

Załącznik do umowy zawieranej w ramach programu  
„Inicjatywa doskonałości – uczelnia badawcza”

**PLAN INCLUDING THE OBJECTIVES FOR IMPROVING QUALITY OF  
RESEARCH  
AND EDUCATION, TOGETHER WITH A SCHEDULE FOR THE PLAN  
IMPLEMENTATION**

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## D.1. PLAN SUMMARY

In the face of legislative changes in higher education resulting from the Act on Higher Education and Science of 20 July 2018, and challenges faced by universities in technological progress and globalization, Gdańsk University of Technology has developed a comprehensive Action Plan aimed at improving the quality of scientific and teaching activities leading to a significant impact on the development of science on the international arena. The position of Gdańsk University of Technology as a university offering education and high-reputation research as the best known universities in the world requires appropriate personnel potential, but also efficient administration, internal organization and adequate infrastructure.

Part D.2 of the plan sets out detailed objectives for the implementation of the following general objectives described in the Communication of the Minister of Science and Higher Education of 26 March 2019 on the first call for proposals under the 'Excellence Initiative - Research University' programme:

- I. increasing the impact of the university's research activity on the development of world science, especially in priority research areas with high development potential, in which the university plans to intensify its research activity,
- II. enhancing research collaboration with research institutions of high international reputation, especially in priority research areas,
- III. improving quality of education provision for students and doctoral training, especially in fields of study and disciplines of science related to priority research areas, taking into account the need to include students and doctoral candidates in research activities and the need to compete effectively for the most talented applicants, including foreign ones, to study programmes and to doctoral schools. The objectives should also take into account implementation of a talent management system,
- IV. devising and implementing comprehensive solutions for the professional development of the university's staff, especially young scientists, in the meaning of Article 360(2) of the Law of 20 July 2018 on Higher Education and Science,
- V. improving quality of university governance and management, including quality-enhancing organisational changes

and other specific objectives to enhance the international importance of the activities of the university. It also indicates actions to achieve specific objectives. Part D.3 of the plan presents the activities envisaged, understood as units of the project implementation schedule. These activities are either the same as or a compilation of the activities listed in part D.2. Their numbering (Roman numeral) indicates the general objective I to V to be attained by these measures:

- I.1. Acquisition and support of highly qualified international staff.
- I.2. Development of international research teams at the GUT.
- I.3. Increasing the number of acquired and executed prestigious international projects within PRAs.
- I.4. Increasing the number of publications in prestigious journals.
- II.1. Supporting cooperation with leading international research centers .
- II.2. Strengthening cooperation with research centers from the Baltic Sea Region.
- III.1. Improvement of the education system at undergraduate and graduate studies.
- III.2. Modification of PhD studies system.
- III.3. Improvement of admission system using the concept of strategic enrolment management.
- III.4. Talent management.
- IV.1. Supporting professional development of university staff.
- IV.2. Implementation of a support system for researchers' mobility and *work-life balance* solutions.
- V.1. Optimization of research management.
- V.2. Optimization of human resources management.
- V.3. Professional development of administration, including organizational improvements.
- V.4. Optimization of research project management.

V.5. Increasing the efficiency of technology transfer.

V.6. Improving the research infrastructure management system.

The main additional activity, not directly related to the implementation of mandatory objectives I to V, is the pursuit of greater integration of the Tri-City university environment, including the creation of a federation of the Gdańsk University of Technology with the Medical University of Gdańsk, and in the long term also the University of Gdańsk - while maintaining the identity of these universities.

Part D.4 presents the methodology for monitoring progress in the implementation of the plan and a list of indicators to quantify this progress. Part E describes the activities planned in 2026 to consolidate the project results.

## D.2. OBJECTIVES FOR IMPROVING QUALITY OF RESEARCH AND EDUCATION

I. Specific objectives for increasing the impact of the university's research activity on the development of world science, especially in priority research areas with high development potential, in which the university plans to intensify its research activity.

Increasing the University scientific activity impact on the development of world science will be achieved, inter alia, through the implementation of the following specific objectives:

1. Improvement of the scientific potential of the University staff.
2. Increase in the number of publications in journals from the first decile of Scopus/WoS.
3. Increase in the number of prestigious grants with the participation of the University, including those coordinated by the University.

The implementation of the first objective will be achieved by attracting international staff with the highest qualifications and potential (PhD students, postdocs, recognized professors), especially scientists active in the PRAs. The new employees will receive significant funds for the initial research activity stage. A system will be created to monitor the acquired staff achievements and barriers to their development, in particular those resulting from administrative or organizational University constraints.

Staff changes will increase the scientific potential of Gdańsk University of Technology (GUT) in the PRAs, but will also have an impact on the global research potential of the university. They will ensure a decrease in the "in-breeding" index and an increase in "foreign-born academic staff", especially for PRAs. The recruitment method foresees employment of part of external staff on research team leader positions from the very beginning. The remaining part of the new staff will enjoy rapid promotion paths, which will increase their participation in the group of research team leaders in the coming years.

Increasing University staff scientific potential will also be achieved by building international research teams. It is planned to organize priority areas international conferences. This will allow to advertise the strong scientific teams of the University and such factors characterizing GUT as: attractive coastal location, good infrastructure, low living costs and security. Research teams will also be built on the basis of visiting professor missions. They will allow continuous exchange of experiences as well as initiating joint projects. In addition, funds are planned to support participation of GUT employees in scientific consortia and networks to increase their opportunities for international project participation.

The second objective will be closely linked to the first objective, but measures will also be taken directly aimed at increasing the number of prestigious publications. Financial, organizational and infrastructural support for broad participation in open access to research publications and to research data initiatives (use of journals and open access platforms, building and popularizing own Open Research Data resources and other activities compliant with *EUA Roadmap on Open Access to Research Publications*, *'Plan S' - Making Open Access a Reality by 2020* and *EUA Roadmap on Research Assessment in the Transition to Open Science*) is envisaged. It is planned to introduce a system to promote GUT publications by positioning them in search engines and advertising them to recognized publishers. In order to increase employee motivation, a financial system for awarding the best publications is planned.

The implementation of the third objective will be strongly linked to implementing the first objective. Activities dedicated to this objective will also be used. It is planned to provide professional administrative and financial support for works on preparation of grant applications, including international mobility related to the construction of project consortia and to improve the IT system, which will facilitate and relieve scientists from administrative work, with periodic monitoring of the system effectiveness based on the opinions of services recipients. When hiring staff, efforts will be made to encourage the laureates of ERC grants for young scientists in the field of PRAs to implement them at GUT. University grants for young scientists will be introduced. These grants will allow initial work to be carried out in order to prepare for an appropriate project and will complement existing and ongoing projects carried out by the person concerned to provide more flexible funding for ongoing research.

The implementation of all objectives will be supported by activities aimed at increasing the attractiveness of the University for outstanding scientists and talented young scientists. The slogan from the Technical University of Milan will be promoted and implemented: "Start attracting talents instead of talking about "brain drain". The University's www will be adjusted to the project objectives and its English version will be the default one. Professional multimedia presentations of GUT, faculties, priority research areas, etc. will be developed.

## II. Specific objectives to strengthen research cooperation with internationally renowned scientific institutions, in particular in priority research areas.

Strengthening research cooperation with scientific institutions of high international renown will be achieved, *inter alia*, through the implementation of the following specific objectives:

1. Increasing the international visibility of scientists from the University.
2. Increasing the interest of GUT scientists in establishing and developing contacts with leading foreign centers.
3. Internationalization of studies as an important lever for the development of international research cooperation.
4. Strengthening scientific cooperation with Polish scientists who have made careers abroad.
5. Strengthening scientific cooperation with foreign scientists who have obtained PhD degrees at GUT.
6. Strengthening research cooperation through joint doctoral projects.
7. Internationalization of the GUT campus.

The implementation of the first objective will be achieved, *inter alia*, through significantly increased international mobility of University researchers, as well as through careful construction and constant updating of scientific profiles of GUT staff in various databases (ORCID, MOST Wiedzy, Research Gate). It is planned to introduce university grants to finance the construction of teams with centers of high renown. These grants will enable GUT researchers to become active and gain the necessary international experience. A system of internships in foreign institutions of high repute for GUT researchers, in particular, young researchers, will be proposed. Implementation of the second objective assumes increasing the importance of this activity in the principles of periodical assessment of academic teachers, stronger inclusion in the regulations of rector's awards and financial bonuses for measurable effects of research cooperation (participation in international projects and publications of international teams). The implementation of the third objective is discussed in the next text field. The fourth objective will be achieved by inviting Polish scientists working at foreign universities to scientific and didactic cooperation financed by the University and to jointly apply for co-financing of research projects. Objective 5 has a particularly high potential to strengthen research cooperation with scientific institutions of high renown on an international scale. GUT boasts foreign doctoral graduates who have achieved a very high status in world science and work at renowned universities. An example is Haitham Abu-Rub - a scientist who obtained his doctoral degree at GUT in 1995, and for many years has been a professor at Texas A&M University in Qatar (index *h* according to Web of Science equal to 36) and is very interested in cooperation with GUT. An excellent way to build and develop cooperation with leading research centers is to carry out joint PhD projects. The University has significant achievements in this field, but there is a need to intensify efforts and resources to fully utilize this lever of development. The implementation of Objective 7 will include appropriate technical solutions (signposts and easily noticeable logistical information on the website) and human resources (implementation of all GUT employees, including property caretakers and porters, to act as first contact persons for visitors). It is assumed that all employees of administration will have adequate knowledge of English (to be achieved within 2 years; English knowledge will be confirmed by an exam conducted by foreign lecturers).

Activities aimed at strengthening research cooperation with scientific institutions of high renown, in particular in priority research areas, will be particularly intensive in relation to scientific centers in the Baltic Sea region. Among others, grants for young scientists are planned for the implementation of research in cooperation with these centers.

It is also planned to financially support the participation of the University and its employees in selected international networks and organizations. These organizations are an important forum for discussing

global issues of science and higher education. Participation in such networks and organizations will contribute to the exchange of experiences, good practices and knowledge transfer on innovative solutions in science and education.

As in the case of other aspects of the quality of scientific activity and the quality of education, it is assumed that the administration will be professionalized and the IT system of the University will be improved. It is also planned to develop the necessary soft competencies of all University employees (e.g. in the area of intercultural communication, building research teams or conducting negotiations). The knowledge and skills of employees of the Faculty of Management and Economics, who successfully conduct such training within the framework of MBA studies classified in the international ranking of QS Global Executive MBA Rankings 2019 at 101+ (<https://www.topmba.com/college/gdanskuniversity-technology/executive-mba>), will be used here.

III. Specific objectives to improve the quality of education of students and doctoral students, in particular in fields and disciplines related to priority research areas, taking into account the need to involve students and doctoral students in the conduct of research, as well as the need to compete effectively for the most talented candidates for studies and doctoral schools, also from abroad, and talent management.

Improving the quality of education of students and doctoral students will be achieved, *inter alia*, through the implementation of the following specific objectives:

1. Increase in the share of interactive forms of education in study programs.
2. Involvement of students and doctoral students in conducting scientific research.
3. Increasing the internationalization of studies.
4. Effective competition for the most talented candidates for studies and doctoral schools.
5. Effective talent management.

The first objective will be implemented through large-scale introduction of such forms of classes as interactive lectures, project-based learning, tutoring and laboratory classes based on micro-projects. It is planned to purchase licenses for key software in the *Total Academic Headcount* version, which will enable the use of programs installed on students' private computers at any time and place. This will make possible interactive teaching during any form of classes. Further reducing SSR will facilitate individual contact of academic teachers with students, in particular in the form of tutoring. It is planned to achieve an SSR of about 10 in 2020 and 8 in 2022. An important element of the action plan for this objective will be to make the teaching and research infrastructure available to students for their independent work on projects and pursuing their own professional passions. It is assumed that highly qualified tutors will be employed in the key laboratories of the University.

The second objective will be implemented, *inter alia*, through a system of individual educational paths involving the most talented students in the implementation of research projects. It is also planned to establish a stronger link between education and the activities of scientific associations (projects of scientific groups, adequately funded and supported by substantive care, as a method of education and introduction into scientific research). Another way of involving students in the conduct of scientific research will be employment in research projects carried out by the University and in research laboratories of the University. An example of a successful application of this solution is the employment of students in the LINTE<sup>2</sup> Laboratory. Participation in the maintenance and development of laboratory equipment and software is an excellent way to build professional competence of students, while participation in research is a significant support for laboratory staff and an incentive for students to take up scientific work after graduation. In the case of doctoral students, conducting research is their primary duty, but it is necessary to move away from the dominant model of a doctoral student struggling alone with his own research project and implement the model of a doctoral student as a member of the research team.

The third objective is one of the specific objectives of the wider internationalization of the University discussed in the previous text field. All the activities discussed there will also indirectly influence the internationalization of studies. Activities dedicated directly to the internationalization of studies will

include the development of the offer of undergraduate and graduate courses in English and the implementation of doctoral studies exclusively in English. Works on enriching the offer of English-language studies are currently being carried out at individual faculties, but they will be significantly intensified and centralized to a coordinated university plan in the frame of this project. Staff members interested in greater involvement in the internationalization of studies will receive adequate organizational and financial support.

The implementation of objective four will include the development of a detailed concept for attracting the most talented candidates for studies at all levels (using *strategic enrollment management* methods). Appropriate marketing measures will be taken at home and abroad to highlight the University's key strengths. Scholarships will be funded for the best candidates to study at the PRAs.

Effective talent management (Objective 5) will be implemented using the following activities: substantive and financial support for student research groups, which are the natural environment for selecting young research leaders; incentives for academic teachers (prizes, financial bonuses) to be active in the field of selecting the best students with research potential and their care, including in the form of tutoring; development of an IT system supporting the selection of the best students-researchers by means of established indicators. Gdańsk University of Technology will also develop methods of attracting talented doctoral students and providing special support to outstanding doctoral students. It is planned to fund special scholarships for candidates from outside Poland.

#### IV. Detailed objectives for the preparation and implementation of comprehensive solutions for the professional development of higher education institutions' staff, in particular, young researchers, within the meaning of Article 360, section 2 of the Act of 20 July 2018. - Law on higher education and science.

Preparation and implementation of comprehensive solutions for professional development of university staff will be achieved, *inter alia*, through the implementation of the following specific objectives:

1. Development and implementation of a comprehensive system motivating employees to professional development.
2. Development of a comprehensive offer of activities supporting professional development of university staff.
3. Developing principles and methods of monitoring the conditions and independence of research conducted by young scientists.

Objective 1 will be implemented through the following actions: (1) ensuring a fast-track career path for the staff, with particular emphasis on young researchers, (2) increasing the financial attractiveness of academic work at the University for staff with important successes for the University, (3) increasing employees' sense of participation in the preparation and implementation of university development plans, including as a research university. Professional advancement will be understood as improvement of the employee's status through: job advancement (e.g. till a university professor), increasing the role in a team (becoming a leader) or obtaining other professional benefits (e.g. delegation to an attractive internship abroad). Promotion will mainly depend on the substantive achievements of the employee, and only to a limited extent on the fulfilment of formal requirements (e.g. holding the degree of D.Sc. Eng. ). Detailed promotion rules will be developed in the initial phase of the project implementation. The financial attractiveness of work at GUT will be increased by the system of financial bonuses for academic teachers for publication achievements, achievements in building international cooperation, attracting and implementing research projects, attracting the most talented students for scientific careers, etc. The financial attractiveness of work at the University will be increased by the system of financial bonuses for academic teachers for publication achievements, achievements in building international cooperation, attracting and implementing research projects, attracting the most talented students for scientific careers and others. In the case of administrative employees, remuneration will include a fixed component (basic salary) and a variable component, depending on the quality of work in a given period of time (variable bonus). An important element of the working environment at the university is the sense of subjectivity of the employee, the conviction of participation in shaping the objectives of the university and their implementation. The assumption of centralization of power at universities adopted in Act 2.0,

implemented at GUT, will be accompanied by the principle of decentralization of participation. This principle will include such elements as the right to information about plans and current activities of the university authorities, the right to participate in discussions on issues important for the University and its employees, and the right to participate in the implementation of important undertakings of the University. The principle of decentralization of participation will be largely developed in connection with this project as a case study. It is planned to provide the employees with full information on the IDUB application and invite them to participate in the development of detailed solutions for the Gdańsk University of Technology as a research university.

The second objective is to develop a functionally complete, coherent and sustainable system for supporting employees in their professional development. This system will include such support measures and facilities as: a system of didactic discounts, university mobility grants and small research grants, training leaves, comprehensive offers of continuous professional development for both research and teaching staff, support in the implementation of the idea of work-life balance and others. It is planned to develop and implement a system, including an appropriate human resources base, in which the development plans will be tailored to the individual needs and capabilities of the employee. From 1 October 2019, a system of differentiated scientific, didactic and organizational burdens depending on the effects of scientific activity (published prestigious articles, conducted research projects) will be introduced. Persons in research and teaching positions will have their didactic limits reduced by about 1/3.

The third objective should be crowned by the establishment of a team to monitor the conditions and independence of research carried out by young researchers on the basis of clear rules and methods. This team, with its strong decision-making power, will help to manage the activities of young researchers and resolve possible conflicts of interest between young researchers and their scientific community. This will remove barriers that may hinder the optimal development of young researchers.

## V. Detailed objectives aimed at improving the quality of management at the University, including pro-quality organizational changes.

Improvement of University management quality shall be achieved, inter alia, through implementation of the following objectives:

1. Stronger consideration of an external perspective in university management.
2. Strengthening structures and mechanisms of managing internationalization of the University.
3. Human resources use optimization in the administrative employee's group.
4. Management quality improvement in obtaining co-financing for projects and their implementation.
5. Increasing effectiveness of technology transfer.
6. Optimization of research infrastructure use.

The 1st objective will be implemented with the use of the following entities introducing an external perspective to GUT management; (1) University Council, of which three members represent the business environment; (2) the International Scientific Effectiveness Council; (3) foreign managers (e.g. Language Centre head (CJO), International Relations Office head); (4) a significant part of CJO teachers from abroad; (5) team monitoring conditions and independence of research conducted by young scientists with the participation of external experts and others. It is assumed that the Scientific Effectiveness Council will consist of at least 70% of international experts in the PRAs field. The task of the Council will be to assess the scientific teams activity and effectiveness of spending financial resources. Internationalization of CJO will improve the quality of English language teaching and objectivize employees and students language competences assessment.

As for the 2nd objective, the principle that one of the Vice-Rectors is personally responsible for research and studies internationalization will be continued. This principle will be extended to the Dean's Board (one of the Vice-Deans will be directly responsible for faculty internationalization). Regular consultations of the Vice-Rector with the Deans and persons responsible for internationalization are planned. It is also envisaged to intensify contacts between academic teachers and units related to internationalization administrative staff.

The 3rd objective will be achieved, inter alia, by introducing administrative employees multi-functionality. Department administration should be part of the faculty administration and should work for the benefit of the whole faculty. Use of multifunction potential of administrative staff requires the development of adequate procedures and monitoring. It is important that the key positions in the University administration enjoy appropriate prestige and are adequately remunerated (depending on the quality of work). The above activities, supported by the administrative services and procedures important for the University functioning unification, should contribute to GUT management centralization, in accordance with the Act 2.0 assumptions. These changes will be complemented by the implementation of evaluation and monitoring of work effectiveness system of administrative structures and inclusion of scientists in the evaluation process.

Objective 4 will be implemented thru standardization of the project management process and training support for project managers in preparing project applications and their implementation. The current state of affairs analysis will result in a proposed model of Project Management Office functioning as a structure connecting central and faculty units. Some funds have already been obtained for this task within the project "Integrated Development Programme of the Gdańsk University of Technology" framework, financed from EU funds.

The realization of the 5th objective will be supported by new measures facilitating cooperation with the economic environment and employees and students entrepreneurial attitudes promotion. Mechanisms supporting identification and protection of intellectual property of inventions will be implemented. Based on the experience of ePioneer - the unique in Poland process of acceleration of implementations, a course for students and employees will be launched under the working name "Start-up School" preparing teams to create technology companies. It is planned to create a single point of contact with business and implementation of a coherent strategy for the university's research offer promotion.

The 6th objective will be pursued thru the development and implementation of a unified management of research infrastructures. A system solution is planned that will allow full use of GUT infrastructure potential and will improve and facilitate access to research equipment for scientists, students and external entities.

As part of improving the quality of management at the University, it is also planned to develop and implement an effective model of horizontal and vertical communication, including an effective IT system. Efficient communication is extremely important because it affects the effectiveness of the entire university. Its low level is indicated as a disadvantage of the university in the employee survey.

## VI. Other specific objectives to raise the international significance of the university's activities.

On top of the objectives to be financed within the project budget, other objectives capable of raising international significance of the university will be addressed, the most important being increasing the cooperation between universities in Tri-City. The related activities include several different research projects carried out jointly, usually in the scope of interdisciplinary research and projects focusing on inter-university infrastructure of high value and jointly undertaken fields of studies. The above-mentioned actions should lead to federalisation of Gdańsk University of Technology and the Medical University of Gdańsk. As the next step, this process will also include the University of Gdańsk and other universities and higher education institutions from Tri-City. The actions undertaken towards the future federalisation raise the international recognition of the universities in the Tri-City as a strong academic centre of high research potential and already having numerous joint research groups renowned on the global scale.

For the increase of international recognition of the university, many smaller initiatives are conducted, as a result of cooperation contracts and continued active cooperation with research centres all over the world. Gdańsk University of Technology, together with several centres from other countries, organises summer schools for doctoral students and plans to support this activity under the obtained grant and conducted projects, financing doctoral study programmes and the organised Doctoral School. Further financial and organisational support for summer schools for doctoral students and students is intended. The summer schools focus on research areas within the Priority Research Areas.

The first stage of setting up international contacts is a possibility to finance stays outside Poland in order to initiate joint research work and the exchange of experiences. The university offers the Erasmus+ programme along with a dynamic organisation, making it easier for people coming to Gdańsk University of Technology to organise their stay. These actions will be strengthened so that they include as many students, doctoral students and employees as possible.

Building international reputation of the university depends on the participation in international research projects. We plan further support for these projects in the form of continually improved administrative and financial support within sources available at the university. In this aspect, Gdańsk University of Technology offers efficient administrative facilities - it hosts the Regional Contact Point for projects funded from the EU funds. The number of such projects at Gdańsk University of Technology is systematically growing. The support which is currently being organised within the faculty structure and by the university authorities includes funding the participation in consortia and lobbying groups for the most active research groups.

Gdańsk University of Technology has a coherent admission policy for students and doctoral candidates from outside Poland. The university participates systematically in education fairs acquiring candidates for studies from selected geographic locations. Scholarships are funded for the best candidates for studies from outside Poland. These actions have increased the number of doctoral students from outside Poland and greatly contribute to building the international position of Gdańsk University of Technology.

### D.3. SCHEDULE FOR THE IMPLEMENTATION OF THE PLAN AND DESCRIPTION OF ACTIONS AIMED AT ACHIEVING THE OBJECTIVES, PLANNED FOR 2020–2025

№	Title of the action	The starting date and deadline for completion of the action	Expected total costs (in PLN)*	Description of the action, justification of the action and amount of costs, the impact of the action on the achievement of the objective and milestones
1	I.1. Acquisition and support of highly qualified international staff	1 – 72	51 000 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>The action will focus on tasks related to the recruitment of highly qualified staff, using the international recruitment platforms like: Research Gate, Linked in, etc. A financial support system will be created for the initial stage of employment of these scientists, and a system for monitoring the achievements of the acquired staff and possible barriers to its development.</p> <p>It's planned to recruit over 60 foreign scientists at various stages of academic careers: from world-class professors to young researchers (postdocs) with very high potential, who will support GUT active scientists, working in POB. These actions will allow to set up new teams with international recognition. The objective of the task is to create a strong group of young scientists. The offer of employment will be aimed at acquiring a group of scientists willing to undertake even already obtained prestigious projects at GUT. Financial support is planned for their research work, in particular at the initial stage of employment. The idea is that there'll be a research funding path from the beginning of work at GUT, allowing in the next stages after obtaining the first results to get grants from external sources. Financial support will be granted to the research group leader in the form of a grant of up to PLN 5m. It's planned to implement a system allowing for assessment of progress and pointing out existing barriers in order to respond to emerging needs of acquired scientists and provide optimal conditions for work and scientific development.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>This action will have a very positive effect on the growth of the scientific potential of GUT. It will ensure lowering the "in-breeding" ratio and the increase in the number of "foreign-born academic staff" in particular for the POBs.</p>

				<p><b>ACTION COST</b></p> <p>-highly-qualified staff: PLN 20.3m. (postdoc:60pers. for 2y, in avg. PLN0.15m.per pers. ann.; researcher:3 pers. for 2y.,in avg. PLN 0.3m.per pers. ann.;Prof.:2 pers. for 3y., in avg. PLN0.4m. per pers. a y.)</p> <p>-Devising and implementation of a monitoring system for development achievements and barriers: PLN 0.70m.</p> <p>-Support for research at the initial stage of employment: PLN 30m.</p> <p><b>MILESTONES</b></p> <p>- recruitment system:2020;</p> <p>- Launching the grant system:2020;</p> <p>- implementation of a staff monitoring system:2021;</p> <p>- Employment of scientists from outside PL;2020-9, 2021-9, 2022-10, 2023-10, 2024-14, 2025-13;</p> <p>- Providing grants for newly employed groups:2020-2, 2021-2, 2022-2, 2023-2, 2024-2, 2025-2</p>
2	I.2. Development of international research teams at the GUT	1 – 72	4 100 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>The action consists of three basic tasks. First of all, it is planned to organize international conferences of world-wide recognition within the PRAs. It will allow to use and promote the strengths of Gdańsk University of Technology, in particular its location and attractiveness of the campus, and to encourage cooperation and popularisation of the obtained research results.</p> <p>Another plan is to finance visiting professors with a high international reputation. They will ensure the transfer of knowledge, encourage research cooperation especially among young researchers, and promote Gdańsk University of Technology in the international environment.</p> <p>The next task will be financial support for the participation of university employees in consortia and scientific networks and clusters. It will be an element of acquiring knowledge about financing possibilities, and above all establishing cooperation groups in the international environment, potentially constituting future consortia of conducted projects.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>This support will also promote young scholars whose potential can be noticed internationally among the groups deciding on the distribution of resources and directions of future research.</p>

				<p><b>ACTION COST</b></p> <ul style="list-style-type: none"> <li>- Organization of conferences in the POB: PLN 1.6 million (800 participants, PLN 2,000 per person in average)</li> <li>- Funding visits of visiting professors: PLN 1.8 million (60 persons, PLN 30,000 each, in average)</li> <li>- Financing participation in scientific consortia and lobby groups: PLN 0.8 million (four consortia, in average PLN 0.2 million)</li> </ul> <p><b>MILESTONES</b></p> <ul style="list-style-type: none"> <li>- launching a financial system to support the organization of international conferences at GUT: 2022</li> <li>- creating a system to support and monitor the effectiveness of visiting professors' visits: 2020</li> <li>- creation of a support system for the process of creating consortia, for the realisation of significant international projects: 2020</li> </ul>
3	I.3. Increasing the number of acquired and executed prestigious international projects within POBs	1 – 72	21 000 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>It is planned to create a system of support for the preparation of proposals and monitoring of ongoing projects. It is planned to create and run an IT system that will enable identification of all threats that will arise during the realization of projects. It is to support the project preparation process and solve a number of administrative problems that still exist in the Polish higher education system.</p> <p>The second task is to support the acquisition of prestigious grants, in particular ERC grants. In the group of employees of Gdańsk University of Technology there are currently at least a few, and in the coming years we expect a dozen or so people who represent the level that allows applying for ERC grants. These employees are already applying, though unsuccessfully, for such projects. The funds are to be allocated to support them in applying for prestigious grants. In the application group, we want to raise the level of proposals so that the submitted proposals are in the A-grade group.</p> <p>Another element will be a university grant system for young scientists. It is planned to award several grants a year, with an average amount of PLN 0.5 million. The total amount of support equal to 15 million will allow reaching a wide group of active young scientists (up to 7 years after the doctoral defense). These grants, as a transitional element, will allow preparing and carrying out preliminary</p>

				<p>work in order to prepare for the proper grant, or to complement existing and ongoing projects.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>Participation in prestigious international research projects will increase both the actual impact of the University on the development of world science and the international visibility of this impact.</p> <p><b>ACTION COST</b></p> <ul style="list-style-type: none"> <li>- Support system for preparing proposals and monitoring of implemented projects: PLN 1 million</li> <li>- Support for obtaining prestigious grants: PLN 2.1 million (15 grants, in average PLN 0.14 million each)</li> <li>- University grant system for young scientists: PLN 18 million (82 grants, in average PLN 0.3 million each)</li> </ul> <p><b>MILESTONES</b></p> <ul style="list-style-type: none"> <li>- creation and launch of the project support system: 2020</li> <li>- launching a monitoring and support system for proposals for prestigious grants: 2021 - 3; 2022 - 3; 2023 - 3; 2024 - 3; 2025 - 3</li> <li>- launching a grant system for supporting young scientists: 2020 - 14; 2021 - 14; 2022 - 14, 2023 - 14; 2024 - 13; 2025 - 13</li> </ul>
4	I.4. Increasing the number of publications in prestigious journals	1 – 72	8 500 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>Increasing the number of prestigious publications will take place through a few tasks, the aim of which is primarily to support the Open Access idea among external publishers, limiting the barriers to publishing very good works. We plan to offer support only for articles from the top 10% journals according to the Scopus/WoS database.</p> <p>As part of this activity, it is also planned to promote the Open Research Data system, which should ensure an increase in the citation rate. It is planned to support 8 to 12 publications a year. Funds for this task are several times smaller than funds allocated for Open Access, because we will use here an IT system built as part of the MOST DANYCH project.</p> <p>It is also planned to introduce a system of promoting and high positioning of emerging publications, by advertising individual articles at publishers such as Elsevier, or in such systems as Mendeley, Endnote.</p>

				<p>The next task is to create and implement a financial system for awarding the best publications. Significant resources which have been allocated for it, will allow to supplement employees' income and motivate them for increasingly better publishing. As in the case of Open Access, it is planned to support only publications from the Top 10%.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>The implementation of the measure will significantly increase the international visibility of the University and its employees.</p> <p><b>ACTION COST</b></p> <ul style="list-style-type: none"> <li>- Open Access support system: PLN 1.8 million (600 publications, in average PLN 3,000 each)</li> <li>- Open Research Data support system: PLN 0.6 million (60 publications, in average PLN 3,000 each)</li> <li>- System for promotion (promotion) and positioning of publications: PLN 1 million</li> <li>- Financial system for the best publications: PLN 5 million (100 publications, in average PLN 50,000 each)</li> </ul> <p><b>MILESTONES</b></p> <ul style="list-style-type: none"> <li>- launching the financial support system according to the Open Access policy of prestigious articles from the Top 10%: 2020 - 80; 2021 - 90; 2022 - 100, 2023 - 100; 2024 - 110; 2025 - 120;</li> <li>- devising (2020) and monitoring of the Open Research Data support system for prestigious publications from the Top 10%: 2021 - 8; 2022 - 9; 2023-10; 2024 - 11; 2025 - 12</li> <li>- organization of IT tools and their implementation: 2021</li> <li>- launching and monitoring the system supporting prestigious publications: 2020 - 16; 2021-17; 2022 - 17, 2023-17; 2024-17; 2025 - 16</li> </ul>
5	II.1. Supporting cooperation with leading international research centers	1 – 72	9 200 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>Financial support is planned to create strong international teams in order to build cooperation between GUT and leading research centres. It will be provided to eight teams which will cooperate with centres of high reputation. Moreover, it is planned to allocate about 10 grants per year for expenses related to visits of GUT scientists in reputable research centres. The importance of such internships has a very large impact on the scientific development of individuals, as well as</p>

			<p>strengthening cooperation between research centres. This internship will be available to young scientists as well as those who have a chance to be published in highly reputable journals. In 2020-2024, approx. 50 internships lasting over 3 months are planned.</p> <p>As part of this activity, it is also planned to finance the costs of participation in scientific networks, clusters and organizations, which provide a peer forum for the exchange of ideas and experience, and also provide the opportunity to discuss issues important for higher education as well as issues significant for the development of the whole society (e.g Grand Challenges) and the Baltic Sea region. The support will be aimed at several such most important organizations throughout the entire project realisation period.</p> <p>Strengthening research cooperation will be additionally supported by information activities, trainings, e.g. about cultural differences, language courses, dedicated to selected subjects, learning the art of negotiation and mentoring conducted by persons with significant scientific achievements.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>The implementation of the explicit action aims to achieve the objective of strengthening research cooperation with high-profile scientific institutions.</p> <p><b>ACTION COST</b></p> <ul style="list-style-type: none"> <li>- building of teams with high reputation centres: PLN 3 m. (8 teams, in avg PLN 75,000 each)</li> <li>-Internships in scientific centres: PLN 5 million (50 internships, in avg PLN100,000 each)</li> <li>-Support for participation in inter-university networks and organizations: PLN 0.4 million (6 networks, in average PLN70,000 each)</li> <li>-A system for selecting potential centres for cooperation within POBs and monitoring the effectiveness of cooperation: PLN0.3 million</li> <li>-Soft support: PLN0.5 million</li> </ul> <p><b>MILESTONES</b></p> <ul style="list-style-type: none"> <li>- a system of grants supporting intern. cooperation:2021-1;2022-1,2023-1;2024-1</li> <li>- a system for internships exceeding 3 months:2020-10;2021-10;2022-10,2023-10;2024-10</li> <li>- support sys. in networks:2020</li> <li>-IT sys:2021</li> </ul>
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				-inform. point:2020 -mentoring:2021
6	II.2. Strengthening cooperation with research centers from the Baltic Sea Region	1 – 72	2 500 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>Gdańsk University of Technology plans to strengthen cooperation with research centres from the Baltic Sea Region, using its geographical location and significant potential of the region.</p> <p>For this purpose, a separate fund for support and lobbying for research proposals was envisaged, which will then be implemented at universities of the Baltic Sea Region within the PRAs. This activity should allow Gdańsk University of Technology to obtain a significant and even leading position among the Baltic countries, in particular in the South Baltic area. Proposed support will cover several research teams.</p> <p>To strengthen cooperation with the centres from the Baltic Sea area we will also use the funds for research carried out by young scientists within the PRAs. In the years 2021-2025, it is planned to allocate 2 million to fund 5 grants to realise projects with partners from the Baltic Sea Region, which should strengthen the position of Gdańsk University of Technology, and lead to cooperation between the academic staff and universities in its immediate vicinity.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>This measure should enable GUT to achieve a significant and even leading position in the South Baltic area.</p> <p><b>ACTION COST</b></p> <ul style="list-style-type: none"> <li>- Financing research from the BSR for young scientists within the PRAs PLN 2 million (5 grants, in average PLN 0.4 million each)</li> <li>- Fund for supporting and lobbying for research proposals and participation in university networks in the BSR : PLN 0.5 million (2 grants, in average PLN 0.25 million each)</li> </ul> <p><b>MILESTONES</b></p> <ul style="list-style-type: none"> <li>- devising a system of grants supporting research in the BSR: 2021-1; 2022 - 1; 2023-1; 2024 - 1; 2025 - 1</li> <li>- launching a system of grants supporting research in the BSR: 2021-1; 2023-1</li> </ul>

7	III.1. Improvement of the education system at undergraduate and graduate studies	1 – 72	3 000 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>Gdańsk University of Technology sees the need to compete effectively for the most talented candidates for studies. Therefore, we plan to modify the education system at undergraduate and graduate studies, in order to best match the needs of the scientific community as well as the socio-economic environment.</p> <p>It is planned to introduce a system of individual student education paths by involving them in the realisation of research projects. This gives the opportunity to select young, independent research leaders who will build their careers from the moment they study and develop them towards gaining the skills necessary to conduct research projects and to act as leaders. In the years 2020-2025, approximately 100 students are planned to participate in this form of education. The next aim will be to modify the study programme. It is planned to introduce new subjects, covering issues related to conducting research and project management. Acquiring the competences in the field of research project management will enable students to actively participate in the realisation of projects and to become research leaders in the future.</p> <p>Another element of the modification of the education system at the graduate programme will be an increase in the number of classes requiring research and analytical problems solving. Their aim will be to transfer knowledge concerning, among others, techniques of working on research problems or research methodology. There is a plan to introduce new subjects supporting scientific research within the PRAs.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>The implementation of the explicit measure is aimed at achieving the objective of improving the quality of student education.</p> <p><b>ACTION COST</b></p> <ul style="list-style-type: none"> <li>- Introduction of a system of individual student education paths as part of participation in research projects: PLN 2.4 million (100 persons, in average PLN 20,000 each)</li> <li>- Programme (Curricula) changes focused on research and project management: PLN 0.2 million (20 curricula and sources, in average PLN 10,000 each)</li> <li>- Increasing the percentage of classes requiring solving research problems: PLN 0.4 million</li> </ul>
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8	III.2. Modification of PhD studies system	1 – 72	42 200 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>The main element of modifying education at the PhD studies is the organization of a doctoral school and its promotion in selected geographic locations, in order to acquire the most talented candidates for doctoral students. The school will provide a wide range of specialist and soft-skills subjects in English.</p> <p>It is planned to organize a system to fund four-year scholarships for doctoral students from outside Poland, in the total amount of approximately PLN 41.4 million. They will allow to provide the best candidates with conditions for effective doctorate work, without the need to undertake additional paid jobs. In 2020-2025, 345 people are planned to be covered by these scholarships. It is anticipated that the proposed scholarships will be competitive, also for scientific disciplines with the highest demand on the labour market.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>The implementation of the action will create appropriate financial, organisational and educational conditions for the professional development of early-stage researchers.</p> <p><b>ACTION COST</b></p> <ul style="list-style-type: none"> <li>- Doctoral school organization - advertising campaigns in selected geographic locations: PLN 0.8 million (6 campaigns, approximately PLN 120,000 each, and development of advertising materials – PLN 80,000)</li> <li>- Scholarship system for the best doctoral students from outside Poland: PLN 41.4 million (345 scholarships, in average PLN 0.12 million each)</li> </ul> <p><b>MILESTONES</b></p> <ul style="list-style-type: none"> <li>- creation of the advertising system for the doctoral school at PRAs in selected geographical locations: 2020</li> </ul>

				- establishing a doctoral scholarship system for people from outside Poland: 2020-10; 2021-25; 2022 - 45, 2023 - 70; 2024 - 90; 2025 - 105
9	III.3. Improvement of admission system using the concept of strategic enrolment management	1 – 72	3 000 000,00	<p><b>ACTIVITY DESCRIPTION</b></p> <p>In order to attract the best candidates for studies, as part of this action, a promotion campaign will be introduced that will emphasize all the advantages of Gdańsk University of Technology, i.e. its geographical location as well as infrastructure and organizational potential. The campaign will be conducted both in Poland and abroad. In addition, there is plan to establish cooperation with secondary schools in selected places, mainly outside of the Tri-City, so as to directly reach potential candidates for studies. In order to improve the admission procedure, it is intended to implement the Strategic Enrolment Management concept.</p> <p>As part of this action, it is also planned to introduce a scholarship system for the most talented candidates for studies, for faculties within the PRAs. About 100 scholarships are expected per year.</p> <p><b>ACTIVITY JUSTIFICATION</b></p> <p>The implementation of the explicite action is aimed at achieving the goal of effective competition for the most talented candidates for studies.</p> <p><b>ACTIVITY COST</b></p> <ul style="list-style-type: none"> <li>- Introduction of a student admission system, using the location and potential of Gdańsk University of Technology: PLN 0.7 million (six campaigns, in average PLN 100,000 each, plus development – PLN 100,000)</li> <li>- Support for cooperation with secondary schools providing most talented graduates: PLN 0.3 million (10 schools, in average PLN 30,000 each)</li> <li>- Introduction of a scholarship system for the most talented candidates for fields within the PRAs: PLN 2 million (100 persons, in average PLN 20,000 each)</li> </ul> <p><b>MILESTONES</b></p> <ul style="list-style-type: none"> <li>- implementation of the system: 2020</li> <li>- launching the cooperation support programme with selected secondary schools: 2020 - 5; 2021-5</li> <li>- launching the scholarship system: 2021 - 20; 2022-20, 2023-20; 2024-20; 2025-20</li> </ul>

10	III.4. Talent management	1 – 72	6 000 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>Bearing in mind the need to improve the quality of students' education, Gdańsk University of Technology intends to introduce a talent management programme. It is planned to fund grants supporting the activity of student circles and scientific teams, which constitute a natural environment for selecting research group leaders, organizational leaders and leaders initiating new research areas. An element of the talent management system will also be the development of a set of indicators and the introduction of an IT system supporting the selection of the best students. This will allow us to clearly identify those who have the best chance to become leaders and invest in their development. There is a plan to introduce a scholarship system for the best students, comprising a group of 120 students during the project realisation period. The amount of PLN 2.9 million for scholarships will allow selected students to devote themselves to research activities without having to take up paid jobs in other institutions.</p> <p>To encourage academic teachers to get involved in activities supporting the selection of the most talented students, it is also planned to introduce special grant funding for teachers who will become their mentors (increase in teachers' remuneration, financial support for research). A total of 60 academics are supposed to be involved in such an activity for the duration of the project.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>The implementation of the explicit action is aimed at achieving the goal of effective talent management.</p> <p><b>ACTION COST</b></p> <ul style="list-style-type: none"> <li>- Support system for student circles and scientific teams: PLN 1.5 million (3 competitions, in average PLN 0.5 million each)</li> <li>- Introduction of a system of indicators identifying the best students: PLN 0.4 million</li> <li>- Grant support system for teachers supervising the most talented students: PLN 1.2 million (60 persons, in average PLN 20,000 each)</li> <li>- Scholarship system for the best students: PLN 2.9 million (120 persons, in average PLN 24,000 each)</li> </ul> <p><b>MILESTONES</b></p> <ul style="list-style-type: none"> <li>- creating a system of scientific circles supporting grants: 2020 – 1; 2022 - 1; 2023-1; 2024 – 1; 2025 – 1; 2026 - 1</li> <li>- launching an IT system supporting the selection of the best students: 2020</li> </ul>
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				<p>- launching a grant system for teachers selecting the most talented students: 2020-10; 2021-10; 2022 - 10, 2023 - 10; 2024-10; 2025 - 10</p> <p>- launching a scholarship system for the best students: 2020-20; 2021-20; 2022-20, 2023-20; 2024-20; 2025-20</p>
11	IV.1. Supporting professional development of university staff	1 – 72	2 500 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>The action will include development and introduction of a career paths system (incl. fast paths for young researchers) at GUT, incl. employees with research, teaching, as well as research and teaching profile. The rules and methods of monitoring the professional development of employees will be defined. There is a plan to create a transparent system of promotion criteria by a system of assessment indicators, separately for scientists and administration. The development of individual career plans is envisaged, also taking into account the personal situation of employees. The existing assessment of scientists and administration staff based on a system of indicators will be verified (e.g. mobility, publications, international cooperation, projects). It is also planned to develop and implement a system of diversified (scientific and other) loads. This will allow for a harmonious career development and together with other pro-quality changes in the field of university management, it will be an element to unburden scientists from administrative work or excessive teaching duties. The conclusions of the 'Drive to the Excellence in HE will be used. Positive management of technical universities: a new incentive model'-the National Science Centre grant, currently being implemented by the university's employees. It is intended to implement a system of monitoring the independence of young scientists by a dedicated team, analysing barriers and problems appearing in this area.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>The implementation of the measure introduces solutions directly serving the professional development of the University's employees.</p> <p><b>ACTION COST</b></p> <p>-career paths:PLN 0,9m.          -employee development&amp;evaluation sys:PLN 0,9m.          -system od diversified loads:PLN 0,3m.          -incetive sys.:PLN 0,1m.          -monitoring the independence of young scientists:PLN 0,3m.</p>

				<p><b>MILESTONES</b></p> <ul style="list-style-type: none"> <li>-career paths system:2020</li> <li>-professional development plans system:2021</li> <li>-IT system for monitoring the discounts granted:2020</li> <li>-incentive system:2020</li> <li>- establishment of a team monitoring the independence of young scientists:2020</li> <li>- introduction of monitoring of the independence of young scientists through a system of questionnaires:2021</li> </ul>
12	IV.2. Implementation of a support system for researchers' mobility and <i>work-life balance</i> solutions	1 – 72	5 400 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>This task covers funds for grants supporting trips to leading research centres within the POBs of employees, especially young researchers, are provided. In the years 2020-2025, 180 persons are planned to be included in such grants. The grants are supposed to remove mobility barriers (covering training leaves expenses in GUT, ensuring replacement in conducting classes).</p> <p>It is planned to introduce a system of flexible accounting of teaching for outgoing employees, which is to eliminate one of the most important mobility barriers identified in surveys conducted among academic teachers – i.e. problems in organizing replacement in conducting classes and granting training leave.</p> <p>Another task supporting researchers is to develop a system of individualization of development plans due to the personal situation of employees. This will include a group of employees who in case of various random events or family situations are forced to temporarily limit their scientific activity, and will allow to adjust the development paths to periodically reduced involvement.</p> <p>It is also planned to undertake actions promoting the idea of work-life balance, allowing employees to achieve a balance between commitment to work and personal life. It is planned to implement programs changing attitudes and facilitating the reconciliation of work and personal life, so that it is possible at the university to implement an organizational culture based on respect, trust and life balance.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>The implementation of the measure will increase the international mobility of University researchers and their professional satisfaction.</p>

				<p><b>ACTION COST</b></p> <ul style="list-style-type: none"> <li>- Grants supporting trips to leading research centres covering research within POBs: PLN 3.6 million</li> <li>- Introduction of a flexible accounting system for mobile researchers: PLN 0.9 million</li> <li>- The system of individualization of development plans due to the personal situation of employees: PLN 0.6 million</li> <li>- Information activities / actions promoting the idea of work-life balance: PLN 0.3 million</li> </ul> <p><b>MILESTONES</b></p> <ul style="list-style-type: none"> <li>- introduction of grants for trips: 2020 - 30; 2021-30; 2022-30, 2023-30; 2024-30; 2025 - 3</li> <li>- defining in-house regulations and starting the didactic discount system: 2020</li> <li>- introduction of the system of individualization of development plans: 2021</li> <li>- launching information and support activities: 2020</li> </ul>
13	V.1. Optimization of research management	1 – 24	2 000 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>As part of this activity, organizational changes will be introduced to synchronize the work of scientists in particular scientific disciplines, evaluated at Gdańsk University of Technology. This will ensure effective management of scientific policy within these disciplines. This synchronization will allow the use of a uniform method of employee evaluation, taking into account the specificity of individual scientific disciplines and improving the university management. These organizational changes will have a significant impact on the priority research area (POB): ELECTRONIC, INFORMATION AND MECHATRONIC TECHNOLOGIES, which appears at several faculties and concerns research and implementation in the field of maritime economy. Organizational changes synchronizing scientific activities within the discipline will also concern POB: MATERIALS ENGINEERING. They will support the PRA including the group of the youngest and most active scientists at Gdańsk University of Technology.</p> <p>The management of scientific research will be aided by an IT system supporting the activities of scientific discipline councils, deciding on the research policy and funding, in line with the adopted new Statute of Gdańsk University of Technology. The system is going to be launched at the end of 2020. It will form the basis for the evaluation of scientists, according to their particular achievements. It will allow to determine which research trends should be supported and what funding should</p>

				<p>be received, taking into account their future research potential, including relevance for selected PRAs.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>The implementation of the measure will contribute to raising the level of management quality of the University.</p> <p><b>ACTION COST</b></p> <ul style="list-style-type: none"> <li>• Organizational changes at the university synchronizing the work of scientists in scientific disciplines: PLN 0.5 million</li> <li>• An IT system to support the activities of scientific discipline councils, deciding on policy and research funding: PLN 1.5 million</li> </ul> <p><b>MILESTONES</b></p> <ul style="list-style-type: none"> <li>• introduction of organizational changes synchronizing scientific disciplines: 2021</li> <li>• launching an IT system supporting the activities of scientific discipline councils: 2021</li> </ul>
14	V.2. Optimization of human resources management	1 – 72	4 600 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>It is planned to create Human Resources Department (HR) serving the entire university, managing human capital in employment, using global recruitment channels and monitoring development paths, in particular for scientists with the greatest potential. The HR Department will be responsible for launching the path of rapid promotions for young scientists. HR specialists will be employed and procedures for functioning of this department will be developed and implemented. A Scientific Effectiveness Council (SEC) is going to be set up, composed in at least 70% of international experts, whose main task will be to monitor the process of employing scientists and their promotion paths. Expenditures for this task will be allocated to remuneration and delegation costs of Council members and for administrative functioning costs. It is planned to create administrative and organizational support for visiting scientists by defining procedures and administrative support for the International Relations Office. This will increase the</p>

			<p>effectiveness of this group of scientists and will improve the international PR of GUT.</p> <p>Conflict resolution procedures will be determined and a team will be set up to monitor conflicts arising within the university. Employees will be provided with support in the field of professional development and will acquire the body which they will be able to turn to in case of any interpersonal problems.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>The implementation of the measure will contribute to raising the level of management quality of the University.</p> <p><b>ACTION COST</b></p> <ul style="list-style-type: none"> <li>-Setting up a university HR department, managing human capital: PLN 1.3 million</li> <li>-Implementation of a new recruitment system, including active recruitment of international research staff: PLN 0.8 million</li> <li>-Establishment of SEC monitoring the process of employing scientists and developing their careers: PLN 1.1 million</li> <li>-Administrative and organizational support for visiting scientists: PLN 0.7 million</li> <li>-Defining conflict resolution procedures and creating a team monitoring and resolving conflicts of interest in the university: PLN 0.7 million</li> </ul> <p><b>MILESTONES</b></p> <ul style="list-style-type: none"> <li>-creating HR department: 2021</li> <li>-creating and improvement of communication channels and recruitment procedure:2021</li> <li>-establishment of the Scientific Effectiveness Council:2020</li> <li>-defining procedures supporting visits of foreign scientists and implementation of this support by the International Relations Office:2020</li> <li>-establishment of a monitoring team:2020</li> </ul>
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15	V.3. Professional development of administration, including organizational improvements	1 – 72	2 900 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>Organizational improvements are planned, e.g. centralization and unification of services and procedures relevant to the implementation of research work and teaching. The aim is to enable change in the organizational model in which GUT functions as a faculty federation into a model where uniform standards and rules of conduct apply throughout GUT, and a large part of the services is centralized. The task is to harmonize procedures regarding public procurement, legal services, purchases and commissioned research.</p> <p>It is planned to increase the availability of administrative support in English, which involves the need to translate many documents and IT systems. Part of the funds will be allocated to administration workers language courses. Movements within administrative positions are planned to ensure the availability of workers with good command of English in all areas. The improvement of the university administration functioning is planned by implementing a system for assessing and monitoring the effectiveness of administrative structures by the main stakeholders and scientists with the greatest achievements.</p> <p>We aim to introduce a system of annual surveys concerning the performance of individual administration departments, in which their effectiveness and readiness to cooperate with academic staff would be examined. Survey results will constitute the basis for possible organizational changes to improve the functioning of administration.</p> <p>As part of organizational improvements, it is planned to define and implement a horizontal and vertical communication model and exchange of information at GUT. Surveys conducted indicate that communication is not a strong point of GUT. Creating a model and identifying the bottlenecks in the flow of information will be an important element of the organizational changes.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>The implementation of the measure will contribute to raising the level of management quality of the University.</p> <p><b>ACTION COST</b></p> <p>-unification of services: PLN0.8m. -support in English: 0.6 million</p>
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				<p>-evaluation the effectiveness system: PLN 0.6 m.          -the horizontal and vertical communication model: PLN0.3 m.</p> <p><b>MILESTONES</b></p> <p>-defining procedures and starting the process of their centralization : 2021          -introduction of obligatory bilingual documents and administrative support in English: 2020          -introduction of a monitoring system for the effectiveness of administrative structures: 2020          -development / implementation of the comm. model:2020/2021</p>
16	V.4. Optimization of research project management	1 – 72	1 600 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>As part of this action we plan to conduct an analysis, optimization and standardization of project management processes at GUT.</p> <p>This task will include a review of the procedures and regulations operating at GUT in the area of raising funds for research, scientific, educational and infrastructural activities, coming from external sources and the manner of implementing such projects. An analysis of the processes accompanying the implementation of projects as well as mutual dependencies and information flow between units participating in this process will be carried out. The present software for project management at GUT (project database), which is to streamline the management project portfolio process, will be analysed.</p> <p>As a result of the analysis, a model for the functioning of the Project Management Office (PMO) will be proposed - a structure connecting central and departmental units. The implementation of the model is supposed to optimize the way of project management at the university. One part of the funds for this task has already been allocated within the "Integrated Programme of Development of Gdańsk University of Technology", financed from the EU funds.</p> <p>Another element improving project management at GUT will be training support for teams and project managers in project preparation and realisation. In the years 2020-2025, 12 training workshops will be carried out.</p> <p>The organization of project management at GUT will also comprise improving access to information on the possibilities of obtaining funds for research. In 2020, it is planned to implement a central information system about projects and ways</p>

				<p>to realise them together with a search engine for projects carried out at GUT and a search engine for funding sources when applying for new projects.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>The implementation of the measure will contribute to raising the level of management quality of the University.</p> <p><b>ACTION COST</b></p> <ul style="list-style-type: none"> <li>• Optimization and standardization of processes related to project management: PLN 0.8 million</li> <li>• Training for teams and project managers in the field of preparation and realisation of projects: PLN 0.6 million</li> <li>• Access to information on the possibilities of raising funds for research: PLN 0.2 million</li> </ul> <p><b>MILESTONES</b></p> <ul style="list-style-type: none"> <li>• implementation of the project management system: 2021</li> <li>• launching the training system: 2020 - 5; 2021-5; 2022 - 5, 2023 -5; 2024 - 5; 2025-5</li> <li>• implementation of the information system on the possibilities of raising funds: 2020</li> </ul>
17	V.5. Increasing the efficiency of technology transfer	1 – 72	11 500 000,0	<p><b>ACTION DESCRIPTION</b></p> <p>The aim is to implement processes supporting cooperation with the economic environment and teaching entrepreneurial mindset among employees and students. The mechanisms of supporting employees in identifying and securing intellectual property of valuable inventions will be implemented. Compared to 2017, a 30% increase in the number of applications is expected. The GUT will submit applications for international patents (6-10 a year), which will provide an opportunity to raise technological preparedness of inventions and support their commercialization, creating an internal fund Proof of Concept and Proof of Principles for active teams. It will streamline the current activities of technology transfer units, which should allow about 15 licenses per year. Basing on the experience of the ePionier acceleration process, which is unique in Poland, a course for students and employees will be launched, preparing teams for setting up technology companies, the so-called "Start-up School". As part of the task, a</p>

				<p>pre-acceleration programme recognized in the world will be developed or purchased and made available to students (60-90 per year). As part of the task, a comprehensive contact point with business will be created, taking into account a coherent communication strategy and promotion of the GUT's research offer for business. Standards of the organizational, administrative and legal process of the performed research orders will be developed as early as in 2020. The team responsible for sales of services and analysis of market needs will be strengthened, which will allow to achieve a 30% increase in 2025 (compared to 2017) of services provided at the request of companies.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>The implementation of the measure will contribute to raising the level of management quality of the University.</p> <p><b>ACTION COST</b></p> <p>-est. of commercialization processes for R&amp;D results: PLN 5.5m.          -"Start-up schools" and acceleration of spin-off projects: PLN 4.5m.          -Centralization of sales and promotion of research services: PLN 1.5m.</p> <p><b>MILESTONES</b></p> <p>-Implementation of procedures and processes connected with technology transfer-2020          -International patent applications:2021-6, 2022-6, 2023-8, 2024-8, 2025-10          -Launch of the "Start-up School" - 2021          -Accelerated start-up projects:2021-6,2022-8,2023-8,2024-12,2025-12          -Revenues from the sale of services (GUT and SPV in PLN million): 2021-19, 2022-19, 2023-20, 2024-21, 2025-22</p>
18	V.6. Improving the research infrastructure management system	1 – 72	6 800 000,00	<p><b>ACTION DESCRIPTION</b></p> <p>The aim is to standardize the method of managing the research infrastructure of Gdańsk University of Technology basing on process approach, with particular emphasis on groups of laboratories associated with the PRA. The system approach will allow for taking full advantage of GUT's infrastructure potential and</p>

			<p>will improve and facilitate access to research equipment, both for interdisciplinary research groups and scientists conducting individual research. One of the key factors will be the optimization of processes connected with supervision of research equipment and thus maintaining the appropriate quality and reliability of the conducted research.</p> <p>An IT system supporting the management of research infrastructure will be devised. The system will include a central database of strategic infrastructure, accessibility and reservation system for research equipment and a central purchasing planning system.</p> <p><b>ACTION JUSTIFICATION</b></p> <p>The implementation of the measure will contribute to raising the level of management quality of the University.</p> <p><b>ACTION COST</b></p> <ul style="list-style-type: none"> <li>- Optimization and standardization of the research infrastructure management system: PLN 4 million</li> <li>- Creating an IT system for infrastructure management and supporting its availability: PLN 2.8 million</li> </ul> <p><b>MILESTONES:</b></p> <ul style="list-style-type: none"> <li>- defining groups of laboratories for individual PRAs: 2021</li> <li>- development of a map of key processes and development of system documentation: 2022</li> <li>- construction of a central database of strategic research infrastructure: 2022</li> <li>- information IT system about available equipment and reservation system: 2023</li> <li>- development of a dedicated IT system supporting infrastructure management: 2023</li> </ul>
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## D 4. METHODOLOGY OF MONITORING PROGRESS IN IMPLEMENTATION OF THE PLAN

### a) Description of the methodology

For the purpose of timely implementation of the assumed action plan, the Monitoring Team will be established that will supervise the realisation of the project and monitor its progress with the help of the adopted indicators. It will consist of 5 substantive coordinators in the scope of:

- impact of scientific activities of GUT on the development of world science,
- cooperation with high-reputation centres,
- quality of education of students and doctoral students,
- professional development of university employees,
- quality of university management.

Project monitoring will be carried out systematically every six months in relation to:

- achieving the adopted milestones,
- achieving the assumed values of indicators,
- timely implementation of actions, in compliance with the budget and schedule.

The vice-rector for science will supervise the whole project. The University Council will also be involved in supervision over the implementation of the Action Plan; it will consist of three representatives of Gdańsk University of Technology, the head of the student self-government and three non-university members who have experience in management and have achieved business success of outstanding significance.

We plan to set up a team of international experts, specialists in the Priority Research Areas, who will constitute the Scientific Effectiveness Board. The experts will be scientists with experience in processes of reorganizing and managing the university. Their task will be to assess the activity of the created scientific teams and the effectiveness of spending financial resources with regard to ensuring the attractiveness of research conducted on the international arena and the increase of scientific potential of Gdańsk University of Technology, in particular in the group of young scientists. The activity of the Scientific Effectiveness Council will support the Team Monitoring Young Scientists' Independence in this area, which will also be established with the participation of experts from outside of Gdańsk University of Technology.

Monitoring progress in the implementation of the Action Plan will be carried out through the study of obligatory indicators, selected optional ones and determined by Gdańsk University of Technology according to the specificity of the implemented Action Plan. The list and predicted values of these indicators are given in the following sections of the project application. During the preparation process of the project, a detailed schedule of activities in subsequent implementation years has been prepared. The schedule is presented below, along with the proposed indicators for monitoring the progress of project realisation and the estimated target values that were adopted for subsequent years of project realisation. The table below indicates the sources of data that explicitly specify the manner in which indicators for monitoring progress in project realisation will be determined. The following table is an auxiliary material for monitoring project realisation, in addition to the indicators listed in the next sections of project application. It will allow Monitoring Team to determine the correlation between the

funds earmarked for particular objectives and the results achieved in the form of indicators required by the Ministry of Science and Higher Education. It will also allow for estimation of progress in the realisation of the project in the adopted semi-annual cycle, monitoring the values given in the table and assessing the feasibility of achieving the assumed values for the annual cycle.

<b>Objective 1: Increasing the impact of the university scientific activity on the development of world science, in particular in priority research areas with high development potential, in which the university plans to intensify its scientific activity.</b>									
<b>Action</b>	<b>Progress monitoring indicator</b>	<b>Target value</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Data source</b>
I.1. Acquisition and support of highly qualified international staff	Number of employed foreigners	65	11	7	10	10	14	13	job contract
	Number of teams that received grants to support the initial stage of employment	6	1	1	1	1	1	1	decision on granting funds
	Development and implementation of a system for monitoring achievements of acquired staff and barriers to its development	1	1						procedure/ rector's order
I.2. Development of international research teams at the GUT	Number of participants of conferences concerning POB	800	0	0	200	200	200	200	List of conference participants
	Number of visiting professors with high reputation	60	10	10	10	10	10	10	Number of contracts
	Number of scientific consortia and groups lobbying research in POB	4	0	1	1	1	1	0	Number of contracts
I.3. Increasing the number of acquired and executed prestigious international projects within POBs	Number of people who received support to obtain prestigious grants	15	0	3	3	3	3	3	Decision to provide support
	Number of young scientists receiving grants	40	6	7	7	7	7	6	Decision to allocate grant
	Development and implementation of support system for preparation of proposals and monitoring of realised projects	1	1						developed procedure
	Number of publications supported by Open Access	600	80	90	100	100	110	120	Scopus base

I.4. Increasing the number of publications in prestigious journals	Number of publications supported by Open Research Data	60	8	9	10	10	11	12	MOST DANYCH repository
	Number of people who received bonus for best publications	100	16	17	17	17	17	16	bonus applications
	Development and implementation of a system for promoting (promulgating) and positioning new publications	1	1						Procedure

<b>Objective 2: Increasing research cooperation with highly renowned scientific institutions on the international scale, in particular in priority research areas.</b>									
<b>Action</b>	<b>Progress monitoring indicator</b>	<b>Target value</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Data source</b>
II.1. Supporting cooperation with leading international research centers	Number of teams granted support, establishing cooperation with high-reputation centres	4		1	1	1	1		consortium agreement
	Number of people leaving for internships in centres of high scientific reputation	50	10	10	10	10	10		Internship agreement
	Number of new networks and organizations of universities in which GUT is involved	6	1	1	2	2			Procedure of participation assessment by effects
	Development and implementation of a system for selecting centres for potential cooperation in the area of POB and monitoring effectiveness of the cooperation	1	1						Procedure
II.2. Strengthening cooperation with research centers from the Baltic Sea Region	Number of grants from the BSR for young scientists under POB	5		1	1	1	1	1	Decision on grant allocation
	Number of grants for supporting and lobbying research proposals and participation in the Baltic Sea Region (BSR) university networks	2		1		1			decision on grant allocation

**Objective 3: Improving the quality of education of students and doctoral students, in particular in fields and scientific disciplines related to priority research areas, including the need to involve students and doctoral students in conducting scientific research, as well as the need to compete effectively for the most talented candidates for studies and doctoral schools, also from abroad, and talent management.**

Action	Progress monitoring indicator	Target value	2020	2021	2022	2023	2024	2025	Data source
III.1. Improvement of the education system at undergraduate and graduate studies	Number of students participating in research projects within individual learning paths	50		10	10	10	10	10	number of publications concerning projects with student participation
	Number of modified study curricula	20	4	8	8				Subject cards
	Number of new classes that include solving research problems at university	16		8	8				Subject cards
III.2. Modification of PhD studies system	Actions promoting doctoral schools in selected geographic locations	6	1	1	1	1	1	1	Marketing activities programme
	Number of scholarships awarded to better PhD students admitted from outside Poland	345	10	25	45	70	90	105	decisions on granting scholarship
III.3. Improvement of admission system using the concept of strategic enrolment management	Activities promoting GUT taking advantage of its location and potential	6	1	1	1	1	1	1	Marketing activities programme
	Number of secondary schools where cooperation has been established	10	5	5					cooperation agreement
	Number of scholarships awarded to most talented candidates for studies in the areas included in POBs	100		20	20	20	20	20	decisions on granting scholarship
III.4. Talent management	Number of competitions for scientific circles and student research teams	3	1		1		1		Decisions on granting funding
	Development and implementation of indicator system of selecting the best students	1	1						Procedure
	Number of academic teachers selecting most talented students	60	10	10	10	10	10	10	decision to award teacher support grant



mobility and <i>work-life balance</i> solutions	Development and implementation of flexible teaching accounting system for mobile researchers	1	1						Procedure
	Development and implementation of principles of individualization of development plans with regard to employees' personal situation	1	1						procedure

Objective 5: Improving the quality of university governance and management, including pro-quality organizational changes.									
Action	Progress monitoring indicator	Target value	2020	2021	2022	2023	2024	2025	Data source
V.1. Optimization of research management	Organizational changes at the university connected with synchronization of activities in scientific disciplines	1							Rector's order
	IT system to support activities of the councils of scientific disciplines determining policy and funding of research	1							Procedure
V.2. Optimization of human resources management	Establishment of a university-wide HR department managing human capital (employment, monitoring of development paths of key scientists, launching the path of rapid promotions).	1		1					Rector's order on unit establishment
	Development and implementation of a new model of employee recruitment including active recruitment of international academic staff.	1	1						Procedure
	Establishment of the Scientific Effectiveness Council monitoring scientists' employment process, composed of international experts in at least 70%.	1	1						Procedure

	.Establishment of administrative and organizational support for visiting scientists.	1	1						job contract
	Development and implementation of conflict resolution procedures and establishment of a team monitoring and solving arising conflicts of interest at the university	1	1						Procedure
V.3. Professional development of administration, including organizational improvements	Centralization and unification of services and procedures essential for implementation of research and teaching.	1		1					Procedure
	Introduction of administrative support in English.	1	1						Rector's order on the obligation of availability of IT systems documents and service in English
	Implementation of evaluation system and monitoring the effectiveness of administrative structures by stakeholders - scientists with the greatest achievements according to the adopted indicators.	1	1						procedure
	Monitoring the effectiveness of administration simultaneously in the field of research and teaching.	6	1	1	1	1	1	1	survey results
	Identification and implementation of horizontal communication and vertical information exchange model.	1	1						Procedure
V.4. Optimization of research project management	Optimization and standardization of processes related to project management	1		1					project management regulations
	Number of trainings for teams and project managers in the field of preparation and implementation of projects.	12	2	2	2	2	2	2	Attendance lists
	Development and implementation of an information system on the possibilities of obtaining funds for research	1	1						Procedure

V.5. Increasing the efficiency of technology transfer	Development and implementation of processes related to the commercialization of research and development results.	1	1						Procedure
	Creation of "Start-up School" and launching acceleration of spin-off projects.	1	1						Decision on appointment
	Centralization of sales processes and promotion of research services commissioned by businesses using available infrastructure.	1	1						Procedure
V.6. Improving the research infrastructure management system	Optimization and standardization of research infrastructure management system and access to specialized software for priority research areas (centralization of purchases, setting up central strategic infrastructure base).	1		1					Procedure
	Establishing an IT system for infrastructure management and supporting its availability	1		1					Procedure

b) Mandatory indicators

<b>b) MANDATORY INDICATORS</b>							
<b>Indicator 1: % Articles in Top 10% (U and P) - according to the indicated database</b>							
for a university as a whole / for each priority research area *	Reference years for base values					Reference years for target values	
	2013	2014	2015	2016	2017	Value for the period 2013–2017	Value for the period 2020–2024
an indicator for a university as a whole	6.20	7.70	10.40	8.90	13.10	9.50	18.50
	A number of articles in top 10% in WoS or Scopusb in the reference years and period.					2013 - 31; 2014 - 40; 2015 - 64; 2016 - 62; 2017 - 89; 2013-2017 - 286 2020-2024 - 745	
POB1: MATERIALS ENGINEERING	10.00	10.40	11.90	13.70	19.20	13.30	28.20
	A number of articles in top 10% in WoS or Scopusb in the reference years and period.					2013 - 13; 2014 - 15; 2015 - 19; 2016 - 22; 2017 - 34; 2013-2017 - 103 2020-2024 - 279	
POB2: ENVIRONMENTAL ENGINEERING, GREEN POWER ENGINEERING AND SUSTAINABLE CONSTRUCTION (CIVIL ENGINEERING)	15.20	8.40	10.00	13.70	21.30	14.10	27.40
	A number of articles in top 10% in WoS or Scopusb in the reference years and period.					2013 - 10; 2014 - 8; 2015 - 9; 2016 - 17; 2017 - 26; 2013-2017 - 70 2020-2024 - 220	
POB3: ELECTRONICS, MECHATRONICS AND INFORMATION TECHNOLOGIES (ICT)	2.40	5.90	9.90	8.80	11.00	7.80	21.10
	A number of articles in top 10% in WoS or Scopusb in the reference years and period.					2013 - 5; 2014 - 11; 2015 - 22; 2016 - 22; 2017 - 28; 2013-2017 - 88 2020-2024 - 282	
POB4: BIOMEDICAL ENGINEERING, BIOTECHNOLOGY	14.20	14.10	12.30	10.30	16.70	13.40	15.20
	A number of articles in top 10% in WoS or Scopusb in the reference years and period.					2013 - 16; 2014 - 18; 2015 - 19; 2016 - 22; 2017 - 34; 2013-2017 - 109 2020-2024 - 254	

**Indicator 2: Normalized Citation Impact (U and P) - according to the indicated database**

for a university as a whole / for each priority research area *	Reference years for base values					Reference years for target values	
	2013	2014	2015	2016	2017	Value for the period 2013–2017	Value for the period 2020–2024
an indicator for a university as a whole	0.85	0.88	0.94	0.90	1.02	0.92	1.17
POB1: MATERIALS ENGINEERING	0.94	1.00	1.06	1.02	1.06	1.02	1.20
POB2: ENVIRONMENTAL ENGINEERING, GREEN POWER ENGINEERING AND SUSTAINABLE CONSTRUCTION (CIVIL ENGINEERING)	1.15	0.94	1.06	1.08	1.22	1.09	1.34
POB3: ELECTRONICS, MECHATRONICS AND INFORMATION TECHNOLOGIES (ICT)	0.70	0.70	0.97	0.92	0.94	0.86	1.35
POB4: BIOMEDICAL ENGINEERING, BIOTECHNOLOGY	1.05	1.07	0.93	0.88	1.05	0.98	0.93

**Indicator 3: % Articles in International Collaborations (P) - according to the indicated database**

for a university as a whole / for each priority research area *	Reference years for base values					Reference years for target values	
	2013	2014	2015	2016	2017	Value for the period 2013–2017	Value for the period 2020–2024
POB1: MATERIALS ENGINEERING	27.70	29.20	26.20	38.50	36.20	31.90	56.10
POB2: ENVIRONMENTAL ENGINEERING, GREEN POWER ENGINEERING AND SUSTAINABLE CONSTRUCTION (CIVIL ENGINEERING)	27.30	21.10	23.30	30.60	25.40	25.80	39.70
POB3: ELECTRONICS, MECHATRONICS AND INFORMATION TECHNOLOGIES (ICT)	16.50	17.60	23.40	25.90	26.00	22.30	41.00
POB4: BIOMEDICAL ENGINEERING, BIOTECHNOLOGY	33.60	29.70	27.70	28.50	29.40	29.50	24.30

**Indicator 4: Scholarly Books of Prestigious Publishers (P)**

for each priority research area *	Number of scholarly books published in the years 2014–2018	Number of scholarly books published in the years 2021–2025
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**Indicator 5: International Research Grants (P)**

for each priority research area *	Number of grants in 2014-2018	Number of grants in 2021-2025
POB1: MATERIALS ENGINEERING	6	9
POB2: ENVIRONMENTAL ENGINEERING, GREEN POWER ENGINEERING AND SUSTAINABLE CONSTRUCTION (CIVIL ENGINEERING)	5	7
POB3: ELECTRONICS, MECHATRONICS AND INFORMATION TECHNOLOGIES (ICT)	13	19
POB4: BIOMEDICAL ENGINEERING, BIOTECHNOLOGY	3	5

<b>Indicator 6: Staff Policy Openness (U)</b>	
Value as of 31 December 2018 (generated automatically from POL-on system)	Value as of 31 December 2025
20.31	21.20
<b>Indicator 7: Student-to-Staff Ratio (U)</b>	
Value as of 31 December 2018 (generated automatically from POL-on system)	Value as of 31 December 2025
12.35	10.00

c) Optional indicators

<b>c) OPTIONAL INDICATORS</b>							
<b>Indicator 1: Normalized Citation Impact for Internationally Co-authored Articles (P) - according to the indicated database</b>							
for each priority research area	Reference years for base values						Reference years for target values
	2013	2014	2015	2016	2017	Value for the period 2013–2017	Value for the period 2020–2024
POB1: MATERIALS ENGINEERING	1.53	1.46	1.56	1.11	1.10	1.30	1.40
POB2: ENVIRONMENTAL ENGINEERING, GREEN POWER ENGINEERING AND SUSTAINABLE CONSTRUCTION (CIVIL ENGINEERING)	2.00	1.30	1.63	1.36	1.24	1.46	1.50
POB3: ELECTRONICS, MECHATRONICS AND INFORMATION TECHNOLOGIES (ICT)	1.14	0.93	1.69	1.38	1.25	1.32	1.40
POB4: BIOMEDICAL ENGINEERING, BIOTECHNOLOGY	1.72	1.33	1.42	1.12	1.48	1.39	1.45
<b>Indicator 4: % of International Staff (U)</b>							
Value as of 31 December 2018 (generated automatically from POL-on system)						Value as of 31 December 2025	
1.34						2.38	
<b>Indicator 5: % of Ph.D. Degrees Awarded to Foreign Citizens (U and P)</b>							
for a university as a whole	Value in the years 2015–2018					Value for the years 2022–2025	
	2.64%					3.10%	

for each priority research area	Value in the years 2015–2018	Value for the years 2022–2025
POB1: MATERIALS ENGINEERING	4.10%	4.60%
POB2: ENVIRONMENTAL ENGINEERING, GREEN POWER ENGINEERING AND SUSTAINABLE CONSTRUCTION (CIVIL ENGINEERING)	0.00%	1.00%
POB3: ELECTRONICS, MECHATRONICS AND INFORMATION TECHNOLOGIES (ICT)	0.00%	1.00%
POB4: BIOMEDICAL ENGINEERING, BIOTECHNOLOGY	4.65%	5.10%

**Indicator 6: % of International Doctoral Students (U)**

Value as of 31 December 2018 (generated automatically from POL-on system)	Value as of 31 December 2025
6.34	9.00

**Indicator 9: Number of inventions protected by foreign patents (U)**

Value for the period 2014–2018	Value for the period 2021–2025
8	10

A list of the most important inventions implemented for the first time in years 2014–2018 protected by foreign patents granted to the university (up to 5 implementations) which comprises a title of invention, a patent ID, place and year of implementation, a name of implementing entity and implementation description (up to 12500 characters, including spaces, for each implementation).

Attachment no5, File: WSK\_9\_opt\_inventions.pdf

**Indicator 10: Number of implementations (U)**

Value for the period 2014–2018	Value for the period 2021–2025
5	7

**Indicator 11: Revenues from commercialisation (U)**

Reference years for base values						Reference years for target values
2013	2014	2015	2016	2017	Value for the period 2013–2017	Value for the period 2020–2024
18,682,661	20,956,814	19,542,759	14,032,878	14,293,514	87,508,626	101,383,712.00

**Indicator 12: Foreign accreditations (U)**

Number of accreditations as of the date of application submission	Number as of 31 December 2025
12	22

A list of accreditations as of the date of application submission which comprises a name of accreditation institution and a date when an accreditation has been granted.

Attachment no6, File: WSK12\_opt\_accreditation\_eng.pdf

d) Indicators determined by a university

<b>d) INDICATORS DETERMINED BY A UNIVERSITY</b>			
No.	Indicator title	Reference years for base values	Reference years for target values
1.	Number of supported mobile scientists, especially young scientists	2014-2018 - 0	2020 - 30; 2021 - 30; 2022 - 30; 2023 - 30; 2024 - 30; 2025 - 30
	Additional information	Indicator describing the number of scientists who will benefit from grants supporting trips to leading research centers conducting research in the POB (Indicator referred to objective in section 4 point 4 of the announcement)	
2.	Ratio of IT systems available in English	2019 - 50%	31.12.2025 - 100%
	Additional information	Indicator describing the ratio of the number of GUT IT systems available in English (user interfaces and documents) to the total number of GUT IT systems. (Indicator referred to objective in section 4 point 5 of the announcement)	