HRS4R Strategy
Internal Analysis of Code&Charter Implementation and Update of Action Plan for 2022-2024

Institute of Plant Genetics
Polish Academy of Sciences

Internal Analysis of the Charter and Code Principles

1. Introduction - overview of the process and summary of current situation

The Institute of Plant Genetics, Polish Academy of Sciences (IPG PAS) recognizes the significance of the human resources strategy for researchers (HRS4R). By implementing the provisions of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (hereinafter referred to as Charter and Code or C&C) strives to foster the best practices, develop international collaborations and contribute to growth of an open and attractive European labour market for researchers.

The Commission's recommendation on the C&C issued in 2005 has been a reference point for analyzing the state-of-the-art at the Institute as well as shaping Action Plans for the years 2013-2016, 2016-2018, 2019-2021 as well as current perspective (2022-2024). Within limits set by national legislative acts, the Institute strives to implement the C&C principles as basis of internal documents and policies, including the full, continued embrace of OTM-R (open, transparent, merit-based recruitment) policy released in December 2017.

The IPG PAS acts to complement the efforts of the European Commission towards building a common research area and unified, competitive labour market for researchers across all stages of scientific career. The "HR Excellence in Research" award was granted to the IPG PAS in January 2014 and since then the Institute has been continuously improving its standards.

At present, the Institute would like to continue to be recognized as an employer that supports its researchers and offers attractive working conditions, embracing diversity and inclusiveness, also through adopting and monitoring crucial initiatives such as Gender Equality Plan (adopted as Director's Order 7/2022).

For these reasons the Human Resources Strategy for Researchers (HRS4R) at the Institute of Plant Genetics, PAS was updated based on the principles of the Charter and Code and the results of internal analysis of all C&C areas.

An update in the methodology of planning in HRS4R was necessary due to the structural changes in departmental structure of the Institute in early 2020 (splitting of large departments into smaller, agile research teams, and changes to activity of administration including grant office). Unfortunately, this was complicated by the external events of COVID19 pandemic, hindering the working group meetings, as well as the growing economic crisis related to war in Ukraine, which forced an update of Institute's mid/long-term plans according to financial limitations.

Thus, a decision has been made to ask for an extension in submission of Evaluation Report and updated Action Plan. In order to ensure both wide participation and timely completion of the document drafts within limits of the extension, an open focus panel approach was used instead of questionnaire, with an understanding that this is

to be a temporary measure. Results of assessment are summarised in Table 1 and detailed analysis as per key principles contained in section 2 of this document.

To ensure success, two initiatives in parallel have been launched to best adhere to interests of all stakeholders. Firstly, as mentioned above, an updated, interim working group has been tasked to conduct focus meetings on each of C&C principles, gather opinions and compile assessment. A working group was reconstituted in order to represent a cross-section of the extant teams and career levels: DSc Grzegorz Koczyk (Biometry and Bioinformatics Team), PhD Joanna Kaczmarek (Pathogen Genetics and Plant Resistance Team), PhD Monika Urbaniak (Plant-Microorganism Interaction Team), PhD Piotr Ogrodowicz (Cereal Phenomics Team), MSc Katarzyna Czepiel (Legume Genomics Team), MSc Martyna Przewoźnik (Plant Biotechnology Team), PhD Katarzyna Lechowicz (until mid-2022, Plant Physiology Team), PhD Karolina Stefanowicz (until mid-2022, Integrative Plant Biology Team), MSc Natalia Grzanka, HR Dept..

Secondly, crucial initiatives required for continued adherence to C&C principles were discussed and implemented in parallel with the actions of the working group (drafting of Gender Equality Plan, implementing the electronic document management system to further simplify orders and purchases). The present gap analysis and action plan have resulted from the process and were discussed with the Steering Committee composed of the Director of the Institute (Prof. Paweł Krajewski) and Deputy Director for Research (Prof. Barbara Naganowska).

This outline of the strategy for maintaining excellence and improving gap areas was formed and published on the Institute's website jointly with the Action Plan for the years 2022-2025. Analogously to the action plan for years 2019-2021 its implementation is to be monitored by the HR Working Group, together with the Steering Comittee and monitored with input from the researchers. Described actions are addressed towards academic staff and PhD students, and where necessary to administrative and service staff of IPG PAS.

Table 1. Summary of current compliance with Charter& Code Principles (FULL - continued practice, no additional actions required, ALMOST FULL - minor adjustments necessary, PARTIAL - remedial actions necessary, poor conformance, NONCOMPLIANT - principle requires urgent (re)implementation).

Area		Principle	Previous assessment (2018)	Current compliance
I. General rules and obligations for scientists	1	**Research freedom**	FULL	FULL
	2	**Ethical principles**	FULL	FULL
	3	**Professional responsibility**	FULL	ALMOST FULL

	4	**Professional attitude**	PARTIAL	PARTIAL
	5	**Contractual and legal obligations**	FULL	FULL
	6	**Accountability**	ALMOST FULL	FULL
	7	**Good practice in research**	FULL	FULL
	8	**Dissemination, exploitation of results**	FULL	FULL
	9	**Public engagement**	FULL	FULL
	10	**Non-discrimination**	ALMOST FULL	ALMOST FULL
	11	**Evaluation/appraisal system**	FULL	FULL
II. Recruitment	12	**Recruitment (Charter)**	FULL	FULL
	13	**Recruitment (Code)**	FULL	FULL
	14	**Selection**	FULL	FULL
	15	**Transparency**	FULL	FULL
	16	**Judging merit**	FULL	FULL
	17	**Variations in the chronological order of CVs**	FULL	FULL
	18	**Recognition of mobility**	FULL	FULL
	19	**Recognition of qualifications**	FULL	FULL
	20	**Seniority**	FULL	FULL
	21	**Post-doctoral appointments**	FULL	FULL
III. Working Conditions and Social Security	22	**Recognition of the profession**	FULL	FULL
	23	**Research environment**	ALMOST FULL	FULL
	24	**Working conditions**	FULL	FULL

	25	**Stability and permanence of employment**	FULL	FULL
	26	**Funding and salaries**	FULL	FULL
	27	**Gender Balance**	FULL	FULL
	28	**Career Development**	PARTIAL	ALMOST FULL
	29	**Value of mobility**	FULL	FULL
	30	**Access to career advice**	PARTIAL	ALMOST FULL
	31	**Intellectual Property Rights**	FULL	FULL
	32	**Co-authorship**	FULL	FULL
	33	**Teaching**	ALMOST FULL	FULL
	34	**Complains/ appeals**	PARTIAL	FULL
	35	**Participation in decision-making bodies**	PARTIAL	FULL
IV. Training and Development	36	**Relation with supervisors**	ALMOST FULL	FULL
	37	**Supervision and managerial duties**	ALMOST FULL	ALMOST FULL
	38	**Continuing Professional Development**	ALMOST FULL	FULL
	39	**Access to research training and continuous development**	FULL	FULL
	40	**Supervision**	ALMOST FULL	FULL

3. Detailed analysis and proposed actions (NOTE: in case of FULL compliance assessment, proactive rather than remedial action were still discussed and proposed e.g. Gender Equality Plan, awareness activities concerning professional responsibility and Open Data/OpenScience issues)

1. Research Freedom

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

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

Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

2. 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.

Actions in previous perspective	-
Current compliance	**FULL** *While there were no complaints directly regarding this point - the action 4A.1 proposed to improve professional responsibility and research reproducibility, overlaps the elements of ethical practices.*
Recommended actions	**4A.1 Informative activity on subject of professional responsibility and research reproducibility** *Proposed action pertains to creation of dedicated e-mail address for reporting problems/misconduct, as well as conducting workshops/lectures of scientific responsibility, Open Data and Open Science principles Indicators: number of meetings, participating staff.*

3. Professional Responsibility

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

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

provided that the data to be confirmed are explicitly quoted. *Researchers should ensure, if any aspect of their work is delegated, that the person to whom it is delegated has the competence to carry it out.*	
Actions in previous perspective	-
Current compliance	**ALMOST FULL** *Taking into account the growing importance of open and fair principles in scientific practice, the following improvement areas were identified: spread awareness of need to address scientific responsibility, increased adherence to principles of open science, dedicated resources for reporting possible problems (e-mail address for reporting of issues).*
Recommended actions	**Informative activity on subject of professional responsibility and research reproducibility** *Proposed action pertains to creation of dedicated e-mail address for reporting problems/misconduct, as well as conducting workshops/lectures of scientific responsibility, Open Data and Open Science principles Indicators: number of meetings, participating staff.*

4. Professional Attitude

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

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

Actions in previous perspective	**The creation of a new, more informative and user-friendly webpage of the Institute, better use of the Intranet COMPLETED** *To enhance internal communication, a dedicated subpage for staff was created with intranet access complementing the informational e-mails.* **Preparation of financial FAQs COMPLETED** *Due to increasing number of applications for external funds, the Chief Accountant has prepared the most frequent questions and answers regarding financial issues related with projects. This document is provided in Polish and English.* **Establishment of Grant Office COMPLETED** *The Grant Office was created in 2018. Since 2020, in the changed organizational structure, the coordination of activities related to grants is placed in the hands of the*

	Director. This is due to a change of the role of external financing, which is now the only source of research funds. Whole administration is contributing to project management.
	Informative activity of Grant Office EXTENDED *From 2020, in the current structure, this activity is coordinated by the Director with support of administrative staff. A single point of access (e-mail contact) is provided for inquiries and other informational activity, and also for communication with funding agencies. Thus far, administration has participated in events/consultations organized by National Contact Point and by Office for Promotion of Science PolSCA in Brussels and disseminated necessary information in local documents (GEP, anti-mobbing policy, remuneration in projects policy, Horizon Europe project applications).*
Current compliance	**PARTIAL** *This area has been most heavily criticised in current implementation, as the combination of pandemic and structural changes at the Institute severely curtailed in person meetings resulting in slowed circulation of crucial information. Given a number of activities still realised online or in hybrid form, a continued improvement of web/intranet resources is advised, as well as continued activity of Grant Office (with dedicated resources, subject to financial constraints).*
Recommended actions	**4A.2 Informative activity of Grant Office** *The recommendation is to further increase the informative activity of Grant Office, by integrating with national and regional contact points, as well as better monitor the information activity. Indicators: sent mails, number of staff participating in activities.* **4A.3 Improvement of web/intranet resources including webpage** *Further improvements to the intranet resources and the webpage accessibility have been recommended, in order to hasten the circulation of information, subject to financial constraints of the Institute. Indicators: results of web questionnaire on accessibility (10/2024)*

5. Contractual and legal obligations

Researchers at all levels must be familiar with the national, sectoral or institutional regulations governing training and/or working conditions. This includes Intellectual Property Rights regulations, and the requirements and conditions of any sponsor or funders, independently of the nature of their contract. Researchers should adhere to such regulations by delivering the required results (e.g. thesis, publications, patents, reports, new products development, etc) as set out in the terms and conditions of the

contract or equivalent document.	
Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

6. Accountability	
Researchers need to be aware that they are accountable towards their employers, funders or other related public or private bodies as well as, on more ethical grounds, towards society as a whole. In particular, researchers funded by public funds are also accountable for the efficient use of taxpayers' money. Consequently, they should adhere to the principles of sound, transparent and efficient financial management and cooperate with any authorised audits of their research, whether undertaken by their employers/funders or by ethics committees.	
Methods of collection and analysis, the outputs and, where applicable, details of the data should be open to internal and external scrutiny, whenever necessary and as requested by the appropriate authorities.	

Actions in previous perspective	**Simplification of formalities associated with orders and purchases** **EXTENDED** *This action was planned to limit the administrative burden of the academic staff to the required minimum and transfer as much as possible onto administrative staff. Due to the newly reformed administrative structure of the Institute (smaller, more agile research unit) this action was extended for monitoring. In 2022 the electronic Document Management System was installed and is currently gradually replacing the previous purchase&order procedure.* **New circulation of documents between researchers and administration COMPLETED** *This action was planned to limit the administrative burden of the academic staff to the required minimum and transfer as much as possible onto administrative staff.*
Current compliance	**FULL** *This area has been identified as most improved in the panel discussion. In parallel to planned actions, as per the remarks of onsite evaluation of HRS4R progress by experts, dedicated IT staff is now responding to concerns of the research personnel (2020+). The adoption of an electronic document management system (purchases/orders) is also underway (deployed across administrative departments, project heads and team leaders) and updated financial FAQs are now available on the intranet.*

Recommended actions	4A.4 Simplification of formalities associated with orders and purchases
	This action is extended to 2023, as crucial elements of electronic document management system (eDMS) are adjusted and feedback of users monitored. Indicators: eDMS deployed, number of participating staff

7. Good principles 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.

Actions in previous perspective	-
Current compliance	FULL
Recommended actions	-

8. 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.

Actions in previous perspective	-
Current compliance	FULL
Recommended actions	-

9. Public engagement

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

Actions in previous perspective	-
Current compliance	FULL

Recommended actions	-

10. Non-discrimination

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

Actions in previous perspective	**Search for funds to enable disabled people to enter the main building of the Institute** **EXTENDED** *Attempts to secure additional, non-statutory funding have been made but have, thus far, been unsuccessful (high cost, no sources of external funding, changing priorities during pandemic, increased cost of research infrastructure). Reallocation within statutory funds, resulted in improved state (see below).*
Current compliance	**ALMOST FULL** *Compliance was improved, while additional search for funds is still required, dedicated rooms were allocated to disabled staff on the ground floor of the main building. Administrative staff was also made accessible on the ground floor of a separate building.* *Additional possibility for improvement was found in the adoption of Gender Equality Plan, which was initiated proactively as part of parallel initiatives mentioned in the introductory section.*
Recommended actions	**4A.5 Search for funds to enable disabled people enter the main building of the Institute** *Recommended for extension, due to financial constraints in the institute, proposals should be periodically resubmitted within the framework of available funding initiatives. Proposed target: Deputy Director for Administration; indicators: grant proposals* **4A.6 Adoption and monitoring of Gender Equality Plan** *Undertaken as a proactive measure via Director's Order 07/2022. Constituent actions are detailed in the Supplementary section to this document (Table ST2). Target: all staff.*

11. Evaluation/appraisal system

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.

Actions in previous perspective	**Introduction of a revised motivation system** **PARTIALLY COMPLETED** *A technical update (in agreement with the regulations of the Ministry) of the*

	evaluation rules for scientific workers took place in 2021. The system of motivation by financial awards for publications was suspended due to the de facto reduction of statutory financing to the basic functions of the Institute. Good publications are awarded by financing Open Access fees from the funds of the Institute.
Current compliance	**ALMOST FULL** *Despite improvement of institutional category, institute continues to operate under heavily constrained finances due to pandemic and rising costs of base media. Thus periodic monitoring and reevaluation is necessary.*
Recommended actions	**4A.7 Monitoring and adjustment of motivation system** - *continued, subject to financial constraints with periodic reevaluation of possible resources to allocate (12/2023, 12/2024). Indicators: yearly reports, increased resources allocated, utilization of resources from external project funding (optional)*

12. Recruitment (Charter)

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

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

Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

13. Recruitment (Code)

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

Advertisements should give a broad description of knowledge and competencies required, and should not be so specialised as to discourage suitable applicants. Employers should include a description of the working conditions and entitlements, including career development prospects. Moreover, the time allowed between the advertisement of the vacancy or the call for applications and the deadline for reply should be realistic.

Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

14. Selection

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.

Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

15. Transparency

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.

Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

16. Judging merit

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.

Actions in previous	-

perspective	
Current compliance	**FULL**
Recommended actions	-

17. Variations in the chronological order of CVs

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.

Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

18. Recognition of mobility

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.

Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

19. Recognition of qualifications

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.

Actions in previous perspective	-
Current compliance	**FULL**

Recommended actions	-

20. Seniority

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.

Actions in previous perspective	-
Current compliance	FULL
Recommended actions	-

21. Post-doctoral appointments

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.

Actions in previous perspective	-
Current compliance	FULL
Recommended actions	-

22. Recognition of the profession

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

Actions in previous perspective	-
Current compliance	FULL
Recommended actions	-

23. Research environment

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.

Actions in previous perspective	**Establishment of a common genetics engineering facility - COMPLETED,** *integrated into standard practice. Laboratories for common use in experimental work with GMO/GMM are functioning. All instructions and documents are available in Polish in English.*
Current compliance	**FULL** *The area has been considerably improved with the full introduction of a genetic engineering facility.*
Recommended actions	-

24. Working conditions

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.

Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

25. Stability and permanence of employment

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

Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

26. Funding and salaries

Employers and/or funders of researchers should ensure that researchers enjoy fair and attractive conditions of funding and/or salaries with adequate and equitable social security provisions (including sickness and parental benefits, pension rights and unemployment benefits) in accordance with existing national legislation and with national or sectoral collective bargaining agreements. This must include researchers at all career stages including early-stage researchers, commensurate with their legal status, performance and level of qualifications and/or responsibilities.

Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

27. Gender Balance

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

Actions in previous perspective	-
Current compliance	**FULL** *While no gaps were identified during the analysis, the proactive implementation of Gender Equality Plan is an important step to further improve the shares of women and men across researcher strata (R1-R4).*
Recommended actions	**Adoption and monitoring of Gender Equality Plan** *Undertaken as a proactive measure via Director's Order 05/2022 (see Supplementary Table ST2 for detailed actions). Target: all staff. Indicators: yearly reports*

28. Career Development

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

Actions in previous	**Preparation of a set of binding legal acts COMPLETED** *A set of current binding legal acts was*

perspective	*prepared and made available to all researchers via the web page.* **Information provided (updated remainder) on current internal orders and national legal acts COMPLETED** *National/local regulations are now available to all staff (dedicated subpage, e-mails regarding specific changes). This activity is also improved in the current flat organization of the Institute (smaller teams, informative activity of team leaders).* **Evaluation of Personal Development Plans of PhD candidates COMPLETED**, *integrated into standard practice. Practice is now established at the Institute and no further action is necessary.* **Provide mentors to proactively support young researchers (R1-R2) in their professional career development EXTENDED** *Due to pandemic situation, the mentorship program was not successfully implemented. In particular limited possibility of short-term research visits or consultations precluded successful mentorship of laboratory practice.* **Establishment of promotion of local, national and international networks EXTENDED** *Currently, seven research projects financed by national agencies are performed in collaboration with other research units. Also a second ERA-CHAIR department was created in 2022, with large network of international collaborations. The possibility of collaboration is considered in every new project application.*
Current compliance	**ALMOST FULL** *Compliance was largely improved. Two points of contention: the mentorship initiatitve and establishment of promotion were difficult to implement during COVID19 social restrictions and are recommended for extension. Additionally, evaluation of Personal Development Plans of PhD candidates, introduced as part of previous Action Plans, will be maintained as a standard operating procedure of the Institute.*
Recommended actions	**4A.8 Provide mentors to proactively support young researchers (R1-R2) in their professional career development** *This action is recommended for extension, following the reevaluation of possible models (different levels of mentor involvement with hybrid/online activities). Indicators: report and recommendation on feasibility of mentoring initiative (10/2023), depending on results: number of mentee-mentor collaborations (10/2024)* **4A.9 Establishment of promotion of local, national**

	and international networks *Due to social constraints during the pandemic, the need to promote/strengthen networks, the action is recommended for extension and active monitoring. This is particularly pertinent, due to increased reliance on grant funding, under current fiscal perspective. Indicator: increase in number of collaborations or grant applications*

29. Value of mobility

Employers and/or funders must recognise 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.

Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

30. Access to career advice

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

Actions in previous perspective	**Set up a collaboration with a Career Office EXTENDED** *Action delayed due to pandemic. Under 2020-2021 constraints, collaboration with external Career Office was limited to remotely organised workshops and seminars.*
Current compliance	**ALMOST FULL** *Despite some improvement, the internal analysis has still identified an ongoing weakness in this area. While available opportunities for collaboration were exploited, in general, career advice possibilities were limited during the pandemic and ongoing crisis. The action is recommended for extension.*
Recommended actions	**4A.10 Set up a collaboration with a Career Office** *action recommended for extension/continuation, Indicators: number of meetings; number of researchers participating in the meetings;*

31. Intellectual Property Rights

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

Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

32. Co-authorship

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

Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

33. Teaching

Teaching is an essential means for the structuring and dissemination of knowledge and should therefore be considered a valuable option within the researchers' career paths. However, teaching responsibilities should not be excessive and should not prevent researchers, particularly at the beginning of their careers, from carrying out their research activities. Employers and/or funders should ensure that teaching duties are adequately remunerated and taken into account in the evaluation/appraisal systems, and that time devoted by senior members of staff to the training of early stage researchers should be counted as part of their teaching commitment. Suitable training should be provided for teaching and coaching activities as part of the professional development of researchers.

Actions in previous perspective	**Establishment of the International Doctoral School COMPLETED** *Poznań Doctoral School of Institutes of Polish Academy of Sciences was successfully established.*

Current compliance	**FULL** *The collaboration as part of Doctoral School is now part of the standard practice and most R3+ researchers now participate in teaching activities for PhD students as well as organisation of workshops accompanying national and regional conferences.*
Recommended actions	-

34. Complains/appeals

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

Actions in previous perspective	**Improve communication flow between the management and the academic staff COMPLETED** *The communication with group leaders and staff has been improved by the new flat organization of the Institute. The information is now passed directly to team leaders at systematic meetings of the Kolegium and by electronic means.* **Preparation of anti-mobbing procedure COMPLETED** *Anti-mobbing procedure was adopted, drawing on Polish Labour Code, as well as provisions available to the Institute under its statute (currently: Director's Order 05/2022).*
Current compliance	**FULL** *The revised complains/appeals process, including anti-mobbing procedure, is now implemented via Director's Orders. Communication flow will still be monitored due to structural reforms and extended remote work periods and proactive action will be taken as necessary.*
Recommended actions	-

35. Participation in decision-making bodies

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

Actions in previous perspective	**Participation of R1-R2 representatives in the meetings of Senior Researchers' Board COMPLETED**, *integrated into existing practice of the*

	Institute According to the Act on Polish Academy of Sciences, R1-R2 researchers and PhD students are represented in the Scientific Council of the Institute. According to the Statute, they are represented in the Kolegium, which is the official advisory body of the Director.
Current compliance	**FULL** *Representative(s) of young researchers now participate in meetings regularly, as part of the Institute's standard procedure.*
Recommended actions	-

36. Relation with supervisors

Researchers in their training phase should establish a structured and regular relationship with their supervisor(s) and faculty/departmental representative(s) so as to take full advantage of their relationship with them. This includes keeping records of all work progress and research findings, obtaining feedback by means of reports and seminars, applying such feedback and working in accordance with agreed schedules, milestones, deliverables and/or research outputs.

Actions in previous perspective	**Establishment of the International Doctoral School COMPLETED**, *integrated into existing practice - Obligations of PhD students are now clearly defined in the Regulations of the Poznań Doctoral School and monitored by Institute's representatives within the School.*
Current compliance	**FULL** *With the establishment of the International Doctoral School, as well as continuation of previously existing reporting and seminar practices within the standard operating procedures of the Institute, this area is now identified as fully compliant.*
Recommended actions	-

37. Supervision and managerial duties

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

Actions in previous perspective	**Establishment of the International Doctoral School COMPLETED**, *integrated into existing practice. Obligations of PhD supervisors are now clearly defined in the Regulations of the Poznań Doctoral School and monitored by Institute's representatives within the School.*

	Soft skills training for team leaders, Heads of Departments, supervisors and co-supervisors EXTENDED *Due to additional challenges, this action has been delayed. Unique environment during the pandemic, update of non-discriminatory practices due to implementation of Gender Equality Plan and anti-mobbing procedures, as well as changes in the structure of the Insitute merit additional trainings for supervisors and Heads.*
	Preparation of the Code of Practice for the Management of Research COMPLETED; *Code of Practice for the Management of Research, including research integrity was prepared and disseminated (Director's Order 08/2019). The Code directly references provisions of European Code and Charter, as well as OTM/R criteria in recruitment of new staff.*
	Dissemination of the Code of Practice for the Management of Research COMPLETED; *see above*
Current compliance	**ALMOST FULL** *Although key decisions were made (preparation and dissemination of Code of Practice, establishment of International Doctoral School) due to pandemic restrictions, soft skills training was limited to online participation without onsite training. Following periods of isolation and weakening of social relations among the research staff, this activity is recommended for extension.*
Recommended actions	**4A.11 Soft skills training for team leaders, Heads of Departments, supervisors and co-supervisors** - *Additional training are still recommended for senior research personnel. Indicators: number of meetings, number of participants*

38. Continuing Professional Development

Researchers at all career stages should seek to continually improve themselves by regularly updating and expanding their skills and competencies. This may be achieved by a variety of means including, but not restricted to, formal training, workshops, conferences and e-learning.

Actions in previous perspective	**Establishment of the International Doctoral School** COMPLETED; *integrated into existing practice, junior researchers now regularly participate (local/hybrid/remote) in all training actions/activities offered via Poznan Doctoral School.*
Current compliance	**FULL** *Following successful establishment of the International Doctoral School the gap area in development of junior researchers has been remedied.*

Recommended actions	-

39. Access to research training and continuous development

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

Actions in previous perspective	-
Current compliance	**FULL**
Recommended actions	-

40. Supervision

Employers and/or funders should ensure that a person is clearly identified to whom early-stage researchers can refer for the performance of their professional duties, and should inform the researchers accordingly. Such arrangements should clearly define that the proposed supervisors are sufficiently expert in supervising research, have the time, knowledge, experience, expertise and commitment to be able to offer the research trainee appropriate support and provide for the necessary progress and review procedures, as well as the necessary feedback mechanisms

Actions in previous perspective	-
Current compliance	**FULL**[1]
Recommended actions	-

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[1] This area has been marked as lacking previously, however no further details or actions were proposed under previous strategy. Upon review, the panel concluded that the assessment was due to clerical error (similar wording of two principles; 37. Supervision and Managerial Duties, 40.Supervision).

3. Summary

While the working group has identified improvement across 13 previously identified gap areas (2 - partial improvement, 8 - full compliance with actions integrated into standard practice), the greatest threat to the extended strategy of the Institute has been largely external to its HRS4R strategy. Combination of structural changes in both research and administrative departments, financial constraints and social restraints resulting from the pandemic have hindered the following actions: **mentoring initiative** (4A.8), **search for funds to enable disabled people enter the main building of the Institute** (4A.5), **entering cooperation with Career Office** (4A.10) and **soft skills training of senior research personnel** (4A.11). Accordingly, these have been extended into the new timeline. In order to facilitate the monitoring of **Specific, Measurable, Achievable, Realistic, and Timely goals for these Actions we also recommend inclusion of yearly self-reporting of training/cooperative activities by the research staff** (4A.10, 4A.11) into the evaluation. This is particularly important for remote/hybrid activities, which have proven difficult to accurately monitor during the pandemic period (largely conducted, without attendee certifications, by actions of Regional and National Contact Points and PolSCA Office). As this change to the standard practice does not require additional resources, it was not separated in the Action Plan.

Similarly, several actions with significant results in form of new projects, collaborations (4A.9; **establishment of promotion of local, national and international networks**) or improved information flow (4A.3; **improvement of web/intranet resources including webpage**; 4A.4; **simplification of formalities associated with orders and purchases**) were assessed to likely benefit from continued effort beyond inclusion into the standard practices of the Institute. These have also been updated to the new timeline.

Two of the previously continued actions (establishment of International Doctoral School and associated activities, continued evaluation of personal development plans for PhD candidates) have now been integrated thoroughly into the existing standard practice. This has resulted in their removal from the HRS4R action plan as active components. Analogously to changes in recruitment process due to prior OTM/R adoption (2017) their quality will be monitored on each subsequent internal assessment of corresponding C&C principles.

Apart from the necessary changes, further opportunities for continuous improvement were identified by the panel approach. Participants recognised a growing need to address **training of both junior and senior research personnel in key issues regarding: research integrity, reproducibility and open paradigms in data sharing and scientific practice (**4A.1**)**. Similarly, proactive steps have been taken to monitor **inclusiveness and equality in gender practices** (4A.6).

Detailed action plan is attached as **Supplementary Table ST1** at the end of this document.

Supplementary Table ST1. Updated Action Plan for 2022-2024 period.

Action	STATUS	Principles	Timeline	Resources	Key indicators/ targets
4A.1 Informative activity on subject of professional responsibility and research reproducibility	NEW	2. Ethical Principles 3. Professional Responsibility	10/2024	Deputy Director for Research, Team Leaders	number of meetings, number of participants
4A.2 Informative activity of Grant Office	EXTENDED	4. Professional Attitude	10/2024	virtual Grant Office	number of e-mails sent, dedicated meetings (group/individual), webpage updates
4A.3 Improvement of web/intranet resources including webpage	NEW	4. Professional Attitude	10/2024	Director, IT department, HRS4R group	intranet resources - results of web questionnaire on accessibility (10/2024)
4A.4 Simplification of formalities associated with orders and purchases - electronic DMS	EXTENDED	6. Accountability	10/2023	Director, Accounting/Orders Department	indicator - adoption of document management system; target - all academic staff;
4A.5 Search for funds to enable disabled people enter the main building of the Institute	EXTENDED	10. Non-discrimination	10/2023 10/2024	Deputy Director for Administration	application submitted for ministerial funds
4A.6 Adoption and monitoring of Gender Equality Plan	NEW	10. Non-discrimination 27. Gender Balance	12/2023 12/2024	Director, Plenipotentiary for Gender Equity, HR department	target - all staff; indicators: yearly reports, additional measures as listed in the GEP document
4A.7 Monitoring and adjustment	EXTENDED/	11. Evaluation/appraisal	11/2023	Director, Team	yearly reports on the possible allocation of

Action	STATUS	Principles	Timeline	Resources	Key indicators/ targets
of motivation system	UPDATED	system	11/2024	Leaders	funds; target: all researchers
4A.8 Provide mentors to proactively support young researchers (R1-R2) in their professional career development	EXTENDED	28. Career Development	10/2023 10/2024	Director, Team Leaders	report on feasibility of mentoring initiative (10/2023), depending on results: number of mentee-mentor collaborations (10/2024)
4A.9 Establishment of promotion of local, national and international networks	EXTENDED	28. Career Development	12/2023 12/2024	Deputy Director for Research, Team Leaders	increase in number of collaborations or grant applications
4A.10 Set up a collaboration with a Career Office	EXTENDED	30. Access to career advice	Until 06/2024	Director, Deputy Director for Research	number of meetings; number of researchers participating in the meetings;
4A.11 Soft skills training for team leaders, Team Leaders, supervisors and co-supervisors	EXTENDED	37. Supervision and managerial duties	Until 09/2024	Deputy Director for Research, HR department	number of meetings, number of participants

Supplementary Table ST2. Actions implemented under 4A.6 Adoption and monitoring of Gender Equality Plan (source: Director's Order 07/2022)

Objective	Action	Responsible	Performance indicators
Disseminating knowledge about equality and measures against gender-based violence	Training of all employees and doctoral students conducted by a specialist, including a message for management	Working Group and Steering Committee for HR Logo	Number of participants, number of completed questionnaires after the training
	Dissemination of knowledge about unconscious gender-based bias and violence (management)	Working Group and Steering Committee for HR Logo	Number of lectures
Striving for an equal gender representation	Striving for equal gender representation among the members of the Scientific Council	Deputy director for scientific affairs	Number of women and men in the Scientific Council of IGR PAS
	Striving for equal gender representation in doctoral student recruitment committees - formulation of guidelines	Agriculture-horticulture discipline coordinator at PSD IPAN	Average share of women / men in recruitment committees in a calendar year
	Monitoring the number of women and men in employee groups	Human Resources Department	Number of lists prepared
	Monitoring the participation of women and men in grant competitions, research projects and applications for financial support	Deputy director for scientific affairs, Plenipotentiary for Equality	Number of lists describing the participation of women and men
Promotion of good practices	Informing employees about training seminars organized by the Polish Academy of Sciences, the PolSCA Office and others	Working Group and Steering Committee for HR Logo	Number of information sent, number of participants
	Review of documents regulating the operation of IPG PAS in terms of non-compliance with the equality policy (contracts, regulations, job advertisements)	Director, Human Resources Department, Legal Counsel	Number of documents checked
	Promotion of various terminology of scientific positions and other positions, tailored to individual preferences, taking into account gender	Working Group and Steering Committee for HR Logo	Number of recommendations made

Support for the professional promotion of women	Interviews with employees and PhD students performing caring duties	Plenipotentiary for Equality	Number of interviews
	Conducting a survey to identify the existing barriers to the development of women's scientific careers and the needs of people returning to scientific work after maternity and parental leave	Working Group and Steering Committee for HR Logo, Plenipotentiary for Equality	Number of respondents
	Organization of lectures with invited speakers on the careers of women in science, in Poland and in the world (e.g. leaders of national or international grants)	Working Group and Steering Committee for HR Logo	Number of lectures
Support for combining work with family life	Agreeing with the employee the individual organization of working time on the premises of the Institute	Director, heads of research facilities and departments	Number of employees covered by the individual organization of working time
	Determining the mode and scope of remote work with the employee	Director, heads of research facilities and departments	Number of employees covered by remote work
	Including information on care obligations in the periodic evaluation forms of research workers and doctoral students	Deputy director for scientific affairs	Number of forms changed
Organization of monitoring and reporting of irregularities, data collection	Placing information on the implementation of activities and indicators in the annual report of IPG PAS	Deputy director for scientific affairs	Number of annual reports containing information
	Appointment of the Director's Plenipotentiary for Equality	Director	Success / failure
	Conducting a survey on gender equality among employees and doctoral students	Working Group and Steering Committee for HR Logo, Plenipotentiary for Equality	Number of surveys, number of respondents
	Accepting signals and propositions concerning gender equality, functioning of planned procedures and monitoring of irregularities	Working Group and Steering Committee for HR Logo, Plenipotentiary for Equality	Number of signals and propositions received, number of recommendations