



## INTERNAL REVIEW

Internal Review for Interim Assessment

Human Resources Strategy for Researchers

April 2023



# SPIS TREŚCI

<b>ORGANISATIONAL INFORMATION</b>	<b>3</b>
Staff & students	3
Research funding	3
Organisational profile	4
<b>STRENGTHS AND WEAKNESSES OF THE CURRENT PRACTICE</b>	<b>4</b>
Ethical and professional aspects	4
Recruitment and selection	5
Working conditions and social security	7
Training and development	8
Have circumstances arisen that have influenced the organisation's HR strategy?	9
Have any of the short and long-term priorities changed?	10
Are strategic decisions that affect the Action Plan being made?	11
<b>IMPLEMENTATION</b>	<b>12</b>
General overview of the implementation process	12
How did you prepare the internal review?	13
How have you involved the scientific community, your main stakeholders, in the implementation process?	14
Do you have an implementation committee and/or steering group that regularly monitors progress?	15
Is there alignment between organisational policies and HRS4R? For example, is HRS4R recognised in the organisation's research strategy, overriding HR policy?	16
How did your organisation ensure that the proposed measures were implemented?	17
How do you monitor progress (timeline)?	17
How will you measure progress (indicators) before the next assessment?	18
How are you going to prepare for the external review?	18
<b>COMMENTS ON THE IMPLEMENTATION OF THE OTM-R PRINCIPLES</b>	<b>19</b>
<b>IMPLEMENTATION OF THE ACTION PLAN FOR 2020-2022</b>	<b>20</b>
<b>ACTIVITIES 2023-2025</b>	<b>32</b>

Case number: 2019PL368805

Name Organisation Warsaw University of Technology

Organisation's contact details: Plac Politechniki 1, Warsaw, 00-661, Poland

## ORGANISATIONAL INFORMATION

### Staff & students (data per day 31.12.2022 r.)

Total researchers = staff, fellowship holders, bursary holders, PhD. students either full-time or part-time involved in research	<b>3622</b>
Of whom are international (i.e. foreign nationality)	<b>145</b>
Of whom are externally funded (i.e. for whom the organisation is host organisation)	<b>394</b>
Of whom are women	<b>1092</b>
Of whom are stage R3 or R4 = Researchers with a large degree of autonomy, typically holding the status of Principal Investigator or Professor	<b>722</b>
Of whom are stage R2 = in most organisations corresponding with postdoctoral level	<b>1286</b>
Of whom are stage R1 = in most organisations corresponding with doctoral level	<b>641</b>
Total number of students (if relevant)	<b>22034</b>
Total number of staff (including management, administrative, teaching and research staff)	<b>5140</b>

### Research funding (figures for most recent fiscal year) €

Total annual organisational budget	<b>120 689 588,3</b>
Annual organisational direct government funding (designated for research)	<b>62 308 002,3</b>
Annual competitive government-sourced funding (designated for research, obtained in competition with other organisations – including EU funding)	<b>49 359 069,5</b>
Annual funding from private, non-government sources, designated for research	<b>9 022 516,5</b>

## **Organisational profile**

The Warsaw University of Technology is the largest and oldest technical university in Poland. Its official origin is 1915, although the beginnings of technical education date back to 1826. The University does research in nineteen organisational units (Faculties), one College and seven University Research Centres. It has one of the largest research and development investments CEZAMAT. In 2019, the University was awarded the status of Research University and took the third place among 20 best universities in Poland in the competition evaluated by international experts. In 2020, within the ENHANCE consortium, the University was winner of the competition "European Universities".

---

## **STRENGTHS AND WEAKNESSES OF THE CURRENT PRACTICE**

### **Ethical and professional aspects**

The analysis of the effects of the measures taken in the area of ethical and professional aspects at PW allowed conclusions to be drawn confirming that the freedom of scientific research, ethical principles, professional responsibility, dissemination and use of the results of this research are the strengths of the PW activity. The principle of professional responsibility, principles of good practice in research, the principle of non-discrimination and staff appraisal systems are also strengths in relation to the principles of the European Charter for Researchers (the Charter) and the Code of Conduct for the Recruitment of Researchers (the Code) in the activities of PW.

It can therefore be stated that the PW, in addition to many other principles concerning ethical and professional aspects, ensures freedom of belief and expression for researchers and freedom of choice of scientific subject matter and research method. The implementation of the principle of non-discrimination, which is a strength of this area, is reinforced by the Rector's Regulation on Anti-Harassment and Discrimination at the Warsaw University of Technology, introduced in 2020.

The weaknesses identified so far, as a result of the actions carried out (identification of strategic research areas of the PW, analysis of the effectiveness of obtaining funding for research, organisation of information meetings addressed to the PW employees, development of annual action plans to promote the results of R&D activities, development of a schedule of consultations with the scientific

supervisor and their publication), have significantly contributed to strengthening the principles of the Charter and the Code, such as: social commitment, contractual and regulatory obligations, professional approach. However, this does not mean that the actions enabling their implementation, were considered satisfactory.

The conclusions of a certain progression that is taking place with regard to the weaknesses of the ethical and professional aspects defined so far, have led the Steering Committee to strengthen the actions in this area. This strengthening has resulted in actions planned for the period 2023-2025 to strengthen the knowledge of the scientific community's objectives and research funding mechanisms, and to take measures to popularise scientific knowledge in the society. These principles will be strengthened through activities such as the launch of a programme aimed at improving the quality of applications for external funding, an analysis of the functioning of Local Project Branches (LOP) together with recommendations, or the development of a catalogue of major scientific achievements for 2017-2022.

These activities correspond to the diagnosed needs of the scientific community resulting from the 2022 survey, in which the respondents indicated not so much the need for information support related to the possibilities of obtaining external funding for research, but support in obtaining funding, understood as support in writing project applications. Also strongly articulated was the demand for the involvement of project managers, or mentors experienced in raising funds for research.

Comments: Despite the measures implemented in the deficiencies diagnosed in 2018 in this area and the achievement of the targeted indicators in 2022, an outcome that could be considered satisfactory was not achieved. The 2022 survey showed that respondents expect not so much information support regarding research funding, although they also consider this support important, but support in writing project proposals with the involvement of mentors experienced in obtaining such funding. The proposed actions for 2023-2025, i.e. analysing the functioning of Local Project Centres and launching Project Mentoring, are a response to the diagnosed deficits, the correction of which will strengthen the area of ethical and professional aspects.

## **Recruitment and selection**

The analysis of the effects of activities undertaken in the area of recruitment and selection allowed conclusions to be drawn, that the strengths of this area are open competitions for the PW, vacancies which include a description of knowledge

and qualifications, published sufficiently in advance so that potential candidates have time to complete the documents required by the competition announcement.

The measures taken to date, such as the development of criteria for the composition of competition committees, which are anchored in the PW statutes or the relevant Rector's Ordinances, the development of criteria for the assessment of candidates for vacant posts in terms of their scientific achievements, have significantly strengthened the principles of the Code, such as: seniority, assessment of merit or selection of personnel.

The reinforcement of the implementation of the principle: deviation from the chronological order of CVs was dedicated to the action concerning the development of criteria for the evaluation of candidates for vacant posts, taking into account, among other things, the experience gained in different entities. The actions assigned to the other principles of the Charter and the Code, which were defined as weaknesses in the area of recruitment and selection, have also been also implemented.

For the first time, the values of the criterion volumes for the scientific activities carried out by PW employees in the disciplines represented at PW were defined. These values constitute criteria for the assessment of scientific activity in the periodic evaluation of academic teachers and in the hiring of employees in the following groups: research and research-didactic. This significantly strengthens the principle of recruitment, transparency and selection of staff.

The effects of the implemented measures will take time, as well as the review and systematisation of information, which in the changing legal reality (amendment of the Act on Higher Education and Science in 2022 and 2023) needs to be continuously updated, also with regard to the principles of the Charter and the Code. This systematisation will be aided by one of the actions planned for 2023-2025. This action will also allow conclusions to be drawn in the area of recruitment and selection, which will be possible to draw, once the survey planned to be carried out has been implemented. These conclusions will redefine the strengths and weaknesses of this area, indicating further directions for work.

Comments: The area of recruitment and selection, is an area subject to the dynamics of changing regulations in 2020 and 2022. In all likelihood, this dynamic can be believed to have influenced the unsatisfactory responses of respondents in the 2022 survey to the weaknesses defined so far in this area.

## **Working conditions and social security**

The analysis of the effects of the measures taken has led to conclusions confirming the strengths of the area of funding and remuneration, or influence on decision-making bodies. This means that PW employees receive all legally required benefits for their work, and academics, including young ones, have representatives in faculty councils, the senate, committees, discipline scientific boards.

The analysis of key factors for the scientific development of academic staff, or the analysis of the participation of women in decision-making bodies, senate and rectoral committees and competition committees at PW, reinforced the implementation such principles as: stability and fixed employment, working conditions. The development of recommendations on mechanisms to support scientific development contributed to the launch of a number of programmes to support this development financed by subsidies, as well as by the Minister's programme "Excellence Initiative - Research University". The introduction of the Gender Equality Plan 2022-2024 by the Rector's Regulation in 2020 defined the strategic objectives and actions in this area for the coming years. The report developed as part of the implemented activities confirms the impact of scientific mobility on the scientific output of the PW employees. A report on the publication activity of the PW employees including co-authorship achievements of these employees shows an increase in publications "in international cooperation" (at least one author is affiliated outside Poland) to 37.4% in 2022 (according to the Scopus database).

In the areas of working conditions and social security, which were defined in the previous analyses as weaknesses, actions were taken to remedy the defined deficiencies. An action that has the status of an extended action is the one aimed not only at developing a catalogue of research infrastructure, but at building an entire IT system dedicated to research infrastructure. The activities of the Careers Office included offers of professional development opportunities aimed at PW research staff, and updated documents on the dimensions of teaching duties of academic teachers and the rules for their calculation. Other activities resulting from the Action Plan were also undertaken and implemented.

A survey conducted in 2022 in the selected aspects: working conditions and social security, indicated the need to take measures to support the implementation of the principles of the Charter and the Code in this area. The findings of this survey indicate that not all the effects of the actions carried out have been recognised or found satisfactory by the academic community. As a reaction to the results of this research, the activities planned for the period 2023-2025 are relevant not

only from the perspective of the University's activity profile, but also the needs reported by the academics. It is assumed that these activities should influence: improving the familiarity of PW employees with the research funding mechanisms, developing mechanisms to increase the supervisor's support for the scientific development of young academics, ensuring that academics have appropriate infrastructural conditions for conducting research, providing PW employees with legal protection in terms of intellectual property law, improving employment conditions, and implementing corrective measures in the recruitment process in response to reported complaints or appeals.

Comments: The 2022 survey indicated the need for measures to support the implementation of the principles of the Charter and the Code in this area. This is because not all the measures and their effects to date in the defined weaknesses have been recognised by the academic community, despite their implementation and the achievement of the set indicators.

### **Training and development**

The analysis of the effects of the measures taken allowed conclusions to be drawn confirming that the strength of this area is the care of employees conducting scientific activities for their own development.

PW employees receive institutional support in terms of participation in training to improve their professional, specialist and managerial skills (MBA studies for PW managers). The answer to these needs is the centralisation of information about this type of training and a survey of training needs. Another path of development, is the path of scientific development. PW has also implemented a number of support mechanisms in this area. These include competitions and programmes funded by the Minister's 'Excellence Initiative - Research University' programme . They enable world-class research to be carried out within and outside the Priority Research Areas (POB) defined in this programme, improve the competencies of doctoral students and staff at the University through participation in foreign internships or study visits, training and courses, and strengthen the research potential of the University through the creation of new research groups led by young scientists. The activities implemented under this programme also focus on programmes supporting publication activities.

A survey conducted in 2022 showed that academics indicate the need for increased support in the area of training and continuous professional development opportunities. This prompted the Steering Committee, to strengthen the existing wide range of opportunities offered by PW. This activity, which defines a new

profile of activity in this area, is the organisation of scientific seminars, planned for 2023-2025, promoting scientifically and socially important issues.

Comments: The 2022 survey identified the need to strengthen access to academic training and opportunities for continuous professional development. The actions taken so far, enable this process. Actions for 2023-2025 will focus on expanding access to scientific seminars, which should result in satisfactory responses from respondents in the defined weakness in this area.

### **Have circumstances arisen that have influenced the organisation's HR strategy?**

The implementation of the HR strategy in PW coincided with several events with a sudden, unpredictable course, with consequences for society as a whole, as unpredictable as their course. One of these events, were the SARS-CoV-2 coronavirus infections, present in Poland since March 2020. The long-term consequence of the spread of these infections were not only national, but above all international restrictions on travel, planned events, compulsory quarantines, changes to forms and mode of work, isolation, loss of work, difficulties in securing medical care, illnesses, complications or despair after the loss of the loved ones. Each

of these consequences affected the community of the Warsaw University of Technology to a greater or lesser extent. It has also had an impact on the economy. The deterioration of the economic situation has been exacerbated by rising inflation, as a consequence of the economic crisis caused by the war in Ukraine, the energy crisis and other factors. According to Statement No. 4/2022 of the Centre for Public Opinion Research (CBOS) entitled Annual Balance of Public Sentiment: "growing hopes related to the release of the economy from pandemic constraints and economic growth gave way to fears, the main source of which was probably the dynamically progressing inflation (in December, according to the Central Statistical Office (GUS), the prices of consumer goods and services increased by 8.6% y-o-y) . The rise in prices has led to an increased intensification of concerns about the living standards of respondents and their families'. This only confirms earlier speculation that the horizon for recovery from the pandemic crisis has moved further away due to economically and socially challenging events.

The war in Ukraine has shaken the sense of security, changed priorities, and unleashed a huge amount of compassion, focusing the efforts of the University and PW staff on providing real assistance to refugees from Ukraine. Numerous initiatives at the University level have changed priorities aiming at the University's

development of programmes providing employment opportunities, accommodation or financial assistance to Ukrainian refugees.

In the situation of a confluence of crisis events, the University focused first and foremost on ensuring the safety of PW employees, adjusting internal regulations, including working or employment conditions, opportunities for scientific development, research, access to laboratories, psychological care, in such a way that this real sense of security allowed scientific potential to be released rather than blocked. This is reflected in the funding of research aimed at reducing the development and consequences of pandemics.

### **Have any of the short and long-term priorities changed?**

The events described in the answer to the question: Have circumstances arisen that have influenced the organisation's HR strategy? were not insignificant in terms of priorities. The university had to respond in a very dynamic way to the changing situation, taking into account ensuring continuity of operation, the implementation of planned activities or resulting obligations not only for its employees, but also for supervising or cooperating institutions. It was important not only to have continuity at institutional level, but to face the psycho-social deficits resulting from crisis situations.

Digitalisation of many areas of the University activities has become one of the main priorities. Teaching activities, meetings, conferences, seminars, exchange of ideas and views have moved to digital space. This has necessitated the provision and development of IT tools, the digitisation of many processes and the improvement of the digital competences of PW employees. The university's activities have been directed to meet these new challenges.

Isolation, growing frustration and crisis fatigue revealed the need to care not only for safe working conditions, but also for the mental and physical well-being of students, doctoral students, PW staff and their families. This has increased the involvement of the University authorities in developing programmes and support in the area of a socially responsible university, also in terms of targeting and supporting research and other activities (e.g. production of masks, protective visors, vaccine research) aimed at reducing or preventing the effects of the pandemic.

The pandemic, the energy crisis and consequently the economic crisis, the war in Ukraine, the rising inflation undoubtedly had an impact on redefining the actions

and activities undertaken. Each of these crises brought new challenges and commitments that the University had to cope with on an emergency basis.

### **Are strategic decisions that affect the Action Plan being made?**

One of the key strategic decisions is the introduction of a provision in the PW Statute (2021), stating: Teaching and research activities at Warsaw University of Technology shall be carried out in compliance with the law, respecting the requirements of scientific integrity and good practice and taking into account the principles set out in the European Charter for Researchers. The introduction of this regulation ensures that teaching and research activities and the creation of legal acts in this area must comply with the principles of the Code of Conduct for the Recruitment of Researchers and the European Charter for Researchers, which is consequently translated into the activities contained in the Action Plan and their implementation.

Global economic, financial, social crises, triggered by a number of overlapping emergencies beyond our control, translate into a mood that reduces activity and optimistic perceptions of the activities initiated by the University. This was also reflected in the results of a survey conducted in 2022 to find out the opinion of the PW community regarding the implementation of activities aimed at implementing the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers. Analysis of the results of these surveys, prompted the Steering Committee to implement actions for 2023-2025 to address the diagnosed deficits.

Strategic decisions can also include the one to continue the planned activities to date, regardless of the constraints of the previously mentioned crises. This required a great deal of determination, efficiency and flexibility in creating a favourable and secure environment for the finalisation of the established plan. As a result, the vast majority of the planned activities were successfully implemented, achieving the planned indicators.

The priority related to the digitalisation of many areas of the university's operation was also translated into activities in the Action Plan, extending the existing activities in line with this assumption. The result of this is, among other things, the inclusion in the Action Plan of the construction not only of a Catalogue of research infrastructure on the website, but the construction of an IT system for the management of scientific and research apparatus at PW.

As a result of the conclusions of the analysis of the organisational structure, changes are being made to reorganise the existing units so that they support the

University's activities more effectively, including areas relevant to the Charter and the Code.

Expanding the membership of the HRS4R Strategy Implementation Team, the Monitoring Group to include people with a substantive connection to the planned activities and including people from other institutions with experience in implementing the principles of the Charter and the Code, increases the chances of involving the academic community in the implementation process and reduces the risk of failure.

Strategic decision-making stems from a thorough analysis of the University's potential, needs and aspirations. Recent years have added another factor to this, the result of situations and risks that we cannot foresee.

---

## IMPLEMENTATION

### **General overview of the implementation process**

The process of implementing the HRS4R Strategy involved continuous progress monitoring and analysis of the status of this implementation according to the Action Plan (AC) previously developed and approved by the University authorities. Ensuring the proper course of this process was possible thanks to the involvement of the Steering Committee (SC), the Rector's Representative for the implementation of the Human Resources Strategy for Researchers (PR), the Monitoring Group (MG), the HRS4R Strategy Implementation Team (Team) and the academic community of Warsaw University of Technology (PW). The cyclical nature of the meetings, the reports on the various stages of implementation, the monitoring of activities, the cooperation and the exchange of experiences between the units involved in the implementation process made it possible to react quickly to the identified barriers and to design solutions to avoid these barriers at further stages of implementation. This was also reflected in the modification of the organisation of the implementation process manifested in the inclusion of new people into the GM and the expansion of the Team, with the addition of people substantively related to the implementation of the HRS4R strategy. In this way, the Steering Committee was assured that the action plan agreed with the academic community would involve substantive people in the process, thereby involving representatives of all groups of the community. This, in turn, will definitely increase the visibility, awareness and desirability of the activities undertaken, consequently translating into greater commitment and effectiveness.

Since receiving the HR Excellence in Research award on 25.03.2021, based on the 2020-2022 action plan, PW has been aligning its internal procedures with the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers. The document that provides a strong mandate for these actions is the provision in the Statutes of the University (2021): The conduct of teaching activities and scientific research at Warsaw University of Technology shall be carried out with due regard to the law, respecting the requirements of scientific integrity and good practice, and taking into account the principles set out in the European Charter for Researchers. On the basis of such a well-established delegation, most of the planned activities have been successfully implemented. Some activities were expanded, and in some areas additional activities were carried out, treated as added value to the existing AC. Important from the perspective of the effectiveness of the HRS4R strategy implementation process were the meetings of the Team and the MG with the Vice-Rector for Research, Prof. Mariusz Malinowski, who initiated, supported and involved the academic community in this ever so important activity for PW.

### **How did you prepare the internal review?**

The preparation of the internal review involved several stages. One of them was the analysis of the level of implementation of the indicators indicated in the AC, and thus the level of implementation of activities by the units substantively responsible for them. The analysis of reports and statements resulting from the implementation of the HRS4R strategy made it possible to diagnose this state of implementation, to identify strengths and weaknesses in the areas of ethical and professional aspects, recruitment and selection, working conditions and social security, training and development, and to identify shortcomings which, through proper planning of future activities, can be remedied. The conclusions from the analysis of the report from the conducted questionnaire surveys were also the arguments reinforcing this diagnosis, as well as the review of feedback from the academic community of PW in relation to the implemented measures (the possibility of their ongoing monitoring was provided by a website dedicated to the implementation of the HRS4R strategy at PW, in Polish and English versions).

In the process of preparing the internal review, several documents, analyses and reports were analysed. Based on these, a map of implemented activities was created, as well as those whose continuation is justified by the diagnosis of the current state. The analyses carried out also provided added value in the form of conclusions regarding future planned activities of PW in the context of their

compliance with the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers.

The Steering Committee was involved in all these stages, making adjustments to the proposed solutions and giving recommendations for the planning of future activities.

### **How have you involved the scientific community, your main stakeholders, in the implementation process?**

The main outcome of the success of the implementation of the planned activities was the activation of the academic community to take an active part not only in the implementation process itself, but also to make suggestions for improving the process. This was achieved through well-thought-out and coordinated activities at the level of the entire university, the MG and the Team under the supervision of the Steering Committee, which, after reviewing the information provided, made recommendations, responded to barriers reported during the implementation process and set directions for further work.

The members of the Monitoring Group, representing all PW units, held regular meetings with the employees of these units to provide information on the next stages of the work undertaken. They also coordinated activities implemented in these units, resulting from the implementation of the HRS4R strategy. The role of the members of this Group directly translated into the ability to react for the members of the Team, who, by directly implementing specific activities, received ongoing feedback on the effectiveness of this implementation. Often being experts in the disciplines or areas they represented, they made substantive suggestions, improving the quality of the implementation. By directly coordinating the implementation process in their units, they were able to consult certain issues directly with the employees of these units, which naturally and engagingly increased the circle of people involved in the implementation process.

The platform for exchanging information on the activities undertaken has been created as a website dedicated to the HR Excellence and Research award, maintained in Polish and English. The website is updated on an ongoing basis, allowing PW employees to monitor the progress of implementation, make suggestions or undertake other activities that could reinforce the provisions of the Charter or Code.

The inclusion of the clause in the PW Statute stipulating that research and teaching activities should take into account the Charter and the Code is an important institutional reinforcement of the implementation process.



The consequence of this provision is involvement of the members of the academic community who are familiar with the tenets of the Charter and the Code in the creation of internal acts of PW, to ensure their mutual compatibility, and to promote the values of the Charter and the Code.

**Do you have an implementation committee and/or steering group that regularly monitors progress?**

On 14 May 2018, the Implementation Team was established by decision no. 69/2018 of the Rector of the Warsaw University of Technology. Twenty Representatives drawn from various organisational units of the University were also appointed to support the work of the Team in conducting surveys of researchers and doctoral students.

By decision no. 18/2022 of the Rector of the Warsaw University of Technology, the Rector's representative for the implementation of the Human Researchers Strategy was appointed.

By decision no. 19/2022 of the Rector of the Warsaw University of Technology of January 2022, the following were officially established: Steering Committee, Monitoring Group and HRS4R Strategy Implementation Team, as part of the implementation process at the Warsaw University of Technology of the Human Resources Strategy for Researchers (HRS4R) and the OTM-R policy. The Steering Committee consists of representatives of the University authorities, which guarantees the finalisation of the implementation. The task of the SC is to supervise the processes related to the implementation of the HRS4R strategy and the OTM-R policy. The Monitoring Group included representatives of all basic organisational units of the Warsaw University of Technology, and the main tasks of the established Monitoring Group is to analyse the factors affecting the process, as well as to ensure proper monitoring of the implementation schedule of the HRS4R strategy and OTM-R policy, and to identify potential risks related to the implementation process. The established HRS4R Strategy Implementation Team, comprising managers and employees of administrative units as well as representatives of the University's faculties and a representative of doctoral students, is tasked with implementing intentions in line with the HRS4R action plan and initiating and advocating changes to the University's internal regulations. The HRS4R Strategy Implementation Team is chaired by the Rector's representative for the implementation of the Human Resources Strategy for Researchers - HRS4R.

**Is there alignment between organisational policies and HRS4R? For example, is HRS4R recognised in the organisation's research strategy, overriding HR policy?**

1. The Warsaw University of Technology has introduced a provision in its 2021 Statute: 'The conduct of teaching and research activities at Warsaw University of Technology shall be carried out with due regard to the law, respecting the requirements of scientific integrity and good practice and taking into account the principles set out in the European Charter for Researchers, which means that all internal acts of the Warsaw University of Technology shall be examined for compliance with this provision.
2. The Warsaw University of Technology Strategy adopted in 2021 by the Senate of the Warsaw University of Technology, which is the determinant of the long-term policy of the University in all areas of its operation, is in line with the provisions of the Charter and the Code.
3. The Steering Committee, the Rector's Representative for the implementation of the HRS4R strategy, the Monitoring Group, the Implementation Team, members of the academic community representing both young researchers and experienced researchers as well as PhD students and administrative staff, who are also involved in the research, ensure effective implementation of the planned activities.

The commitment of the University authorities is a key aspect to ensure the implementation of the HRS4R strategy. The existing involvement of the Rector and all the Vice-Rectors through their membership of the Steering Committee, confirms their readiness, openness and commitment to the implementation process.

The organisational structure that has been built up so far (Steering Committee, Monitoring Group, Implementation Team) and the involvement of members of the academic community and representatives of all groups of the community (meetings with the MG, Representative) creates a space for the exchange of views and monitoring of implementation progress.

The Steering Committee's flexible approach to the composition of the Team members, creates the possibility for the implementation of activities by persons substantively related to a given activity. Inclusion of new members of the Team, including one from other universities with experience in implementing the Strategy, allows to draw on experience and base own actions on this experience, which significantly reduces the risk of failure.

The inclusion of the alignment of actions and internal acts with the Charter and the Code in the PW's strategic documents provides a very strong guarantee that the values of the Charter and the Code will be implemented.

### **How did your organisation ensure that the proposed measures were implemented?**

The progress and planning of the next steps taken at the University to implement the HRS4R strategy and the OTM-R policy is carried out during regular meetings of the established teams. Meetings of the HRS4R strategy and OTM-R policy implementation team were held on 16 December 2021, 7 February 2022, 8 March 2022, 6 April 2022, 12 May 2022, 7 June 2022, 11 October 2022, 23 November 2022, 19 January 2023 and 21 February 2023. In addition, meetings of the Team members with the Steering Committee were undertaken as part of the implementation of the activities on 2 November 2022 and 21 November 2022. Cyclically, meetings of the Monitoring Group are held after the meetings of the HRS4R Strategy Implementation Team and the OTM-R Policy Team, while at least quarterly meetings of the Steering Committee are held.

The implementation process also involved taking care to measure the progress of this implementation. Conclusions from the monitoring of activities were discussed at each meeting, where the current state was analysed and adjustments in the way things were done so far were proposed. Great importance was placed on involving members of the academic community in the implementation process. Raising the awareness of members of the entire academic community regarding the principles of the Charter and the Code is one of the key factors for the successful implementation of the HRS4R strategy. Measures were therefore taken to strengthen this aspect.

### **How do you monitor progress (timeline)?**

The progress and planning of the next steps taken at the University to implement the HRS4R strategy and the OTM-R policy is carried out during regular meetings of the established teams. The meetings of the HRS4R Strategy and OTM-R Policy Implementation Team were held on 16 December 2021, 7 February 2022, 8 March 2022, 6 April 2022, 12 May 2022, 7 June 2022, 11 October 2022, 23 November 2022, 19 January 2023 and 21 February 2023. In addition, meetings between team members and the University authorities were undertaken as part of the implementation of the activities, on 2 November 2022 and 21 November 2022. Cyclically, meetings of the HRS4R Strategy Implementation Team and the OTM-R

policy are followed by meetings of the Monitoring Group, while meetings of the Steering Committee are held at least quarterly.

Each of the planned activities has a defined implementation time and a designated unit responsible for the task. Each action is monitored, and the conclusions of the monitoring are discussed at meetings of the Team, the Monitoring Group and the Steering Committee and implemented on an ongoing basis.

### **How will you measure progress (indicators) before the next assessment?**

The progress of the various stages of the strategy's implementation will be measured by indicators assigned to the individual measures (a drop by a certain point value of negative responses in the planned survey, published documents in the form of Senate resolutions, regulations and decisions of the Rector, developed instructions, schedules, catalogues, results and interpretations of analyses carried out, etc.).

### **How are you going to prepare for the external review?**

The external review will mark the beginning of the renewal phase of the award and will include an on-site visit by EC representatives. The Warsaw University of Technology will prepare for it at various levels by maintaining the periodicity of the established meetings: Steering Committee, Monitoring Group and Implementation Team for the HRS4R strategy and OTM-R policy. While improving the work of the above-mentioned groups, we are ready to take actions to improve the effectiveness of the tasks carried out by, for example, expanding the composition of the Team or responding to new initiatives. From a technical point of view, PW will follow the instructions available in the Technical Guidelines for Institutions and implement the review procedure according to the European Commission templates. During the next 36 months, the University will monitor and implement the established Action Plan. It is planned to raise awareness among the academic community on the implementation of the HRS4R strategy and the OTM-R policy at the University.

---

## **COMMENTS ON THE IMPLEMENTATION OF THE OTM-R PRINCIPLES**

In all areas of the PW activity where inadequacies were defined in relation to the principles of the Charter and the Code, the planned actions were implemented (the complaints register on the recruitment process was carried forward to 2023-2025) and the targeted indicators were achieved. A total of 27 actions were implemented.

In some areas additional actions have been implemented, one has the status of an extended action. Some of the actions have a mandate for implementation in the form of updated internal legal acts. All of the implemented actions contribute to the correction of the defined deficiencies with regard to the principles of the Charter and the Code. The surveys carried out guide further work in such a way that the defined weaknesses are balanced against the strengths. Despite the wide range of measures implemented, their results are not satisfactory. They can be linked to the frustration resulting from the pandemic and its consequences, the war in Ukraine, the energy, economic or financial crisis. Rebuilding a sense of security and satisfaction with life in these areas will be a long-term process, which may translate into the effects of the actions carried out so far and those planned for 2023-2025.

---

## IMPLEMENTATION OF THE ACTION PLAN FOR 2020-2022

Proposed Action (Actions - A)	Principle in gap analysis	Deadline implementation (quarter)	Responsible entity	Action implementation status
<p><b>A.1.1:</b> Identification of the strategic research areas of PW within individual scientific disciplines in relation to the priority and strategic research areas of the EU and Poland.</p> <p><b>A.1.2:</b> Analysis of the effectiveness of obtaining research funding from national and international programmes.</p>	<p>(+/-) Professional approach</p>	<p>Q4 2022</p>	<p>Vice-Rector for Research</p>	<p>A.1.1.completed A.1.2.completed</p>
<p><b>A1.1.</b>The policies of the European Union (EU) have a direct impact on shaping the research policies of European countries. With regard to Poland, the objective of the National Science Policy (NSP) is to support the conduct of high quality research and the optimal use of scientific knowledge and to ensure the autonomy of universities. The Priority Research Areas (POBs) of the Warsaw University of Technology (PW), which were defined for the purposes of the programme of the Minister of Science and Education "Initiative of Excellence - research university", of which PW, as one of ten universities in Poland, is a Laureate, fit into this context. The POBs were identified on the basis of a comprehensive analysis of the research directions practised at PW. Among the leading research areas, those in which the University has the best scientific achievements were selected. A detailed analysis of these areas was carried out, considering: staff potential, achievements in terms of patents and implementations, project implementation activity, international activity, development dynamics. As a result of the analysis, seven POBs were selected, encompassing research conducted in search of answers to key challenges of civilisation - both questions of knowledge about the world at the deepest level and important social problems concerning man and the living environment. With these assumptions defined in this way, seven POBs were identified in the PW: Photonic Technologies, Artificial Intelligence and Robotics, Cybersecurity and Data Science, Biotechnology and Biomedical Engineering, Materials Technologies, High Energy Physics and Experimental Techniques, Energy Conversion and Storage. More extensive information is included in the analysis report.</p> <p><b>Indicator status IA.1: Achieved</b></p> <p><b>A1.2</b> Tasks implemented in this area at PW include activities aimed at disseminating knowledge of research funding mechanisms among university staff, which should, in effect, translate into an increase in their effectiveness in obtaining funds for research and scientific activity, knowledge of the objectives of the scientific community and research funding mechanisms. The unit responsible for the implementation of these activities at the University level is the Centre for Project Services (COP). These activities are carried out by the COP on several levels: 1) direct support for employees submitting applications and implementing projects, 2) information - collection and analysis of data, 3) communication - distribution of information on competitions administered by the COP and project activity of PW employees. The COP's communication model addressed to PW employees is based on three pillars: 1) the scope of communication, including: information about calls for proposals in programmes and competitions administered by the COP, requirements and procedures for preparing and submitting applications, and many others in this pillar, 2) the way of presenting information, including: highlighting currently important issues, new materials, forms, etc. A new solution is the introduction of a form through which the COP proposes competitions in which a PW employee could</p>				

submit an application. Further solutions include the preparation of materials that build employees' knowledge about projects, presenting competitions and programmes in the broader context of research career development, cooperation with external entities. 3) Content distribution channels are SharePoint, PW Knowledge Base, newsletter. In order to effectively inform PW staff about research funding mechanisms, care is taken to ensure integrity and consistency of content. More extensive information is included in the analysis report.

**Indicator status: IA.2. achieved**

**Additional action:** Prepare an analysis of the project activity of university staff in 2018-2021 with a breakdown of the funding sources for competitions (national, international).

<p><b>A2:</b> Organisation of information meetings aimed at employees engaged in scientific activities to disseminate knowledge arising, inter alia, from the catalogue of legal acts in force: Internal, Acts of national law, Contractual obligations with grantors in their area of competence.</p>	<p>(+/-) Obligations arising from an agreement or regulation</p>	<p>Q4 2022</p>	<p>Centre for Innovation and Technology Transfer Management Project Management Centre</p>	<p>completed</p>
<p><b>A2.</b> As part of the task, 20 training courses were conducted by the end of 2022. Persons from the units designated to conduct these trainings organised them in almost all the basic organisational units of the PW. The trainings covered the area that is within the competence of these units covering patent protection, commercialisation, and intellectual property. In November, a meeting was held with a former MIT employee, now a PW employee, on IP policy. The year 2022 was also a year of intensive preparations for the evaluation of the quality of research activity. As part of these preparations, cyclical meetings were held (once a month) organised by the Vice-Rector for Research informing on the status of PW's preparations for the evaluation, and on the applicable legal regulations in this area. Meetings of the PW Senate Committees were also held once a month (e.g. Senate Committee for Personnel, Senate Committee for Education, Senate Committee for Property and Finance, Senate Committee for International Cooperation, Senate Committee for Research), at which, among the many issues discussed, there were also those providing information on the legal status in particular areas of the university's activity.</p> <p><b>Status of indicator IA.2.1: achieved</b> <b>IA.2.2 indicator status: achieved</b></p>				
<p><b>A3:</b> Developing and publicising on the university's website dedicated to research and science, annual action plans to promote R&amp;D results.</p>	<p>(+/-) Community involvement</p>	<p>Q3 2022 (updated on a regular basis)</p>	<p>Units competent in topics of individual training courses - coordination of the Centre for Innovation and</p>	<p>completed</p>

				Technology Transfer	
<p>A3: The analysis of PW's organisational structure aimed at supporting the development of the University in many areas of its activities has led to a change in the profile of some of its units. The unit that centralises information about training or workshops at PW in the form of an interactive catalogue: <a href="https://www.szkolenia.pw.edu.pl/Kalendarium-szkolen">https://www.szkolenia.pw.edu.pl/Kalendarium-szkolen</a>, is the Training Department. A decision has also been made to change the previous policy of promoting the scientific, didactic or organisational achievements of PW by directing this promotion mainly towards publishing these achievements on the main PW website - which is implemented and updated on an ongoing basis: <a href="https://www.pw.edu.pl/">https://www.pw.edu.pl/</a>. Plans of activities, including <u>those related to research</u>, are also published, inter alia, in the regulations and decisions of the Rector or the resolutions of the PW Senate on the website of the PW Public Information Bulletin: <a href="https://www.bip.pw.edu.pl/content/view/full/358">https://www.bip.pw.edu.pl/content/view/full/358</a>.</p> <p>A special document promoting many activities carried out at PW, including those related to R&amp;D, is the Rector's Report published on the PW Public Information Bulletin: <a href="https://www.bip.pw.edu.pl/var/pw/storage/original/application/c64e35eb267e4d8535dc56c2076962c3.pdf">https://www.bip.pw.edu.pl/var/pw/storage/original/application/c64e35eb267e4d8535dc56c2076962c3.pdf</a>.</p> <p><b>Indicator status: achieved</b></p> <p><b>Additional activity:</b> an analysis of internal documents regulating the area of scientific activity was carried out. As a result of this analysis, 249 regulations in force related to this area were identified in the following categories, which can include: strategic documents, grants, competitions, seminars, research activities of POB and others. The implementation of this activity will provide an overview of the types of activities carried out which, when combined with the analysis of good practices, will make it possible to update the policy promoting R&amp;D results in a targeted manner.</p>					
<p><b>A4.1:</b> Development of criteria for the composition of competition committees.</p> <p><b>A4.2:</b> Implementation and publicity.</p> <p><b>A4.3:</b> Monitoring the number of female candidates applying to work at PW.</p>	<p>(+/-) Staff selection (Code)</p>	<p>Q4 2022</p>	<p>Personnel Office</p>	<p>A.4.1., A.4.2., A.4.3. completed</p>	
<p>A.4.1.: Vice-Rector for General Affairs, in accordance with Regulation No. 111/2021 of 18.11.2021 on the procedure for the announcement of competitions and the employment of academic staff in the position of professor, university professor and visiting professor and in accordance with the Rector's Regulation No. 112/2021 of 18.11.2021 on the procedure for announcing competitions and the employment of academic staff [...], approves the composition of the competition committee, which must meet the criteria in accordance with point. 9 of Annex 9 to the Statutes of the CI,</p> <p>A.4.2 Criteria for the composition of competition committees have been implemented and made public:</p> <ol style="list-style-type: none"> <li><a href="https://www.bip.pw.edu.pl/Wewnetrzne-akty-prawne/Dokumenty-Rektora-PW/Zarzadzenia-Rektora/2021/Zarzadzenie-nr-111-2021-Rektora-PW-z-dnia-18-11-2021">https://www.bip.pw.edu.pl/Wewnetrzne-akty-prawne/Dokumenty-Rektora-PW/Zarzadzenia-Rektora/2021/Zarzadzenie-nr-111-2021-Rektora-PW-z-dnia-18-11-2021</a></li> <li><a href="https://www.bip.pw.edu.pl/Wewnetrzne-akty-prawne/Dokumenty-Rektora-PW/Zarzadzenia-Rektora/2021/Zarzadzenie-nr-112-2021-Rektora-PW-z-dnia-18-11-2021">https://www.bip.pw.edu.pl/Wewnetrzne-akty-prawne/Dokumenty-Rektora-PW/Zarzadzenia-Rektora/2021/Zarzadzenie-nr-112-2021-Rektora-PW-z-dnia-18-11-2021</a></li> <li><a href="https://www.bip.pw.edu.pl/Wewnetrzne-akty-prawne/Dokumenty-ogolne/Statut-Politechniki-Warszawskiej">https://www.bip.pw.edu.pl/Wewnetrzne-akty-prawne/Dokumenty-ogolne/Statut-Politechniki-Warszawskiej</a></li> </ol>					

A.4.3 A report on the analyses carried out was prepared. Trends were identified regarding female candidates applying for PW jobs. A report on the analysis carried out on the participation of women in PW competition committees (2019-2020) was also produced. The report showed that 18% of the committees are made up of women.

The conclusions of the analyses carried out will be used to create a policy of diversity in the composition of competition committees in terms of qualifications, experience, disciplines and gender.

**A.4.1. status of indicator: achieved**

**A.4.2. status of indicator: achieved**

**A.4.3. indicator status: achieved**

<p><b>A.5.1:</b> Developing criteria for evaluating candidates for vacant posts in terms of assessing their scientific achievement.</p> <p><b>A.5.2:</b> Implementation and publicity.</p>	<p>(+/-) Merit rating (Code) (+/-) Length of service</p>	<p>Q4 2022</p>	<p>Vice-Rector for General Affairs</p>	<p>A.5.1, A.5.2. completed</p>
--	--	----------------	--	------------------------------------

A5.1.: Regulation No. 35/2020 of the PW Rector dated 15.06.2020 on periodic evaluation of academic staff contains the most important criteria guiding the University when evaluating the performance of academic staff, including the area of research activity. This is reinforced by the progress made by the bodies of the University (Scientific Discipline Councils, RNDs) authorised by the Statutes of the Warsaw University of Technology (PW) to determine the values of the criterion values in the scope of scientific activity in the periodic evaluation of academic teachers and in the hiring of employees in the groups of employees: research and research and teaching. Each of the RNDs determined such values in the resolutions adopted by them. For scientific disciplines in which no RND has been established, such values of the criterion values have been established by the Rector in Regulation No. 92/2021 of 12.10.2021.

**Indicator status: achieved**

A5.2. 1) Regulation No. 35/2020 of the PW Rector dated 15.06.2020 on the periodic evaluation of academic staff, 2) Regulation No. 92/2021 dated 12.10.2021 on the values of criterion values in disciplines in which scientific activity is carried out and which do not have RND, 3) resolutions of each RND; were published in the Public Information Bulletin (BIP PW) and implemented.

**Indicator status: achieved**

<p><b>A.6.1:</b> Developing criteria for evaluating candidates for vacancies that take into account experience in different entities in terms of competition requirements.</p> <p><b>A.6.2:</b> Monitoring candidates/job applicants from outside PW.</p> <p><b>A.6.3:</b> Development of additional recruitment tools.</p>	<p>(+/-) Deviations from chronological order of curriculum vitae (Code)</p>	<p>Q4 2022</p>	<p>Vice-Rector for General Affairs</p>	<p>A.6.1. completed A.6.2. completed A.6.3. completed</p>
---	---	----------------	--	---

**A.6.1:** The Senate Personnel Committee evaluates applications for the positions of professor and university professor - assessing the scientific and teaching achievements, previous work experience and publication record of the candidate for employment or promotion of the employee (concerning the position of the University professor) and presents its opinion to the Rector.

The criteria followed by the Senate Personnel Committee are described in its internal procedures and are consistent with the criteria used for the periodic evaluation and promotion of staff. The opinion of the discipline's relevant academic council is also an important factor for hiring or promotion decisions.

The application of an academic staff member who carries out research activities in a discipline in which a discipline council has not been established at PW must receive a positive opinion from the Vice-Rector for Research, developed on the basis of common criteria.

**Indicator status: not achieved:** The policy on criteria for evaluating candidates for vacancies, developed by the Personnel Committee assesses, among other things, academic and teaching achievements and previous professional experience. There is, therefore, a strong articulation in this criterion of the aspect of professional experience gained in different entities, which is analysed against the requirements of the competition and the needs of the employer. The integrity of these criteria with those used for the periodic appraisal and promotion of staff makes their publication subject to the possibility of changes in the documents integrated with it. These possibilities of change often arise from common law provisions that the University must respect. They concern, among others, the criteria for evaluating an employee, which must be known before the beginning of the four-year evaluation period and cannot be changed during the period for which the employee will be evaluated. These legal regulations determine the possibility of introducing an ordinance on the criteria for the assessment of candidates for vacant posts, which have been shown to be included in the criteria for employment, but not in the form of a regulation.

**A.6.2.:** The % of female job candidates from outside PW, including those from the Euraxess portal, in relation to all PW applicants was determined. Monitoring of the indicator made it possible to determine the degree of female candidates recruited who had previous work experience related to PW and the % of female candidates who did not have such experience. The monitored indicator allowed, among other things, for a reflection on the working conditions and professional development opportunities offered by PW.

**Indicator status:** achieved

**A.6.3.:** Testing of an IT programme to support the staff recruitment process was undertaken in 2022. The tests were successful and from April 2023 the university will enter a contract to introduce an e-recruiter programme to support the process. Job applicants will also receive feedback on the strengths and weaknesses of the application submitted.

**Indicator status:** achieved

<p><b>A.7.1:</b> Developing criteria for assessing candidates for vacancies taking into account the value of mobility.</p> <p><b>A.7.2:</b> Monitoring of foreign job candidates.</p> <p><b>A.7.3:</b> Implementation and publicity.</p>	<p>(-/-) Recognition of experience in the field of mobility (Code)</p>	<p>Q4 2022</p>	<p>Vice-Rector for General Affairs</p>	<p>A.7.1. completed A.7.2. completed A.7.3. completed</p>
--	--	----------------	--	---

**A.7.1.:** The Rector's Regulation No. 111/2021 dated 18.11.2021 on the procedure for the announcement of competitions and the employment of academic staff at the position of professor, university professor and visiting professor and the Rector's Regulation No. 112/2021 dated 18.11.2021 on the procedure for the announcement of competitions and the employment of academic staff were adopted [...]. The Rector's Regulation No. 35/2020 of 05.06.2020 on periodic evaluation of academic teachers was also adopted. The evaluation criteria for job applicants and for the evaluation of employees considering all activities of academic staff, including professional and scientific experience, have been standardised.

**Indicator status:** achieved

**A.7.2.:** The % share of foreign applicants in relation to all applicants to work at PW has been determined. Monitoring this indicator will make it possible to analyse and identify possible measures to be taken by PW to increase the possibility of employing foreigners at PW. Moreover, it will also make it possible to determine their effectiveness.

**Indicator status:** achieved

**A.7.3.:** Regulation No. 111/2021, Regulation No. 112/2021, Regulation No. 35/2020 implemented and made public:

1. <https://www.bip.pw.edu.pl/Wewnetrzne-akty-prawne/Dokumenty-Rektora-PW/Zarzadzenia-Rektora/2021/Zarzadzenie-nr-111-2021-Rektora-PW-z-dnia-18-11-2021>

2. <https://www.bip.pw.edu.pl/Wewnetrzne-akty-prawne/Dokumenty-Rektora-PW/Zarzadzenia-Rektora/2021/Zarzadzenie-nr-112-2021-Rektora-PW-z-dnia-18-11-2021>

3. <https://www.bip.pw.edu.pl/Wewnetrzne-akty-prawne/Dokumenty-ogolne/Statut-Politechniki-Warszawskiej>

<b>A.8:</b> Analysis of the activities of the competition committees in ensuring that candidates are properly assessed in terms of their academic and professional qualifications.	(-/-) Recognition of qualifications (Code)	1st quarter 2022	Office for Personal Affairs	A.8. completed
<p>A.8. The report on the analysis of the activities of the competition committees in terms of ensuring a proper assessment of candidates in terms of their professional qualifications showed that the PW competition committees select the best candidates for vacant posts. The exchange of experience of the competition committees set up in the PW, the building of good practices in this area, is facilitated by the training organised for these committees. They make it possible to improve knowledge in the area of recruitment, in line with PW's HR policy. Detailed information is included in the analysis report.</p> <p><b>Indicator status:</b> achieved</p>				
<b>A.9.1:</b> Development of framework recruitment criteria defining the requirements for candidates with a doctoral degree including, inter alia, the definition of a maximum length of time in post.	(+/-) Posts for staff with doctoral degree (Code)	1st quarter 2022	Vice-Rector for General Affairs	A.9.1. implemented
<b>A.9.2:</b> Development of criteria for professional promotions.				A.9.2. implemented

A.9.1.: The introduced amendments to the PW Statutes adopted by the PW Senate and the announcement of the consolidated text of the Statutes in the form of Appendix No. 1/2021 to the announcement of the Rector of PW and the introduction of the Rector's Regulation No. 35/2020 of 05.06.2020 on the periodic evaluation of academic teachers at PW contain framework criteria for the employment of persons with a doctoral degree and criteria for professional promotions, with the exception of the determination of the maximum duration of the position held by persons with a doctoral degree. The *Act on Higher Education and Science*, introduced in 2018 and amended in 2022 and 2023, which defines the framework for the organisation and functioning of the University, does not in fact contain a legal basis giving authority to regulate this issue in the internal acts of PW.

**Indicator status: achieved**

A.9.2. The amendments to the PW Statutes adopted by the PW Senate and the announcement of the consolidated text of the Statutes in the form of Appendix No. 1/2021 to the announcement of the PW Rector indicate the criteria for professional promotion in relation to the positions in which academic staff are employed. These criteria are in accordance with the provisions of the Act on Higher Education and Science (Journal of Laws 2018, item 1668, as amended).

**Indicator status: achieved**

<b>A.10:</b> Developing and publicising a Catalogue of the research infrastructure of PW on the university's website dedicated to research and science, including the principles and methods of its use (electronic version).	(-/-) Research environment	1 <sup>st</sup> quarter 2022	Vice-Rector for Research Bursar's Office	extended
---	----------------------------	------------------------------	---	----------

**A.10:** A social survey entitled "Find in PW!" was conducted at the University, the aim of which was to find out the needs and requirements of the Warsaw University of Technology community in terms of ways of searching for and accessing scientific and research apparatus resources. In 2021, the Rector's Committee for Scientific and Research Apparatus and the Project Team of the Catalogue of Apparatus and Resources of the Warsaw University of Technology, operating within it, were established. Work is currently well advanced in identifying and defining the various categories of objects to be included in the Catalogue. The resources described will not be limited to scientific and research apparatus only, but will also include information on computing environments (computing & data storage centres), technological infrastructure, available R&D services (Research & Development) in combination with a list of research groups operating at the Warsaw University of Technology.

The Steering Committee has decided to extend the work to not only publish a catalogue of research infrastructures, but to build an entire IT system dedicated to research infrastructures. This is therefore an activity planned over the next few years. PW has raised funds to finance this objective. Many meetings and consultations have taken place. Findings from qualitative interviews conducted by telephone with several of the largest universities in Poland in 2022 indicate that none of these units have the kind of IT system that PW plans to implement. In the interim period, until the implementation of the central IT system, information on available apparatus and the possibility of its use is published directly on the websites of PW units, e.g.: <https://www.cezamat.eu/offer-of-cooperation/research-services/>.

**Indicator status: achieved**

Additional activity: development of thesis entitled "Management of scientific and research apparatus at the Warsaw University of Technology and the principles of its use" on the postgraduate Master of Business Administration course addressed to the employees of the Warsaw University of Technology, including a review of solutions in Poland and worldwide in the field of management of scientific and research apparatus, and presentation of proposed solutions, e.g. in the field of IT systems dedicated to this process.

<p><b>A.11.2:</b> Analysis of key factors for the scientific development of academic staff.</p>	<p>(+/-) Stabilisation and fixed employment (+/-) Operating conditions</p>	<p>Q4 2022</p>	<p>Vice-Rector for Research</p>	<p>A.11.2. completed</p>
<p><b>A.11.2:</b> An analysis report was prepared. The results in the 2022 survey indicated that 72.1% of respondents speak positively (agree or tend to agree) to the statement <i>Warsaw University of Technology provides stable employment conditions and complies with the principles described in the EU directive on fixed-term employment.</i>  <b>Indicator status: achieved</b></p>				
<p><b>A.12:</b> Analysis of women's participation in decision-making bodies, senate and rectoral committees and competition committees of Warsaw University of Technology.</p>	<p>(-/-) Gender balance</p>	<p>Q4 2022</p>	<p>Office for Personal Affairs</p>	<p>A.12. completed</p>
<p>A.12.: An analysis report on the participation of women in PW competition committees (2019-2020) showed that 18% of committee members are women. The PW Rector by Decision No. 315 of 09.11.2021 appointed a Team for the preparation of a Gender Equality Plan at PW and in 2022 by Regulation No. 34/2022 introduced the "Gender Equality Plan for 2022-2024" for Warsaw University of Technology. The Vice-Rector for the Plock Branch is Ms Prof. Renata Walczak. We have the Ladies Dean and Vice-Dean and the Chairperson of the Senate's Committee on Property and Finance in the person of Ms Prof. Marianna Jacyna.  <b>Indicator status: achieved</b></p>				
<p><b>A.13.1:</b> Development of recommendations for mechanisms to support scientific development.   <b>A.13.2:</b> Development of a consultation schedule with a research supervisor providing support to young academics.   <b>A.13.3:</b> Publishing an electronic version of the Recommendation and Consultation Schedule on the University's research and science website.</p>	<p>(+/-)Professional career development           (-/+) Relationship with the science mentor           (-/+) Supervision and responsibilities in the scope of management           (-/+) Research care</p>	<p>1<sup>st</sup> quarter 2022</p>	<p>Vice-Rector for Research</p>	<p>A.13.1. completed A.13.2. completed A.13.3. completed</p>

A.13.1.: At PW, in addition to subsidy-funded scientific development activities (e.g. research grants in the disciplines represented at PW, allowances for scientific and project activity), there are a number of programmes to support the scientific development of PW staff funded by the Minister of Education and Science's 'Excellence Initiative - Research University' programme. These programmes include PW's Best of the Best, PW's Mentoring Programme, the programme supporting the application for ERC grants, PW Accelerator, YOUNG PW, PW STRATEGIST LAB-TECH of Excellence, POSTDOC PW, REVIEW PAPER, BEST MONOGRAMS, Open Science, Best Paper. The implementation of these programmes confirms the adoption of certain directions, important from the point of view of PW, to support the scientific development of PW employees based on the recommendations developed in this area.

Indicator status: achieved

A.13.2.: A list of PW employees with their telephone and room number and address is available on the websites of the basic organisational units of PW and in the PW Public Information Bulletin. The schedule of consultations of employees of individual PW units is published on the websites of these units, e.g.: <https://www.ch.pw.edu.pl/Studenci/Terminy-konsultacji-pracownikow>

Indicator status: achieved

A.13.3.: Due to the developed change in the PW internal and external communication policy, which is gradually being implemented, the model of presentation of information on the websites of individual PW units and the communication model has changed. According to this policy, most of the information will be published on the SharePoint platform, acting as an intranet. In the interim period, the information is published as before, e.g. the staff consultation schedule: <https://www.meil.pw.edu.pl/ZM/Pracownicy/Konsultacje>

Indicator status: achieved

<p><b>A.14.1:</b> Analysis of the impact of research staff mobility on scientific output.</p> <p><b>A.14.2:</b> Identifying recommendations that take into account foreign internships in promotion procedures and periodic evaluation.</p>	(+/-) Mobility value	1 <sup>st</sup> quarter 2022	Vice-Rector for Research  Vice-Rector for General Affairs	A.14.1. completed A.14.2. completed
---	----------------------	------------------------------	---	--

A.14.1.: The analysis report prepared confirms the impact of scientific mobility on the scientific output of PW staff. The mobility of academic staff also has an impact on the building of research teams and the emergence of high-scoring multi-author publications. The conclusions of the report will be used to support these activities, which have an impact on scientific output. Detailed information is included in the analysis report.

Indicator status: achieved

A.14.2.: Recommendations on considering internships abroad in the evaluation of employees have been implemented in Regulation No. 35/2020 of the PW Rector dated 05.06.2020 on periodic evaluation of academic staff, in the periodic evaluation sheet for academic staff in the area of science.

**Indicator status: achieved**

<p><b>A.15:</b> Inclusion of an offer on career opportunities aimed at PW academics in the activities of the Careers Service.</p>	(-/-) Access to career guidance	from III quarter 2021	Career Service	A.15.completed
---	---------------------------------	-----------------------	----------------	----------------

<p>A.15.: As part of the implemented action, workshops/webinars e.g. 'Mindfulness training for the young scientist' were conducted for doctoral students who are often employed as assistant lecturers. Individual professional development support for academic staff was also offered: 16 consultations (these are developmental processes involving several meetings with one person). Group career counselling in a remote format (MS Teams) was carried out twice for PW academics, with a programme of e.g., building the image of a professional in relation to the business world, mental toughness training, or how to build a professional development plan. As part of its support for the professional development of university teachers, the Careers Office offers individual meetings with career counsellors and coaches. Sample topics for meetings: planning further professional development, deepening self-awareness in interpersonal communication, strengths and teamwork, building personal well-being (alignment with values, coping with stress, prevention of professional burnout).</p> <p><b>Indicator status: achieved</b></p>				
<p><b>A.16:</b> Organisation of meetings to inform the academic community of PW about legal protection in the field of intellectual property law, including copyright.</p>	<p>(-/+) Intellectual property rights</p>	<p>from III quarter 2021</p>	<p>Centre for Innovation and Technology Transfer Management</p>	<p>A.16.completed</p>
<p>A.16: 25 meetings were held in the basic and university-wide organisational units of PW on patent protection and commercialisation, intellectual property, academic entrepreneurship, intellectual capital, database training in this area.</p> <p><b>Indicator status: achieved</b></p>				
<p><b>A.17:</b> Analysis of publication activity of PW staff including co-authorship achievements in relation to scientific output.</p>	<p>(+/-) Co-authorship</p>	<p>from IV quarter 2021</p>	<p>PW Main Library</p>	<p>A.17.completed</p>
<p>A.17.: The prepared report contains data on the publication output of PW employees for the years 2021-2022, including the total number of publications and the number and percentage of publications written in International Collaboration, with other scientific entities in Poland, between different organisational units of PW and single-author publications. The report shows an increase in publications 'in international collaboration' (at least one author is affiliated outside Poland) to 37.4% in 2022 (according to the Scopus database).</p> <p><b>Indicator status: achieved</b></p>				
<p><b>A.18.1:</b> Update Resolution No. 94/XLIX/2017 of the PW Senate on the annual teaching load of academic teachers and the rules for calculating teaching hours in the academic year 2017/2018, Resolution No. 128/XLVIII/2013 of the PW Senate on the adoption of an employee evaluation system at PW. Regulation No. 35/2020 of the Rector of Warsaw University of Technology of 5 June 2020 on periodic evaluation of academic staff at the Warsaw University of Technology.</p>	<p>(-/-) Teaching</p>	<p>from II quarter 2022</p>	<p>Vice-Rector for General Affairs</p>	<p>A.18.1. completed</p>

A.18.1.:

*The Law on Higher Education and Science, as amended in 2022 and 2023, does not provide a legal basis for the adoption of the dimension of teaching duties in the form of a resolution of the Senate, but in the form of a regulation of the Rector (regulation no. 18/2020 of the Rector of the Warsaw University of Technology of 17 March 2020 on remuneration regulations for employees of the Warsaw University of Technology, Regulation No. 95/2019, as amended, on the introduction of the Work Regulations of the Warsaw University of Technology) and on the adoption of the evaluation of the PW employees also in the form of an Order (Order No. 115/2021 of the Rector of the Warsaw University of Technology of 26.11.2021 amending regulation no. 35/2020 of the Rector of the Warsaw University of Technology on the periodic evaluation of academic staff at the Warsaw University of Technology, Regulation No. 92/2021 on the establishment of the value of the criteria volumes [...].*

Indicator status: achieved

<p><b>A.19.1:</b> Development of a schedule for the availability of the Ombudspersons appointed by the Rector's Regulation No. 59/2014 on counteracting mobbing and discrimination at the Warsaw University of Technology. The schedule in an electronic version will be published on the University's website. The schedule will include an indication of the location, days and times of the receptions.</p> <p><b>A.19.2:</b> Creation of a complaints register on the recruitment process.</p>	<p>(-/-) Complaints and appeals</p>	<p>Q2 2022</p>	<p>Vice- Rector for General Affairs</p>	<p>A.19.1.completed A.19.2. in progress</p>
--	---	----------------	---	---

A.19.1.: A schedule for the availability of Ombudspersons (university, faculty) has been developed for the 17 basic organisational units of the PW as well as the Central Administration, the Main Library, the Centre for Innovation and Technology Transfer Management, the Foreign Language Centre, the Physical Education and Sports Centre. The schedule includes the location, days and working hours of the Ombudspersons. The schedule is published at: <https://bisou.pw.edu.pl/Uczelniany-Rzecznik-Zaufania/Harmonogram-dostepnosci-Rzecznikow-Zaufania>

Indicator status: achieved.

A.19.2 PW is currently in the process of preparing a procedure to receive reports of irregularities and to implement a register of complaints about the recruitment process. The postponement of the implementation date is related to the analysis of the IT systems that would enable the handling of this process.

Indicator status: not achieved, action in progress.

<b>A.20.1:</b> Development of the electronic version of a data centralising catalogue on scientific training organised by all PW units.	(+/-) Access to scientific training and continuous development	1 <sup>st</sup> quarter 2022	Training Department	A.20.1. realised
<p>A.20.1.: An electronic version of the catalogue centralising training data has been developed. The catalogue contains the title of the training, the date, the application form, the place of the training and information about the training. The catalogue is available at: <a href="https://www.szkolenia.pw.edu.pl/Kalendarium-szkolen">https://www.szkolenia.pw.edu.pl/Kalendarium-szkolen</a></p> <p><b>Indicator status: achieved</b></p> <p>Additional activity: Development and implementation of the catalogue centralising data on scientific training, as well as the possibility of placing all training organised at the Warsaw University of Technology on the PW Intranet, which is in the implementation phase. The menu of the catalogue will include the following modules: search engine, competence development zone, reporting of training needs, downloadable documents and contact to the Training Department.</p>				

## ACTIVITIES 2023-2025

Proposed action ( A )	Principle in gap analysis	Deadline implementation (quarter)	Responsibility	Indicators (I), targets (T)
<p>A.1.: Launching a programme to improve the quality of applications for external funding for scientific projects with the support of an experienced mentor</p> <p>A.1.2.: Implementation and publicising</p>	<p>(+/-) Professional approach (-/+) Relationship with the research supervisor (-/+) Scientific supervision</p>	<p>Q1 - Q4 2023 Q1 - Q4 2024</p>	Vice-Rector for Research	<p>IA.1: Report on the effectiveness of the 'Project Mentoring Programme' funded by the MEiN programme 'Excellence Initiative - Research University'.</p> <p>TA.1.TA.1.2.A.: An improvement of at least 2.3 percentage points in the 2025 survey with respect to the 2022 survey of the answers "disagree", "rather disagree", "hard to say" to at most 30% on the question concerning the familiarity with the goals of the scientific community and the mechanisms of research funding of PW employees conducting scientific activities.</p>
<p>A.2 Analysis of the operation of the Local Project Branches (LOP) PW established on a pilot basis in 2022.</p> <p>A.3.: Developing a PW science policy in line with the principles of the Charter and Code</p> <p>A.4. Implementation and publicising the science policy.</p>	<p>(+/-) Professional approach  (-/+) Supervision and management responsibilities</p>	<p>Q4 2023 Q2 2024</p>	Vice-Rector for Research	<p>IA.2: Report on analyses of the functioning of LOPs including their strengths and weaknesses.</p> <p>IA.2.1: Recommendations for the future IA.3.: Research policy</p> <p>TA.2. TA.3. TA4: An improvement of at least 3 percentage points in the 2025 survey with respect to the 2022 survey of 'disagree', 'rather disagree', 'hard to say' responses to at most 40% on the statement that the rules at PW oblige the supervisor to support the scientific development of his/her subordinates.</p>

<p>A.5 Reviewing and systematising information on the actions taken at the PW in the developed HRS4R strategy in relation to the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers together with a gap analysis.</p>	<p>all principles of the Charter and the Code</p>	<p>Q4 2024 Q2 2025</p>	<p>Vice-Rector for General Affairs</p>	<p>IA. 5th Research Report.</p> <p>TA.5 PW shall improve the conduct of an open, transparent and substantive academic recruitment policy.</p>
<p>A.6.: Development of a catalogue of the most important achievements in the disciplines represented by the PW subject to evaluation of the quality of scientific activity in the period 2017-2022 affecting, among others, the functioning of society, the state, and health care.</p> <p>A.6.1: Implementation and publicity</p>	<p>(+/-) Social commitment</p>	<p>Q4 2024 Q1 2025</p>	<p>Vice-Rector for Research</p>	<p>IA.6: Catalogue</p> <p>TA.6: An improvement of at least 5.2 percentage points in the 2025 survey with respect to the 2022 survey of "disagree", "tend to disagree", "hard to say" responses to at most 35% on the statement concerning the undertaking of activities by staff conducting scientific activities to disseminate scientific knowledge to the public.</p>
<p>A.7.: Development of conditions for the use of research and IT facilities for those preparing a doctoral dissertation in the extramural mode.</p> <p>A.7.1.: Implementation and publicising</p>	<p>(-/-) Research environment</p>	<p>Q2 2023</p>	<p>Vice-Rector for Research</p>	<p>IA.7.: Senate Resolution/ Resolution of the Scientific Council for the Discipline</p> <p>TA.7 TA.7.1: An improvement of at least 3.8 percentage points in the 2025 survey with respect to the 2022 survey of "disagree", "tend to disagree", "hard to say" responses to at most 50% on the statement concerning the provision of adequate infrastructural conditions for research staff.</p>
<p>A.8 Establishment of an organisational unit carrying out information, advisory and promotional activities in the field of intellectual property protection, technology transfer and academic entrepreneurship, performing the</p>	<p>(+/-) Intellectual property rights</p>	<p>Q1 - Q2 2023</p>	<p>Vice-Rector for Development</p>	<p>IA.7: Regulation of the Rector</p> <p>TA.7: An improvement of at least 3.3 percentage points in the 2025 survey with respect to the 2022 survey of 'disagree', 'tend to disagree', 'hard to say' responses to at most</p>

tasks of an academic business incubator and a technology transfer centre within the framework of the Law on Higher Education and Science.				40% on the statement concerning the provision of legal protection for PW academics in the field of intellectual property law, including copyright.
A.9. Organisation of PW scientific seminars	(+/-) Access to scientific training and continuous professional development opportunities	Q3 - Q4 2023 Q1 2024	Vice-Rector for Research	I.A.7: Minimum of 5 seminars.  TA.7: An improvement of at least 4.8 percentage points in the 2025 survey with respect to the 2022 survey of 'disagree', 'tend to disagree', 'hard to say' responses to at most 30% on the statement that PW supports the career development of employees by providing opportunities for continuous professional development, e.g. through access to training, seminars and other forms of upskilling.
A.10. Revision of documents in force at PW related to teaching and research activities	(-/-) Teaching	Q3 - Q4 2024	Vice-Rector for General Affairs	IA.10. Analysis report. IA.10.1. Recommendations.  TA.10.1: An improvement of at least 3 percentage points in the 2025 survey with respect to the 2022 survey of 'disagree', 'tend to disagree', 'hard to say' responses to at most 25% on the statement on the provision of stable employment conditions and adherence to the principles described in the EU Directive on fixed-term employment.
A.11. Establishing a register of complaints about the recruitment process.	(-/-) Complaints and appeals	Q3 - Q4 2024 Q1 - Q2 2025	Vice-Rector for General Affairs	IA. 11.: Register of complaints.  TA.11: Survey of the number of complaints in relation to the number of applicants. Indicator measured as on 31 December of the relevant year.

