



**INSTITUTE OF FUNDAMENTAL TECHNOLOGICAL RESEARCH
POLISH ACADEMY OF SCIENCES**

HUMAN RESOURCES STRATEGY FOR RESEARCHERS

Updated Strategy and Action Plan

Warsaw, April 2022



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1. INTRODUCTION

The Institute of Fundamental Technological Research, Polish Academy of Sciences (in Polish: *Instytut Podstawowych Problemów Techniki Polskiej Akademii Nauk – IPPT PAN*) is one of the largest engineering sciences institutes of the Polish Academy of Sciences (PAS). It is a public institution with a record dated back to January 1953 when the decision to establish such science problem-oriented institute within the structure of the newly (1952) created Polish Academy of Sciences was taken.

The mission of the Institute is to conduct high-quality research in the areas of the focus of the world's science and technology. It is split into the [detailed mission aspects](#).

The key orientations of interdisciplinary research conducted at IPPT PAN are advanced problems linking modern mechanics, materials engineering, electronics, biomedical engineering, information and computational sciences, covering areas listed at: <https://www.ippt.pan.pl/en/about-the-institute/mission>.

IPPT PAN is the forge of highly skilled human resources for science and economy sectors by providing high-quality interdisciplinary [PhD education](#), conducted both independently and jointly with other science and research institutes. Since the establishment of its first post-graduate school (doctoral studies) in 1968 over 750 PhD degrees have been granted to Polish and foreign researchers in the fields of materials sciences and engineering, electronics, mechanics, computer science.

Currently IPPT PAN has the right to confer doctoral and postdoctoral degrees in the following disciplines: mechanical engineering, materials engineering, information technology and telecommunications, automation, electronics and electrical engineering and biomedical engineering (doctoral degrees).

The updated data regarding the size of IPPT PAN in terms of staff and PhD students is presented in Section 1. of the Internal Review, published on the [webpage dedicated to the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers \(C&C\) and the Human Resources Strategy for Researchers \(HRS4R\)](#).

The general staff structure and the gender distribution have not changed significantly since 2016. The community of IPPT PAN (its staff and PhD students) still represents a good mix of gender (see: Fig. 1 below).

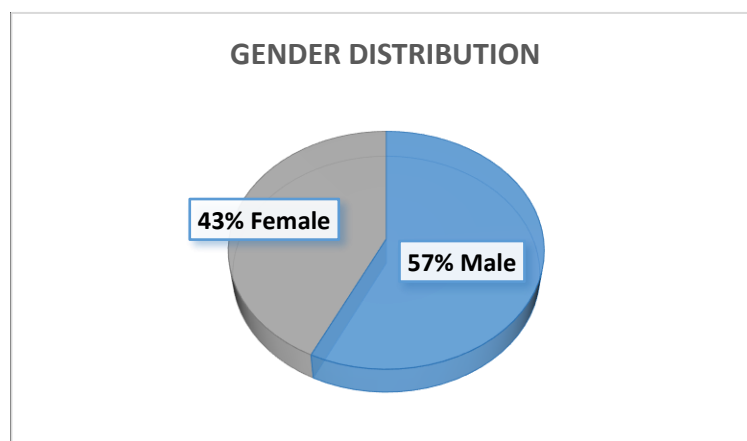


Fig. 1. Gender distribution at IPPT PAN

The gender ratio among the research staff, including PhD students, is currently 29% of women to 71% of men, compared to 19% : 81% ratio in the initial stage of the HRS4R implementation in 2016. Although IPPT PAN represents engineering sciences which have been traditionally recognised as ‘male’ disciplines, the measures to attract more high quality female researchers have brought visible results, which is positive.

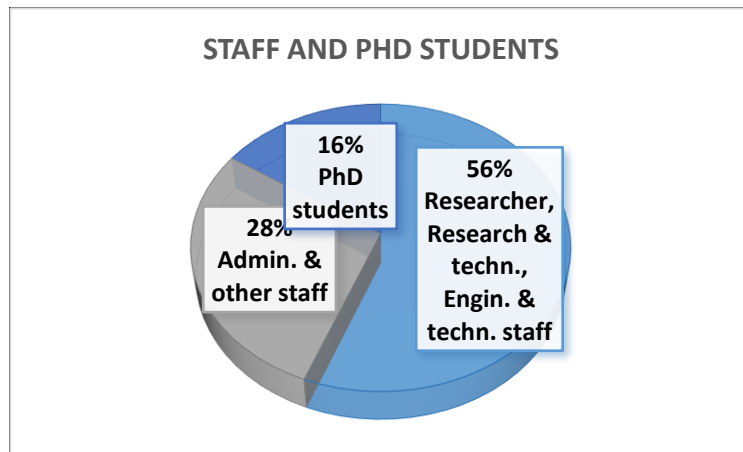


Fig. 2. Professional group breakdown

The structure of the scientific pillar of IPPT PAN consists of eight main research units:

- [Department of Biosystems and Soft Matter](#)
- [Department of Mechanics of Materials](#)
- [Department of Information and Computational Science](#)
- [Department of Intelligent Technologies](#)
- [Department of Theory of Continuous Media and Nanostructures](#)
- [Department of Ultrasound](#)
- [Department of Experimental Mechanics](#)
- [Laboratory of Polymers and Biomaterials](#)

Apart from the research units listed above the Institute houses:

- [Laboratory for Modelling and Imaging in Biomechanics](#)
- [Centre of Biomedical Research](#)
- [Centre of Excellence and Innovation of Composite Materials](#)
- [Smart Technology Centre](#)

The Scientific Council and the Board of Directors create scientific policy, supervise and stimulate performance of the Institute in order to maintain its high quality and high standards. One of the measures is an annual internal evaluation of research activity.

Researchers receive support in administrative, including financial, aspects of their work from dedicated administration units such as Project Management and Research Coordination Office, Centre for Commercialization and Technology Development and Accounting Office.

The Institute is active in implementing research projects (funded from both public and private sources) as well as in disseminating knowledge and promoting its activities among the society.

The main sources of public funding of research and innovation projects conducted by IPPT PAN’s staff come from the state budget (statutory funding, grants from the Polish funding agencies: National



Centre of Research and Development, National Science Centre, grants from the Foundation of Polish Science) and European Union funds (both Structural Funds and EU Framework Programmes for Research and Innovation). The Institute has been also active and successful in participating in other international (e.g. European Molecular Biology Organization, COST, European Space Agency, Vienna Science and Technology Fund, Visegrad Fund) and bilateral (e.g. collaboration with USA, Japan, Hong Kong, Australia as well as EU countries, including Germany and Denmark) research and innovation programmes. The list of projects is available at <http://www.ippt.pan.pl/en/scientific-activities/research#grants>.

For many years now IPPT PAN research groups have been collaborating with industry. One interesting example is a long-term collaboration within KMM-VIN AISBL (European Virtual Institute on Knowledge-based Multifunctional Materials) which was established in 2007 as a result of collaboration under the European Community then 6. Framework Programme for Research, Technological Development and Demonstration. KMM-VIN (www.kmm-vin.eu), with its headquarters in Brussels and a branch in Warsaw. It has gathered institutions from 16 EU countries, including 20 companies. The aim is to conduct joint research regarding smart construction and functional materials for transport, energy and medical applications. For more than 10 years KMM-VIN AISBL has been successfully developing a new sustainable European model of research and industry integration.

The research conducted by the staff of IPPT PAN and its results have been presented in scientific publications. Each year the number of high quality papers is growing. The list of publications is available on the IPPT PAN website (<http://www.ippt.pan.pl/en/scientific-activities/achievements#publications>).

The Institute owns many patents. Just in the last 3 years it has been granted 30 patents and protection rights. The list of patents as well as patent applications of IPPT PAN - pending decisions of relevant patent authorities - is available at: <http://www.ippt.pan.pl/en/scientific-activities/achievements#patents-and-inventor-protection-rights>.

Since 2009 the Institute has been operating in a newly constructed building, located in a scientific campus where over 20 research institutes, university faculties and innovation companies have been active. Modern, well equipped laboratories allow the Institute's scientific staff of all career stages to conduct high quality research.

IPPT PAN keeps holding the highest scientific category (A+) in Poland conferred by the minister in charge of science as a result of the regular scientific evaluation (so called parametrisation) process. According to the legal regulations, every Polish scientific institution is a subject to such evaluation.

More information about the Institute, its goals and achievements is available on its website: <http://www.ippt.pan.pl/en/>.

2. INTERNAL REVIEW – APPROACH, METHODOLOGY

The quality of the Institute in terms of research activities and overall performance is regularly evaluated by external bodies, such as the Polish Committee for Evaluation of Scientific Units (up to the reform of science and higher education system in 2018), the Science Evaluation Committee (currently) and the minister in charge of science. Since many years the process of scientific evaluation (parametrisation) of all scientific institutions in Poland has been conducted every 4 years. The process has resulted in grading institutions according to their achievements in the past reporting period. The reform of 2018 has introduced significant and, since then, frequent changes to the national scientific evaluation system. According to the previous regulations, as a result of the evaluation process



institutions could be labelled either A, or B or C category (A – the highest, C – the lowest). The outstanding ones in their reference group could receive a unique A+ category. IPPT PAN keeps holding A+ category in successive evaluation processes. The first evaluation under the new framework is currently on-going. The results are expected in 2022. In the current system categories will be awarded according to the scientific disciplines conducted by individual institutions – not per institution as a whole.

The Polish Academy of Sciences regularly monitors the activities of its institutes, which obviously covers IPPT PAN as well. Also, all institutions funding research and research-related activities (IPPT PAN has been a beneficiary of many of the programmes) monitor the quality of the works and results under each project.

In order to keep the highest quality and standards IPPT PAN conducts the already mentioned above annual assessment of its scientific performance. It covers individual achievements and provides a very good overview on the quality of performance of individual research departments and the whole Institute. The results of the assessment are presented to the Board of Directors and the Scientific Council and discussed in depth. According to the internal rules, researchers with outstanding achievements are awarded. Measures to motivate those who lag behind are clearly defined in the regulations and in doubtless cases they are implemented.

The process of the first Internal Review under Interim Assessment, which was launched in 2018 and finalised in early 2019, was described in details in the relevant documents sent to the European Commission and available on the [webpage dedicated to C&C and HRS4R](#).

The key driver of the Internal Review process under Award Renewal which started in 2021 and was finalised in 2022 was – like in the case of the previous review in 2018 – 2019 – the dedicated Working Group for the monitoring of the implementation of the Human Resources Strategy for Researchers (HRS4R WG), established in December 2016. It was the successor of the Working Group established in February 2016 whose task had been to prepare HRS4R.

The HRS4R WG comprises dedicated and experienced representatives of all staff groups and PhD students who have been working with a clear view of improving the quality of performance of IPPT PAN in many aspects.

The composition of the group is presented in the “Internal Review” (published on the [webpage dedicated to C&C and HRS4R](#)).

The Group discussed in-depth the optimal methodology of the Internal Review under Award Renewal process. Based on the experience gained in the course of the strategy implementation the HRS4R WG decided to conduct a survey, addressed to all staff members and PhD students.

The Internal Review, which was based on the survey results and earlier works at IPPT PAN, as presented in the sub-section “How have you prepared the internal review” of the “Internal Review”, was very comprehensive and provided valuable feedback. It allowed to assess the efficiency of the actions implemented so far, analyse the trends and draw conclusions regarding the performance of the Institute.

The Internal Review resulted in updating the HRS4R and its Action Plan which were approved by the Board of Directors of the Institute.

The findings and conclusions from the Internal Review, including the survey results, have been used for the purpose of HRS4R as such but they will also contribute to introducing further improvements in the quality of the Institute as an employer and an important research institution on the national and international scene. The latter one will be done outside the formal framework of HRS4R.

The survey results which constituted a core part of the basis for analytical works for the purpose of the Internal Review were collected in the survey conducted in February 2022, supplemented by the results collected in the short satisfaction survey conducted in 2021. The rationale for this approach is presented in the sub-section referred to above.

For the purpose of the Internal Review the results of the recent survey research were compared with the ones collected in 2016.

In both recently conducted surveys the questionnaires were made available online to IPPT PAN employees, including researchers, management, administration and technical staff, as well as PhD students.

In order to ensure its full availability to all target groups they were in two language versions: English and Polish.

Each time the survey, which was anonymous, was open for approximately 2 weeks, with a few reminders sent out in order to encourage as many participants as possible.

There were only two “identification” questions asked in the questionnaires: about gender and the represented staff or PhD student group. These were for statistical purposes and to allow further in-depth analysis of the responses, while fully respecting the principle of anonymity.

3. INTERNAL REVIEW - SURVEY STATISTICS AND RESULTS

A. SURVEY PARTICIPANTS' STATISTICS

Over 230 persons started the 2022 questionnaire. 191 persons filled in at least its administrative part, out of whom 185 provided substantial feedback which was analysed in-depth by the HRS4R WG with a particular attention given to negative answers (answers: 1 and 2) and comments. The response statistics presented below are based only on answers which provided substantial feedback.

The overall breakdown of the respondents is presented below.

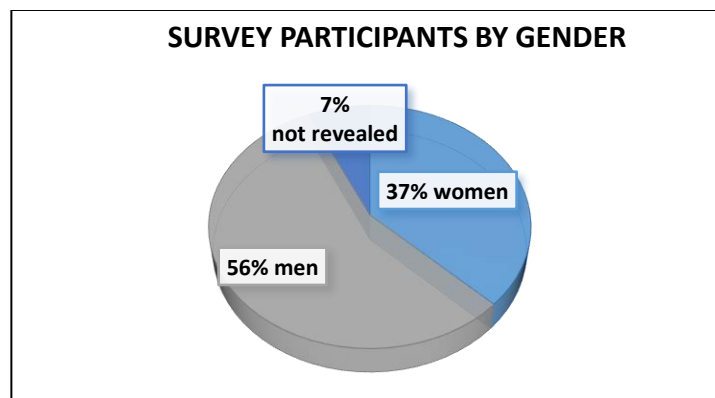


Fig. 1. Gender breakdown

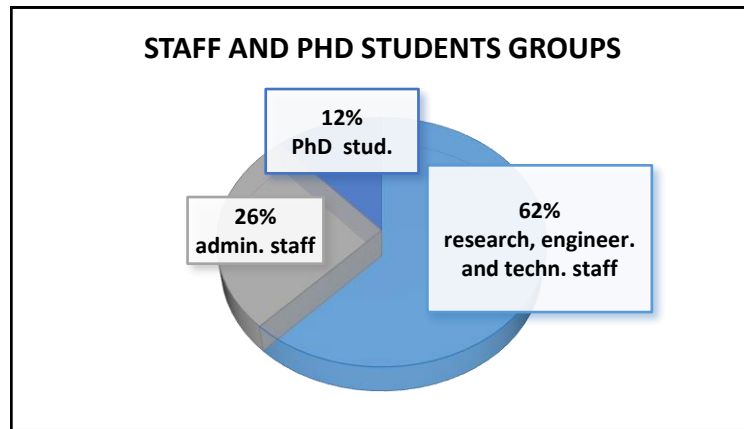


Fig. 2. Professional group breakdown

The general breakdown of respondents largely reflects:

- the gender structure:

43% of women and 57% of men (employees and PhD students);

- the overall professional group structure:

56%: research staff, research and technical staff, engineering and technical staff, 28%: administration and other staff, 16%: PhD students.

B. SURVEY RESULTS – ASSESSMENT OF THE LEVEL OF C&C IMPLEMENTATION

The opinions of the survey participants on the level of implementation of C&C principles ranged from 91% of positive responses to 45% compared to the range from 70% to 23% - respectively in 2016 (with the current range of “No opinion/non-applicable” responses varying from 0 to 51% compared to 25 to 48% in 2016). If excluding “No opinion/non-applicable” responses, the range of positive substantial opinions was from 97% to 59% compared to the range from 93% to 40% in 2016.

The tables below present the summary of the responses on the implementation of C&C principles.

The last column in the tables presents the share of responses given by administration and other staff in all “No opinion / non- applicable” answers. The large part of these staff groups is not involved in direct support for research works and for this reason they have limited knowledge how the C&C rules (dedicated mainly to scientists and facilitating their work) are implemented. It is fully understandable that these employees do not need such knowledge to properly implement their professional tasks. At the same time – in order to ensure equal opportunities of expressing views and collect as wide feedback as possible – it was decided to open the recent survey to all members of the IPPT PAN community, as it was the case before. This approach allowed for feedback from the community comparable to the one participating in the survey in 2016.

Ethical and professional aspects – implementation

The table below presents the results of the survey conducted in February 2022 regarding C&C principles 3 – 9, supplemented by the results collected in 2021 regarding the C&C principles 1 – 2 and 10 – 11. Due to the relatively fresh feedback of the last year it was not justified to ask about the same principles again this year.

C&C rule	“Fully implemented” & “Almost but not fully implemented” responses (%)	“Partially implemented” & “Insufficiently implemented” responses (%)	“No opinion / non – applicable” responses (%)	Share of responses given by admin. staff in “No opinion / N/A” responses (%)
1. Research freedom	91	2	7	100
2. Ethical principles	82	16	2	100
3. Professional responsibility	70	3	27	47
4. Professional attitude	73	4	23	40
5. Contractual and legal obligations	67	6	27	28
6. Accountability	72	6	22	36
7. Good practice in research	68	11	21	39
8. Dissemination, exploitation of results	73	8	19	42
9. Public engagement	64	13	23	34
10. Non-discrimination	76	22	2	50
11. Evaluation/ appraisal systems.	64	26	10	88

Recruitment and development – implementation

The table below presents the results collected in the survey conducted in February 2022.

C&C rule	“Fully implemented” & “Almost but not fully implemented” responses (%)	“Partially implemented” & “Insufficiently implemented” responses (%)	“No opinion / non – applicable” responses (%)	Share of responses given by admin. staff in “No opinion / N/A” responses (%)
12. Recruitment	63	8	29	37
13. Recruitment (Code)	66	10	24	38
14. Selection (Code)	57	7	36	29
15. Transparency (Code)	54	10	36	27
16. Judging merit (Code)	56	7	37	33
17. Variations in the chronological order of CVs (Code)	45	4	51	26
18. Recognition of mobility experience (Code)	58	4	38	31
19. Recognition of qualifications (Code)	53	2	45	28
20. Seniority (Code)	55	3	42	27
21. Postdoctoral appointments (Code)	62	4	34	33

Working conditions and social security – implementation

The table below presents the results of the survey conducted in February 2022 regarding C&C principles 22 – 24, 27, 29, 31 and 33 – 35, supplemented by the results collected in 2021 regarding the C&C principles 25, 26, 28, 30 and 32. Due to the relatively fresh feedback of the last year it was not justified to ask about the same principles again this year.

C&C rule	“Fully implemented” & “Almost but not fully implemented” responses (%)	“Partially implemented” & “Insufficiently implemented” responses (%)	“No opinion / non – applicable” responses (%)	Share of responses given by admin. staff in “No opinion / N/A” responses (%)
22. Recognition of the profession	62	5	33	31
23. Research environment	69	7	24	37
24. Working conditions	75	7	18	39
25. Stability and permanence of employment	85	15	0	-
26. Funding and salaries	85	15	0	-
27. Gender balance	55	3	42	22
28. Career development	73	26	1	0
29. Value of mobility,	60	4	36	25
30. Access to career advice	49	34	17	46
31. Intellectual Property Rights	63	4	33	31
32. Co-authorship	71	13	16	50
33. Teaching	55	6	39	30
34. Complains/ appeals	58	7	35	29
35. Participation in decision-making bodies	59	6	35	27

Training and development – implementation (2022, supplemented by applicable 2021 survey results):



The table below presents the results of the survey conducted in February 2022 regarding C&C principles 37, 38 and 40, supplemented by the results collected in 2021 regarding the C&C principles 36 and 39. Due to relatively fresh feedback of the last year it was not justified to ask about the same principles again this year.



C&C rule	“Fully implemented” & “Almost but not fully implemented” responses (%)	“Partially implemented” & “Insufficiently implemented” responses (%)	“No opinion / non – applicable” responses (%)	Share of responses given by admin. staff in “No opinion / N/A” responses (%)
36. Relation with supervisors	89	11	0	-
37. Supervision and managerial duties	59	14	27	40
38. Continuing Professional Development	74	7	19	47
39. Access to research training and continuous development	66	32	2	0
40. Supervision	63	9	28	36



C. COMPARISON OF THE RECENT SURVEY RESULTS WITH THE RESULTS OF THE SURVEY CONDUCTED IN 2016

The tables below present the summary of the responses on the implementation of C&C principles collected in 2022, supplemented by the answers provided in 2021 survey, in comparison to the results gathered in 2016.





The arrows reflect the trend between the opinions expressed in the Gap Analysis in 2016 (prior to the beginning of the HRS4R implementation) and the recent views of the survey participants.

The green arrows  in column 4 in the tables below in this section indicate positive trends, while the red arrows  in the same column indicate the decreased share of respondents who believe the given C&C rule is either fully or almost but not fully implemented.

The green arrows  in column 7 in the tables below indicate positive trends, which means the decreased share of “Partially implemented” and “Insufficiently implemented” responses. At the same time the red arrows  in the same column indicate the increased share of respondents who are not fully satisfied with the level of implementation of individual C&C rules.

The green arrows  in column 10 in the tables below indicate positive trends, which means the decreased share of “No opinion / non-applicable” responses. It means that the level of awareness of the practice regarding the implementation of individual C&C rules has grown, also among the administration and other staff who is not involved in research and does not have regular direct contacts with researchers. At the same time the red arrows  in the same column indicate the increased share of respondents to whom the rules are not applicable or who have no opinion on particular aspects of C&C rules.

Ethical and professional aspects – implementation

C&C rule	Positive opinions 2016 (%)	Positive opinions 2022, supplemented by 2021 results (%)	Trend	Negative opinions 2016 (%)	Negative opinions 2022, suppl. by 2021 results (%)	Trend	‘No opinion / N/A’ responses 2016 (%)	‘No opinion / N/A’ responses 2022 + 2021 (%)	Trend
1	2	3	4	5	6	7	8	9	10
1. Research freedom	46	91		10	2		44	7	
2. Ethical principles	55	82		9	16		36	2	
3. Professional responsibility	58	70		12	3		30	27	
4. Professional attitude	58	73		10	4		32	23	
5. Contractual and legal obligations	60	67		8	6		32	27	
6. Accountability	64	72		7	6		29	22	
7. Good practice in research	56	68		17	11		27	21	
8. Dissemination, exploitation of results	64	73		9	8		27	19	
9. Public engagement	50	64		21	13		29	23	
10. Non-discrimination	70	76		5	22		25	2	
11. Evaluation/appraisal systems.	66	64		9	26		25	10	

The strengths of the current practice and the still existing room for improvement identified *inter alia* on the basis of the survey results, also comparative, are presented in the “Internal Review” (“Strengths and weaknesses of the current practice” section). The aspects the survey participants are not fully satisfied with will be subject to relevant actions (see: “Action Plan” section in the “Internal Review”) – in order to well identify the source of the challenge and strive to improve the situation.

Recruitment – implementation

C&C rule	Positive opinions 2016 (%)	Positive opinions 2022 (%)	Trend	Negative opinions 2016 (%)	Negative opinions 2022 (%)	Trend	“No opinion / N/A” responses 2016 (%)	“No opinion / N/A” responses 2022 (%)	Trend
1	2	3	4	5	6	7	8	9	10
12. Recruitment	59	63	↑	7	8	↑	34	29	↓
13. Recruitment (Code)	68	66	↓	7	10	↑	25	24	↓
14. Selection (Code)	43	57	↑	16	7	↓	41	36	↓
15. Transparency (Code)	46	54	↑	15	10	↓	39	36	↓
16. Judging merit (Code)	51	56	↑	15	7	↓	34	37	↑
17. Variations in the chronological order of CVs (Code)	39	45	↑	13	4	↓	48	51	↑
18. Recognition of mobility experience (Code)	50	58	↑	9	4	↓	41	38	↓
19. Recognition of qualifications (Code)	46	53	↑	9	2	↓	45	45	
20. Seniority (Code)	50	55	↑	9	3	↓	41	42	↑
21. Postdoctoral appointments (Code)	59	62	↑	5	4	↓	36	34	↓

The strengths of the current practice and the still existing room for improvement identified *inter alia* on the basis of the survey results, also comparative, are presented in the Internal Review (“Strengths and weaknesses of the current practice” section). Although the results present the views of all respondents, it has to be taken into account – as underlined in the “Internal Review” (“Strengths and weaknesses...” section), that only those who are directly involved in the recruitment and selection process know its procedural details and practice. So the implementation of the rules is naturally not well known and non-applicable to others, in particular those who have not been recruited recently. The significant share of “No opinion / non – applicable” answers, especially in the case of very detailed C&C rules, is - thus - understandable and does not require any specific measure, other than a general awareness action (which has been planned).

Working conditions and social security – implementation (comparison 2016 vs. recent results):

C&C rule	Positive opinions 2016 (%)	Positive opinions 2022, suppl. by 2021 results (%)	Trend	Negative opinions 2016 (%)	Negative opinions 2022, suppl. by 2021 results (%)	Trend	No opinion / N/A responses 2016 (%)	No opinion / N/A responses 2022 + 2021 (%)	Trend
1	2	3	4	5	6	7	8	9	10
22. Recognition of the profession	54	62	↑	8	5	↓	38	33	↓
23. Research environment	59	69	↑	14	7	↓	27	24	↓
24. Working conditions	59	75	↑	14	7	↓	27	18	↓
25. Stability and permanence of employment	49	85	↑	23	15	↓	28	0	↓
26. Funding and salaries	58	85	↑	14	15	↑	28	0	↓
27. Gender balance	43	55	↑	15	3	↓	42	42	↓
28. Career development	38	73	↑	25	26	↑	37	1	↓
29. Value of mobility	37	60	↑	18	4	↓	45	36	↓
30. Access to career advice	23	49	↑	35	34	↓	42	17	↓
31. Intellectual Property Rights	54	63	↑	11	4	↓	35	33	↓
32. Co-authorship	62	71	↑	9	13	↑	29	16	↓
33. Teaching	51	55	↑	10	6	↓	39	39	↓
34. Complains/ appeals	36	58	↑	26	7	↓	38	35	↓
35. Participation in decision-making bodies	54	59	↑	8	6	↓	38	35	↓

It has to be noted that the share of positive opinions on the implementation of all C&C rules related to working conditions and social security is recently higher than it was in 2016, which is very positive. Also, the share of participants who have no opinion or who believe these questions do not apply to them has shrunk, in many cases - significantly.

The strengths of the current practice and the still existing room for improvement identified *inter alia* on the basis of the survey results, also comparative, are presented in the “Internal Review” (“Strengths and weaknesses of the current practice” section). The relevant actions have been planned (see: “Action Plan” section in the Internal Review) - in order to increase the level of responsiveness to the needs of employees and PhD students.

Training and development – implementation

C&C rule	Positive opinions 2016 (%)	Positive opinions 2022, suppl. by 2021 results (%)	Trend	Negative opinions 2016 (%)	Negative opinions 2022, suppl. by 2021 results (%)	Trend	“No opinion / N/A” responses 2016 (%)	“No opinion / N/A” responses 2022 + 2021 (%)	Trend
1	2	3	4	5	6	7	8	9	10
36. Relation with supervisors	62	89	↑	9	11	↑	29	0	↓
37. Supervision and managerial duties	61	59	↓	10	14	↑	29	27	↓
38. Continuing Professional Development	65	74	↑	7	7		28	19	↓
39. Access to research training and continuous development	55	66	↑	15	32	↑	30	2	↓
40. Supervision	58	63	↑	13	9	↓	29↑	28	↓

The strengths of the current practice and the still existing room for improvement identified *inter alia* on the basis of the survey results, also comparative, are presented in the “Internal Review” (“Strengths and weaknesses of the current practice” section). The relevant actions (see: “Action Plan” section in the “Internal Review”) have been planned in order to improve identified shortcomings in the working environment.

4. INTERNAL REVIEW – FINDINGS AND CONCLUSIONS

In the light of the findings of the Internal Review it has been concluded that the legal framework and the current practices of IPPT PAN are in line with the C&C principles and the visible quality change has been made since the beginning of the HRS4R implementation in 2016.

HRS4R is well rooted in the development strategy of IPPT PAN and supports well its mission to conduct high quality research in the areas the Institute has been focusing on. Creation of user-friendly environment and favourable working and studying conditions stimulates high quality results.

It has to be underlined that despite the radical national reform of the higher education and science system in Poland in 2018 and following it further frequent changes in the Polish legal framework, IPPT PAN has managed to maintain the internal legal framework as stable and predictable as possible. At the same time the internal system ensures the necessary degree of flexibility in order to create and maintain favourable professional environment for the staff and PhD students.

The majority of actions introduced since 2016 have proved their effectiveness and their impact on the overall performance of IPPT PAN and the level of satisfaction of its staff and PhD students. Also, the general level of awareness of C&C principles has been increased.



The Internal Review under the Award Renewal procedure allowed for reviewing the areas where the need for improvement still exists. They are addressed by the actions presented in Section 3. Actions of the “Internal Review” and summarised below.

Detailed conclusions drawn from the Internal Review and the regular monitoring and analyses conducted during the whole HRS4R implementation period are presented in the “Internal Review”, in particular in “Strengths and weaknesses of the current practice” section.

5. OTM-R POLICY

IPPT PAN officially started the process of HRS4R preparation in early 2016 and the first HRS4R was developed prior to the introduction of the Strengthened HRS4R process by the European Commission (the HR Excellence in Research award was granted to IPPT PAN in 2016). Despite the fact that the preparation of OTM-R checklist was not then required as part of the Initial Phase of HRS4R the overall compliance of the institutional framework regarding the recruitment process (national and internal regulations and practice) was covered by the Gap Analysis and addressed in HRS4R. The general conclusion was that the recruitment and selection rules, procedures and processes had been well developed already prior to the beginning of the HRS4R implementation. The situation has not changed since then, apart from a limited number of modifications aiming at adjusting the system in every detail to the requirements of C&C which were subject to relevant actions included in the Action Plan. The actions have been either completed or they are currently in their final implementation stage.

The recruitment and selection process is transparent and merit-based. It involves appropriate bodies and organisational units of IPPT PAN, in particular the relevant Scientific Council committees, the Scientific Council itself and the Board of Directors. The whole process is fully supported by professional, well-trained representatives of the HR Office.

The visible change – rather formal than introducing the real substantive changes – is the publication of the [OTM-R policy](#) in the form of a single document. Its basis is constituted by two resolutions of the Scientific Council: “Rules of employment of scientists” and the Scientific Council Resolution on the terms of reference of call for scientific positions procedure at IPPT PAN which have been in force and followed for many years.

6. UPDATED ACTION PLAN

The full list of the actions planned to be implemented in the years 2022-2024 is presented in Section 3. Actions of the “Internal Review” available on the [webpage dedicated to C&C and HRS4R](#). The actions planned as part of the Initial Phase which were completed already prior to the Interim Assessment have been deleted from the “Internal Review” document – upon the consent of the European Commission – in order to keep the Action Plan readable, even after adding new actions.

Some of the completed actions have become permanent - included in the standard practice of IPPT PAN. The list of them is annexed to this document.

The summary of the actions planned to be implemented in the years 2022-2024, excluding the listed in the annexed permanent actions, is presented below. They comprise the actions which are extended or in progress as well as new ones.



The actions which will be continued are the following:

- A.2. To review the existing rules and practices at IPPT PAN in the context of the principle and adjust them accordingly;
It is the action regarding C&C 17. Variations in the chronological order of CVs (Code); it has been implemented together with action 3;
- A.3. To modify the Scientific Council Resolution 'Rules of employment of scientists' by quantifying the mobility criterion in order to amplify its value;
- A.6. To organise series of soft skills trainings, workshops in smaller groups (research departments)
The implementation of the action has been strongly affected by the state of pandemic;
- A.7. To prepare a 'HR-dedicated space' in IPPT PAN's internal network with staff-useful information package, including Labour law regulations and employees' rights and obligations;
Although the action have not been completed yet, a significant part of information package contents is already accessible in the internal network;
- A.11. To organise seminars dedicated to career development for the staff and PhD students;
- A.13. To organise language courses for the administration, supporting researchers;
The implementation of the action has been strongly affected by the state of pandemic;
- A.14. To prepare a guide for newly enrolled PhD students in English;
- A.15. To prepare an information brochure for the staff, in particular newcomers, on IPPT PAN (basic rules and procedures, including document flow, who is in charge of what).

The new actions are following:

- A.20. To analyse the system of evaluation of research activity and introduce appropriate measures, including the necessary modifications (if identified) and information campaign on the principles and rationale behind the system, addressed to the staff of the Institute, in particular researchers;
- A.21. To regularly monitor the implementation of ethical and non-discrimination principles and, if needed, undertake relevant measures;
- A.22. To increase awareness of the general rules of the recruitment and selection process among the staff and PhD students, by conducting regular information actions;
- A.23. To organise trainings on IPR, including co-authorship aspects, primarily dedicated to PhD students;
- A.24. To develop and publish Gender Equality Plan (GEP);
- A.25. To organise lectures and trainings on career pathways, dedicated to PhD students;
- A.26. To improve access to information on the training policy at IPPT PAN, including research trainings and continuous development aspects;
- A.27. To strengthen the monitoring mechanism for the performance of supervision and managerial duties.



7. IMPLEMENTATION AND MONITORING OF THE UPDATED STRATEGY AND ACTION PLAN

The “Internal Review” together with supplemented documents were submitted to the European Commission in April 2022. In parallel the relevant set of documents, including the updated HRS4R and Action Plan, was published on the [webpage dedicated to C&C and HRS4R](#).

As presented in the “Internal Review” document, the implementation of the Action Plan will be monitored by the Working Group for the monitoring of the implementation of the Human Resources Strategy for Researchers, which will continue its activities for the duration of the next cycle. The Group will be in charge of the regular assessment of the quality changes in implementation of the updated Action Plan as well as of the regular analysis of potential bottlenecks and possible further improvements which would facilitate employees’ work and increase their level of satisfaction related to the working environment they are provided with.

The operational mode of the Group will remain unchanged in its principles.

The regular meetings supplemented by remote exchanges of views, ideas and proposed solutions (via e-mails or online meetings) have already proved to be efficient.

As previously, one meeting per year will be dedicated to a comprehensive analysis of the achievements and challenges of the implementation during the past 12 months’ period. It will allow the assessment of the impact of the process on the overall performance of the Institute. Potential additional or corrective measures will be considered as well, if needed.

The conclusions will be reported to the Board of Directors who – together with the Scientific Council - will continue to be involved in the supervision process.

The monitoring of the HRS4R implementation progress and supervision will be based on the reference to targets and indicators set out in the updated Action Plan.

Perception of introduction of concrete solutions as well as the overall quality of the working environment at IPPT PAN will be continued to be monitored via regular, short, well focused surveys conducted among the staff and PhD students. The surveys – which have already proved to be a useful tool - will help to identify further barriers and challenges and further actions needed to improve the situation.

8. FINAL REMARKS

During the HRS4R preparatory phase and over the years of the strategy implementation IPPT PAN has gained a substantial experience on the process and a real understanding on what it means in practice. Despite the guidance provided by the European Commission and exchange of best practice with other institutions, it has been a real learning by doing process. The substantial effort attributed to the preparation and implementation of HRS4R has started bringing fruits by making the Institute realising its strengths and weaknesses in its overall performance and helping it to launch the necessary improvements. The HRS4R process has proved to be a very useful management tool, which serves not only the HR strategy as such but the overall development strategy of IPPT PAN.

It supports very well the activities of IPPT PAN aiming at continuous improvement of its performance and creation of favourable conditions for scientists conducting research.

Since its establishment almost seventy years ago IPPT PAN has striven for excellence. The ambition and mission of the Institute have remained unchanged: to conduct the high quality research in the areas of the focus of the world's science and technology.



Over the decades IPPT PAN has managed to attract and keep both promising and advanced researchers from Poland and abroad. Also, its own doctoral studies and – recently – new schools have been an excellent source of the high quality, inspiring human research minds. The openness of IPPT PAN and its staff has resulted in a large number of international research collaboration contacts with institutions and scientists all over the world. They result in joint projects, publications and new cooperation avenues.

The achievements of the Institute have been widely recognised and awarded. The highest scientific category (A+) in Poland, conferred by the minister in charge of science is one of the examples. Another one is the prestigious HR Excellence in Research award granted to IPPT PAN in 2016.



ANNEX

**THE LIST OF HRS4R PERMANENT ACTIONS
(AS PART OF THE STANDARD PRACTICE OF IPPT PAN)**

Old Action No	Action	C&C principle(s)	Old timing	New timing	Responsible Unit	Indicator(s)	Remarks
9	To continue the practice of regular dissemination of information on mobility offers	18. Recognition of mobility experience (Code) 29. Value of mobility	Regular (monthly) actions	Regular (monthly) actions	Director's plenipotentiary for research funds	At least 12 sets of offers distributed to staff and PhD students	
11	To carry out another information action with the view to further increase the awareness of the regulations ensuring stability and permanence of employment	25. Stability and permanence of employment	February 2017	Every time upon the significant changes in the national regulations	HR Office	Increased awareness regarding the regulations related to employment rules	The action will be repeated whenever significant changes to the national regulations will be made
12	To regularly monitor the general implementation of the principle	25. Stability and permanence of employment	Regular (annual) actions	Regular (annual) actions	HR Office	Report transmitted to the Board of Directors and Scientific Council	
14	To regularly monitor the gender balance in employment, provided that the principle of the highest quality of employees is a priority	27. Gender balance	Regular (annual) actions	Regular (annual) actions	HR Office	Report transmitted to the Board of Directors and Scientific Council	The action will be incorporated into the Gender Equality Plan
34	To conduct short satisfaction survey among the staff and PhD students	3. Professional responsibility 4. Professional attitude 5. Contractual and legal obligations 10. Non discrimination 11. Evaluation/ appraisal systems 23. Research environment 24. Working conditions 28. Career development	Once a year	Once a year	HR Office and Head of PhD studies respectively	Survey results; Dedicated reports with conclusions and recommendations transmitted to relevant units and/or bodies, according to their domains	Although it has become a permanent action as part of standard practice, the action is still visible in the Reviewed Action Plan – due to procedural reasons



35	To increase the number of research seminars held in English	7. Good practice in research 8. Dissemin., exploit. of results 10. Non discrimination 28. Career development 39. Access to research training and continuous development	Regular actions (at least once a month)	Regular actions (at least once a month)	Deputy Director for Research in cooperation with relevant research departments	At least 60% of all research seminars held in English	The same remark as to Action 34 (see: above)
36	To conduct a central health and safety training for staff and PhD students	7. Good practice in research 23. Research environment	Periodic action; next training scheduled : IV Q 2019	Periodic action; next training scheduled: IV Q 2024	Senior Inspector for Safety	Safe conditions in the working environment; Increased awareness regarding health and safety; At least 90% of employees and PhD students trained	The same remark as to Action 34 (see: above)