HR strategy
Nencki Institute of Experimental Biology
Polish Academy of Sciences
(HRS4R)

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1. General information

The Nencki Institute has an A+ category awarded in Poland to institutions with the highest scientific potential. Its research staff consists of more than 130 researchers, including 28 full professors, who use state-of-the-art research methods combined with precise tools to carry out ambitious interdisciplinary projects. Mainstream research focuses on new therapies and diagnostic methods for neurodegenerative diseases, metabolic disorders, cancer and other conditions of modern society. The institute's scientific activities are supported by service labs that offer a wide range of services, including preclinical research, DNA sequencing, transgenic animal production and biological imaging, from light and electron microscopy to magnetic resonance imaging. The strategy of fostering innovation implemented at the Institute results in a steady increase in the number of publications and the number of inventions covered by domestic and foreign patents, and stimulates cooperation between our institute and industry. More information about the Institute can be found at: https://nencki.edu.pl/institute/about/information/

1.1 Mission

The Nencki Institute's activities focus on three main areas: research, innovation and education. The Institute's scientific team combines cutting-edge knowledge with technological advances to develop cutting-edge scientific strategies to solve complex problems in modern biology and medicine. The mission of fostering innovation is carried out through the development of the Nencki Institute's innovation platform, under the SPARK Global initiative, which provides support for collaborative research with business, and technology transfer. The Institute also plays an important role in education, educating and inspiring future leaders of science through multidirectional education through its proprietary educational program: Warsaw-4-PhD Doctoral School.

1.2 Organizational structure

The governing bodies of the Nencki Institute consist of the Director and the Scientific Council. These bodies create scientific policy, supervise and stimulate the Institute's activities in order to maintain the highest standards, both in the scientific and general organizational context.

1.2.1. Scientific and service units

Most of the Nencki Institute's research labs operate within the Center for Basic and Translational Research in Biology and Biomedical Sciences. This center brings together 27 laboratories that combine the latest advances in biology, biotechnology and computational techniques to conduct research aimed at understanding fundamental problems in biology and medicine. Particular emphasis is placed on basic and translational research in neuroscience and diseases of civilization.

The BRAINCITY Research Center for Neuronal Plasticity and Brain Diseases, consisting of 2 research laboratories, was established as an International Research Agenda created under the auspices of the European Molecular Biology Laboratory (EMBL). Research conducted at BRAINCITY focuses on understanding the mechanisms of diseases of the nervous system and aims to develop new methods for their diagnosis and monitoring, as well as to support the development of new therapies.

The Neuroscience Center brings together 8 service labs, offering internal and external users state-of-the-art equipment and professional expertise in neuroscience, molecular biology and biological imaging. In addition, the Center offers a wide range of

services including preclinical research, genetic engineering services and the production of transgenic animals. The goal of the laboratories comprising the Neurobiology Center is to provide substantive and technical support for research conducted at the Institute, as well as to collaborate with external scientific and commercial partners to develop innovation and accelerate technology transfer and implementation of scientific discoveries.

The Mikolajki Research Station provides research infrastructure for behavioral, metabolic and molecular research. The station has modern research laboratories, accommodation and conference rooms, making it an independent research facility. Its unique infrastructure and location allows it to conduct experimental research in the natural environment of animals. The Station also conducts intensive educational activities, organizing lectures, demonstrations and workshops for teachers and schoolchildren. As part of the NEBI scientific project implemented at the Station, by the Nencki Institute, the National BioImaging Center (BIOPIXEL) was established in 2024, offering state-of-the-art equipment for imaging biological processes at multiple levels of organization, as well as an integrated IT platform for data collection and analysis.

1.2.2 Auxiliary units

The Institute has auxiliary units in addition to scientific and service laboratories.

Nencki Institute Library
- Offers an extensive collection of printed and electronic materials, including books, periodicals, CDs, microfilms and old prints.
- Currently has more than 75,000 volumes on a wide range of topics related to biology, neuroscience and human disease, among others.

The International Cooperation and Project Management Department handles:

- Administrative support of international research projects;
- Administrative service of projects co-financed by European funds, aid programs and other external sources;
- Acquiring and providing information to the Institute's employees regarding the possibility of applying for funds from domestic and foreign sources of research funding;
- Cooperation with employees of other organizational units of the Institute in completing the documentation needed to apply for funds for research and infrastructure projects;
- Cooperation with employees of other organizational units in the implementation and development of international cooperation in the broad sense.

The Technology Transfer Office handles:

- popularization of good practices in knowledge and technology transfer among employees and students;
- support in managing the intellectual property developed by our researchers;
- coordination of the process of intellectual property protection including acquisition of patent protection in cooperation with patent attorneys;
- conducting an initial assessment of the commercial potential of the solution;

- functioning as a point of contact between researchers and entrepreneurs and support in negotiations;
- assistance in the search for business partners.

Information Technology Department, whose tasks include:

- Maintenance and development the Institute's existing IT solutions and ensuring the continuity, reliability and stability of the IT infrastructure.
- Taking care of IT security.
- Protecting against threats from the public network and monitoring network parameters and responding to irregularities.
- Monitoring the efficiency of operating systems and services, environmental parameters of rooms for optimal operation of information systems, voltage parameters of power support systems.
- Automation of tasks and creating scripts to integrate information systems.
- Resolving users' programming problems.
- Maintenance and programming support of websites.
- Maintaining continuity of systems operation.
- Administrative support for users.
- Coordination and multimedia support of events at the Institute: conferences, scientific symposia, meetings and other events, requiring the use of multimedia equipment and techniques: sound system, lighting, implementation of video and sound in "live" broadcasts, multimedia presentations.
- Digital recording and computer editing of audio and video signals.
- Publishing multimedia content on social media and the Institute's website.
- Support for users in ongoing hardware and software problems, as well as hardware repair and expansion.

Animal facility whose tasks include:

- Conducting laboratory animal husbandry in accordance with applicable standards and regulations
- Maintaining animal welfare at the highest level, which guarantees reproducibility and reliability of the results obtained.

The Institute also has its own scientific journal, Acta Neurobiologiae Experimentalis (formerly, until 1969, Acta Biologiae Experimentalis), published continuously (except during the war years) almost since the Institute's establishment.

1.2.3 Administration

The Department of Employee Affairs and Recruitment handles the affairs of employees and doctoral students from the moment of recruitment through the entire period of employment and training.
The main areas of activity include:
- administration of the Institute's personnel matters in accordance with applicable regulations
- conducting social affairs of employees and retirees and coordinating sports, cultural and medical care activities
- support for foreign workers and doctoral students in the legalization of their stay and work and their adaptation in Poland
- running the office of doctoral studies and the doctoral school

- providing administrative service of the meetings of the Scientific Council

The finance and accounting department provides:
- accounting service of the Institute
- financial expertise and assistance in managing research funds
- maintaining transparency of finances and management of the Institute's financial resources in accordance with the Public Procurement Law.

The tasks of the Public Procurement and Supply Department include:

- day-to-day supervision of the Institute's public procurement proceedings and verification of the documentation of ongoing procurement proceedings for compliance with applicable regulations;
- participation in the preparation of tender documents, including specifications of essential terms of contracts;
- providing information on applicable procedures and regulations related to public procurement;
- implementation of purchases and ensuring adherence to timely fulfillment of submitted requests;

The Infrastructure Department deals with, among other things:

- administration of the Institute's real properties,
- development of plans for investment, repair and maintenance of buildings and technical plans of the Institute
- administrative supervision of the organization of meetings and conferences at the Institute

1.3 International cooperation
The Nencki Institute has extensive international cooperation with academic and research centers around the world. It is carried out through traditional bilateral agreements as well as direct scientific contacts. The result of contacts with foreign partners, extended year by year, is the growing number of international research projects, as well as the increase in the number of publications resulting from cooperation with foreign scientific units.

1.4 Employment structure
Currently, the Institute has 355 employees (including 180 researchers), and 100 doctoral students in training (as of October 2024). The structure of the Nencki Institute in terms of position groups is shown in Figure 1 below.

Figure 1: Employment structure at the Institute

Employment structure

- 1. Research staff
- 2. Research-technical staff
- 3. Technical staff
- 4. Auxiliary units and administrative staff
- 5. Doctoral students
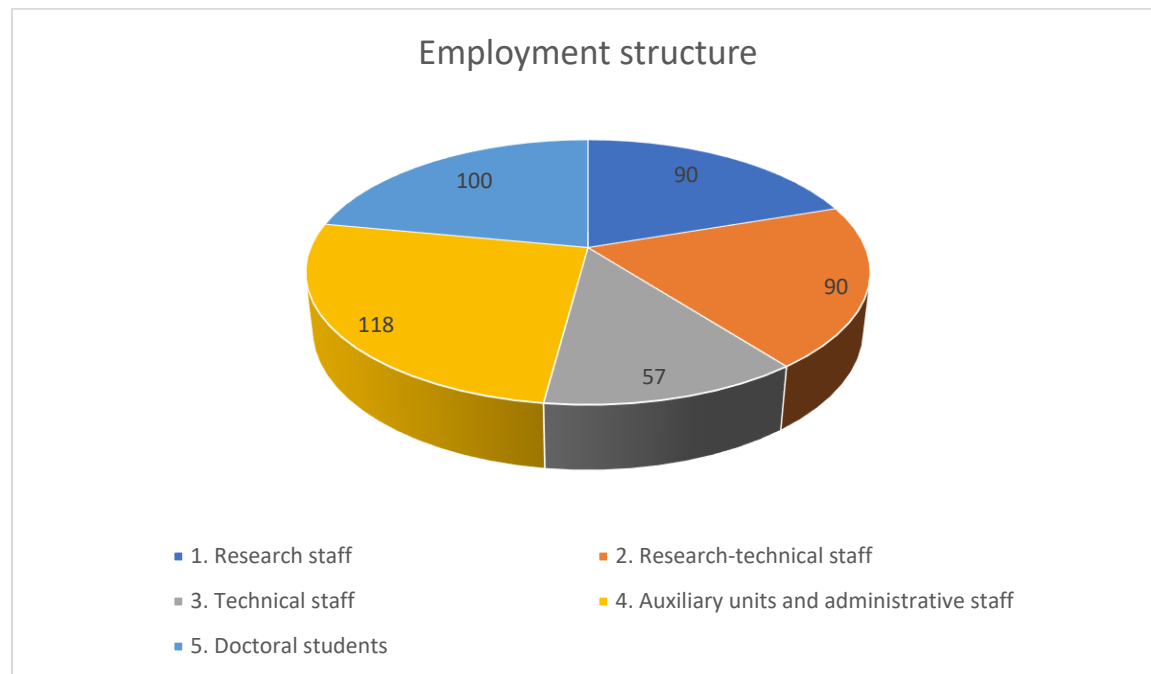
2. HR Strategy Update (HRS4R)

A key role in the HRS4R implementation process was played by the Team for the implementation of the strategy of the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers created in 2009. In 2019, the Commission for the Implementation of the Strategy of the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers was established. In 2019, the HRS4R conducted a so-called Interim Assessment. At that time, there was an inspection of the implementation of the strategy and its level of compliance with the principles of the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers (C&C). The assessment of the EC evaluators indicated a high level of involvement of the Nencki Institute in the HRS4R implementation process. However, it also outlined areas/tasks to be reviewed, including: lack of dissemination of the HRS4R strategy and the principles of the Charter and Code to employees, lack of an action plan on the website and lack of key performance indicators (KPIs), lack of structured training on ethics in research. These aspects have been the focus of the Commission's work in recent years.

In 2024, prior to Phase III (the renewal phase), a survey was conducted to determine to what extent the internal regulations of the Nencki Institute, are in line with the provisions outlined in the Charter for Researchers adopted by the EC. The survey was directed to 279 scientists (199 women and 80 men). Eighty-three responses were received, representing 28% of all respondents. 78.8% of the respondents were over 35 years old. The results of the survey will form the basis for measures to improve existing procedures and practices at the Institute. The results of the survey are described next to each of the four pillars.

3. Analysis of the 4 pillars of the European Charter for Researchers

PILLAR 1

Ethics, integrity, gender and open science

1. Ethics and research integrity

Research ethics and integrity are the foundation of science, and the primary responsibility for upholding them lies with the researchers themselves. However, fostering this responsibility requires institutional action, including the creation of standards, procedures and guidelines, the organization of training and mentoring based on best practices.

In order to foster good research practices and a culture of research integrity, the following dimensions should be considered:

Integrity in the research environment; training and capacity building; policies and processes (incorporating integrity principles into regulations, policies and procedures of research institutions, as well as ensuring the transparency of these principles); management of data and publications.

Mechanisms to counter integrity issues should also be implemented. Institutions should implement systems to identify, report, and effectively resolve cases of research misconducts.

Researchers are required to avoid plagiarism in any form. Particular attention should be paid to the principles of joint ownership when research is conducted in collaboration with supervisors or other researchers -according to the discipline- and to regulations on intellectual property. During the implementation of research projects at all stages - from conception to preparation of proposals to publication of results - particular attention should be paid to correct citation and recognition of the contributions of all participants

An important aspect of research integrity is also to confirm observations by demonstrating the reproducibility of other authors' results. This is not considered plagiarism as long as the original data and studies being verified are clearly indicated.

Ethics and integrity take on particular importance in supervisory relationships. It is crucial to create a safe, inclusive and gender-equal research environment, free from any form of discrimination, harassment, psychological bullying, or obstruction of learning and research work. In the case of violations, such as misappropriation of data or research results, it is necessary to take immediate corrective action and counter such practices. Actions required: yes.

2 Freedom of scientific research

Freedom of scientific research is the foundation of research cooperation both within the European Research Area and in international partnerships. It is the foundation that makes it possible to conduct research for the benefit of humanity and to expand the frontiers of knowledge. Researchers should have freedom of thought, opinion and expression, to formulate research questions, to choose methods to solve problems, to develop and test theories, to question the established state of knowledge and to put forward new ideas. As part of this freedom, they also have the right to associate in professional and representative academic bodies.

Freedom of research also includes the right to disseminate and publish research results, including in teaching and training activities. However, this freedom is subject to certain restrictions, arising from the conditions under which research is conducted, such as scientific supervision, consulting or project management. These restrictions may also be related to legal regulations, including intellectual property protection, data protection laws and research ethics. They may also arise from operational considerations, such as the availability of research infrastructure, budget or other resources.

3. Open science

Researchers should engage in all aspects of open science, and their employers and funders should support them in these activities. Openness in science includes sharing research results in an accessible and transparent manner, such as through open databases and FAIR-compliant (findable, accessible, interoperable and reusable) data. Providing open access to publications, open software, models and algorithms, as well as taking steps toward reproducibility of research results are also important elements of open science.

Researchers should use open science methods, engage in open peer review and promote practices that support openness in research. Employers and funders should create and promote a culture of open science, supporting access to research results along the lines of "open to the greatest extent possible, closed only to the extent necessary."

Promoting open science requires the dissemination of open access to scientific publications, research data and other research products. This support should include the provision of appropriate tools, infrastructure, and the development and integration of

digital research services and resources. It is also crucial to take into account differences between scientific disciplines, cultural differences, including multilingualism, and the development of skills related to open science.

4 Citizen Science

Researchers should, as much as possible and where appropriate, incorporate citizen science elements into their research projects. This means involving citizens in the conception, design and implementation of research projects in STEM fields and the social sciences and humanities.

Citizen science provides a unique opportunity to democratize science through active cooperation between researchers and the public. It fosters trust in science, while at the same time allowing the collective intelligence and broad capabilities of the public to be harnessed for scientific research and innovative projects.

5 Gender equality

All stakeholders involved should foster gender equality and gender balance in research teams, management and decision-making bodies, recruitment and promotion committees, and advisory groups. This support includes the integration of the gender dimension in research, teaching and innovation, which contributes to quality improvement, scientific excellence and the social relevance of research results.

Gender equality aims at combating all forms of gender-based violence, including sexual harassment. Gender equality should be viewed from an intersectional perspective, taking into account the various factors, such as gender, social affiliation and identity, which influence each other and create complex systems of interdependence. This means that different forms of inequality can overlap and reinforce each other, requiring a holistic approach to their elimination.

Appropriate mechanisms for promoting gender equality are sustainable institutional changes, targeted through gender balance plans or similar, which enable proper reporting of infringements and include monitoring and evaluation systems.

A key aspect of transforming organizational culture for gender equality is work-life balance. This support should be available to both women and men, enabling career development in harmony with personal responsibilities, including caring responsibilities that can be fulfilled outside the workplace.

6. Embracing diversity

Embracing diversity is a core principle of European Research Area. This means promoting equality and countering discrimination based on gender, race, ethnicity, religion, beliefs, social status, disability, age or sexual orientation. Employers and funders should consider diversity among researchers, as their different life experiences enrich the research perspective and enhance the quality of projects. The diversity of participants also has a direct impact on research results, which can better meet the needs of diverse societies. There is also a need to recognize unconscious biases, especially in recruitment processes, the awarding of promotions and job evaluation, and compensate for them where possible, especially in the realm of science.

7. The research profession

All researchers should be involved in the conception or creation new scientific knowledge based on original concepts and hypotheses, and their work should be recognized, regardless of the sector in which they operate.

Employers and funders should promote and support non-linear and multi-level career paths, understood as paths that are characterized by geographic, disciplinary, cross-sector and inter-organizational mobility, such as secondments. They should also encourage hybrid paths that combine different sectors simultaneously, which should be treated on a par with linear career paths. It is important that a variety of career paths be promoted from the beginning of an academic career, already at the doctoral school level. Geographical, disciplinary and inter-sector mobility should be encouraged, as well as the creation of career paths combining different sectors, which should be treated on a par with traditional linear paths.

Professional attitude
The professional attitude of researchers should include knowledge of the goals of scientific strategy and research funding mechanisms. Researchers should strive to make their research relevant to society, avoiding duplication of previous research and ensuring effective valorization. Communication between researchers and employers or funders should be clear, especially when research projects are delayed, redefined or completed.

Accountability
Researchers' accountability means an awareness of accountability not only towards their employers and funders, but also towards society. Publicly funded research requires effective management of public funds. Researchers should follow the principles of transparent and efficient financial management and cooperate during audits.

8. Mobility of researchers

Employers and funders should support the free mobility of researchers, taking care to attract talent and prevent talent drain. Mobility in its various forms: geographic, inter-institutional, inter-sectoral, interdisciplinary and transdisciplinary, should be valued as a key way to expand knowledge and promote professional development at different stages of a career. It is important that mobility experiences be fully integrated into systems for assessing career and academic progress. In addition, virtual mobility can be an important asset which should also be taken into account. Adequate administrative tools should be put in place to enable the portability of grants and social security in accordance with national regulations.

9. Sustainability of research

Researchers, employers and funders should promote sustainable research implementation, in line with policy initiatives such as the European Green Deal, the United Nation's 2030 Agenda and the UN Sustainable Development Goals. Researchers should be supported by an institutional culture of sustainable research management, as well as training and mentoring based on sharing best practices. Researchers should play a leading role in reducing carbon emissions by setting a positive example for other

members of the research community. The European Commission's "MSCA Green Charter" developed in the framework of the Marie Skłodowska-Curie Actions can be used as a reference point.

Analysis of the results of the survey conducted on the issues included in Pillar 1:

- Only 8.4% of researchers have encountered a citizen science research initiative. Awareness measures should be taken on what citizen science is through training and informational meetings.
- 26.3% of researchers are not aware of the provisions of the gender equality plan, which was announced in 2022 and is available on the Institute's website and intranet. Actions should be taken in this regard to make researchers aware of what the gender equality plan means through training and informational meetings.
- To the question: has the Institute created an employee evaluation system that takes into account their research creativity and research results (including publications, patents, national and international mobility, etc.) 32.5% of researchers answered that it has not. Meanwhile, such evaluation system exists, and at the beginning of each year, an evaluation of all employees is carried out by the Institute's management on the basis of regally completed forms by scientists. In addition, based on the same data, the work of the Academic Council's Commission for the Evaluation of Researchers evaluates researchers every 4 years under the Higher Education Act.
- The results of the survey showed that employees' awareness of research activities should be increased in line with existing nationwide initiatives adopted for social progress through training and informational meetings.
- 97.5% of respondents follow ethical principles and norms in their daily work, while 82.3% are aware of the principles contained in the PAS Code of Ethics for Research Staff, which indicates a high awareness of ethical principles among researchers.

PILLAR 2

Researchers assessment, recruitment and career progression

1. **Researchers assessment**

The assessment of researchers should make it possible to evaluate their performance and impact to ensure the highest quality of research. It is necessary to recognize the increasing diversity of research activities and research practices. Therefore, the basis of evaluation should be qualitative, with expert evaluation playing a key role, supported by the appropriate use of quantitative indicators.

Employers and funders should support an evaluation system that takes into account the overall quality of research's impact on society, science and innovation, the diversity of activities conducted, practices for open science, and the value of geographic, interdisciplinary and cross-sectoral mobility.

Such a system should:

(a) be based on an impartial qualitative assessment by experts, supported by the responsible use of quantitative indicators;

(b) reward the quality of research and its impact on society, science and innovation;

(c) recognize the diversity of research products and activities, such as publications, patents, methodologies, mentoring, data management, collaboration with industry, teaching, scientific communication, and open practices; mobility experiences;

(d) ensure that the researcher's activities meet high standards of ethics and integrity, including the promotion of good practices and open practices in the sharing of research results;

(e) include the use of evaluation criteria and processes that respect the diversity of research disciplines and national contexts;

(f) support diversity of profiles and career paths of researchers valuing both individual contributions and the role of collaboration and interdisciplinary character;

(g) ensure gender balance and equality, equal opportunity and inclusiveness

To ensure effective implementation of these principles, employers and funders should support ongoing training for those involved in the evaluation and bonus process.

2. Recruitment

In line with the principles of academic freedom and institutional autonomy, employers and funders should establish open, transparent and merit-based recruitment procedures, without penalizing career breaks or non-linear, multi-level and hybrid career paths. These procedures should promote excellence, gender equality and diversity, and be tailored to the specifics of the position advertised. Advertisements should include a detailed description of the required knowledge, competencies, working conditions, entitlements and career prospects. Candidates should be informed about the recruitment process, selection criteria, available positions and career prospects. Members of the selection committee should be properly trained in fair recruitment principles

Variations in the chronological order of CVs
Career breaks or variations in the chronological order of CVs should not be regarded as an obstacle, but as a natural career evolution that can make a valuable contribution to professional development, especially for those following a multidimensional career path. Therefore, candidates should be allowed to submit CVs supported by evidence reflecting a representative range of achievements and qualifications relevant to the position they are applying for.

Seniority
The required levels of qualification should meet the needs of the position and should not be a barrier to entry. When evaluating candidates, the focus should be on their achievements, not on the institution where they obtained their qualifications. Professional development, which can be lifelong, should be valued, also recognizing achievements gained early in an academic career

3. Staff selection

As part of the recruitment process, the full range of professional experience should be considered when selecting candidates. Recruitment committees should be characterized by a diversity of expertise, competencies, and experience, which are key to a comprehensive evaluation of candidates. In addition, committees should strive to maintain an appropriate gender balance.

Whenever possible, a wide range of candidate selection practices should be used, such as evaluation by an outside expert and face-to-face or online interviews with the candidate. Members of the selection committee should receive appropriate training,

especially in minimizing gender bias and other potential unconscious biases. At the end of the recruitment process, each candidate should receive feedback on the strengths and areas for improvement in their application.

4. Non-discrimination

Funders and employers should ensure equality of opportunity and avoid any form of discrimination against researchers, regardless of their gender, age, ethnic, national or social origin, religion, creed, sexual orientation, language, disability, political beliefs, and social or material status. It is important that recruitment processes and grant awards be guided by principles of equality and fairness, ensuring that all applicants and participants are treated fairly.

5. Career progression

Funders and employers should implement employee evaluation systems for all researchers, allowing for regular and transparent appraisal of their performance. These evaluations should be conducted by an independent committee, and an international committee is recommended for particularly recognized researchers. Full recognition should be given to non-linear and multi-level career paths that take into account geographic, sectoral and inter-organizational mobility, as well as hybrid paths that combine different sectors. Such career paths should be treated on a par with the traditional linear career path, which involves progression from one position to another, usually in the same field.

Staff evaluation procedures should take into account a wide range of criteria, such as the overall potential of researchers, research outputs (e.g., publications, data, software, models, algorithms, methods, patents, policy contributions), activities (e.g., management, leadership, teaching, mentoring, entrepreneurship, knowledge valorization, international cooperation, administrative duties, service to society, scientific communication), and conduct in the research context (e.g., ethics, integrity, methodological rigor, open collaboration and knowledge sharing), mobility.

A transparent, structured system of career advancement that promotes inclusion and ensures gender equality is required. This system should support career development in academia, including at the highest levels. In this context, at the level of member states and research organizations, it is worth considering the introduction of systems similar to the tenure-track-like model, where fixed-term contracts carry the prospect of progression to a permanent position subject to a positive evaluation.

6. Co-authorship

Institutions should look favorably on co-authorship when evaluating research staff, viewing it as evidence of a constructive approach to conducting research. Therefore, employers and funders should develop policies, practices and procedures to ensure that researchers, including early stage researchers, have the necessary conditions to exercise their right to recognition and to list or cite their contributions in the context of actual participation in research work, as co-authors of publications, co-inventors of patents, etc., as well as the right to publish the results of their research, regardless of their role as supervisors. Institutions should offer training and workshops to researchers, especially those in the early stages of their careers, on the ethical aspects of authorship, including clarifying the rules for determining individual contributions and the rights and responsibilities associated with authorship and co-authorship.

7. **Recognition of mobility experience**

Any experience of scientific mobility, such as a stay in another country/region or in a different scientific environment (in the public or private sector), a change of discipline or sector during the course of a scientific career, as well as experience of virtual mobility should be seen as a valuable contribution to the professional development of a researcher.

According to the opinions of 70% of researchers at the Institute, the recruitment procedures in place are clearly defined, open, transparent and effective, adapted to the requirements of the positions offered. Furthermore, 78% of respondents say that recruitment announcements contain sufficient information on the required knowledge, skills of candidates, selection criteria and conditions of employment, which indicates a high level of transparency and professionalism in the recruitment process.

PILLAR 3

Working conditions and practices

1. **Working conditions, funding and salaries**

Funders and employers should ensure that working conditions for researchers, including those with disabilities, are flexible and accessible to the extent that they enable the effective conduct of scientific research, in accordance with applicable national regulations and collective-bargaining agreements in the sector. These conditions should make it possible to combine professional, personal and family life, enable health care, ensure safety and well-being, without adversely affecting the development of research careers.
Special attention should be paid to, among other things, flexible working hours, part-time work, remote work, sabbatical leave, and the necessary financial and administrative regulations governing such arrangements. Employers should ensure working conditions and environments that are to the mental health and general well-being of employees. including appropriate procedures to prevent gender-based violence, including sexual harassment, and mechanisms to counter it

Research environment
Employers employing researchers should strive to create the most stimulating research environment possible, which will provide access to appropriate research equipment, and infrastructure, as well as enable scientific collaboration with other research centers. Special attention should be paid to providing qualified support staff, such as research managers and administrators.

Complaints/Appeals
Funders and employers of researchers should implement appropriate procedures, in accordance with applicable national, EU or international rules and regulations, to deal effectively with conflict or complaint issues. An example of such measures could be

the appointment of an impartial ombudsman responsible for handling complaints and appeals by researchers, including on issues of conflict between them.

These procedures should provide all research staff with confidential and informal assistance in resolving work-related conflicts. Their purpose is to ensure fair and equal treatment within the institution and to improve the quality of working conditions and environment. Participation in the management of the organization

Funders and employers who employ researchers should consider it fully legitimate, and even desirable, their right to have representatives on the relevant information, consultation and decision-making bodies at the institutions where they are employed. This allows for the effective protection and representation of individual and collective interests of researchers and enables them to be actively involved in the work of the institutions.

Funding and salaries

Funders and employers who employ researchers should provide them with, fair and attractive conditions of remuneration along with adequate and equitable social security benefits (including sickness, health care and parental benefits, retirement and disability pension rights and unemployment benefits, widow's retirement and disability pensions, invalidity benefits and benefits for accidents at work and occupational disease) in accordance with applicable national laws and national or sectoral collective bargaining agreements. These conditions should cover all researchers at every stage of their research careers, and should be commensurate with their legal status, performance and level of qualification and responsibilities. Researchers should be fully aware of their rights and obligations regarding salary calculations, and be provided with transparent information on social protection rights, such as national pension rights.

2. Stability of employment

Employers and funders should take strong measures to counteract the phenomenon of precarious employment, as well as to promote job security and stability. As part of these measures on a voluntary basis, one could consider putting a limit on the number of fixed-term contracts in an organization's total employment of researchers. Regardless of whether the research work performed is permanent, long-term or highly repetitive, indefinite contracts should be the preferred solution. Researchers on fixed-term contracts should have access to special career support services and career counseling to ensure career continuity and enhance their long-term professional stability

Early career researchers (R1-R2)
In addition,

Precarity of employment is a particular issue in academia, and its effects can negatively affect the development of research careers. In order to effectively counteract this phenomenon, it is recommended that measures be implemented that would support first stage (R1) researchers, especially in terms of providing social protection, working conditions and adequate income. It is also important to promote the involvement of young researchers in research teams and to prevent them from being forced to perform tasks unrelated to their scientific training. In addition, their mobility - whether inter-institutional, intersectoral, interdisciplinary or geographic (including virtual mobility) - should be recognized and encouraged.

Institutions employing researchers should also establish clear rules for recruiting and appointing recognized researchers (R2), including specifying the maximum duration of the position and the purposes of the appointment. These guidelines should take

into account experience gained in previous positions at other institutions and assume that the status of an employee with a doctoral degree is transitional, allowing for long-term career prospects for researchers on a temporary or permanent contract. Employers and funders should also seek to inform early stage researchers about available career paths both in and out of academia, offering a wide range of career opportunities, especially at the R2 stage. Efforts should be made to provide more transparent and predictable career prospects and to promote opportunities for on-the-job learning, including across sectors.

1. Contractual or legal obligations

Researchers at any stage of their careers should be familiar with national, sectoral or institutional regulations governing working and training conditions. This includes regulations governing intellectual property rights and requirements and conditions set by sponsors or funders, regardless of the nature of the contract. Employers and funders should provide copies of these documents in English. Researchers are obliged to comply with these regulations by fulfilling the requirements specified in the contract or equivalent documents, such as doctoral or postdoctoral thesis, publications, patents, reports, new products development etc. Given the growing importance of knowledge security, researchers should apply work security principles in accordance with relevant national and EU regulations, i.e., among other things, take the necessary precautions for occupational health and safety, as well as for recovery from cyber attacks and IT failures, such as by preparing appropriate backup strategies. They should also be familiar with applicable national and EU laws on data protection and confidentiality requirements, and take the necessary steps to comply with these laws on an ongoing basis.

2. Dissemination and exploitation of results

All researchers should practice open science, e.g., by publishing, sharing with other scientific communities and, where appropriate, commercializing results. Senior researchers are expected to take the initiative in this regard. Employers and funders should support researchers in this regard through appropriate training that will enable them to acquire the necessary skills, as well as providing access to the necessary funding, infrastructure and support. They should also value researchers' commitment to open science practices, encourage them to do so, and reward them in recruitment processes, career progress assessment, and in the allocation of research funding. In terms of intellectual assets, employers and funders should ensure that researchers at every stage of their careers are adequately compensated for the benefits of using the results of their research, including, where appropriate, by guaranteeing joint ownership of intellectual property rights such as copyrights. Such provisions should be included in the organization's intellectual asset management strategy, which should be publicly available.

The intellectual asset management strategy should include the creation of management and use of all types of intellectual assets (including peer-reviewed publications, data, expertise, standards), and support open science practices.

It should also clearly define ownership provisions and access rights to these assets, including the rights enjoyed by researchers, employers or other parties, such as industry partners, under cooperative or other agreements.

Public engagement

Researchers should ensure that their research is presented to the public in a way non-specialists can understand, thereby increasing the level of public understanding of science. Direct dialogue with citizens allows them to learn more about their interests, priorities and concerns, and enables them to collaborate in designing and creating research that will have a real impact on society Through such initiatives, scientists can gain a better understanding of public expectations and realize the potential of co-creating knowledge with citizens.

The results of the Institute's survey show that:

According to 70% of the researchers, the Nencki Institute provides a working environment conducive to work-life balance, enabling them to take care of their health, safety and well-being without negatively impacting their research careers 87.7% of the scientists participating in the survey rated the Institute as offering a stimulating research environment, providing adequate equipment, infrastructure and opportunities for collaboration, and the highest level of health and safety.

95.2% of respondents know that the Institute has a "person of trust" that handles, among other things, complaints/appeals from scientists, including issues of conflict between them.

33.7% of researchers do not engage in science popularization, which is a signal for the Institute to take measures to support scientists' activity in this area and promote their public engagement.

PILLAR 4

Research career and talent development

1. **Valuating diverse research careers**

Employers and funders should recognize that the course of an academic career can take a variety of forms, encompassing both research and teaching activities and other functions performed by researchers. This diversity includes a wide range of forms of mobility, such as international and national mobility, cross-sectoral, inter-institutional, interdisciplinary, transdisciplinary, as well as virtual mobility. In assessing the quality and potential of researchers' careers, it is necessary to adopt an approach that takes into account talent, diversity of experience and mobility, and to use responsible and precise evaluation metrics. A wide range of activities and practices should also be taken into account, such as teaching, peer review, research management and leadership, supervision, mentoring, knowledge valorization, technology transfer, collaboration with industry, evidence-based policy making, science communication, and commitment to open science and interdisciplinary collaboration.

Employers and funders should take steps to make scientists, particularly early in their careers, aware of career opportunities in all relevant sectors. Promoting a culture of diversification of career paths that fosters both professional and personal development is essential to ensure a researcher's full potential. To this end, support systems in the form of career guidance, mentoring and other forms of assistance should be put in place to stimulate researchers' mobility between different sectors, disciplines and countries, as well as to support their entrepreneurial development.

2. **Career development and career advice**

Employers and funders should develop, as part of their human resources management policies, a detailed career development strategy for researchers covering all stages of their careers, regardless of the type of contract signed, including for researchers on fixed-term contracts. The strategy should aim to support researchers in developing individual career plans that identify key areas for development, such as required training and necessary research work to achieve their long-term career goals. The strategy should provide mentor support for researchers' personal and professional development. Such support should motivate researchers while reducing uncertainty about their professional future and fostering a sense of professional security. Researchers should be required to familiarize themselves with these regulations and arrangements, and be proactive in taking responsibility for their own career development.

Employers and funders should ensure that researchers have access to up-to-date career guidance, both within their institutions and through cooperation with other structures that can offer job placement assistance. They should also provide information, guidance and support to enable researchers to advance their careers, regardless of their career stage or the type of contract they have.

3. **Continuous professional development**

At all stages of their careers, researchers should actively seek to develop their skills and qualifications. It is crucial that both employers and funders provide them with adequate support in the form of continuous learning and development opportunities, such as through formal training, workshops, conferences, e-learning or collaboration within research teams. Special attention should be paid to support for first stage researchers (R1), including doctoral students, who are just beginning their careers and need dedicated support in acquiring knowledge and developing competencies. It is important that funders and employers, regardless of the type of contract, provide researchers with opportunities for professional development and improvement of their skills within the available resources. They should support the establishment of targeted training programs that encourage upskilling, development of new skills and re-skilling in a lifelong learning perspective. In addition, fostering cross-sectoral, interdisciplinary and geographic mobility is key to scientific and professional career development.

Employers and funders should regularly evaluate the effectiveness of these activities, checking the availability of training, its attractiveness to researchers, and its effectiveness in improving skills and employability. It is also important to support researchers in entrepreneurship, thus combining creative abilities with the ability to commercialize innovative ideas and support the development of innovations.

In addition, for doctoral students and junior researchers, it is important that their education and training be compatible with the requirements of interoperable careers in all relevant sectors. Efforts should be made to ensure that future education and development programs are compatible with the European Competency Framework for Researchers (ResearchComp), the Principles for Innovative Doctoral Training, the European Code of Conduct for Research Integrity, and other initiatives that will enhance the cross-cutting skills and comprehensive competencies of researchers. Supporting such initiatives allows researchers to be better prepared for the demands of the labor market and the realities of modern science.

Validation of skills

In supporting the development of researchers' skills, employers and funders should ensure systematic and comprehensive evaluation of both formal and informal forms of training. In particular, it is important to include on-the-job training that can contribute to the development of researchers' practical and professional skills. The assessment should cover all aspects of mobility – international, intersectoral and interdisciplinary – which are key to shaping a research career in a global and multisectoral context. In conducting such an assessment, employers and grantors should ensure that it is fair, transparent and relevant.

Teaching

Teaching is a key component of an academic career, fostering knowledge development and research interest among students. Employers and funders should recognize researchers' commitment to teaching, at every stage of their research careers, and especially at the early stages of their careers (R1, R2), aligning teaching responsibilities with their research activities. All teaching assignments should be adequately remunerated and included in employee evaluation systems. Adequate teaching training should also be provided to support the development of researchers' teaching competence, including mentors.

Teaching should benefit from and utilize scientific knowledge, and promote interest in research work among students. Scientists' involvement in teaching, which may change at different points in their careers, should be fully supported and recognized. Special attention should be given to researchers.

4. Supervision and mentoring

Proper management of research teams is crucial to the effectiveness of collaborative research work. Employers should provide training and tools to enable researchers to manage teams in a way that is fair, free of bias (e.g., gender, religious, racial) and conducive to healthy, creative environments. To this end, it is important to appoint appropriate research supervisors who have the expertise, time and capacity for appropriate involvement to effectively oversee research work, monitor progress and provide feedback. It is also important to put in place mechanisms for career support, conflict resolution, and professional development, in accordance with the Marie Skłodowska-Curie Actions (MSCA) Guidelines for supervision.

Relation with supervisors

Researchers in their training phase should have regular contact with a research supervisor and a faculty/departmental representative. Supervisors should actively support early-stage researchers by holding meetings, providing feedback, and promoting training activities related to research work. Comprehensive support should include recording research progress, obtaining feedback through reports and seminars, and instruction discussing the application of this information to research goals and incorporating it into the research schedule.

Senior researchers

Senior researchers (R3 and R4) should pay special attention to their roles, such as research supervisors, mentors, career advisors, leaders or project managers, performing them to the highest professional standards and benefiting from access to appropriate training. As supervisors and mentors, they should build constructive relationships with less experienced scientists (R1, R2) to effectively transfer knowledge and support their career development. Supporting their professional development by sharing their experience and values in a trusted environment is a particularly important mission.

In accordance with the principles of the researcher's charter, the institute should provide career guidance to researchers and doctoral students from experienced scientific staff.

According to the conducted survey:

39.8% of the researchers notice the lack of a defined career plan at the Institute, and 20.5% have no knowledge of it.

79.3% of researchers believe that the Institute provides opportunities for researchers and doctoral students to continuously develop their skills and qualifications through, among other things, participation in training courses, conferences, online courses, and 79.5% of respondents actively take advantage of these opportunities.

The low turnout, at the level of 30%, may suggest that the Institute's community does not see significant problems, and that the current system provides transparency of the situation. Nevertheless, the results of the survey allow us to identify areas for improvement, which should become a priority in the near future.

The Institute plans to activate the scientific community in HRS4R-related activities by establishing working groups responsible for carrying out specific tasks. In the context of career counseling for employees and doctoral students of the Institute, an in-depth analysis is planned for 2025 to determine what career development support and activities employees and doctoral students expect from the Institute.