



Human Resources Strategy
for Researchers incorporating

the European Charter for Researchers
and
the Code of Conduct for the Recruitment of Researchers

INTERNAL GAP ANALYSIS AND ACTION PLAN

Warsaw, 14.05.2015

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1. Introduction and methodology

1.1 *Introduction*

The Institute of Physics (IP) was founded in September 1953. At this time it came into being as a legal entity and was conferred a budget and premises in Warsaw by the government. This was at the urging of the Polish Academy of Sciences (PAS), the national scientific institution established a year earlier. In November 1952, PAS had adopted a resolution to create the Institute of Physics, with a mission to "conduct scientific research in experimental and theoretical physics, in areas especially important for the national economy, as well as to educate scientific staff.

The contemporary era in the Institute's history began with Polish accession to the European Union and the resulting integration of the Institute with the European Research Area. The most visible and spectacular element of this process was the opening of access to Structural Funds and other EU programs directed towards the development of research infrastructure. A number of the Institute's laboratories have been completely renovated and equipped with modern facilities. A second important element of this new era is the uninhibited access of the Institute's employees to the largest European research infrastructure, such as synchrotron radiation and high magnetic field laboratories. Between years 2008-2014 the Institute of Physics PAN (IP PAS) participated in the implementation of 12 projects from the Operational Programme Innovative Economy. The biggest and the most influential one was the project POIG.01.01.02-00-008/08 "QUANTUM SEMICONDUCTOR NANOSTRUCTURES FOR APPLICATIONS IN BIOLOGY AND MEDICINE - DEVELOPMENT AND COMMERCIALISATION OF NEW GENERATION DEVICES FOR MOLECULAR DIAGNOSTICS ON THE BASIS OF NEW POLISH SEMICONDUCTOR DEVICES". The budget of the project was 73 million PLN. For the implementation of the project the IP PAS was honoured with several prestigious prizes on Innovative Economy trade fairs, including the Grand Prix on the International Trade Fairs in Gdańsk 2013. Project results were also published in more than 200 scientific papers and presented on international trade fair meetings in Berlin and Brussels.

In 2013 the IP PAS has begun the implementation of the FP7 EAgLE project: FP7-REGPOT-2012-2013-1, No. 316014.

The EAgLE project aims at establishing at the IP PAS a leading multiprofile research Centre for designing and fabricating new materials, their characterization and testing under extreme experimental conditions. The budget of the project is 4.9 million euro. The Centre identifies and selects novel materials, structures, phenomena, and computational protocols for functional new-concept nanodevices. Within the project an X-Ray Photoelectron Spectrometer (XPS) was acquired, making it possible to perform element specific and chemical sensitive characterization of materials

with 3D resolution. A cryogen-free dilution refrigerator was another essential purchase opening new opportunities to follow properties of the materials and devices down to a few milliKelvins.

In October 2013 the IP PAS celebrated its 60th anniversary, under honorary patronage of the President of Poland Bronisław Komorowski. On this occasion the achievements of the IP PAS were recognized by the State and Academy of Sciences authorities: Seventy of our scientific and technical staff were decorated by various state medals.

The IP PAS is composed of 142 researchers, 161 Engineers and technicians, 84 administrative staff and 67 PhD candidates. In 2013-2014 the institute hosted 230 foreign researchers and 20 students.

During last few years, IP PAS participated in International Trade Fairs in Poland (for example Technicon-Innovation Gdańsk edition 2009, 2010, 2011, 2012, 2013 and 2014; International Fair for Optoelectronics and Photonics OPTON edition 2010 and 2012 in Katowice), in Germany (Laser Optics 2014) and in Brussels (Innova 2014). All reported there innovations received awards including gold and silver medals, Grand Prix and other prizes.

IP PAS in the framework of **EAgLE** project participated in international fairs INNOVA 2014 in Brussels. All three reported innovations received awards, including one gold medal and two silver.

1.2 Methodology

1.2.1 Overview of tools applied

In order to define high quality Action Plan on the basis of current level of implementation of C&C rules in IP PAS there were few tools applied, as mention in further table.

Main activities
Working Group
Desc Research
Analysis of convergences to and deviations from the Charter and Code principles and existing in-house procedures
Questionnaire to key informants to rate the current state of the IP PAS
Final Internal analysis and action plan

Each tool was used within strategy to improve level of knowledge gathered in earlier tool consequently given new sort of data necessary to define Action Plan. It was essential to define conclusive role of Working Group while finalising each part of survey and formative before starting new one.

1.2.2 Working Group

Firstly, a special working group (WG) was established with participation of representatives of key scientific and administrative position at IP PAS:

- coordination: Prof. Dr. hab. Leszek Sirko - Director of IP PAS,
- professors: Prof. Dr. hab. Roman Puźniak and prof. dr. hab. Marek Godlewski,
- adjuncts: Dr. Bartłomiej S. Witkowski,
- administration:
 - Aleksandra Kłosaj - HR manager,
 - Maciej Zajączkowski - Public Procurement manager,
 - Agnieszka Krochmal-Wegrzyn - IPR manager,
 - Dr. Michał Klepka - Innovation manager,
 - Iwona Kaniecka - Resource manager.

Working Group was key source of high quality quantitative data that allow to conduct internal analyses and finally to define Action Plan. In details at the analytical phase they analysed convergences to and deviations from the Charter and Code principles and existing in-house procedures and at the concept phase the working group has given recommendations how to improve IP PAS internal rules' and principles' contingency with those included in the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers.

1.2.3 Desk Research of key documents.

The first step in the internal gap analysis was a meticulous comparison between the provisions of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (C&C) and the operations of the IP PAS. The analysis was conducted internally on the basis of the following IP PAS documents:

- the IP PAS Statute;
- the IP PAS IPR Regulation;
- the IP PAS HR regulations and good practices (procedures and criteria for applicants);
- IP PAS operating practices;
- HR internal documents;
- Interviews with projects coordinators and staff;
- national law.

The Internal gap analysis was a three-step process.

1.2.4 Questionnaire

The internal analysis was based on measurements using indicators evaluating the level of compliance with the 40 principles set forth in the Charter and Code in line with four areas or dimensions:

- I. Ethical and professional responsibility of researchers;

- II. Recruitment;
- III. Working conditions;
- IV. Research career training and development.

The above issues were discussed by working group which also advised its adjustments and other measures to be taken to improve its consistency with the Code of Conduct for the Recruitment of Researchers.

Based on that **the questionnaire** on main issues described in the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers was prepared.

The questionnaire was sent via e-mail to all researchers and other staff in the IP PAS and after two calls there were 119 respondents that sent filled file (breakdowns of respondents are presented in graphs below). In order to organise efficient analytical processes with direct access to collected data we used Google Apps tool. The questionnaire was prepared in English versions to ensure full coverage of the target group (the Polish Version of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers was attached to the questionnaire). The questionnaire consisted of dozen or so statements and questions that covered set of Rules of European Charter and few additional aspects necessary to ask to understand possibility to execute and incorporate Rules in IP PAS.

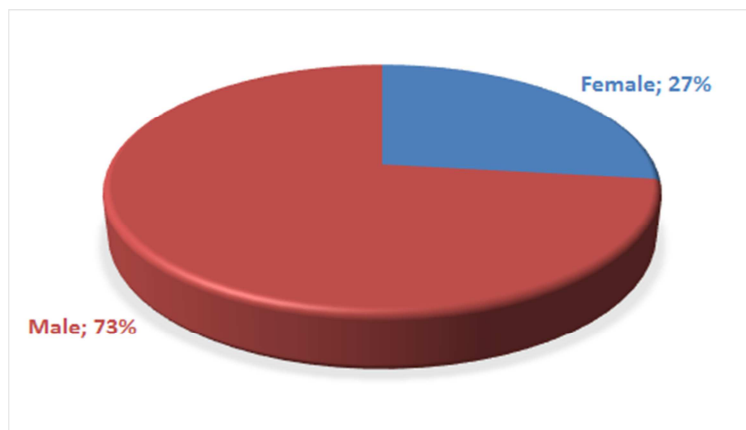
Key part of questionnaire defined Rules and general task of a respondent was to define their assessment in two contexts:

1. To what extent he/she agrees with those statements, using following responses:
 - 1 – I totally disagree
 - 2 – I disagree
 - 3 – neither agree, nor disagree
 - 4 – I rather agree
 - 5 – I totally agree
2. What is their knowledge and opinion related to level of implementation of Rules in IP PAS at the date of survey, using following responses:
 - 1 – New to the Institute (unknown).
 - 2 – It is known but still out of formal regulation.
 - 3 – Dead record but exist in formal regulations.
 - 4 – Implemented but executed irregularly.
 - 5 – Fully implemented and respected.

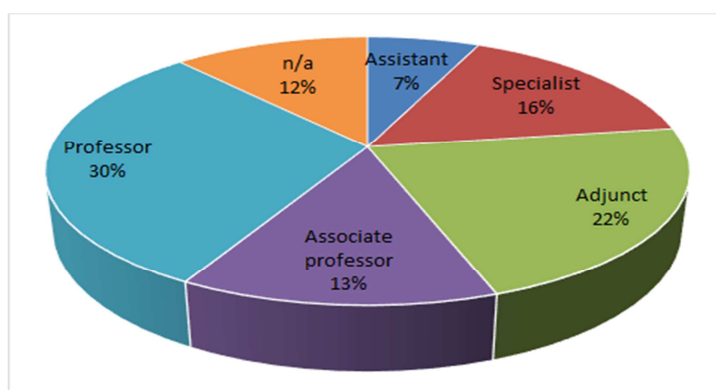
After preliminary analysis of received data, survey results were presented to a working group (WG) and thoroughly discussed. Based on that the WG has prepared document consisting of gap analysis and an action plan.

Breakdown of respondents:

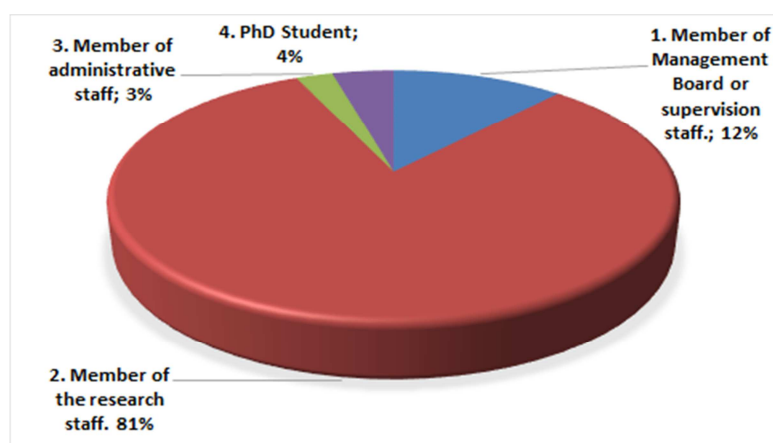
1. Gender:



2. Professional profile:



3. Formal status in the institute:



Source: On-line questionnaire

The total group of 119 respondents is representative in all sub-group of staff employed in IP PAS so allow to define general conclusions and further recommendations to Action Plan.

2. Internal Gap Analysis

2.1 General Principles and Requirements applicable to Researchers

1. C&C principle - 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.

Existing Institutional rules and/or practices:

The principle of research freedom is well-established at IP PAS. Researchers are free to express their ideas, identify scientific questions, and propose methods of research. Having obtained the director's consent, scientific staff may conduct research on their own initiative within the scientific unit at which they are employed. In this case, the use by the employee in question of the research facilities provided by the scientific unit shall be compatible with the research programme, internal regulations and financial capabilities of the scientific unit. The researchers are mainly aware of the regulations of limitations, both the national and international law and the internal regulations: the IPR regulation, the laboratory regulations and the contracts conditions. The IP PAS changed the IPR regulation on March 2015 and organised 2 workshops on that topic (IPR, ethical regulations, management)

Actions required:

The workshops and seminars about the IPR regime are foreseen (TTO, 2015, 2016).

2. C&C principle - Ethical principles:

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

Existing Institutional rules and/or practices:

IP PAS is governed by the Act on the Polish Academy of Science where the art. 39 delivers clear regulation about ethics. According to the scientific ethics committee shall deliver opinions on matters

concerning breaches of scientific ethics by an employee of a higher education institution, scientific unit of the Academy, including without limitation in proceedings instituted by disciplinary committees. The scientific ethics committee may, on its own initiative, refer matters concerning breaches of scientific ethics by the employees referred to in Section 1 to competent disciplinary committees with a recommendation that preliminary investigation be conducted. The disciplinary committee in question shall submit the information on the outcome of such an investigation following its completion to the scientific ethics committee without undue delay. There is the COMMITTEE FOR THE ETHICS IN SCIENCE 2015-2018 (for PAS). The scientific ethics committee drawn up the research code of conduct (based on **The European Code of Conduct for Research Integrity**) and engage in activities whose aim is to disseminate research reliability standards. The code of conduct is in electronic version on the webpage of PAS.

The IP PAS requires that its winners and beneficiaries follow and disseminate the highest ethical standards and the fundamental principles of good practice in science, apply standards of professionalism, and recognize the contribution of their rivals and predecessors to obtained research results. The clause is written in contracts signed by IP PAS (when possible to negotiate). Any symptoms of scientific misconduct consisting in fabrication or falsification of data when conducting research and presenting the results, or when applying for funding, are inadmissible. The researchers of IP PAS represent the high standards of professional responsibility and in particular avoiding plagiarism and respecting other researchers and intellectual property.

Actions required:

None.

3. C&C principle - 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.

Existing Institutional rules and/or practices:

Essential duties of scientific staff include the performance of the tasks set forth in the Charters of scientific units, including without limitation conducting research and development work, announcing and disseminating their results and participating in the performance of the educational tasks

undertaken by the unit in question. Moreover, the requirement is included in the agreements with individual beneficiaries, and discussed on a case by case basis.

Actions required:

None.

4. C&C principle - Professional responsibility:

Researchers should be familiar with the strategic goals governing their research environment and funding mechanisms, and should seek all necessary approvals before starting their research or accessing the resources provided. They should inform their employers, funders or supervisor when their research project is delayed, redefined or completed, or give notice if it is to be terminated earlier or suspended for whatever reason.

Existing Institutional rules and/or practices:

This requirement is always discussed on a case by case basis. The young researchers are obliged to inform the supervisors about any delays and obstacles. There scientific internal workshops are organised (in order to inform the environment about the progress of the research of each team) . Moreover there are two (internal) supporting documents:

- Ordinance on the circulation of documents related to grants funding research projects and accepting the principles of financial expenses of 21.03.2005
- Ordinance concerning the obligation to inform the Project Coordination Centre in PAS with complex applications for research projects of 10.11.2005

Actions required:

None.

5. C&C principle - 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.

Existing Institutional rules and/or practices:

The IP PAS Researchers are familiar with the national, sectoral or institutional regulations governing training and/or working conditions. The HR unit explain always the rights and obligations before the

contract is signed. Every new employee is confirming the knowledge of rights and obligations with signature on the appropriate document.

The IP PAS is trying to deliver all necessary information about the structural funds, the provision elongates to national and Community law, and Community policies, including regulations concerning competition, public procurement, environmental protection and gender equality. These topics were presented and discussed during the workshop organised by the IP PAS on June 2014.

The IPR workshop was organised in 2014 and 2015. The next one is foreseen on June 2015.

Moreover the IP PAS established a special office – Technology Transfer Office (TTO) in order to raise the awareness of the researchers and support their activities.

Actions required:

The workshops about the working conditions (for all IP PAS researchers is going to be organised) – once a year each year.

The IPR workshop is foreseen on June/July 2015.

TTO is going to draft a newsletter and support researchers on a daily basis work.

6. C&C principle - 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.

Existing Institutional rules and/or practices:

The issue of accountability is addressed in all researchers. The dedicated workshops were already planned. In June 2014 and April 2015 during the workshops, the topic of accountability towards employers, funders or other related public or private bodies as well as, on more ethical grounds, towards society as a whole, were presented. The necessity of commercialisation, the patent strategy, the management of the research and the disseminations were discussed. Moreover the CTT, the Directors' Office and the Project managers supporting the researchers on the projects on a daily

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

Actions required:

None.

7. C&C principle - 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.

Existing Institutional rules and/or practices:

The responsibility to secure safe and adequate working conditions lies with the research institution or employer. The HR Office is organising the training before the contract is signed.

Moreover IP PAS has the internal regulation: Ordinance on the principles of training in the field of safety and health of workers PAS of 01.21.2013

Actions required:

IT section organised the workshop on technical aspects of data protection and confidentiality protection; the description of the procedure will be drafted.

8. C&C principle - Dissemination, exploitation of results

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

Existing Institutional rules and/or practices:

The essential duties of scientific staff of IP PAS include the performance of the tasks set forth in the Charters of scientific units, including without limitation conducting research and development work,

announcing and disseminating their results and participating in the performance of the educational tasks undertaken by the unit in question. Moreover, in order to commercialise the results of research and development work and to conduct activities related to the transfer of technology and promotion of science, IP PAS is planning to establish companies, take up or purchase and hold shares in commercial companies subject to the consent of the minister responsible for science. The researchers are free to participate in these activities.

The IP PAS also established the new IPR regulation in 26 March 2015. The training on IPR and commercialisation was organised. The CTT based in IP PAS supports the researchers in IPR protection and commercialization process. The IPR and Innovation manager are working for the IP PAS.

IP PAS focus on achieving high levels of public awareness by managing external communication with both the scientific and industrial community.

This public web site provides an information point for the work of the researches and projects (including details of partners, objectives, work areas, results, interim results and working papers, public deliverables, etc.) and for related fields of work (links to other projects, services, collaborative efforts, etc., relevant to each part of the project). Publications, reports and presentations are the natural way of dissemination as the researchers are obliged to disseminate or exploit their scientific results. The results of dissemination are published on the IP PAS web page (only in Polish):

-publications: <http://info.ifpan.edu.pl/ACTIVITY/pub13.html>

- reports and reporting sessions: <http://www.ifpan.edu.pl/> (Institutes activities):
http://info.ifpan.edu.pl/ACTIVITY/Sesja_Sprawozdawcza_za_2014-Program.pdf

- patents: <http://info.ifpan.edu.pl/ACTIVITY/Patenty.html>

In 2014 IP PAS published and presented at conferences together 902 works, including 275 works in journals of "Philadelphia list" including 82 in journals with "impact factor"> 3.0, 50 papers in other journals 9 monographs (books and chapters in books) 568 conference presentations (look attachment 1).

Actions required:

To rebuild the web site, to translate the website (English version).

9. C&C principle - 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.

Existing Institutional rules and/or practices:

IP PAS is actively involved in the action of raising the awareness regarding the importance of innovative science for the society through the organization of events such as: open days, science festival, open lectures, competition for high school students and promotion of physics via mass media.

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

IP PAS organizes and participates in numerous events aiming at strengthening of the links between research and industry such as: conferences, brokerage events, innovative Polish and European trade fairs. In 2014 Institute participated in:

- International Trade Fair Technicon-Innovation in Gdańsk,
- International Trade Fair Inno-Tech-Expo in Kielce,
- International Trade Fair Laser-Optics in Berlin,
- International Trade Fair Innova in Brussels,
- International Trade Fair ExpoPower in Poznań.

and in Brokerage Events in Greece, Italy.

Moreover having in mind the youngest the IP PAS is organising each Wednesday. Science workshops for children (preschool and elementary school) are led by dr. Beata Brodowska and dr. Izabela Kuryliszyn-Kudelska. Children have possibility to perform physical experiments by themselves (e.g. producing electric current in various ways) and learn about scientific research at the IP PAS.

Actions required:

None.

10. C&C principle - 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.

Existing Institutional rules and/or practices:

IP PAS is part of the Polish Academy of Science - which consists of national members (including both full and corresponding members) and foreign members. Since its establishment, the Polish Academy of Sciences has considered international scientific cooperation as an indispensable tool for fostering steady progress of research in Poland. Hence its efforts have always aimed at establishing an

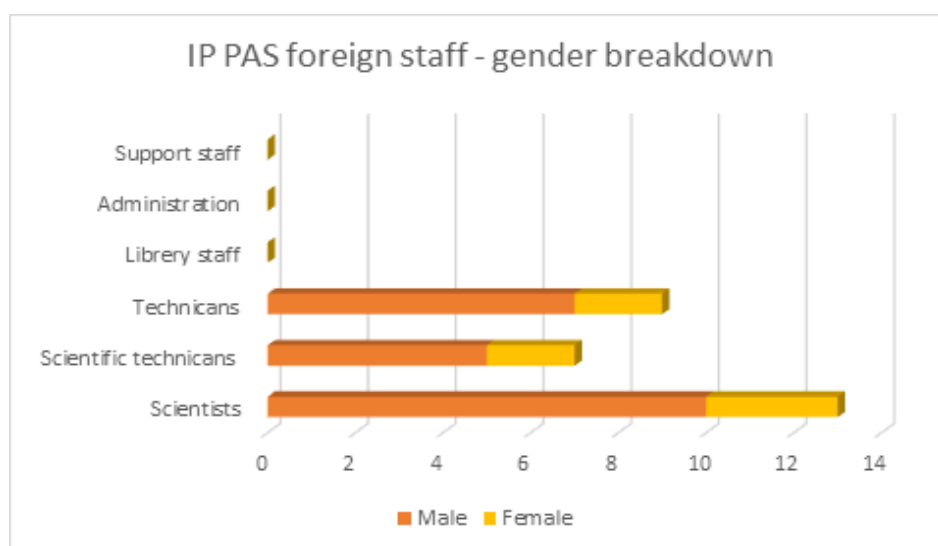
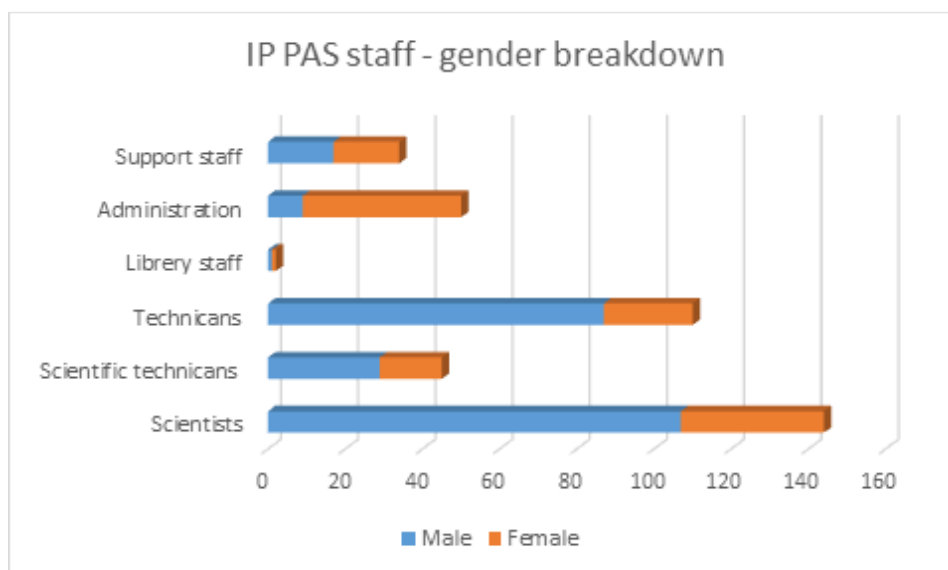
extensive network of contacts with foreign partners which would be independent of political influences; while developing international academic cooperation based on the principle of partnership and benefit to all participants, the Polish Academy of Sciences consolidates both traditional bilateral contacts, and multilateral relations through the membership of over 100 international scientific organizations as well as by participating in an increasing number of research projects conducted by all-European organizations.

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

IP PAS has taken steps to provide equal opportunities for female researchers who have taken career breaks due to maternity (and for male researchers taking paternity leave). The same with the age. In IP PAS there are:

IP PAS staff - gender breakdown (positions due to Polish Academy of Science rules)			
Category	All	Male	Female
Scientists	144	107	37
Scientific technicians	45	29	16
Technicians	110	87	23
Library staff	2	1	1
Administration	50	9	41
Support staff	34	17	17
IP PAS foreign staff - gender breakdown (positions due to Polish Academy of Science rules)			
Category	All	Male	Female
Scientists	13	10	3
Scientific technicians	7	5	2
Technicians	9	7	2
Library staff	0	0	0
Administration	0	0	0
Support staff	0	0	0

Graphic version of aforementioned data is below



Actions required:

None.

11. C&C principle - 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.

Existing Institutional rules and/or practices:

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

Moreover there is a scientific board of an institute that exercises ongoing supervision over its activities, including without limitation attention to the high quality of its scientific activities and the development of the persons who start their academic careers referred to in Article 2 Item 3 of the Act of 30 April 2010 on the National Science Centre.

Scientific staff undergo periodic evaluation by the scientific board, which covers the results of their work. Lecturers and senior lecturers undergo evaluation at least every two years, and professors shall undergo evaluation at least every four years. The detailed procedure and frequency of evaluation shall be set forth by the scientific board of the institute in the rules approved by the Vice-President of the Academy who supervises the work of the relevant division. Scientific staff of the Academy has the right to appeal against the evaluation of their professional activities, and in particular the evaluation of their work. An appeal is lodged with the Vice-President of the Academy who supervises the work of the relevant division. In IP PAS there are also special meetings organised in order to improve the above principle. The following bodies may be involved in the evaluation process: the Disciplinary Board, Board of Appeal and the Selection Committee.

Actions required:

None.

*2.2. Recruitment***12. C&C principle - 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.

Existing Institutional rules and/or practices:

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

- Ordinance of the Director introducing Rules of the selection proceedings in case of employing at IP PAS within the research projects 29.06.2012

- Ordinance on the Rules of employment in positions of professors of 01.03.2011

- Ordinance on the amount and conditions for granting a foreign worker is entitled to benefits research unit residing in Poland within the framework of scientific cooperation with foreign

Actions required:

To unify the regulation - simplification having in mind the Code of Conduct for the Recruitment of Researchers (CTT, Legal department, HR department, March 2016)

13. C&C principle - 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.

Existing Institutional rules and/or practices:

IP PAS is the public Institute of Polish Academy of Science the recruitment procedure is open efficient, transparent, supportive and internationally comparable. The advertisements are public on the webpage of IP PAS and in Euraxess portal.

Moreover IP PAS does not have the Rules of the selection proceedings in case of employing to the academic positions at IP PAS. Nevertheless there are 3 drafted documents - Rules of the selection proceeding, waiting for the acceptance of the Director of IP PAS (attached):

- 1/the procedure of qualification management;
- 2/the procedure of professors' recruitment;
- 3/ the procedure of recruitments.

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

Actions required:

- 1/to create the employment policy specifying applicants' selection criteria, mobility recognition and excluding reputation-based selection - adopt it;
- 2/to adopt the above mentioned 3 documents;
- 3/to raise the awareness of a new documents (publish on the website, send e-mail and newsletter)

14. C&C principle - 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.

Existing Institutional rules and/or practices:

Candidates are accepted on the basis of submitted documentation and a successful interview and are offered a studentship for the duration of the course. The following documents should be submitted prior to the interview:

1. A University diploma or certified duplicate (not just a photocopy) inclusive of the academic record
2. Curriculum Vitae
3. Letter of recommendation from the supervisor of the Master Degree thesis
4. Application to the Director of this Institute
5. Filled enquiry (attachment)
6. A photocopy of the passport (for non-Polish citizens)

Copies of the documents can also be sent to the e-mail address (in this case the original documents with photographs should be submitted to the office of PhD studies on interview day). After determining the number of candidates the hours of interviews are set. IP PAS inform candidates about the interview schedule by e-mail. Interviews are held at IP PAS, The qualification interview is conducted by a commission consisting of at least 4 members containing one of the Directors of the Institute and the Head of the PhD Studies. The applicant, using prepared presentation should show the main results of his MSc thesis and answer several questions concerning the thesis and general physics. Usually the qualification interview is conducted directly i.e. the applicant is present in the IP PAS. Recently, however, some qualification interviews have been conducted via the internet. This kind of the interview is possible in exceptional cases with approval from the Director but should be

well motivated and the Institute certainly will not accept it as a rule. The final acceptance of the candidate is decided by the Director of the IP PAS .

Actions required:

- to adapt the good practices as the ordinance (Director)
- to put it on the website (IT Office)

15. C&C principle - 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.

Existing Institutional rules and/or practices:

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

Actions required:

to put the regulations on the web page / e-mails on request.

16. C&C principle - 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

Existing Institutional rules and/or practices:

The HR Office of the IP PAS introducing drafted Rules of the selection proceedings in case of employing to the academic positions and non academic position at IP PAS (that are already used as a good practice). The rules are already used by HR Office as good practices. Therefore, it is possible

that regarding personal approach of Department/ Research Team Leader – applications of the persons with other personal achievements that no. and rank of publications – are declined. Therefore, WG suggested taking measures, such as: creation and spreading appropriate recruitment policy.

Actions required:

to adopt the documents related to the selection procedure and publish on IP PAS website and disseminated among IP PAS employees; (Director/ Administration/ Team and Departments Leaders)

17. C&C principle - 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.

Existing Institutional rules and/or practices:

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

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

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

Actions required:

creation of employment policy creating the framework for acceptance of variations in chronological order of CVs; the policy will be published on IP PAS website and disseminated among IP PAS employees; (Director/ Administration/ Team and Departments, May 2016)

18. C&C principle - 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.

Existing Institutional rules and/or practices:

The researchers of IP PAS are supported and encouraged to participate in business trips / domestic and foreign internships and to be professionally mobile. The Institute helps with visa matters and will issue the necessary documents. The Institute is the owner of a small hotel. Part of this hotel is reserved for students of the PhD Studies. If a student does not live in this hotel, rents a flat in Warszawa and his permanent address is more than 40 km from Warszawa he may apply for a special subsidy which is approximately 20% of the scholarship in value. Recruitment procedures (as a good practice) recognize rule of mobility of experience, i.e. through introducing: (a) obligation to submit by an applicant research plan incl. information on professional interests, achievements, participation in research projects and research plans, (b) obligation to take into account by Selection committee research plan, specifying personal achievements and experiences regardless to the fact where they were collected.

Actions required:

the Ordinance of IP PAS Director introducing Rules of the selection proceedings in case of employing to the academic positions at IP PAS are going to be adapted (Director, May 2016).

19. C&C principle - 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.

Existing Institutional rules and/or practices:

Polish law regulates provide some for appropriate assessment and evaluation of the academic and professional qualifications (Act on Academic Degrees and Academic Title, and on Degrees and Title in Art; Regulation of the Minister of Science and Higher Education on criteria for assessing the achievements of the person applying for postdoctoral appointment). The IP PAS does not have the Rules of the selection proceedings in case of employing to the academic positions at IP PAS. However there are good practices used, ex: the qualification interview is conducted by a commission consisting of at least 4 members containing one of the Directors of the IP PAS and the Head of the

PhD Studies. The applicant, using prepared presentation should show the main results of his MSc thesis and answer several questions concerning the thesis and general physics. It should be also delivered the letter of recommendation from the supervisor. Usually the qualification interview is conducted directly i.e. the applicant is present in the Institute. Recently, however, some qualification interviews have been conducted via the internet. This kind of the interview is possible in exceptional cases with approval from the Director but should be well motivated and the Institute certainly will not accept it as a rule.

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

Actions required:

None.

20. C&C principle - 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.

Existing Institutional rules and/or practices:

The IP PAS fully respect this rules. Each new research vacancy is defined with in deep analyses of essential needs and possible conditions for new employee. Consequently the person recommended to the position is defined taking into account qualifications and achievements.

Actions required:

Initiation of database of archers

21. C&C principle - 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.

Existing Institutional rules and/or practices:

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

Actions required:

None.

2.3 Working conditions and social security

22. C&C principle - 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).

Existing Institutional rules and/or practices:

Polish law regulates requirements on completed studies and scientific specialty in a very general way (Act on Polish Academy of Science, Act on Academic Degrees and Academic Title, and on Degrees and Title in Art.; Act of Polish Academy of Science); Scientific units of the Academy may employ: 1) scientific staff; 2) research and technical staff; 3) library, scientific documentation and information staff; 4) engineering and technical staff; 5) staff responsible for organisational, economic and administrative matters; 6) workers and service staff.

Scientific staff may be employed in the following posts: 1) full professor; 2) associate professor; 3) visiting professor; 4) senior lecturer; 5) assistant lecturer.

Research and technical staff may be employed in the following posts: 1) chief research facilities specialist; 2) specialist.

IP PAS has also the internal regulation showing the gradation and position for 142 researchers, 161 Engineers and technicians, 84 administrative staff and 67 PhD candidates.

IP PAS staff - gender breakdown (positions due to Polish Academy of Science rules)			
Category	All	Male	Female
Scientists	144	107	37
Scientific technicians	45	29	16
Technicians	110	87	23
Library staff	2	1	1
Administration	50	9	41
Support staff	34	17	17

Actions required:

None.

23. C&C principle - 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.

Existing Institutional rules and/or practices:

IP PAS is one of the most modern and well equipped institute in Poland (e.g. of laboratories: <http://www.ifpan.edu.pl/> such as: [LABORATORY OF X-RAY AND ELECTRON MICROSCOPY RESEARCH](#), [LABORATORY OF CRYOGENIC AND SPINTRONIC RESEARCH](#), [LABORATORY OF GROWTH AND PHYSICS OF LOW DIMENSIONAL CRYSTALS](#), [LABORATORY OF BIOLOGICAL PHYSICS](#)). Within dozen or so infrastructure project there were a lot of investment in laboratories and other essential equipment. Consequently researchers have access to well defined and prepared working space and environment. They confirm it by presenting excellent research results e.g. in scientific publication. Many of them are members of international projects and research teams.

The employers of the IP PAS have to apply requirements stipulated by Polish and European Public Procurement Law and inside procedures. During last years IP PAS implemented the informatic system called "DocuSafe" which is very helpful in this area.

Actions required:

None

24. C&C principle - 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.

Existing Institutional rules and/or practices:

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

- Ordinance No. 2/1997 Director of the Institute of the Polish Academy of Science of 01 July 1997 on the Labour Regulations;
- Ordinance No. 8/2013 Director of the Institute of Physics of 13 December 2013 concerning working time and principles of residence at the Institute of Physics ;

The following rules are used:

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

Actions required:

drafted the regulations related to training leave (HR department, April 2016)

25. C&C principle - 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.

Existing Institutional rules and/or practices:

Polish law regulates tis conditions (Act on Polish Academy of Science, Act on Academic Degrees and Academic Title, and on Degrees and Title in Art). IP PAS respect this rule.

Actions required:

None.

26. C&C principle - 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.

Existing Institutional rules and/or practices:

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

- Ordinance No. 10/2010 Director of the Institute of Physics, Polish Academy of Sciences on 21 December 2010. - Concerns: the Remuneration Regulations in PAS
- Ordinance No. 5/2004 Director of the Institute of Physics, Polish Academy of Sciences of 30.06.2004 on the Rules Bonus at the Institute of Physics
- Ordinance No. 3/2014 Director of the Institute of Physics of 4 September 2014. On the amendment of the Rules Bonus at the Institute of Physics Academy of Sciences of 30.06.2004.

- Ordinance 12/2012 of 29.06.2012 on the principles of employment and remuneration of employees in research projects and other projects carried out in the Institute of Physics

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

Actions required:

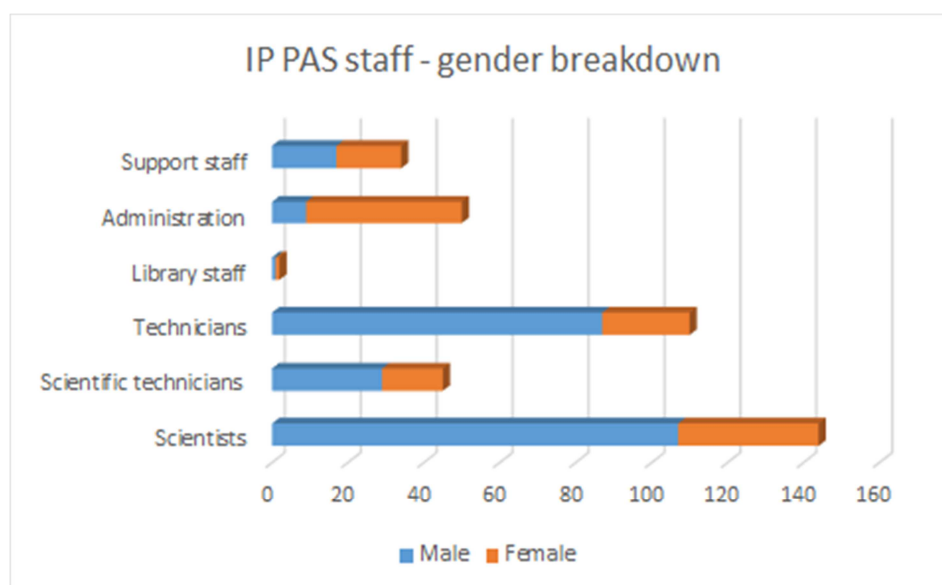
None.

27. C&C principle - 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.

Existing Institutional rules and/or practices:

In general statistics there are 385 employees in IP PAS: 250 males and 135 females. Breakdown of them taking into account PAS employee regulation is presented below.



WG suggested to ensure participation within the Committee female representatives to create more women-friendly environment.

Actions required:

the women are going to be encourage (e-mails before elections).

28. C&C principle - 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.

Existing Institutional rules and/or practices:

The national law specify the necessary conditions that have to be fulfil in order to develop the carrier. In IP PAS the specific area of career development is not formalized. The natural role of Group Leaders is to mentor their co-workers. PhD Students and Postdoctoral Fellows regularly participate in complementary skills training on scientific communication organized within the Institute.

Actions required:

series of open workshops for researchers were organized by the Technology Transfer Office and HR Department on work, teams, projects, time management, and patenting and commercializing research results; additionally, training on the Euraxess portal was delivered to researchers by the Polish Euraxess NCP expert.

Distribution within the Institute (via internet, on the hallway information board) of information about available posts/fellowships/training and workshops on career development (CTT, HR, Ongoing process)

29. C&C principle - 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.

Existing Institutional rules and/or practices:

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

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

Additionally in case of any doubts regarding profile of any candidate or his/her professional activity, he/she can be asked for public presentations of the results of his/her researches at a seminar.

Actions required:

None.

30. C&C principle - 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.

Existing Institutional rules and/or practices:

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

Actions required:

counselling services: newsletters and e-mails about the meetings, twinnings and opportunities (from the web portals etc.)

31. C&C principle - Intellectual Property Rights

Employers and/or funders should ensure that researchers at all career stages reap the benefits of the exploitation (if any) of their R&D results through legal protection and, in particular, through appropriate protection of Intellectual Property Rights, including copyrights. Policies and practices should specify what rights belong to researchers and/or, where applicable, to their employers or other parties, including external commercial or industrial organisations, as possibly provided for under specific collaboration agreements or other types of agreement.

Existing Institutional rules and/or practices:

Since the novelty of IPR regime in the Act of Polish Academy of Science came in force, the new IPR Regulations were drafted and adopted in 2015. The series of free workshops on protection of intellectual property rights, organized by the **Patent Office of The Republic of Poland**, and IP PAS took place. The issue of property rights is most crucial in the case of technology transfer projects. The new regulation raises many questions, so the discussion is open. The CTT tries to support the researchers on their work.

The issue of intellectual property rights has also been included in training - and will be proposed also in future.

Actions required:

Training (June 2015)

32. C&C principle - 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).

Existing Institutional rules and/or practices:

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

Actions required:

None.

33. C&C principle - 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.

Existing Institutional rules and/or practices:

Essential duties of scientific staff shall include the performance of the tasks set forth in the Charters of scientific units, including without limitation conducting research and development work, announcing and disseminating their results and participating in the performance of the educational tasks undertaken by the unit in question. Scientific staff shall undergo periodic evaluation by the scientific board, which shall cover the results of their work; lecturers and senior lecturers shall undergo evaluation at least every two years, and professors shall undergo evaluation at least every four years. The detailed procedure and frequency of evaluation shall be set forth by the scientific board of the institute in the rules approved by the Vice-President of the Academy who supervises the work of the relevant division. Currently, at IP PAS exist 2 systems of employees evaluation: (a) individual evaluation regulated by the ordinance, (b) evaluation of department – ranking that is in the discretion of the Director, unregulated.

Evaluation of department is a tool supporting management of IP PAS, while individual evaluation gives to the employee opportunity to compare with other scientific staff.

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

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

Department evaluation is based on: no. of publications of the employees from the whole department, quotations of publications of the Leader, value of obtained grants.

Actions required:

Preparation of IP PAS professional development model (TTO, HR Office).

34. C&C principle - 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.

Existing Institutional rules and/or practices:

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

Actions required:

to raise the awareness of the new procedure - e-mails, (training on demand)

35. C&C principle - 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:

Existing Institutional rules and/or practices:

Currently, IP PAS has two governing organs – Director and Research Council. Decision-making is the responsibility of the IP PAS Director who is supported by the Research Council. On the Research Council sit representatives of some groups of employees, i.e. representatives of research employees and PhD students. Additionally the Director organises debates with Research Team Leaders and Departments Leaders dedicated technical and essential aspects of IP PAS activity. PhD student can present their opinion and suggestions through self-governmental body - they are always welcome to talk directly to the Director or supervisors and present the suggestions.

The young scholars' academy is established by PAS in order to promote the research and development work conducted by outstanding young representatives of Polish science. Detailed rules for the election of members and governing bodies of the young scholars' academy, the scope of its activities and organisational structure is set forth in the Charter of the PAS (<http://www.instytucja.pan.pl/index.php/akademia-modych-uczonych>). The IP PAS participates in Youth Academy of Science that goal is to promote science and professional development of scientists.

Actions required:

1/to improved website serving communication with employees, consisting of description of influence channels, list of Director's ordinances which searching machine etc. (IT department, Dec. 2015);

2/regular e-mails informing about current affairs and possibility to join consulting and information groups (Director, Administration, regularly);

2.4 Training

36. C&C principle - 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.

Existing Institutional rules and/or practices:

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

Actions required:

Implementation of advising activities schedule of each young researcher.

New are of report related to "The relation with supervisors" within temporary reports of scientific teams.

Multi-age debates within internal seminars and conferences.

37. C&C principle - 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.

Existing Institutional rules and/or practices:

The researchers are trying to perform their duties best.

Actions required:

Professional trainee courses on HR management and mentoring, internal evaluations of multi-faceted role as supervisors, multi-personal supervisions programme for young researchers, local HR events connected with case studies (TTO, HR Office, professors).

38. C&C principle - 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.:

Existing Institutional rules and/or practices:

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

Actions required:

Preparation of good practises of professional development.

Preparation of IP PAS professional development model (TTO, researchers-supervisors).

39. C&C principle -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.

Existing Institutional rules and/or practices:

All researchers at any stage of their career, regardless of their contractual situation, are given the opportunity for professional development and for improving their employability through access to measures for the continuing development of skills and competencies.

IP PAS runs the doctoral studies. On the IP PAS website there are information about PhD studies:

http://info.ifpan.edu.pl/msdifpan/Studium/index_en.html

In particular we find there: (i) Information for PhD students, (ii) Offered research topics, (iii) Lecture series.

The IP PAS has run also Colloquium (http://info.ifpan.edu.pl/ACTIVITY/konwersatorium_en.php) with presentation from seminars and direct links to on-line materials on You Tube (e.g.

<https://www.youtube.com/channel/UC3ASKcAgXLb-z6GaEiFWreQ>)

Actions required:

Development of professional trainee courses for researcher of each stage of carrier development e.g. commercialisation and market, promotion of the research, presentation development, communication.

Definition "Business Day" at the IP PAS on the regular basis (TTO, HR Office)

40. C&C principle - 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:

Existing Institutional rules and/or practices:

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

Actions required:

None.

3. Results from internal survey.

3.1 General results from survey.

Conducted internal survey confirmed, that there is a lot of occasions to improve HR processes in IP PAS in technical context but in particular in essential one. Key way to define this statement was few open questions included in the questionnaire that was focused on gathering direct opinions about possibility to improve internal processes in the Institute and personal development of respondent after acceptance of Human Resources Strategy for Researchers.

Regarding personal development there were only few cases respondents defined future actions that they will undertake in order to improve their scientific profession and local personal relations. There is very limited awareness of the respondents that HR Strategy can help them to manage their scientific potential (including their direct milieu) in more effective and efficient way. We also noted in few cases that our assumption on HR Strategy is very close to current practices in scientific teams what gives the whole Strategy great opportunity to find valuable good practises on Institute basis. In the contrast there are also few very concrete opinions that HR strategy will complicate existing administrative barriers and obstacles.

Much more interesting and valuable opinions were gathered when asked questions dedicated definition of positive and negative factors that occur if Institute's Board decide to improve and execute Charter & Code principles. Key positive feelings mentioned in questionnaires are:

1. better contact between senior and young researchers with less domination of scientific position,
2. better contact between scientific groups inside the institute,
3. possibility to initiate more efficient gender policy,
4. chance to closer involvement of young researcher in Institute and development (as a result of mutual interest),
5. support for career development,
6. introduction of clear rules of hiring and awarding scientists as well as well defined path for young scientists.

Among key negative feeling we noted:

1. real risk of focus only on fulfilling formal rules, without recognizing the actual situation at that particular institution,

2. dominance of formalities over research, and extreme caution in interpreting legal regulations and various procedures,
3. lack of formal effective control system in IP PAS will limit possibilities to efficient implementation of HR Strategy and it will be dead rule as a whole.

Due to opinions gathered it is crucial to ensure a real improvement as opposed to a formal improvement just to be in accord with Charter & Code principles.

3.2 Opinions about importance and implementation of Charter & Code principles.

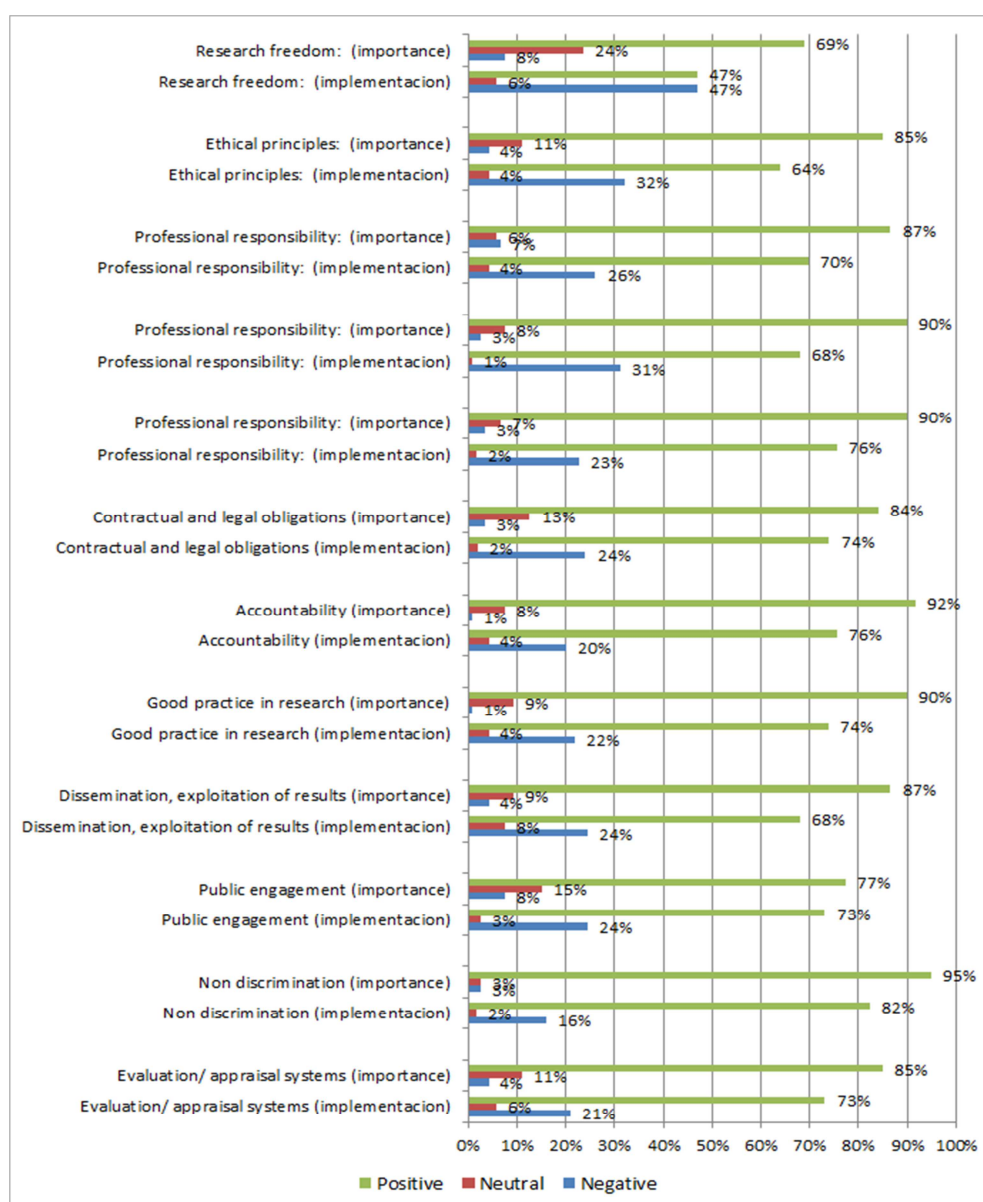
On following pages there are graphs with detailed answers grouped as positive and negative dedicated to each principles of Charter&Code. Taking into account responses defined in each context of assessment (importance and implementation) we decide to connect concrete answers in order to define opposite feeling of the respondents. We connect them in following way:

To what extent he/she agrees with those statements, using following responses	
1 – I totally disagree	Negative feeling
2 – I disagree	
3 – neither agree, nor disagree	Neutral opinion
4 – I rather agree	Positive feeling
5 – I totally agree	
What is their knowledge and opinion related to level of implementation of Rules in IP PAS at the date of survey, using following responses	
1 – New to the Institute (unknown).	Negative feeling
2 – It is known but still out of formal regulation.	
3 – Dead record but exist in formal regulations.	Neutral opinion
4 – Implemented but executed irregularly.	Positive feeling
5 – Fully implemented and respected.	

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

I. Ethical and professional responsibility of researchers.

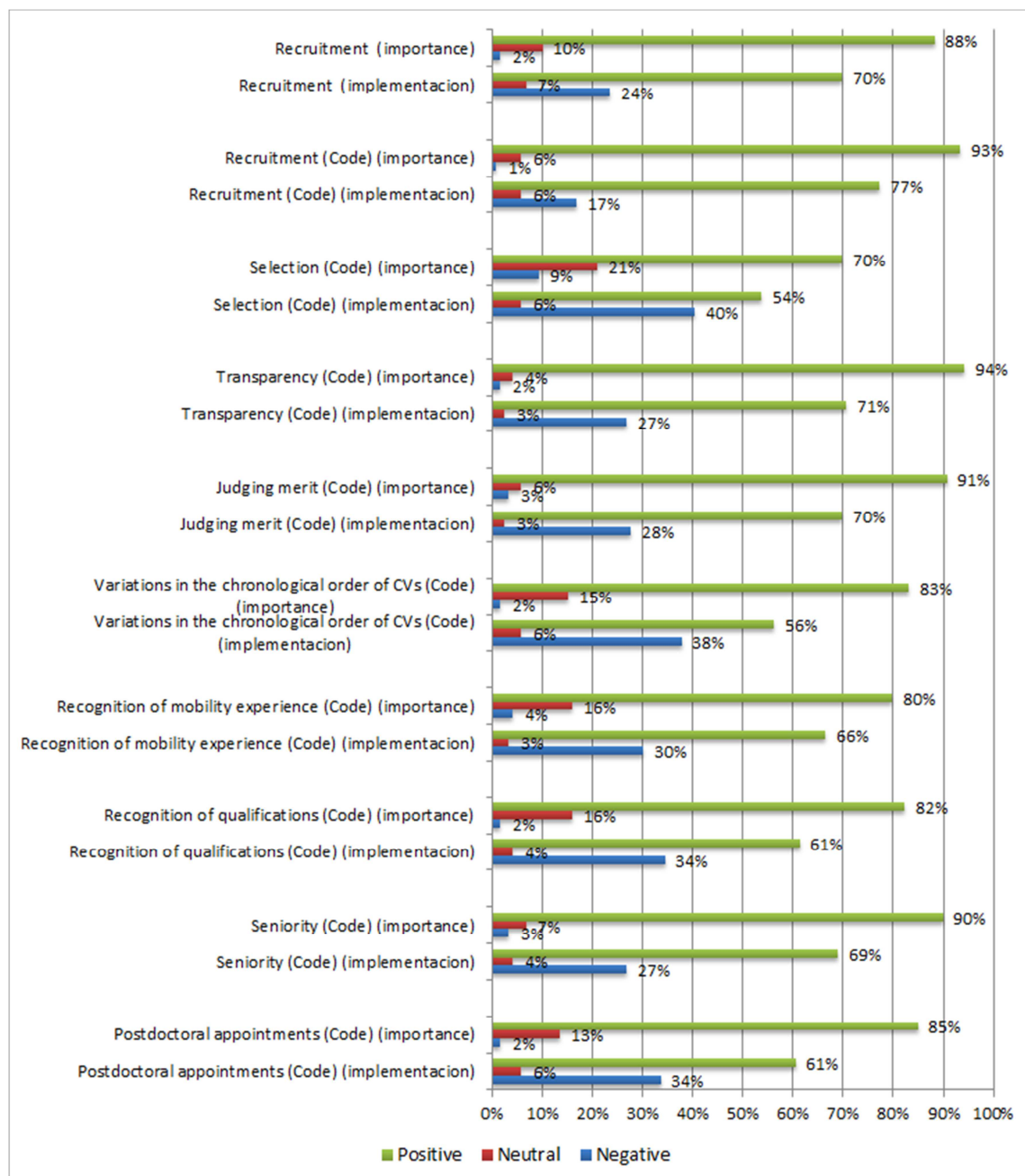
Following graph present decomposition of answers within first part of survey:



Source: On-line survey in IP PAS.

II. Recruitment.

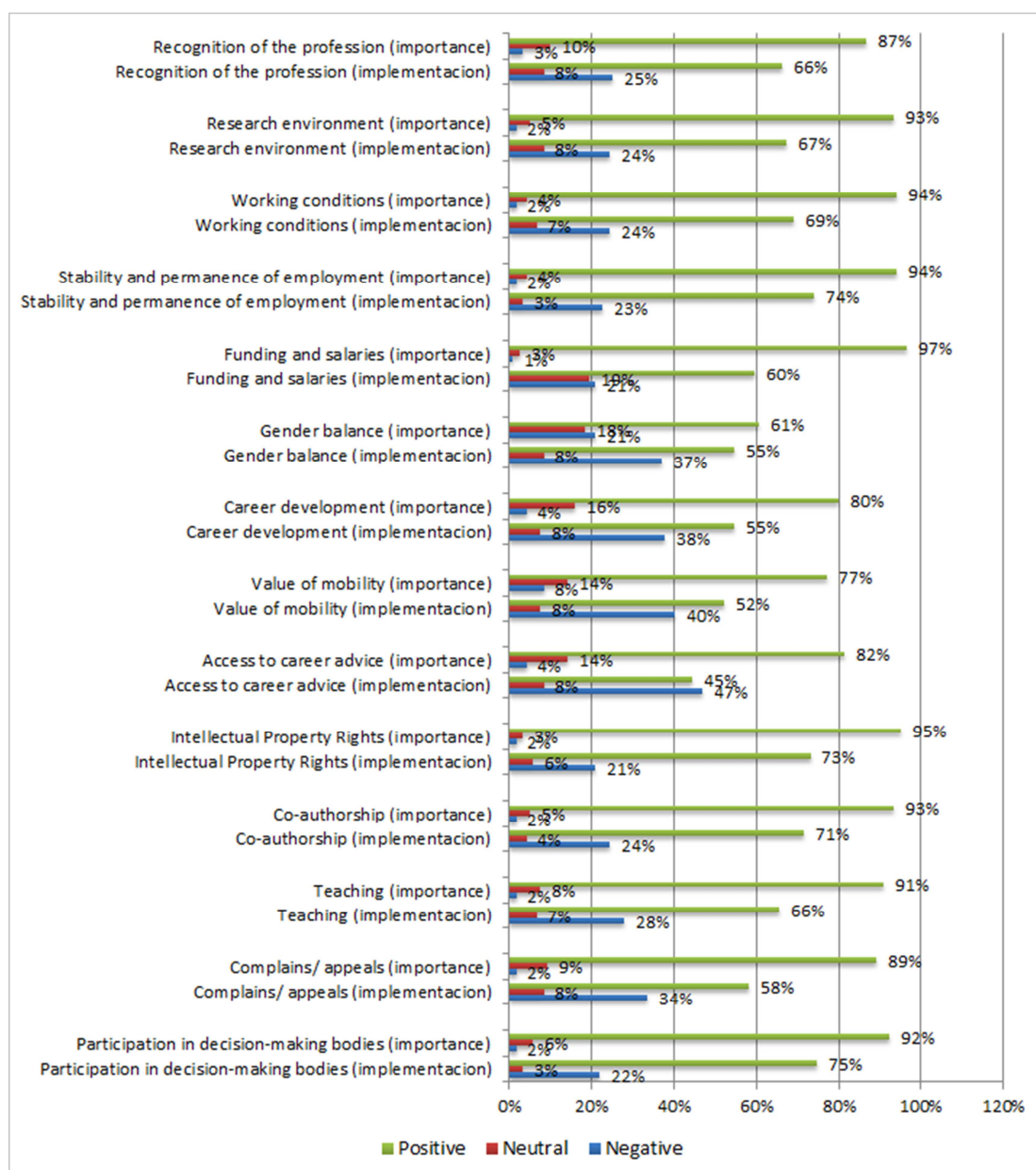
Following graph present decomposition of answers within second part of survey:



Source: On-line survey in IP PAS.

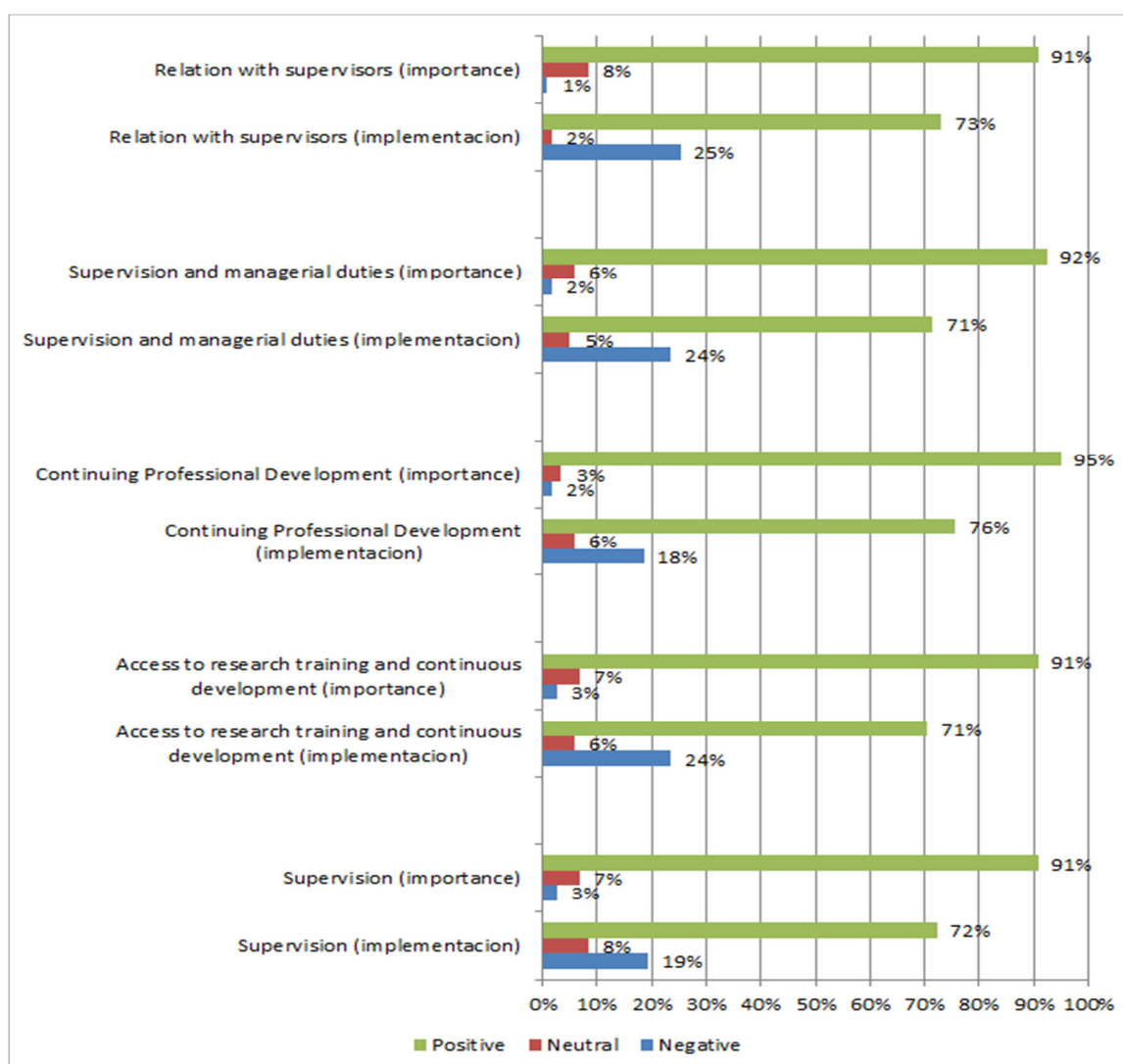
III. Working conditions.

Following graph present decomposition of answers within third part of survey.



Source: On-line survey in IP PAS.

IV. Research career training and development.



Source: On-line survey in IP PAS.

3.3 Key recommendations to Action Plan

Internal survey has confirmed that there is strong necessity to improve human resources management in IP PAS. Each one out of four areas or dimensions of Charter&Code has at least one principle that require direct focus and dedicated tasks. We are also aware, that even if there is high level of positive answers in importance or implementation aspect it is still necessary to define soft measures as meetings and other awareness raising tool in order to build common understanding of problems and create social acceptance to further changes. Consequently each of principle will be taking into consideration while improving HR management in IP PAS.

Taking into account aforementioned results from surveys and direct proposals from Working Group strength and weaknesses were defined that consist of dozen or so key statement that describe state of the art of human resources management in IP PAS.

Strengths:

1. Existing positive attitude of Board of Institute, researchers and other staff to HR management and future development based on Charter&Code.
2. Good starting point to improvement of HR management confirmed by existing rules within IP PAS that keep the line of Charter&Code.
3. Good access to person responsible for HR in the Institute eagle to changes defined in Charter&Codes.
4. On-going process of improvement of procedures and tools dedicating to different aspects of personal development and human resources.
5. Direct access to good practices on HR management through close links of Institute's staff with other research institutions in Europe with higher HR culture.

Weaknesses:

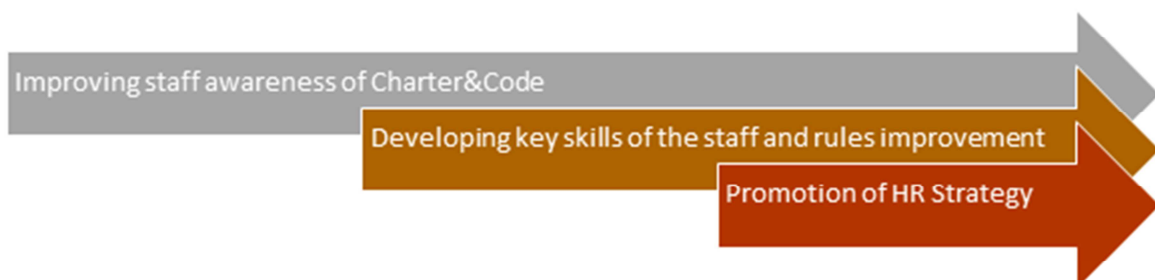
1. Still limited awareness of research staff of the possibility to improve HR in their workplace.
2. Lack of skills related to HR connected with lack of time to implement and execute HR related rules caused by dominated concentration on research projects by managing staff.
3. Lack of roles that allow to distinguish managing and scientific duties/activities of management and supervision staff.
4. Dominated anxiety that implementation of present Strategy will generate much more bureaucracy and will be implemented in formal manner.
5. Visible negative attitude of young scientists to career development possibility.
6. Visible process of aging scientific potential what can complicate efficient implementation of some Charter&Code principles.

4. Action Plan

Human Resources Strategy implementation is connected with following 3 key assets:



Aforementioned data has confirm, that IP PAS has to pay attention on improving some HR Management processes and procedures in order to be more suitable to Charter&Code principles in near future. It will be process as such that will concentrate efforts on 3 general aspect (look on graph):



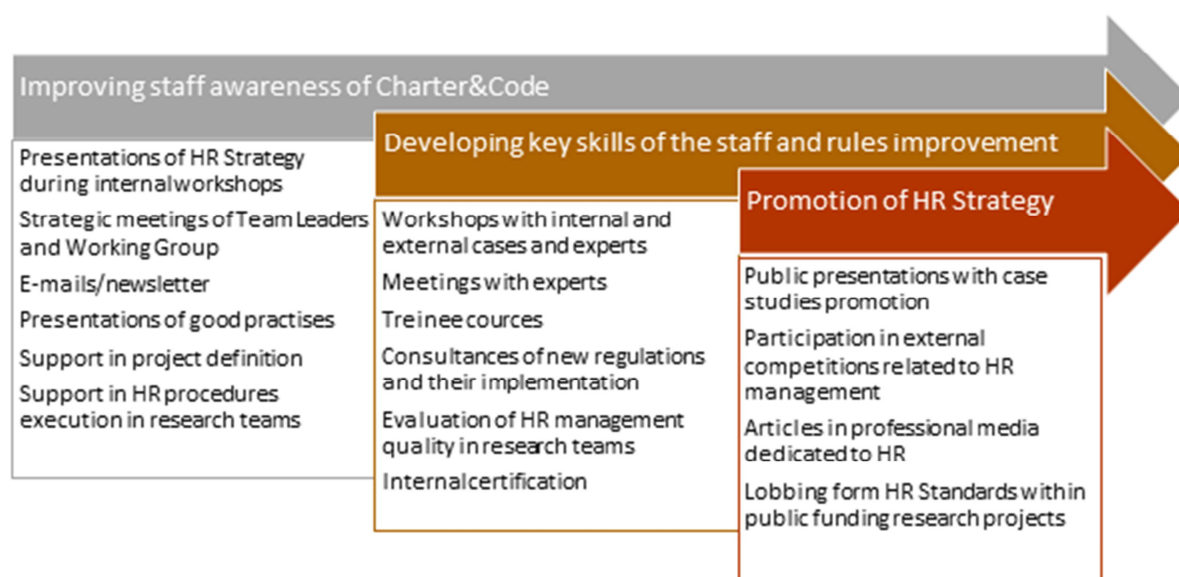
Each of these aspect require definition and implementation of set of tools that allow to generate development process of new quality of HR management in the Institute. The common denominator is staff competences thanks to which we can stimulate processes of changes, so we will concentrate on it on each stage. Consequently we can start from fundamental problem of awareness about HR management and its potential in personal and team development. Later on we have to concentrate on stimulating visible changes through skills development and changing some rules (with continuing engagement of research staff) what finally will allow to promote precise cases and HR Strategy as well.

It will be process that will last up to 4-5 years taking into account the fact, that there will be some shipment in the staff, coming from promotion of young researchers and retire senior one. We have to manage that change as well as there is strong pressure to keep research processes going.

From technical point of view, each of aforementioned aspect require special tasks and tools that in details will be prepared by **Working Group with team leaders** on the basis of different occasions generated by internal and external processes and projects. **Our general role regarding implementation of Strategy is to incorporate existing processes, especially in awareness raising stage, in order to result in quick and efficient way.** It will allow to non-invasive generation of changes via small steps and than we will not compete for time with other processes especially research one.

Later on there is necessity to define and execute dedicated new processes with strong attention on changing Institute's rules and promotion of Strategy.

Taking into account general rule of taking advantage of existing processes we defined set of general tools to be executed in implementation of the Strategy (look graph):



From organizational point of view we defined Technology Transfer Office and Human Resources Office as jointly responsible for implementation of HR Strategy in IP PAS. The new webpage will be created that in Polish and English will create common understanding of HR management and will support researchers in finding valuable sources of knowledge.

As there are different level of importance in improving Institutes rules in according with Charter&Code principles below we define list of principles with special attentions (with source of decision). Order is not random.

We are also aware of the fact that principles that are not on the list are at special attention too as they are linked to each other and influence case by case. At the result we will analyse and undertake special actions starting with concrete principle but with wide focus for principles as a whole.

Principle	Source of decision		
	Working Group	Desk research	Questionnaire
Career development	++	+++	+++
Gender balance	+	+++	+++
Recruitment	++	++	+++
Access to career advice	++	+	++
Postdoctoral appointments	++	+	+
Selection	++	+	++
Value of mobility	++	+	++
Teaching	++	+	++
Contractual and legal obligations	+	++	+
Good practice in research	+	++	+
Dissemination	+	++	+
Supervision and managerial duties	+	++	+
Participation in decision-making bodies	+	+	+
Variations in the chronological order of CVs	+	+	+

Concrete ideas how to raise quality of aforementioned principles are presented in earlier part of Strategy in points called “Actions required”. Working Group with close communication with Institute`s Board will define ways the Strategy is implemented and sources secured.

Selected actions to be implemented within prioritised C&C principles:

Principle name	Actions to be implemented	Status/responsible body
Recruitment	Implementation of recruitment models.	Ongoing/HR Office
Career development	Prepare a professional career development strategy for researchers at all stages of their careers.	To be initiated by supervisors, HR Office, TTO (2016)
Contractual and legal obligations	Workshop on IPR, newsletter, additional records in the contract of work.	Task/Director`s decision, HR Office, TTO (On-going)
Access to career advice	Workshop on time management, Meeting with experts, Internal meetings in teams.	Ongoing/supervisors, TTO, HR Office (On-going)
Value of mobility	Formal rule in career development strategy, Internal workshops for incoming researchers.	Tasks/ Director, supervisors (On-going)
Good practice in research	Prepare instructions for securing and storing computer data. Workshops on business models and commercialisation.	Tasks, TTO, IT Unit (On-going)
Teaching	Workshops, Meeting with experts. Participation in conferences and events.	Tasks/Supervisors, TTO, HR Office (On-going)

Implementation and monitoring processes

In order to secure effective and sustainable implementation of the strategy there are few units that will be involved in it (look graph).



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

5. Conclusions

The IP PAS changed a lot since 2 years. The IPR manager and Innovation manager was hired. The overview of regulations and procedures was done. The workshops and seminars related to the IPR, management, commercialisation, public foundings etc. were organise (twice in 2014 and already twice in 2015). The new IPR regulation was adopted in 2015, the TTO was established on April 2015. It is a revolution for the IP PAS, but this revolution is going to helped IP PAS to have one of the best quality and well prepared management system. To implement the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers is one of the most important steps. As one of the researcher said: The proposed new HR certification mechanism will contribute to enhancement of performance in the transfer and sharing of knowledge, and to the career development of researchers.

6. Acceptance

The Director of the Institute of Physics Polish Academy of Science accepts the Human Resources Strategy for Researchers.

Place/Date

Warsaw, 14 May 2015

Signature

DIRECTOR



Professor Leszek Sirko

Attachment 1: List of works in international journals.

Publications of IP PAS (2014) I.F. > 3.0:

Reviews of Modern Physics (42,860) 1

Chemical Society Reviews (30,425) 1

Nature Photonics (29,958) 1

Advanced Materials (15,409) 1

Nano Letters (12,940) 2

Angewandte Chemie-International Edition (11,336) 1

EMBO Reports (7,858) 1

Physical Review Letters (7,728) 6

Physical Review D (4,864) 1

Journal of Physical Chemistry C (4,835) 2

Inorganic Chemistry (4,794) 2

Crystal Growth & Design (4,588) 1

Astronomy and Astrophysics (4,479) 1

Langmuir (4,384) 1

ACS Chemical Neuroscience (4,210) 1

Physical Chemistry Chemical Physics (4,198) 6

Soft Matter (4,151) 1

Dalton Transactions (4,097) 1

Journal of Nanobiotechnology (4,078) 1

FEBS Journal (3,986) 1

Acta Materialia (3,940) 2

Chemistry-An Asian Journal (3,935) 2

Biophysical Journal (3,832) 2

RSC Advances (3,708) 5

New Journal of Physics (3,673) 1

Nanotechnology (3,672) 2

Physical Review B (3,664) 13

Applied Physics Letters (3,515) 6

Organic & Biomolecular Chemistry (3,487) 1

Journal of Physical Chemistry B (3,377) 4

ChemPhysChem (3,360) 1

Current Pharmaceutical Design (3,288) 1

New Journal of Chemistry (3,159) 1

Journal of Chemical Physics (3,122) 7

Journal of Synchrotron Radiation (3,022) 1