the survey revealed that, according to the respondents, relations	
with supervisors are at the very high level at the IOC PAS (score 4.4) and has	
improved thanks to the implementation of the biannual written opinions of	
supervisors (score 4.1 in 2016). The WG is satisfied with the level of	
implementation and sees no need for any action on this principle.	

37. SUPERVISION AND MANAGERIAL DUTIES

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Sciences The Law on Higher Education and	statutory research and national and international projects. They are obliged,	for supervisors and young doctors building their teams at	IVQ 2021 (repeated if necessary /according to

Charter of the Polish Academy of Sciences Law on Academic Degrees and Title in the Arts Arts Regulations of the Warsaw PhD School The Morsaw PhD School Activities, dissemination actions for the public. The Head of the PhD Studies supervises the study programme as well as the scientific development of the young researchers. The knowledge and experience of supervisors and senior researchers are highly appreciated by early-stage researchers at the IOC PAS. The respondents appreciated very high commitment and good relationships in research groups, both with supervisors and other researchers. Despite the high result (score 4.1), additional comments in the survey suggested that managerial duties needs some improvements. The WG proposed to organize dedicated team management workshops, in particular for young doctors building their own teams at the Institute.	Science	scientists to apply for grants, take part in conferences, workshops, project	the results)
Sciences Law on Academic Degrees and Title in the Arts Regulations of the Warsaw PhD School The knowledge and experience of supervisors and senior researchers are highly appreciated by early-stage researchers at the IOC PAS. The respondents appreciated very high commitment and good relationships in research groups, both with supervisors and other researchers. Despite the high result (score 4.1), additional comments in the survey suggested that managerial duties needs some improvements. The WG proposed to organize dedicated team management workshops, in particular for young doctors building their own	Charter of the Polish Academy of	activities, dissemination actions for the <u>public</u> . The IOC PAS senior researchers	
	Sciences Law on Academic Degrees and Title and Degrees and Title in the Arts Regulations of the Warsaw PhD	represent the high standard of professional responsibility and so they try to follow this principle as much as possible. The Head of the PhD Studies supervises the study programme as well as the scientific development of the young researchers. The knowledge and experience of supervisors and senior researchers are highly appreciated by early-stage researchers at the IOC PAS. The respondents appreciated very high commitment and good relationships in research groups, both with supervisors and other researchers. Despite the high result (score 4.1), additional comments in the survey suggested that managerial duties needs some improvements. The WG proposed to organize dedicated team management workshops, in particular for young doctors building their own	Director,

38. CONTINUING PROFESSIONAL DEVELOPMENT

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who	
Act on the Polish Academy of Sciences	The professional development of all groups of employees is one of the most important issues at the IOC PAS. This is a part of the institutional vision of	The document specifying possibilities of the further	IIQ 2021	
The Law on Higher Education and Science Charter of the Polish Academy of Sciences Law on Academic Degrees and	developing a creative community of scientists that are well prepared for the needs of today's changing world. The IOC PAS researchers actively participate in conferences and workshops (national and international) which allow them to improve their qualifications. In most cases, participation in these events is possible from the project funds, however the IOC PAS also offers support for researchers [mainly young	development path in the Institute will be issued. The document will specify the career paths for people holding a PhD degree.	Research Director	
Title and Degrees and Title in the Arts	researchers and others currently without their own (project) funds]. On-site scientific events are also organized by the IOC PAS. Foreign researchers,	Organizing meetings with former		
	recognized specialists in their research area visiting the IOC PAS, are asked to	Organizing meetings with former	2021-2023	

New practices Following the adopted HR Strategy, during the period of 2017-2019 the IOC PAS are strongly encouraged to develop their professional skills and rise their qualifications on regular basis. Information about the possibility of participating in trainings and workshops is regularly send to all employees. The Library constantly updates information about online courses, trainings in the use of new computer programs or research equipment. Additionally, the following actions were implemented: In 2018 the IOC PAS established a programme for PhD students – "Competition for funding research projects". It is an internal competition in which each PhD student can propose a research project. The best projects obtain funds for research, as well as trainings and conferences of an individual choice. May 2018 – "PhD and what next" – the seminar with people who, after being granted a PhD degree, chose different career paths, after obtaining a phD degree. The meetings will increase researchers' awareness of sharing the responsibility for the continuation of professional development. Secretariat, Head of the PhD Studies development. Secretariat, Head of the PhD Studies development. Secretariat, Head of the PhD Studies development. Secretariat, Head of the PhD Studies development. Secretariat, Head of the PhD Studies development. Secretariat, Head of the PhD Studies development. Secretariat, Head of the PhD degree phD develop		-ii fthIOC DAC ''	Language and the state of the s	1
Following the adopted HR Strategy, during the period of 2017-2019 the IOC PAS phD degree. The meetings will management focused on raising the researchers' awareness of sharing the responsibility for the continuation of professional development. All researchers at IOC PAS are strongly encouraged to develop their professional skills and rise their qualifications on regular basis. Information about the possibility of participating in trainings and workshops is regularly send to all employees. The Library constantly updates information about online courses, trainings in the use of new computer programs or research equipment. Additionally, the following actions were implemented: In 2018 the IOC PAS established a programme for PhD students—"Competition for funding research projects". It is an internal competition in which each PhD student can propose a research project. The best projects obtain funds for research, as well as trainings and conferences of an individual choice. May 2018—"PhD and what next"—the seminar with people who, after being granted a PhD degree, chose different career paths, focusing on skills and competences necessary for each path.		give open lectures for the IOC PAS community.	employees or other researchers	(one
Following the adopted HR Strategy, during the period of 2017-2019 the IOC PAS phD_degree The meetings will management focused on raising the researchers' awareness of sharing the responsibility for the continuation of professional development. All researchers of sharing the responsibility for at IOC PAS are strongly encouraged to develop their professional skills and rise their qualifications on regular basis. Information about the possibility of participating in trainings and workshops is regularly send to all employees. The Library constantly updates information about online courses, trainings in the use of new computer programs or research equipment. Additionally, the following actions were implemented: In 2018 the IOC PAS established a programme for PhD students — "Competition for funding research projects". It is an internal competition in which each PhD student can propose a research project. The best projects obtain funds for research, as well as trainings and conferences of an individual choice. May 2018 — "PhD and what next" — the seminar with people who, after being granted a PhD degree. Chose different career paths, focusing on skills and competences necessary for each path.	1	New practices		
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Library constantly updates information about online courses, trainings in the use of new computer programs or research equipment. Additionally, the following actions were implemented: In 2018 the IOC PAS established a programme for PhD students — "Competition for funding research projects". It is an internal competition in which each PhD student can propose a research project. The best projects obtain funds for research, as well as trainings and conferences of an individual choice. May 2018 — "PhD and what next" — the seminar with people who, after being granted a PhD degree, chose different career paths, focusing on skills and competences necessary for each path.	1		development.	
of new computer programs or research equipment. Additionally, the following actions were implemented: In 2018 the IOC PAS established a programme for PhD students – "Competition for funding research projects". It is an internal competition in which each PhD student can propose a research project. The best projects obtain funds for research, as well as trainings and conferences of an individual choice. May 2018 – "PhD and what next" – the seminar with people who, after being granted a PhD degree, chose different career paths, focusing on skills and competences necessary for each path.	1	participating in trainings and workshops is regularly send to all employees. The		
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lectures for the IOC PAS community was significantly expanded. Several outstanding scientists from around the world, enjoying international recognition, were invited. During each visit, several researchers have the opportunity to have a short conversation with the invited guest.		 "Competition for funding research projects". It is an internal competition in which each PhD student can propose a research project. The best projects obtain funds for research, as well as trainings and conferences of an individual choice. May 2018 – "PhD and what next" – the seminar with people who, after being granted a PhD degree, chose different career paths, focusing on skills and competences necessary for each path. In 2019, the programme of inviting outstanding scientist to give open lectures for the IOC PAS community was significantly expanded. Several outstanding scientists from around the world, enjoying international recognition, were invited. During each visit, several researchers have the opportunity to have a short conversation with the 		
The intention of the WG is to continue the ongoing programmes and further encourage scientists to engage in professional development. The organization				
of meetings with former employees or other researchers who have chosen				

different career paths will be continued. The document specifying career paths	
at the Institute after obtaining the PhD degree will be created. PhD students	
and young researchers will continue their professional development in	
accordance with the Individual Career Plans developed at the beginning of their	
studies.	

39. ACCESS TO RESEARCH TRAINING AND CONTINUOUS DEVELOPMENT

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Act on the Polish Academy of	The IOC PAS highly appreciates the role of research training and continuous	Organizing trainings and	2021-2023
Sciences	development and enables researchers at all stages of their professional careers	workshops for interested	(at least
The Law on Higher Education and	to develop professionally.	scientists, especially in the field	one
Science	Similarly to the point above, the IOC PAS strongly encourages and supports all	of commercialization of research	workshop
	initiatives of researchers to ensure continuous professional development.	results and soft skills. Continuing	per year)
Charter of the Polish Academy of	Scientific supervisors help the PhD students to find interesting post-doc	to inform employees about the	
Sciences	position, however the candidate must of course undergo the usual recruitment	possibility of participating in	Secretariat,
	procedure. The IOC PAS administration helps to organize the formal details of	workshops organized by external institutions.	Head of the
	conferences, scholarships, and postdoctoral stays.	institutions.	PhD Studies
	New practices		
	Taking care of the continuous development of employees, the IOC PAS		
	implemented a new practice of organizing workshops and trainings for all		
	interested researchers. In 2017-2019, the following workshops were organized:		
	Summer 2017 – a course in writing scientific publications		
	 March 2018 – soft skills workshops – presentations, assertiveness, communication 		
	March 2019 – workshops on database management – chemical		

databases SCOPUS and REAXYS	
June 2019 – training regarding public speeches	
 January 2021 – stress management workshops 	
The results of the survey show that employees assess the opportunity for	
professional development and access to professional courses and workshops	
higher than in 2016 (score 3.6 vs. 3.3 in 2016). However, this aspect still requires	
improvements. In order to best adapt the institute's offer to the needs of	
scientists, they were asked about the development directions that interest them	
most. The results indicate that the Institute should focus on organizing	
workshops on the commercialization of research results and soft skills. Such	
trainings will be organized at least once a year.	

40. SUPERVISION

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.

Relevant legislation	Existing Institutional rules and/or practices	Actions required	When/Who
Charter of the Polish Academy of Sciences	The structure of research groups at the Institute ensures that every early-stage researcher is appropriately supervised. Team Leaders are responsible for supervising PhD students and young assistants or for appointing senior	None.	
Regulations of the Warsaw PhD School	researchers for this purpose. In accordance with the Regulations of the Warsaw PhD School, implemented in 2019, each PhD student has a designated supervisor and assistant supervisor.		
	Consultations with employees indicate that this principle is fully respected at the IOC PAS, and the supervisors represent a high level of knowledge, professional experience, and commitment. This point was highly rated in the internal questionnaire (score 4.2), therefore no actions are necessary in the upcoming future.		

ACTION PLAN

STRENGTHS

- Clearly increasing researchers' awareness of the C&C principles.
- Effective implementation of Open, Transparent and Merit-Based Procedures for recruitment of researchers.
- High evaluation of ethical and professional aspects confirming the highest standards of conducting research at the IOC PAS.
- A stimulating research environment and very good relations with supervisors ensuring continuous professional development of early-stage researchers.
- Increasing access to training and workshops, more effective information campaigns facilitating career planning.

CHALLENGES

- Improving the efficiency of introducing new employees to internal regulations and good practices.
- Adapting the conditions of internal communication and document circulation to the needs of an international group of employees.
- Strengthening information campaigns regarding the awareness of the IOC PAS regulations, especially in the field of complaints/appeals, funding and salaries, evaluation procedures.
- Clarifying the professional development paths and employment policy at the Institute for people holding a PhD degree.

RECOMMENDED STEPS

As described above, based on the internal analysis, the members of the Working Group selected principles that require support and improvement at the institutional level. For each such principle, they outlined the current situation at IOC PAS, proposed relevant corrective actions, appointed responsible personnel, and settled on a timeframe for implementation of these improvements. The Updated Action Plan is presented in the table below.

RECOMMENDED ACTIONS	C&C PRINCIPLE(S)	wно	WHEN
ACTION 1 Continuation of internal programme – "Competition for funding research projects" for PhD students and young researchers holding a PhD degree.	Research freedom Continuing professional development	Research Director	Competition organised every year (first Q)
ACTION 2 Seminars organized once a year to raise the awareness of professional responsibility and ethical principles in researchers work. The seminars will be combined with an informational meeting for new PhD students and employees and will take place at the beginning of each academic year.	Ethical principles Professional responsibility	Head of the PhD Studies	On regular basis, once a year, at the beginning of each academic year

ACTION 3 Creation of "Welcome Packages" for new employees. The packages would improve the process of familiarizing new employees with the internal regulations and raise their awareness of the existing practices. They should contain basic information regarding applying for grants, reporting on the course of scientific research, strategic goals of the Institute, working conditions, regulations regarding evaluation system, complains/appeals procedures, composition of decision-making bodies at the IOC PAS etc.	Professional attitude Working Conditions Complains/appeals Participation in decision-making bodies	HR Unit, Secretariat, Grant Unit	III/IVQ 2021
ACTION 4			
Creation of an "FAQ Section" on the internal website. The section will provide answers to the most frequently asked questions regarding internal procedures, grant issues, working conditions, employment policy and will be updated on a regular basis.	Professional attitude Stability and permanence of employment	HR Unit, Secretariat, Grant Unit	IQ 2022
ACTION 5 Creating a document specifying the patent application process at the IOC PAS.	Contractual and legal obligations	Research Director	II/IIIQ 2021
ACTION 6			
Introducing changes to the process of announcing an internal competition - "Competition for funding research projects". The competition must be announced one month in advance to enable the preparation of applications.	Contractual and legal obligations	Research Director	IQ 2022
ACTION 7			
Meetings with people representing various funding institutions regarding funding opportunities and requirements. Informing all researchers about funding opportunities and requirements – Grant Newsletter, information regarding possible trainings, seminars, workshops.	Contractual and legal obligations	Grant Unit, Secretariat	On regular basis/whenever necessary
ACTION 8			On regular
Regular, information campaigns on safe data storage and Internet security, especially in case of any data phishing attempts.	Good practice in research	IT Unit	On regular basis/whenever necessary
ACTION 9			
Introduction of changes to the archiving of analytical data – central archiving and storing of all results by the analytical team (LASB Unit). The changes will include implementing a new sample naming system, storing in appropriately	Good practice in research	Research Director, LASB Unit	IQ 2021

named folders etc.			
ACTION 10 Creation of a new, bilingual website which will present the activities of the Institute, both in Polish and English.	Dissemination, exploitation of results	Director, Secretariat	I/IIQ 2021
ACTION 11 Strengthening the Institute's activity in social media - publishing information about the achievements, publications or awards of the Institute's employees on Facebook and Twitter accounts.	Dissemination, exploitation of results	Secretariat, Person responsible for social media	On regular basis
ACTION 12 Adopting Open Access Policy at the IOC PAS and identify a person responsible for open access to scientific publications and research data.	Dissemination, exploitation of results	Research Director, Library	IQ 2021
ACTION 13 Continuation of the programme of cooperation with Warsaw high schools — lectures + internships at the IOC PAS for talented young people.	Public engagement	Director, Secretariat, Head of the PhD Studies	Lectures during the school year, internships during summer or winter breaks
ACTION 14 Translation of all important documents and legal acts, as well as internal documentation into English.	Non discrimination	Translation Agency – coordinated by Secretariat	IIQ 2021
ACTION 15 Promoting bilingual communication among employees of the IOC PAS through informative campaigns. Requests to use bilingual communication will be sent to all employees, along with appropriate reminders if necessary.	Non discrimination	HR Unit	IIQ 2021 (followed by reminders if necessary)
ACTION 16 Information campaign about the Regulations for the periodic evaluation of researchers at the IOC PAS. Such campaign should be conducted prior to the evaluation to make all employees aware of the existing regulations.	Evaluation/appraisal systems	Research Director, Secretariat	2021-2023 (before evaluation)
ACTION 17 Creating new Regulations for recruitment for scientific positions at the IOC PAS. The regulations will contain: • new job advertisement template which will cover all points necessary by the Code	Recruitment Recruitment (Code) Selection (Code) Transparency (Code) Judging merit (Code) Variations in the chronological order of	Director, HR Unit	I/IIQ 2021

 the principles regarding composition of the recruitment committees useful templates for information to all candidates about the results of their application principle of transparency detailed criteria for the selection of candidates, taking into account the whole range of their competences the principle of not penalising career breaks or variations in the chronological order of CVs mobility as a mandatory point in the candidate's assessment prohibition of assessing the reputation of the institution in which the candidate worked, or the reputation of their former supervisors 	CVs (Code) Recognition of mobility experience (Code) Seniority (Code)		
ACTION 18 Preparation of a questionnaire for newly recruited employees for the evaluation of the recruitment processes at the IOC PAS.	Recruitment	HR Unit	III/IVQ 2021
ACTION 19 Reminding employees to appreciate and professionally treat all co-workers, especially early-stage researchers, during regular meetings with Team Leaders.	Recognition of the profession	Director	On regular basis, during meetings with Team Leaders
ACTION 20 Creation of a complete list of equipment enabling various types of scientific research at the IOC PAS. Such list should be available to all scientists.	Research environment	Procurement Department	IIIQ 2021
ACTION 21 Creation of central list of chemicals belonging to all Research Teams. The list should be available on the Institute's servers for all scientists.	Research environment	Team Leaders, IT Unit	IVQ 2021 – IIQ 2022
ACTION 22 Introduction of online forms for all analytical analysis requests.	Research environment	LASB Unit	IIIQ 2021
ACTION 23 Creating a "checklist" which will facilitate the process of familiarizing a new employee with internal regulations. The checklist will contain all the necessary formalities that a new employee should complete — e.g. creating an email address, subscribing to mailing lists, providing basic information to the administration etc.	Working conditions	HR Unit, Secretariat	IVQ 2021 – IQ 2022

ACTION 24 Creating a document specifying possibilities of the further development path in the Institute. The document will specify the employment possibilities and career paths for people holding a PhD degree.	Stability and permanence of employment Career development Continuing professional development	Research Director	IIQ 2021
ACTION 25 Informative action for all Team Leaders about the obligation of informing scientist at their research groups about bonuses policy, changes in remuneration.	Funding and salaries	Director	On regular basis, during Team Leaders' meetings with the Management
ACTION 26 Introduction of Individual Career Plans for all young researchers, especially those without a status of PhD student. The Plans should be developed together with a direct supervisor at the beginning of employment.	Career development	Team Leaders	On regular basis, at the beginning of employment
ACTION 27 Implementing PhD exchange programme with leading research centers — California Institute of Technology (Caltech), University of Nagoya.	Value of mobility	Director, Research Director, Head of PhD Studies	2022-2023 (depending on pandemic situation)
ACTION 28 Internships in the private sector, especially in the pharmaceutical sector, for PhD students — such internships will be possible as part of doctoral studies at the PhD School.	Value of mobility	Director, Head of the PhD Studies	2022-2023
ACTION 29 Extension of informative actions on the perspectives of professional career development through continuation of sending regular Grant Newsletters. The Newsletter will include information about funding opportunities, postdoctoral internships, possibility to apply for stays outside the IOC PAS, fellowships, scholarships etc.	Access to career advice	Grant Unit	On regular basis
ACTION 30 Provide researchers help in writing research proposals, applying for domestic and international grants, preparing the necessary documents. The assistance will be provided by external institutions, as well as Grant Unit employees, who will be properly trained.	Access to career advice	Director, Grant Unit	On regular basis
ACTION 31 Inclusion of teaching activities in the evaluation system of researchers – additional points should	Teaching	Director	IVQ 2021

be awarded to researchers involved in giving lectures, supervising PhD theses etc.			
ACTION 31 Inclusion of teaching activities in the evaluation system of researchers – additional points should be awarded to researchers involved in giving lectures, supervising PhD theses etc.	Teaching	Director	IVQ 2021
ACTION 32 Creation of a document describing possible procedures for resolving disputes, complains and appeals.	Complains/appeals	HR Unit, Secretariat	III/IVQ 2021
ACTION 33 If necessary, introduce a new ordinance changing the rules for selecting persons acting as ombudsmen.	Complains/appeals	Director	2022-2023
ACTION 34 Team management workshops for supervisors and young doctors building their teams at the Institute.	Supervision and managerial duties	Deputy Director, Secretariat	IVQ 2021 (repeated if necessary /according to the results)
ACTION 35 Organizing meetings with former employees or other researchers who have chosen different career paths after obtaining a PhD degree. The meetings will increase researchers' awareness of sharing the responsibility for the continuation of professional development.	Continuing professional development	Secretariat, Head of the PhD Studies	2021-2023 (one meeting per year)
ACTION 36 Organizing trainings and workshops for interested scientists, especially in the field of commercialization of research results and soft skills. Continuing to inform employees about the possibility of participating in workshops organized by external institutions.	Access to research training and continuous development	Secretariat, Head of the PhD Studies	2021-2023 (at least one workshop per year)

The implementation of the presented actions is planned for the years 2021-2023. The Working Group is responsible for monitoring the process of changes and overseeing timelines.

ACCEPTANCE

The Director of the Institute of Organic Chemistry Polish Academy of Science accepts the Updated Action Plan for years 2021-2023 regarding the Human Resources Strategy for Researchers.

Place, date

Warsaw, 15 March 2021

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Signature

DIRES

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