



**INSTITUTE OF MATHEMATICS  
OF THE POLISH ACADEMY OF SCIENCES**

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***Human Resources Strategy  
for Researchers***

***incorporating  
the European Charter for Researchers  
and***

***the Code of Conduct for the Recruitment of Researchers***

**GAP ANALYSIS / HR STRATEGY / ACTION PLAN**

Warsaw, June, 2016

*Revised version of the document from April 29. 2016*

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# 1. Introduction

The Institute of Mathematics of the Polish Academy of Sciences (IM PAN, or the Institute, for short) was established in 1948.

The mission of IMPAN is to conduct research in various branches of Mathematics at the highest level, to promote mobility in Polish mathematical community and enhance international cooperation.

IMPAN has always been and is one of top mathematical institution in Poland employing the most distinguished Polish mathematicians.

The Stefan Banach International Mathematical Center, a structure within IMPAN was founded in 1972 and has an excellent record in promoting international cooperation, traditionally in the form of semester long meetings. Recently with support from the Simons Foundation and Polish Government, IMPAN intensifies this form of activity with “Simons Semesters in Banach Center”. Moreover, Banach Center coordinates organization of about 30 mathematical conferences and workshops a year in its Conference Center in Będlewo, also about 20 conferences and research meetings at IM PAN in Warsaw.

The Institute is practically the only institution in Poland attracting mathematicians both from Poland and abroad in significant numbers, by offering several research positions a year on various levels. To further strengthen ties with universities, the Institute has 6 appointments, all Assistant and Associate Professors levels, joint with the Jagiellonian University, University of Warsaw and University of Wrocław.

The annual budget of the Institute is about 20M PLN (without grants). In addition, IM PAN together with the Faculty of Mathematics of the University of Warsaw formed together the Warsaw Center of Mathematics and Computer Science (WCMCS) and won the competition for a distinguished status of a National Leading Research Centre (KNOW) with a budget of 34M PLN for a period of 5 years, see details below. Furthermore, IM PAN hosts 59 national and international research grants of total budget of 34M PLN.

The Institute has one of the best mathematical libraries in Europe, and a publishing department, editing and publishing 9 international journals. Furthermore, in collaboration with Birkhäuser IMPAN edits the series Mathematical Monographs. IMPAN is also editing a book series for graduate students “Księgozbiór Matematyczny” and the series “IMPAN Lecture Notes”.

For more information we refer to IMPAN's web page: [www.impan.pl](http://www.impan.pl)



## **Research**

IMPAN is an active center of scientific life in several branches of modern mathematics. IMPAN employs 91 full-time researchers (data for January 1, 2016), including:

- 25 Full Professors,
- 11 Associate Professors,
- 53 Assistant Professors (including post-docs),
- 2 Assistants (without a Ph.D.),

and 16 part-time employees, mainly Full Professors. In total: 107 researchers.

In order to illustrate the dynamics of employment changes at IMPAN let us provide data on newly hired employees in 2015:

- 4 full professors, 5 associate professors, 34 assistant professors, 2 assistants
- 2 long-term positions
- 43 short-term positions
- 6 females
- 27 foreigners.

In total: 45 new employees.

A growing number of post-docs from outside Poland includes researchers from Brazil, Czech Republic, Finland, France, Germany, Great Britain, India, Italy, Mexico, Russia, Thailand, and the United States of America. IMPAN runs Ph.D. studies with (on average) 25 students.

IMPAN has six external branches in the following Polish cities: Gdańsk, Katowice, Kraków, Poznań, Toruń and Wrocław, making it well equipped to promote in-Poland mobility, something a mathematical community really needs.

There are around 30 regular weekly seminars in the Warsaw headquarter and in local branches. The spectrum of research represented at IMPAN covers a large part of pure mathematics and several applied areas such as biomathematics, cryptography, industrial mathematics, and financial mathematics.

IMPAN is organized in 14 divisions, the biggest of which are: Algebra and Algebraic Geometry, Differential Equations, Dynamical Systems, Foundations of Mathematics, Functional Analysis, Mathematical Physics and Differential Geometry, Noncommutative Geometry, Probability Theory and Financial Mathematics, Topology.

## **The recent Awards granted to the Institute**

- In 2012, IMPAN and the Faculty of Mathematics of the University of Warsaw formed together the Warsaw Center of Mathematics and Computer Science (WCMCS). In 2013, this Center won the competition for the prestigious status of a



National Leading Research Centre (KNOW). The status of KNOW is awarded for 5 years (extendable for additional 5 years) on the basis of open competition only to one (the best) institution in each of the scientific disciplines, and is followed by a substantial grant which provides financing of the Center for the next five years. This grant has been used for enhancing the research potential of both participating institutions. Main activities encompass, but are not limited to the following: opening post-doctoral positions, supporting PhD studies, organizing conferences, schools and workshops.

- In 2013, the Committee for Evaluation of Scientific Units of the Ministry of Science conducted a comprehensive assessment of the scientific quality of research units in Poland for the period 2009-2012. IMPAN received the top category A+ and therefore belongs to the elite group of the 37 best scientific institutions in Poland and gets additional governmental financial support.

- In 2015, the Institute has been an awardee of the competition: Targeted Grants for Institutes, by Simons Foundation. IMPAN has won 5 years grant for the program "Simons Semesters in Banach Center".

## Grants

IMPAN carries out research in most modern mathematical disciplines at a level recognized on the world wide scale. The presence at one place of actively developing branches of mathematics, e.g. Operator Theory and Noncommutative Geometry, Geometric Group Theory and Algebraic Geometry, guarantees an environment full of intense and synergetic research at the highest level. All of this is reflected in IMPAN's numerous research grants and programs. IMPAN's mathematicians have had numerous Polish individual and small teams' grants from the Ministry, National Science Center (NCN) and from the Foundation for Polish Science (FNP). See the link for further information: <https://www.impan.pl/en/activities/grants> .

IMPAN has also run a number of EU programs.

Current EU programs include:

1. IMPACT (IMPAN International Fellowship Programme), FP7-PEOPLE-2012-COFUND, Time: 01.03.2013 - 01.03.2018, Coordinator: Piotr M. Hajac,
2. FLUX (Towards regularity), FP7-PEOPLE-2012-IRSES Marie Curie Actions, Time: 1.1.2013 - 31.12.2016, Coordinator: Wojciech Zajączkowski
3. AOS (Asymptotics of Operator Semigroups), FP7-PEOPLE-2012-IRSES Marie Curie Actions- Time: 1.11.2012 - 31.10.2016, Coordinator: Yuriy Tomilov
4. BREUDS (Brazilian-European partnership in Dynamical Systems) FP7-PEOPLE-2012-IRSES, Time: 01.01.2013 - 31.12.2016, Coordinator: Jeroen

S.W. Lamb (Imperial College London), Coordinator of IMPAN node: Feliks Przytycki.

5. GEOGRAL Marie Skłodowska-Curie Individual Fellowship (IF-EF) H2020- MSCA-IF-2014, Time: 01.09.2015 – 31.08.2017, Performer: Giovanni Moreno
6. UNIVERSALITY Universality in Topological Dynamics FP7-PEOPLE-2012-CIG Time: 01.09.2013 – 31.08.2017, Performer: Yonatan Gutman

Earlier, under the European Union's Framework Programs, FP5 – FP6 , the Institute ran 10 grants. In particular IMPAN was the coordinator of two Transfer of Knowledge programs and the node of two Research Training Networks. The first large EU program in the Institute was Centre of Excellence - International Cooperation (INCO), named "Institute of Mathematics – Stefan Banach International Mathematical Centre as a Centre of Excellence", run in 2000-2004.

### **Membership in international bodies**

IMPAN, with BC is a member of several international institutions:

(1) European Research Centres on Mathematics (ERCOM), a Committee under the European Mathematical Society (EMS) consisting of Directors of 24 European Mathematical Research Centres;

(2) European Post-Doctoral Institute for Mathematical Sciences (EPDI), a network of 11 ERCOM members,

<http://www.newton.ac.uk/science/outreach/epdi>.

(3) International Mathematical Sciences Institutes (IMSI) consortium,

<http://www.fields.utoronto.ca/aboutus/IMSI.html>

## **2. Methodology**

In order to define high quality Action Plan on the basis of the current level of implementation of C&C rules at IMPAN the following steps have been taken:

Main activities	
1	Establishing a special working group
2	Review the key IMPAN documents
3	Circulate a questionnaire on level of implementation of the Charter & Code Rules in IMPAN
4	Analysis of convergences to and deviations from the Charter and Code principles and existing in-house Charter and practices



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

## **2.1 Working Group**

The Director of IMPAN has established the Working group consisting of:  
Dr. Tomasz Adamowicz, Prof. Tadeusz Januszkiewicz, Prof. Teresa Regińska.

Aims of the Working group included:

- (1) analysis of convergences to and deviations from the Charter and Code principles and existing in-house procedures
- (2) recommendations on how to improve IMPAN's internal rules and principles in order to make them more suitable to those included in the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers.

The Working group established the following working procedure:

- to examine in detail the forty principles of the Charter and the Code,
- to define the points for analysis,
- to carry out an appraisal, identifying available resources and assessing strengths and weaknesses,
- to identify the types of initiatives to be undertaken and their level of priority,
- to oversee interactions with other concerned or competent parties: institutional working groups, official bodies, the IMPAN administration, projects already underway and their durability,
- to write a strategy document HRS4R (Human Resources Strategy For Researchers Incorporating The Charter And The Code) to be presented to the Directory Board.

## **2.2 The key IMPAN documents**

The internal gap analysis was conducted internally on the basis of the following IMPAN documents:

- the IMPAN Statute,
- the Remuneration regulations at IMPAN (in Polish: Regulamin wynagradzania),
- the Regulations of Bonus Awards of IM PAN (in Polish: Regulamin funduszu nagród),



- the Regulations of the IM PAN Social Fund (in Polish: Regulamin funduszu socjalnego),
- the Work Regulations of IM PAN (in Polish: Regulamin Pracy IM PAN),
- the Regulations of the Scientific Council of IMPAN (in Polish: Regulamin Rady Naukowej IM PAN),
- the Regulations of PhD studies (in Polish: Regulamin studiów doktoranckich),
- the Rules of Managing the Authorship and Related Issues at IM PAN (in Polish: Regulamin zarządzania prawami autorskimi i pokrewnymi oraz komercjalizacją wyników badań naukowych i prac rozwojowych w IMPAN),
- the IMPAN Regulations of Assessment of Scientific Workers (in Polish: Regulamin Oceny Pracowników Naukowych),
- the Health and Safety Regulations (in Polish: Zasady BHP).

and the relevant legislation documents of the Polish Academy of Sciences and the Polish law:

- The Code of Ethics of Researchers of the Polish Academy of Sciences (in Polish: Kodeks etyki pracownika naukowego PAN);
- The Act on Academic Degrees and Academic Title, and on Degrees and Title in Art (in Polish: Ustawa o stopniach naukowych i tytule naukowym oraz stopniach i tytule w zakresie sztuki);
- The Regulation on Nostrification of Academic Degrees, and on Degrees in Art obtained Abroad (in Polish: Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego w sprawie nostryfikacji dyplomów ukończenia studiów wyższych uzyskanych za granicą);
- The Act of the Polish Academy of Sciences (in Polish: Ustawa o Polskiej Akademii Nauk);
- The Act on the Law on Higher Education (in Polish: Ustawa Prawo o szkolnictwie wyższym).

### 2.3 The Questionnaire

For the gap analysis, the questionnaire including the rules of the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers (later referred to as the Chart and the Code) was distributed among the scientific staff. In the accompanying letter the Director explained:

*“The information you provide will help us to evaluate to what extent the functioning of the Institute is consistent with the Chart and the Code, and then prepare the plan of specific measures aimed at eliminating most serious shortcomings. After accepting the strategy and the action plan, the European*

*Commission awards the HR Excellence in Research logo, which IMPAN wish to apply for.”*

The staff was asked to answer the following two questions dedicated to each principle of Charter&Code:

1) To what extent you agree with those statements of “Charter & Code”? Please answer using following responses encircling the right one in each box below

- a. I totally agree
- b. I rather agree
- c. neither agree, nor disagree
- d. I disagree
- e. I totally disagree

2) What is your knowledge and opinion on the level of implementation of the Charter & Code Rules in IMPAN? Please answer using following responses encircling the right one in each box below

- a. Fully implemented and respected
- b. Implemented but executed irregularly
- c. I don't know
- d. It is known but still out of formal regulation
- e. New to the Institute (unknown).

The received feedback about importance and implementation of Charter & Code principles were taken into account in preparation a gap analysis and an action plan.

### 3. Results of the internal survey

The Questionnaire was distributed via e-mail among all researchers at IMPAN. There were 61 respondents that returned filled files (i.e. 56% of all sent questionnaires).

Among them:

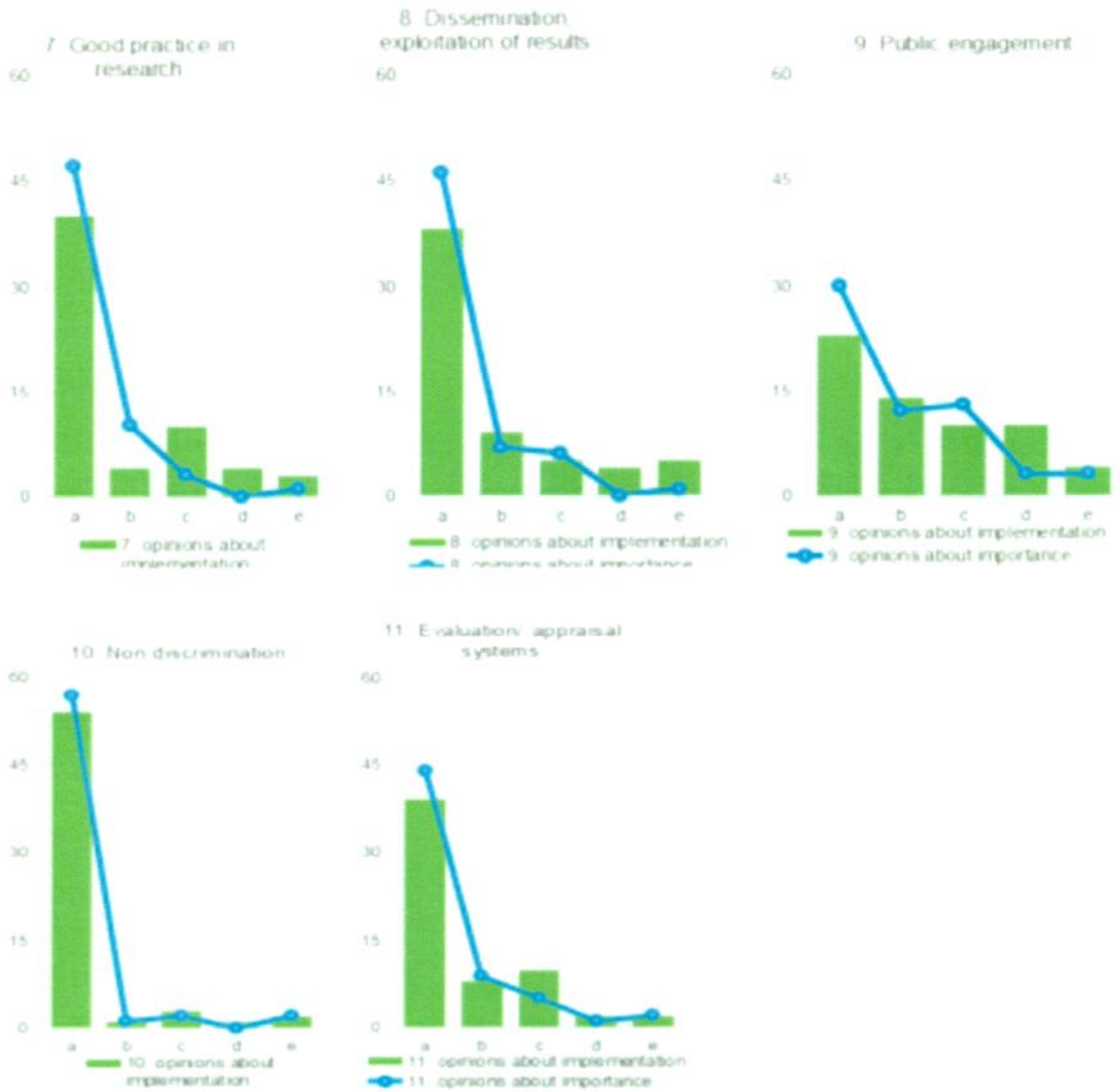
- 26 Young researchers and Assistant Professors
- 35 Full and Associate Professors
- 13 Foreigners (including 10 Young Researchers)
- 10 Females (including 4 Young Researchers and 5 foreigners).

The answers are presented in graphs below.

## I Ethical and professional responsibility of researchers

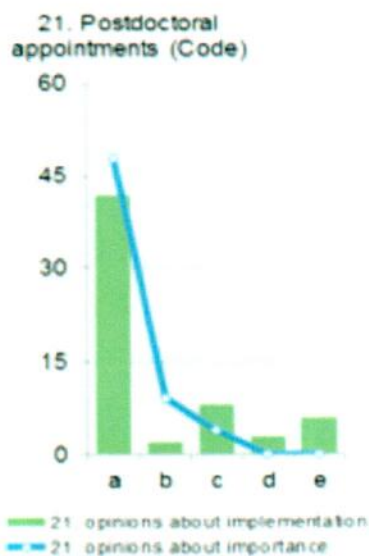
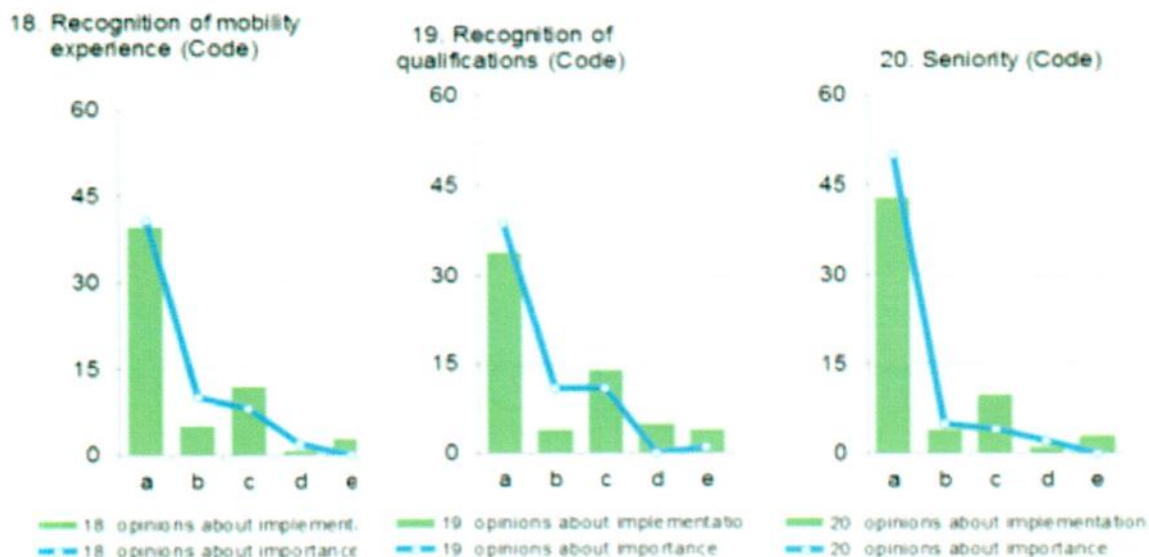
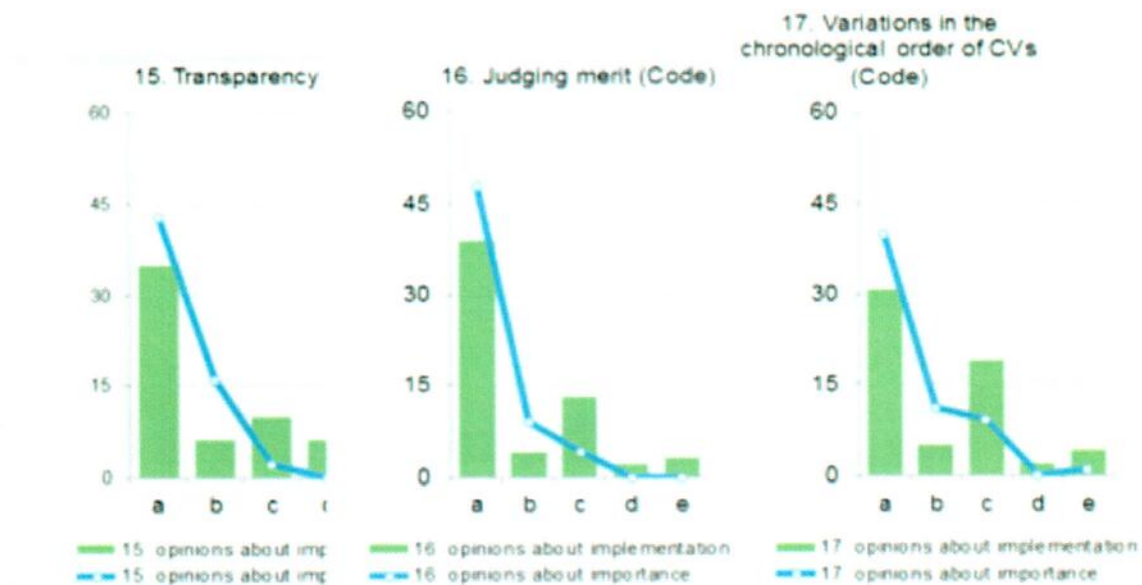




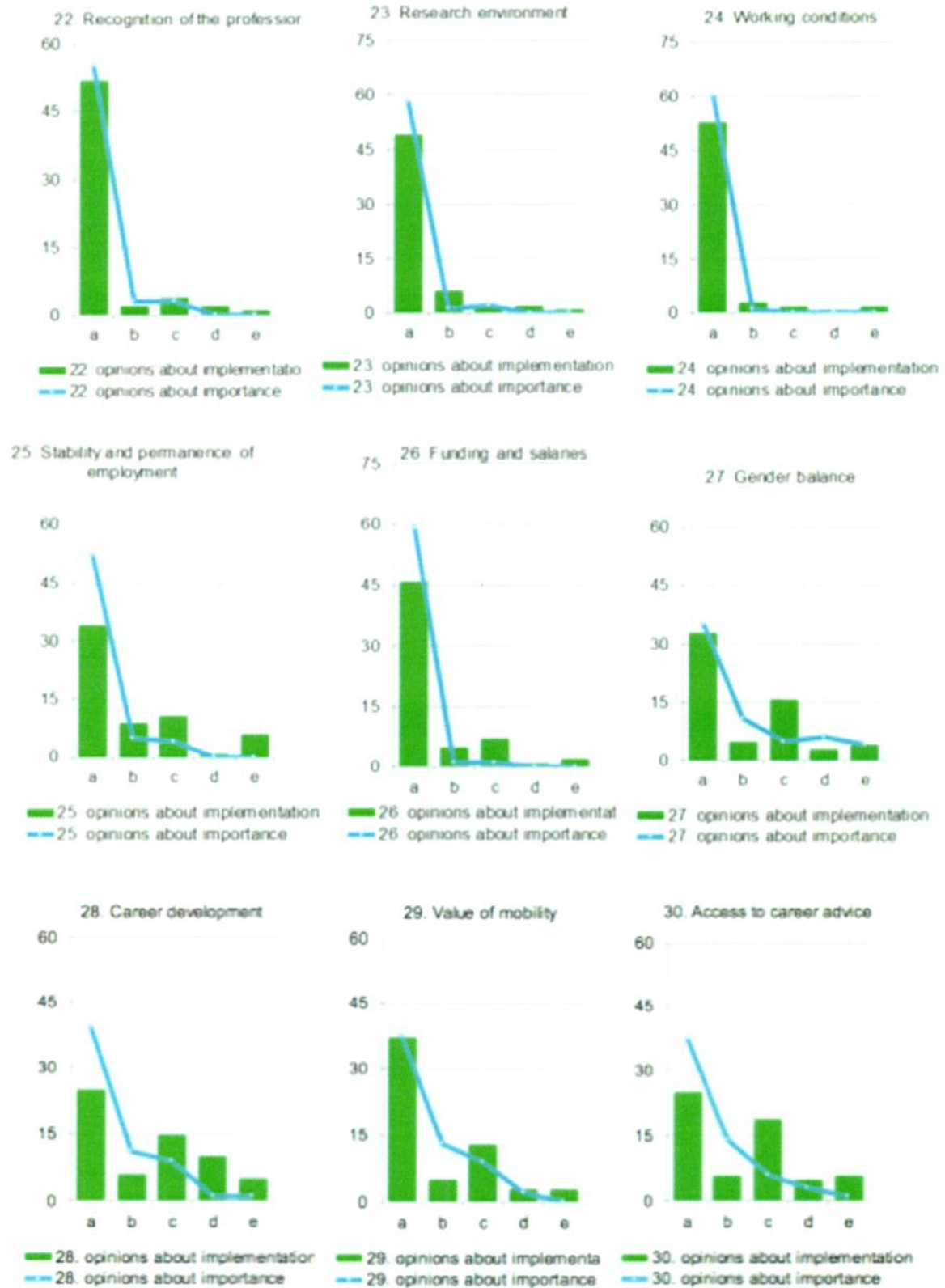


## II Recruitment



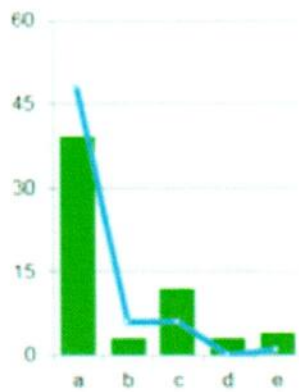


### III Working conditions and social security



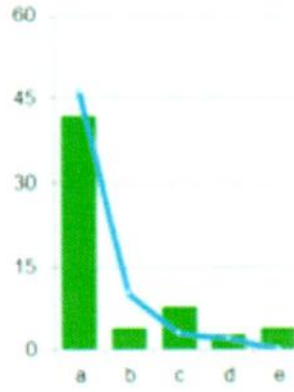


31 Intellectual Property Rights



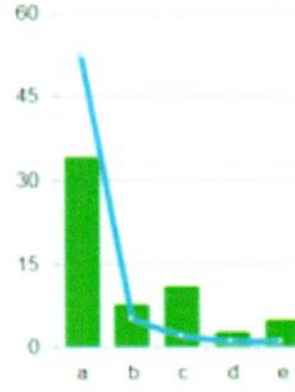
31 opinions about implementation  
31 opinions about importance

32 Co-authorship



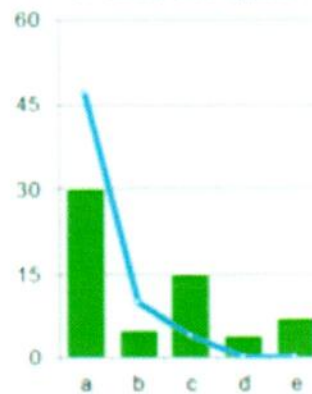
32 opinions about implementation  
32 opinions about importance

33 Teaching



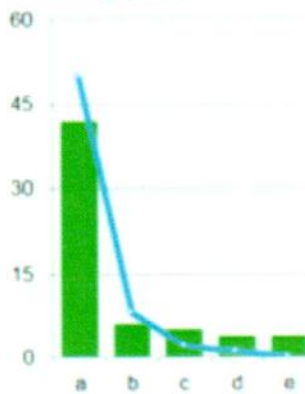
33 opinions about implementation  
33 opinions about importance

34 Complain/ appeals



34 opinions about implementation  
34 opinions about importance

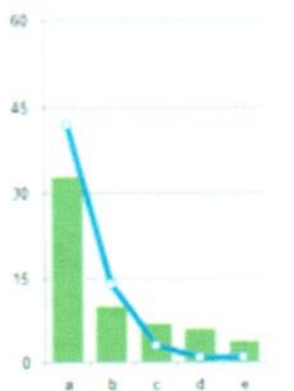
35 Participation in decision-making bodies



35 opinions about implementation  
35 opinions about importance

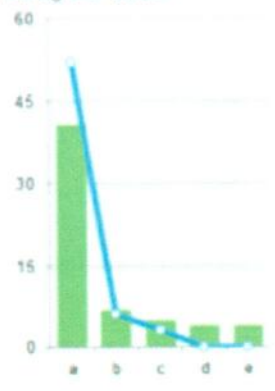
#### IV. Training

36 Relation with supervisors



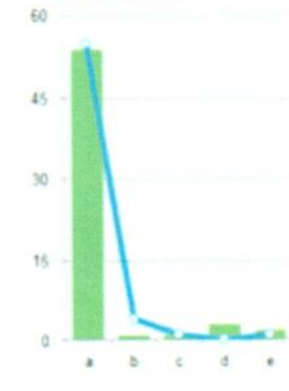
36 opinions about implementation  
36 opinions about importance

37 Supervision and managerial duties



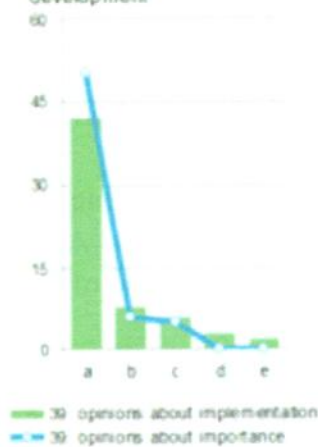
37 opinions about implementation  
37 opinions about importance

38 Continuing Professional Development

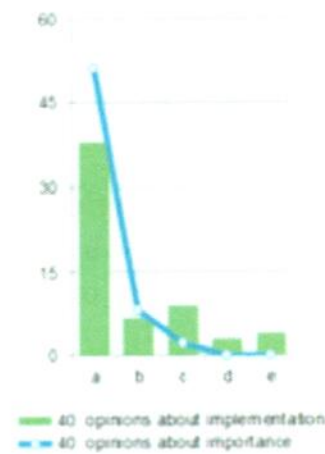


38 opinions about implementation  
38 opinions about importance

39 Access to research training and continuous development



40 Supervision



## 4. Internal Gap Analysis

### I. Ethical and professional aspects

#### 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:** Research freedom is well established in IM PAN and has a long tradition. Researchers are free to express their opinions and pursue the scientific ideas according to their plans and visions. The Director's consent is needed when submitting grant applications in accordance to the international and the national law. Researchers at IM PAN are aware of these regulations and fully agree with them as indicated by the results of the Questionnaire, see Question 1 in Chapter 3 above.

**Action required:** None.



## **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:** The standards of ethical practices and principles are established in IM PAN by the Act of the Polish Academy of Sciences, Art. 39 and 40 and by the Code of Ethics of Researchers of the Polish Academy of Sciences.

Moreover, by the internal regulations IM PAN has the Disciplinary Representative and the Disciplinary Committee as established by the Statute of IM PAN, Paras. 18, 25 and 26.

The researchers of IM PAN comply with these ethical regulations and maintain the high standards of professional attitude, in particular respect other researchers and intellectual properties.

**Action 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:** The issues of avoiding the plagiarism, the respect to the intellectual property as well as the proper attitude toward the ownership of the joint research are established in the Code of Ethics of Researchers of the Polish Academy of Sciences, Sections 3.3 and 4. Researchers at IM PAN are aware of these regulations and fully agree with them.

**Action required:** None.

## **4. C&C principle - Professional attitude:**

*Researchers should be familiar with the strategic goals governing their research environment and funding mechanisms, and should seek all necessary approvals before starting their research or accessing the resources provided. They should inform their employers, funders or supervisor when their research project is delayed, redefined or*



*completed, or give notice if it is to be terminated earlier or suspended for whatever reason.*

**Existing Institutional rules and/or practices:** Information about funding mechanisms is available on IM PAN's webpage through links to webpages of the major granting institutions in Poland and the link to the central system of grant applications, the OSF System. Moreover, both the webpage of the Institute and the Newsletter of IM PAN, published biannually, provide complete information about current grant holders as well as further information about granting opportunities in Poland and EU. The national regulations of grant applications require researchers to seek all necessary approvals from the Director of IM PAN and appropriate representatives of IM PAN's administration. Researchers in the Institute are largely aware of these regulations as confirmed by results of the Questionnaire, see Question 4 in Chapter 3 above. However, answers to Question 4 also revealed that information about the grant applications procedures should be advertised more extensively.

**Action required:** The Institute will increase efforts to inform researchers about the granting opportunities and procedures by:

- a) encouraging researchers to join the newsletter email list of the Ministry of Science and Higher Education containing information about grants,
- b) providing information about the EU granting opportunities via IM PAN Intranet,
- c) providing all newly employed researchers information about grant opportunities.

## **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 IM PAN researchers are familiar with the national, sectoral and international regulations governing training and/or working conditions as well as Intellectual Property Rights regulations. The job contracts provide necessary information about rights and obligations of employees and the HR unit explains them further including references to the proper documents and acts such as the Act of the Polish Academy of Sciences, The Act on the Law on Higher Education, the Statute of IM PAN, Work Regulations of IM PAN, and the Rules of Managing the Authorship and Related Issues at IM PAN. These documents are also easily available on the webpage of IM PAN. Some of these acts are available only in Polish. In a consequence, in order to provide more accessible information about the contractual and legal obligations the English translations of all of those acts and regulations will be needed as confirmed by results of the Questionnaire.



**Action required:** The Institute will provide more information about the contractual and legal obligations, in particular the English translations of all of the necessary acts and regulations will be made available to employees.

## **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 of researchers is present in the Act of the Polish Academy of Sciences, Section 9 as well as in the Code of Ethics of Researchers of the Polish Academy of Sciences and in the national regulations governing management of grants and public funds. The Institute fully complies with these rules and the IM PAN researchers are aware of rules, and their importance, regarding accountability towards the Institute, funders and other related public or private bodies. Furthermore, the researchers are familiar with the national, sectoral and international regulations regarding the accountability.

**Action 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 rules of safe working environment are stated in the Health and Safety Regulations fully adopted at IM PAN. The researchers are aware of such rules and the HR unit explains them before a job contract is signed.



The proper back-up procedures for the Institute data and for public data of researchers together with data protection procedures are govern and fully adopted by the IT unit of IM PAN in accordance to national and internal regulations.

**Action required:** None.

## **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 part of the duties of IM PAN's researchers is to conduct research and to announce and disseminate the results of their work. The latter one comprises of, but is not limited to, publishing results and participation in seminars and the national and international conferences as indicated by the Act of the Polish Academy of Sciences, Art. 94 (1), by the Work Regulations of IM PAN, Parts III and IV as well as by IMPAN's Performance Review Regulations, Parag. 5. The role and duties of senior researchers are described in the Work Regulations of IM PAN, Part III. The researchers at IM PAN are aware of rules of dissemination as indicated by the results of the Questionnaire, Question 8.

**Action required:** IM PAN will post all the necessary national and sectorial regulations and acts on its webpage both in Polish and English translation in order to facilitate access to information for all employees.

## **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:** IM PAN and its researchers participate in and contribute to the Warsaw Science Festival, organized annually in order to popularize the science to the society and to increase the public awareness about the recent frontiers and developments in Science. Furthermore, the Institute supports the Polish Mathematical Society (PTM), Mathematical Olympiads and teachers training. Moreover, the institute organizes meetings of the so-called mathematical circles for gifted lower-secondary- and high-school students (separate



meetings for both types of schools) in order to kindle the interest and passion for mathematics and to prepare students to Mathematical Olympiads. The Institute organizes also similar meetings for high-school teachers in order to inspire them and help in coaching the corresponding mathematical circles in their schools. There is a special position at IM PAN and the experienced academic teacher assigned only to lead meetings of mathematical circles. Such a solution is unique in the scale of the whole country, making IM PAN one of the leaders in professional education of mathematically gifted students nationwide.

**Action 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:** IM PAN is a part of the Polish Academy of Sciences, which consists of national and foreign members. The international scientific cooperation has been important part of our mission as indicated in the Act of the Polish Academy of Sciences, see e.g. Art 2 (2.10, 2.11, 2.12), Art. 55 (2.2), Art. 58 (1) and also in the Statute of IM PAN, Part II: Parag. 6 (5), 7(1), Part III: Parag. 11(2), 18 (2.2). Hence our efforts aimed at establishing contacts with foreign institutions. In a consequence IM PAN has researchers of different ethnic, national, religious and social origins. As confirmed by the results of Questionnaire, Question 10, the institute 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.

**Action 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:** The Institute has an evaluation system for all researchers, including senior researchers as described in the Regulations of the Scientific Council of IM PAN, Parag. 9 and 10. In particular, the Employment and Performance Review Committee scrutinizes the performance of Assistant Professors at least once in every two years and Full Professors at least once in every



four years. In addition, the Institute annually awards researchers with extra bonus whose value depends on the researchers performance as specified in the Regulations of Bonus Awards of IM PAN.

The basis for the review of researchers performance are reports submitted annually by each of them. Researchers in the Institute are aware of these regulations as confirmed by results of the Questionnaire, see Question 11 in Chapter 3 above. However, answers to Question 11 also revealed that information about the evaluation/appraisal systems should be advertised more extensively.

**Action required:** IM PAN will increase efforts to explain the evaluation and appraisal systems to the researchers in the Institute. In particular, the Regulations of Bonus Awards of IM PAN and in IMPAN's Performance Review Regulations will be posted on IM PAN's webpage in Polish and in English translation.

## II. Recruitment

### 12. C&C principle - Recruitment:

*Employers and/or funders should ensure that the entry and admission standards for researchers, particularly at the beginning of 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 Institute follows the national law describing the recruitment process, in particular the Labour Law and the Act on the Polish Academy of Sciences, Art. 91(5). The admission and entry standards for all researchers are clearly stated in the advertisements posted on IM PAN's webpage. In particular, this applies to researchers at the beginning of their careers. These standards are known to researchers at IM PAN and accepted as confirmed by the results of the Questionnaire, see Question 12. However, answers to this question also revealed that information about the recruitment system should be advertised more extensively.

**Action required:** The Institute will provide more information about the recruitment system. In particular, the job advertisements will be extended to include more details of entry and admission standards for researchers, for instance: the overview of the position, duration of the appointment, entitlements and benefits, responsibilities/duties, selection criteria, application procedure.



### **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:** IM PAN's recruitment procedures are open, efficient, transparent, supportive and internationally comparable. The advertisements are made public on the IM PAN's webpage and specify the duration and the type of position, general requirements on completed studies and scientific degrees, also the scientific specialty. Time allowed between the appearance of job advertisements and the deadline for reply is realistic, usually at least six weeks.

The researchers at IM PAN are aware of these standards and procedures as reflected by the answers to Question 13 in the Questionnaire. However, answers to this question also revealed that information about the recruitment procedures should be explained more.

**Action required:** The Institute will provide more information about the recruitment procedures. The job advertisements will be extended to contain the description of selection procedures, working conditions and entitlements. IM PAN will create an additional document specifying the above parts of job advertisements together with rules for extension of employment, in case of postdoctoral positions.

### **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:** IM PAN accepts candidates on the basis of submitted applications in a format specified by job advertisements. The Search Committee screens applications of the candidates and chooses top ones about which further information is sometimes solicited from external experts. This is in particular the case in job competitions for long-term positions. Furthermore, the face-to-face interviews are already a part of the selection process, especially for long-term positions.



The results of Questionnaire, see Question 14, revealed that researchers at IM PAN fully agree with the importance of the selection procedures and are aware how such procedures are implemented in the Institute. However, the Questionnaire suggests that more information about the selection procedures should be provided.

**Action required:** Actions will be similar to those in the C&C principles 12 and 13: the Institute will provide more information about the selection procedures. In particular, the job advertisements will specify information such as job description, expected number of positions available, salaries, entitlements, etc. Moreover, IM PAN will provide statistics on number of all applicants and number of awarded positions in the previous job competitions. In addition, the Institute will aim to apply the principle of soliciting opinions of external experts not only to the long-term competitions but also to other types of job competitions.

### **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 selection criteria and the number of available positions together with the time framework for the appearance of results of the job procedure are stated in the job advertisements posted on the IM PAN's webpage. The researchers at IM PAN fully agree with the importance of the transparency of the selection and recruitment procedures and are aware about such procedures adopted in the Institute. However, more information about the selection procedures should be provided, as revealed by the Questionnaire, see Question 15.

**Action required:** The Institute will provide more information about the selection procedures. In particular, related actions will correspond to the analogous ones described in the previous part (the C&C principle no.14).

### **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:** It is used as a good practice that the Search Committee takes into account various kinds of candidates experience including, but not limited to, their potential, creativity and the level of the scientific independence. The number of publications and the number of their citations nor any other bibliometric data are not the sole factor determining the selection process that is the merit of the candidates is judged qualitatively as well as quantitatively. The wide range of criteria are applied, including teaching, supervision, teamwork, etc. The researchers at IM PAN fully agree with the fact that the selection process should take into consideration the diverse range of experience of the candidates as confirmed by the results of the Questionnaire, see Question 16. Furthermore, the Questionnaire reveals that more information about how the merits of candidates are judged in the selection process at IM PAN should be provided.

**Action required:** The Institute will provide the candidates with more information about the merits criteria in the selection procedures. In particular, the job advertisements will contain information about the judging criteria. The list of such criteria contains but is not limited to, the following components: bibliometric indices, teaching, supervision, teamwork, knowledge transfer, management of research, public awareness activities, with scientific merits being the most important together with the research interests of candidates fitting into one of the research areas represented at IM PAN.

## **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:** It is a good practise at IM PAN that the candidates may have various career paths and are allowed to submit CVs reflecting various kinds of achievements and qualifications appropriate to the post for which application is being made. The candidates are not penalised for career breaks or variations in the chronological order of CV. The researchers at IM PAN agree with the principle and are aware about good practices regarding this principle in the Institute. Nevertheless, the results of the Questionnaire show that more information should be provided on how various career evolutions are taken into account during the selection process.



**Action required:** The Institute will provide more information in job advertisements on how variations in the chronological order of CVs and evolutions of a career influence the selection criteria.

### **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:** Past mobility experience is highly valued at IM PAN and no action is required about that. The researchers at IM PAN are strongly encouraged to participate in short and long term scientific visits including conferences, workshops and research semesters. The Institute recognizes the importance and the value of such a scientific exchange for the professional development of researchers. The Institute helps with visas and travel matters. Moreover, IM PAN provides travel support for our researchers and PhD students basing on the submitted proposals. Another existing opportunities are mutual agreements within the Program Erasmus Plus signed between IM PAN and number of universities in Europe. Information regarding the financial support together with the application form are available on IM PAN's webpage. The researchers at IM PAN agree with and are aware of such regulations as confirmed by answers to Question 18 of the Questionnaire. The results of the Questionnaire also reveals that the researchers should be more informed about the existing procedures and good practices.

**Action required:** The Institute will provide more information to employees on the existing travelling opportunities and procedures regarding travel support.

The Newsletter of IM PAN will contain links to:

- a) information about the travel support for researchers,
- b) the application form on IM PAN's webpage for researchers applying for a travel support.

### **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:** IM PAN is following the national regulations for an appropriate assessment and evaluation of the academic and professional qualifications such as The Act on Academic Degrees and Academic Title, and on Degrees and Title in Art, also the Regulation on Nostrification of Academic Degrees, and on Degrees in Art obtained Abroad. Moreover, regarding rules for evaluations of qualifications of candidates for PhD studies, the Institute created the Regulation for the Doctoral Studies at IM PAN, in particular Art. 3, 4 and 5. The researchers at IM PAN agree with the importance of creating and following the rules of an appropriate assessment and evaluation of the academic and professional qualifications, as revealed by the results of the Questionnaire, see Question 19. The relatively high percentage of answers c) suggests that researchers should be more informed about the existing procedures and good practices.

**Action required:** The Institute will provide more information to employees on the existing rules for the recognition of qualifications. Actions will be analogous to the ones regarding the C&C principle number 19:

- a) the Newsletter of IM PAN will contain links to the appropriate regulations and acts already posted on IM PAN's webpage,
- b) the Institute will provide information to the newly employed researchers about availability of the appropriate acts and documents on IM PAN's webpage.

## **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:** IM PAN is following the above rules and all job advertisements specify required degrees and qualifications for the given post. The researchers at IM PAN fully agree with the above rules and recognize that the Institute complies with these rules, as revealed by the results of the Questionnaire, see Question 20.

**Action required:** None.

## **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:** The job advertisements posted on IM PAN's webpage specify the criteria and durations of postdoctoral appointments. It is a good practice to take into account time spent in prior postdoctoral appointments at other institutions. The researchers at IM PAN fully agree with the above principle and are aware that it is followed in the Institute. However, as revealed by the results of the Questionnaire, Question 21, more information should be provided to employees, especially those with postdoctoral appointments, about the criteria for extensions of postdoctoral positions and the related maximum duration of such appointments.

**Action required:** IM PAN will provide more information to employees about the rules for postdoctoral appointments. In addition, the role of mentors/heads of divisions will be increased and formalized. In particular, a part of mentors' duties will be to explain postdoctoral researchers hosted by a mentor the rules of extensions of postdoctoral positions and answer their questions and concerns regarding professional development.

### III. 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:** The requirements on completed studies and scientific specialties are regulated by the Act on the Polish Academy of Sciences, Art. 88, 89 and by The Act on Academic Degrees and Academic Title, and on Degrees and Title in Art. The researchers at IM PAN are recognized as professionals and treated accordingly as confirmed by the results of the Questionnaire.

**Action 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:** The research conditions and research environment at IM PAN are the best among mathematical centers in Poland. The stimulating conditions and opportunities are created and the scientific collaboration flourishes both between researchers within IM PAN and between IM PAN and several national and international research institutes and universities. Moreover, IM PAN's research environment is attractive also for foreign mathematicians as confirmed by a high number of employees from abroad. The researchers fully agree with the above principle and are aware that it is followed in the Institute as revealed by the Questionnaire, see Question 23.

**Action 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:** The working conditions are governed by several national and sectional acts and regulations, such as the Act on the Polish Academy of Sciences, The Act on Academic Degrees and Academic Title, and on Degrees and Title in Art, Labour Law. Furthermore, the lack of teaching duties allows flexible working hours. The Institute supports its employees in several other ways, e.g. by organizing Polish language classes for foreign employees, financial support for accommodation costs and by offering help in renting apartments, also by copayment in additional health insurances. In terms of the facilities the building of IM PAN has lifts and toilets adapted for disabled. Additionally, IM PAN has number of rooms available for guests and researchers who would like to participate in scientific events organized by the Institute, including PhD students attending courses given by the Institute.

The researchers at IM PAN fully agree with the importance of creating the appropriate working conditions as described above and are satisfied by their implementation in the Institute as revealed by the results of the Questionnaire, see Question 24.

**Action required:** None.



## **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:** IM PAN respects and follows national acts which regulate the stability and permanence of employment such as the Act on the Polish Academy of Sciences, The Act on Academic Degrees and Academic Title, and on Degrees and Title in Art, Labour Law.

Around 45% of positions at IM PAN are short-term positions and such a policy is a common practice among the research institutes such as e.g. IAS in Princeton, Max Planck Institute, IHES. However, IM PAN has more permanent employees than the aforementioned institutes and the scientific results of those with long-term contracts does not seem to be affected by the lack of permanence of their contracts.

The results of the Questionnaire, see Question 25, reveal that researchers at IM PAN fully agree with the above principle and fully agree that it is adopted at IM PAN. However, according to the results of the Questionnaire, more information should be provided to employees about how the rules of stability and permanence of employment are followed at IM PAN.

**Action required:** Actions are similar to those in C&C principles 18 and 19 above. The Institute will provide more information to employees on the existing rules regarding employment, its stability and permanence:

- a) the Newsletter of IM PAN will contain links to the appropriate regulations and acts already posted on IM PAN's webpage,
- b) the Institute will provide information to the newly employed researchers about availability of the appropriate acts and documents on IM PAN's webpage.

## **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:** IM PAN is acting under the national law such as the Act on the Polish Academy of Sciences, The Act on Academic Degrees and Academic Title, and on Degrees and Title in Art, Labour Law. Moreover, the salaries at IM PAN are one of the best comparing to any other scientific institute in



Poland: apart from the basic salaries researchers receive remunerations divided into statutory salary, bonuses (including bonus from the Ministry of Science and Higher Education and KNOW), also compensation plans. In addition, several members of scientific staff employed at IM PAN are grant holders and receive additional funding from grants. Fundings and salaries commensurate with the legal status, performance, level of qualifications and/or responsibilities of a researcher, as described in the Regulations of Bonus Awards of IM PAN and in IMPAN's Performance Review Regulations. Social security provisions are guaranteed by the national law, e.g. by Labour Law and the Regulations of the IM PAN Social Fund.

The researchers at IM PAN both agree with the importance of ensuring proper funding, salaries and social security, and that this principle is followed by the Institute, as confirmed by results of the Questionnaire, see Question 26.

**Action required:** None. However, the documents explaining various aspects of funding and salaries, such as the Regulations of Bonus Awards of IM PAN and IMPAN's Performance Review Regulations, will become available on IM PAN's webpage in Polish and English translation.

## **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:** IM PAN's researchers of all genders are employed at all levels of the professional development: doctoral, postdoctoral, assistant, associate and full professors. The employment procedures are not biased against any gender and are based on quality and competence criteria as largely confirmed by the results of the Questionnaire. However, the Questionnaire also reveals that more information should be provided to employees explaining that the Institute takes necessary steps to ensure the gender balance.

**Action required:** The Institute will continue efforts to provide the representatives of all genders at all levels of the professional development. The gender imbalance at IM PAN exists but it does not lead to a discrimination as confirmed e.g. by the relatively high number of female mathematicians among visiting and short-term employees. Moreover, according to the results of a statistical research the number of female researchers at IM PAN corresponds to the average number of female mathematicians at similar research institutes with predominantly theoretical profiles.



## **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:** It is a good practice in the Institute that PhD advisers and postdoctoral mentors are providing support, help and guidance for the personal and professional development of PhD students and hosted young researchers. Moreover, it is also a good practice, with long traditions, that IM PAN's researchers of all levels of the professional development may seek and receive advice from senior researchers, heads of divisions and the Director of the Institute. Nevertheless, results of the Questionnaire reveal that more formalized system of support and advice should be developed in the Institute.

**Action required:** IM PAN will formalize and increase the role of mentors and heads of divisions in career development and support for researchers. In particular, a part of mentors duties will be to discuss with postdoctoral researchers hosted by a mentor perspectives of careers and offer a guidance in the personal and professional development. Similar duties will be appointed to heads of divisions at IM PAN.

## **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 Institute strongly encourages researchers to participate in domestic and foreign scientific visits and supports them financially: over 90% of the travel support applications are accepted. Moreover, a number of grants hosted by IM PAN belongs to researchers from other scientific institutions, including researchers employed abroad. In addition, a number of young researchers employed at IM PAN have been principal investigators in the special type



of grant, called Mobility Plus (“Mobilność Plus” in Polish) offered by the Ministry of Science and Higher Education. The purpose of such grants is to offer a substantial financial support for researchers and their families to spend up to three years in chosen scientific institutions abroad. The value of mobility is clearly recognised by the researchers at IM PAN, as confirmed by the results of the Questionnaire. However, relatively high number of answers c) suggests an action of providing more information about the mobility practices at IM PAN.

### **Action required:**

The Newsletter of IM PAN will contain links to:

- a) information about the travel support opportunities for IM PAN's researchers,
- b) the application form on IM PAN's webpage for researchers applying for a travel support,
- c) national institutions providing travel grants opportunities.

Furthermore, the newly employed researchers will be provided with information from parts a)-c) above as a part of their welcome package.

### **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:** It is a good practice that the job placement assistance is offered at IM PAN to researchers at all stages. Such a help and support is offered through researchers collaborators nets and has largely informal nature. The results of the Questionnaire, see Question 30, revealed that such career advice system should be strengthen and more formalized.

**Action required:** Similarly to actions described above, the Institute will increase the role of mentors and heads of divisions. A part of their duties will be to help doctoral students/postdocs/other researchers in job placement assistance. This may include career advice, help in establishing collaborations with other institutions and/or support in building the net of collaborators.

### **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:** IM PAN has recently adopted the IPR rules and created the Rules of Managing the Authorship and Related Issues at IM PAN. In particular, these rules specify what rights belong to researchers and/or to the Institute, also the rules governing commercialization of intellectual properties created by researchers at IM PAN. According to results of the Questionnaire, researchers understand IPR and agree with the rules applied at IM PAN.

**Action required:** IM PAN will translate the Rules of Managing the Authorship and Related Issues at IM PAN into English and post both documents on the webpage of the Institute, Moreover, the Newsletter of IM PAN will provide researchers links to these regulations.

### **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 high standards of publishing and respecting the coauthorship have always been one of hallmarks of mathematical sciences, in particular at IM PAN. Plagiarism in any shape or form has always been forbidden and no case of such misbehavior is known in the history of the Institute. Furthermore, IM PAN is encouraging researchers to develop the scientific collaboration with other universities and institutes. In particular, these rules apply to researchers at the beginning of their research careers. However, the results of the Questionnaire suggest an action of providing more information about the coauthorship practices at IM PAN.

**Action 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:** Most of the researchers at IM PAN have no teaching duties. This, among other reasons, makes the employment in the Institute unique in the scale of Poland. Some of the postdoctoral researchers have limited teaching duties (usually recitation meetings for one group of students per semester) depending on sources of their financial support. Several researchers at IM PAN lead seminars in the areas of their studies and are advisers or coadvisers of doctoral students. In addition, there is an exchange program between IM PAN and the University of Warsaw allowing researchers of both institutions to become employed at the other one for a period of up to one year. However, the results of the Questionnaire revealed that the researchers at IM PAN should be provided with more information and support in conducting teaching duties.

**Action required:** The Institute will provide more details to the newly employed postdoctoral researchers about their teaching opportunities.

#### **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 or appeals are solved case by case by supervisors, postdoctoral mentors and the Director. The cases of the disciplinary responsibility of researchers are handled by the Disciplinary Representative and the Disciplinary Committee as established by the Statute of IM PAN, Paras. 18, 25 and 26. The researchers at IM PAN agree with the above principle, as confirmed by the Questionnaire, see Question 34. The relatively high number of answers c), d) and e) suggests that the appropriate actions should be taken.

#### **Action required:**

- a) The Mediation Committee will be created to resolve conflicts between employees of IM PAN.
- b) As above, the role of mentors (for postdoctoral researchers) and heads of divisions (for the remaining categories of researchers) will be strengthened. In particular, their duties will include help in resolving potential conflicts between researchers.



Mentors, heads of divisions and the Disciplinary Representative will be working together in solving potential conflicts between researchers.

### **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:** IM PAN is governed by the Director and the Directory Board and by the Research Council. The decisions are made by Directors supported by the Research Council. All groups of researchers have representatives in the Research Council, including the representative of the young researchers and the representative of PhD students. Every researcher can talk directly to Directors and present suggestions and ideas regarding the life of the Institute, and in fact many do so. Furthermore, researchers employed on long-term contracts are routinely consulted on vital issues of the Institute. The researchers at IM PAN support the above principle and fully agree with the adopted procedures. The results of the Questionnaire, see Question 35, revealed that more information should be provided on the decision-making procedures at IM PAN, especially for those employees with short-term contracts.

**Action required:** Every two weeks IM PAN will organize meetings for short-term employed researchers. Main goals of such meetings are:

- a) to create an opportunity to ask questions about the life at the Institute and related issues,
- b) to let employees express opinions about their work environment and partially participate in decision-making processes at the Institute.

## IV. 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:** It is a good practice at IM PAN that PhD students and young researchers have structured and regular relationships with their advisers and mentors, respectively. The catalog of advisors/mentors duties is informal and contains:



expressing feedbacks on written reports and preprints, seminar and conference presentations, supporting participations in conferences and workshops, designing the schedule of work, help in establishing scientific connections and collaborations. The researchers at IM PAN fully agree with the above principle and how it is applied in the Institute. Nevertheless, relatively high number of answers c), d) and e) in the Questionnaire suggests that relations with supervisors should be formalized.

**Action required:** Actions will be similar to those presented in descriptions of C&C principles number 28, 30 and 34. Namely, the Institute will increase the role of PhD advisers, mentors and heads of divisions. A part of their duties will be career advising, help in establishing collaborations with other institutions and/or support in building the net of collaborators. PhD advisers/mentors/ heads of divisions will conduct conversations with their students/postdoctoral researchers/researchers, respectively to verify progress and express feedbacks about the current stage of the scientific career. A note will be made based on the meeting and submitted to Directors.

### **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:** It is a good practice and a consequence of high ethical principles and academic traditions that researchers at IM PAN, in particular senior researchers perform their duties best they can. Several senior researchers at IM PAN supervise doctoral students and are mentors for postdoctoral researchers, also are principal investigators in national and international grants and lead research groups. The results of the Questionnaire confirm that researchers at IM PAN understand principles of supervision and managerial duties and agree that such principles are followed at the Institute.

**Action required:** Actions will be similar to those above: IM PAN will increase the role of mentors and heads of divisions to improve the support of the Institute for early-stage researchers.

### **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 competences. 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:** IM PAN is strongly supporting the professional development of all its researchers and other employees. This is achieved by a variety of means including, but not restricted to, workshops, conferences, formal training, exchange programs, travel support, organization of semesters and schools (e.g. The Simons Semesters at IM PAN in 2015-2019).

**Action required:** None.

### **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 IM PAN's researchers at any stage of their career, are given opportunities for professional development and for improving their employability through access to measures for the continuing development of skills and competences. IM PAN runs the PhD studies and supports doctoral students with various types of scholarships, organizes courses and classes for them, supports seminar presentations and the Young Researchers Colloquium (see IM PAN's webpage for details, bookmark Activities: Ph.D. Program). Moreover, the Institute organizes several mini courses and workshops within the Simons Semesters program.

**Action required:** None.

### **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:** A good practice and long scientific traditions at IM PAN developed a system of the supervision and relations between mentors and early-stage researchers. As confirmed by the results of the Questionnaire



the researchers in the Institute understand the importance of the proper supervision procedures and largely agree that such procedures are applied at IM PAN.

**Action required:** IM PAN will increase the role of PhD advisers and mentors. A part of their duties will be to supervise the development and progress of PhD students/young researchers by periodic meetings with them and regular consultations.

## 5. Action Plan

Taking into account results of the internal survey the gap analysis and other data and information, the working group has defined strengths and weaknesses, which influence or characterize the state of the art of human resources management at IM PAN.

### Strengths:

- Activities and other features
  1. Being the only mathematical research institute and one of top science institutes in Poland, with close contacts with the University of Warsaw and other best universities, such as Jagiellonian University in Kraków and the University of Wrocław. One of the consequences of such cooperation is high mobility of IM PAN's researchers within Poland.
  2. International cooperation with several mathematical institutions in the world, resulting in high international mobility of IM PAN's researchers.
  3. Promotion and recognition of value of mobility.
  4. No teaching duties on the undergraduate level. The Institute offers teaching on advanced level, including participation in Polish leading seminars.
  5. Running Mathematical Olympiads and related Mathematical Circles.
  6. Competitive salaries on the postdoctoral level.
  7. International character of IM PAN (more than 25% of employed researchers are foreigners).
  8. Many international scientific events on site including the Simons Semesters and events (co)organized by the Banach Center.
- Human resources
  9. High ethical standards and fair evaluation traditions.
  10. Training in additional skills: learning Polish (for foreigners), English, French languages, regular meetings/seminars on mathematical careers, writing mathematical papers.

11. Policy of systematic publication of job offers and open-minded approach to the recruitment of foreign researchers
12. Flexible working conditions, part-time contracts or temporary reclassification for researchers during difficult or sensitive periods (illness, incompatibility linked to health, pregnancy, etc.)
13. Transparent policy concerning recruitment of researchers on all positions (from postdocs to full professors).
14. There exists Intellectual Property Rights regulation at IMPAN.
15. Rules for evaluation of researchers are described in the document „ Regulations of Assessment of Scientific Workers”. The evaluation is performed by the independent committee appointed by the Scientific Council of IMPAN.

### Weaknesses:

1. Insufficient information for job candidates and employees.
2. Insufficient further career development information and help.
3. Insufficient management services.
4. A part of existing national and institutional rules is available in Polish only.
5. Non-competitive internationally professors salaries.
6. The system of mentoring is not enough formalized and efficient.

### Recommendations to Action Plan

All four groups of principles in the Internal Gap Analysis will be taken into consideration. The results of the analysis provided important indications as to how the ethical, recruitment, working, training and social conditions should be improved.

Most of C&C principles are already implemented at IMPAN, but implementation of some of them should be improved, as revealed by the C&C-Questionnaire.

The strategy comprises three types of actions that can be started in the short- to midterm perspectives. The schedule and further details regarding duration of actions are provided in the Gantt chart, see the end of Section 5.

### **Actions**

#### **1. Political strategy actions**



- a. Mentoring and supervision systems: increase and formalize the role of mentors and heads of divisions. Action: the Institute will prepare and email researchers a document describing and specifying duties of mentors and supervisors.
- b. Improvement of the management services. Action: the Institute will hire an additional employee in the Secretarial office with duties encompassing, but not limited to, PR and management of information about grants and job opportunities.
- c. The Mediation Committee will be created to resolve conflicts between employees. In particular, mentors and heads of divisions will be working together in solving potential conflicts between researchers.
- d. The Committee for Equal Treatment will be established. Its main duty will be to monitor numbers of females participating in the management of the institute, job competitions, scientific projects, etc. Basing on these studies, the committee will be creating and regularly presenting to the Directors board the summary statistics on gender distributions in the Institute.

## **2. Actions for researchers at the individual level**

- a. The Institute will encourage researchers to contact their mentors/heads of divisions/ Directors with suggestions, questions and concerns regarding individual and collective interests of the employees. Action: the handout will be prepared and distributed among newly employed specifying names of their mentors and clearly describing rights, duties and prerogatives of mentors and mentorees.
- b. Preparation and posting on IMPAN's webpage information for senior and junior researchers and doctoral students on the ethical and professional aspects of their profession. In addition, such information will be distributed among the scientific employees via email.
- c. The Institute will prepare and make available via webpage or emails information related to researchers' rights and their obligations to IMPAN.
- d. In order to run regular meetings of the Directors board with researchers and PhD students, including integration meetings, standard agenda and timetable will be introduced.
- e. Provide more help in career development and further job opportunities for researchers. In particular, in addition to regular meetings, the heads of divisions will conduct conversations about further career development with

employees whose employment contracts are about to be completed within six months/a year. Related instructions will be prepared.

- f. In order to increase the transparency of the job application process a special subpage of the main IM PAN's webpage will be created and dedicated to recruitment calendar for employment at IMPAN, coordination between various job competitions, descriptions of posts and employment procedures.

### **3. Information Strategy Actions (by the administration)**

- a. Preparation of *the Welcome Package* for newly employed researchers. The Welcome Package will be in the form of the handout (in English) consulted with foreign postdoctoral researchers at IM PAN and short-term researchers, and will contain among others:
  - basic information on the life in the Institute e.g. whom to ask for a help with IT, problems, who among administration is responsible for medical cover or travel support, etc.
  - information on the national and international grant opportunities,
  - information about the travel support procedures and where to find on IM PAN's webpage links to application forms related to traveling,
  - information about availability of the appropriate acts and documents on IM PAN's webpage.
- b. IM PAN will create a special subpage linked to the main webpage to spread news about the national and international granting opportunities and job competitions. Additionally, the Institute will create a special administration unit responsible for maintaining and updating this webpage.
- c. Posting on IM PAN's webpage Polish versions and English translations of all the necessary national, sectorial and internal acts, regulations and documents. Related will be the development and reorganization of IM PAN's webpage in order to simplify the access to those acts and other related information.
- d. The Institute will prepare and post documents describing the job applications process including the job description, information on salaries, etc. Moreover, the job advertisements will be extended to include descriptions of the working conditions and entitlements at IM PAN.



- e. The Institute will prepare documents about the selection procedures for job competitions and will increase efforts to explain the evaluation and appraisal systems to the researchers in the Institute.
- f. Improving the staff awareness of Charter & Code. Promotion of HR strategy. Actions: posters explaining the role and importance of Charter & Code will be prepared and displayed in the Institute; information about the Charter & Code will be presented during the annual general meetings of employees.

### **HRS4R steering committee**

In order to reach the goals of the action plan the Institute will establish the HRS4R steering committee that will bring together the different groups of key players.

The committee will consist of:

1. Scientific director – professor Tadeusz Januszkiewicz, chairman
2. Deputy director – professor Joanna Renclawowicz.
3. Chairman of the Recruitment and Promotion Committee (R&P Committee, for short) – professor Bronisław Jakubczyk.
4. PhD Coordinator – professor Tomasz Komorowski.
5. One representative of junior researchers – dr Maria Vlasenko
6. Administration representatives:
  - SD (Secretariat of Director) head - Renata Podgórska-Zajac.
  - HR manager - Monika Zysk,
  - IT manager - Aleksander Ćwikliński,
  - RP (Research Project) office - Małgorzata Kalisiak,
  - PhD office - Anna Poczmańska,

The steering committee will be responsible for establishing priorities and periodically examining the progress of the strategy modifying certain aspects if necessary.

The administration representatives will be responsible for the implementation and the following up of the strategy, under the responsibility of the deputy director of IMPAN, and will report the progress.

The following list contains selected actions to be implemented within prioritized C&C principles (the remaining principles not listed below have the *no-action required* status).

Acronyms in *Responsible body* column below are according to the above description of HRS4R steering committee.

C&C	Principle name	Actions to be implemented	Responsible body
4	Professional attitude	Actions 1.b., 3.a. and 3.b.	Directors board, SD, HR, RP offices, IT
5	Contractual and legal obligations	Action 3.c.	SD office, IT
8	Dissemination, exploitation of results	Action 3.c.	SD office, IT
11	Evaluation/appraisal systems	Action 3.e.	Director, R&P Committee, SD office
12 13 14 15	Recruitment, Selection, Transparency	Actions 2.f., 3.d.	Directors board, R&P Committee, SD office
16	Judging merit (16)	Action 3.e.	Director, R&P Committee, SD office
17	Variations in the chronological order of CVs (17)	Action 3.d.	HR office, SD office
18	Recognition of mobility experience	Actions 3.a.	SD, HR, RP offices, IT
19	Recognition of qualification	Action 3.a.	SD, HR, RP offices, IT
21	Postdoctoral appointments	Actions 1.a., 2.e	Directors board, supervisors
25	Stability and permanence of employment	Actions 3.a., 3.c.	SD, HR, RP offices, IT
27	Gender balance	Action 1.d.	Directors board, SD office



C&C	Principle name	Actions to be implemented	Responsible body
28	Career development	Actions 1.a., 2.a.	Directors board, mentors, SD office
29	Value of mobility	Action 3.a.	SD, HR, RP offices, IT
30	Access to career advice	Actions 2.e., 1.a, 2.a	Directors board, supervisors
31	Intellectual property rights	Action 2.c	HR, SD offices
33	Teaching	Action 3.a.	SD, HR, RP offices, IT
34	Complains/ appeals	Actions 1.a., 1.c.	Directors board,
35	Participation in decision making bodies	Action 2.d	Director, SD office
36	Relation with supervisors	Actions 1.a.,2.a	Directors board, mentors, SD office
37	Supervision and managerial duties,	Actions 1.a., 2.b., 2.d	Directors board, SD and PhD offices
40	Supervision		

**The gantt chart of the actions and timelines.**

The full description of actions is given on pages 39-42.

No	Actions The abbreviated description	Responsible body	2016			2017				2018			
			II	III	IV	I	II	III	IV	I	II	III	IV
1a	A document on duties of mentors and supervisors: discussions and preparation, circulation, implementation	Directors board											
1b	An additional employee in the Secretarial office: improvement of management services	Directors board, R&P Committee											
1c	Creation of the Mediation Committee	Directors board											
1d	Creation of the Equal Treatment Committee	Directors board, SD office											
2a	Printed information describing rights, duties and prerogatives of mentors: discussions and preparations, implementation	Directors board, mentors											
2b	Preparation of information on ethical and professional aspects of the profession	Directors board											
2c	Information related to researchers' rights and their obligations to IMPAN (on webpage)	HR, IT offices											
2d	Organization and schedule of regular meetings of the Directors board with researchers and PhD students	Director, SD and PhD offices											



2e	Preparation of instructions for conversations about further career development with employees; implementation process	Directors board, supervisors										
2f	Creation of recruitment calendar for employment at IMPAN, description of employment procedures (on IMPAN webpage)	Directors board, R&P Committee										
3a	Preparation and discussion of „Welcome Package” for newly employed researchers; further updates	HR, RP, SD offices										
3b	Creation of a webpage with news about grants and job opportunities	RP, IT offices										
3c	Translation of all the necessary documents and making them easily accessible (IMPAN webpage)	IT, HR, SD offices										
3d	Extending the job advertisements to include description of job application process, working conditions and entitlements at IMPAN	Directors board, R&P Committee,										
3e	Preparation of documents on selection procedures and evaluation systems, further updates	Directors board, R&P Committee										
3f	Presentation of the C&C implementation during the annual meetings of employees, posters on C&C	Directors board, SD office										
<b>Internal evaluation</b>		HRS4R steering committee										

## 6. Conclusions

The Institute is undergoing the significant changes in the structure of employment, financing level and amount of available funds. In the same time the core of the mission of IM PAN, that is the development of mathematics and high level of research together with wide national and international scientific networking are maintained and constantly increasing. Next step is to improve and further develop the management and HR systems. The implementation of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers is one of the important steps toward the development of IM PAN.

## 7. Acceptance

The Director of the Institute of Mathematics of the Polish Academy of Sciences accepts the Human Resources Strategy for Researchers.

Warsaw, June 10. 2016

Place/date

DYREKTOR  
Instytutu Matematycznego PAN  
Prof. dr hab. Feliks Przytycki

Signature





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