

Internal analysis and action plan for the "Human Resources Strategy for Researchers"

Silesian University of Technology



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Introduction

Silesian University of Technology:

- is the oldest technical university in the region and
- one of the largest in the country
- established in 1945 as a scientific and educational background for the most industrialized district in Poland and at the same time one of the most industrialized areas in Europe – Upper Silesia
- for the past 70 years has been an important, opinion-forming institution of public life in the region



The strategy of the Silesian University of Technology states that "After 2020, Silesian University of Technology should be seen as an innovative centre of education, science and technology transfer and would hold a significant position in the European Higher Education Area".

Silesian University of Technology is based on the principles of:

- pluralism,
- freedom of science and
- respect for different worldviews and beliefs.

SUT promotes the idea of ethics in science and research, and professional responsibility in education and research.

SUT in numbers (academic year 2015/2016)

13 Faculties, 2 colleges and 3 academic centres

54 fields of studies

3200 full-time employees including:

Academics: 1673, Non-academics: 1527

Professors: 165

Assistant Professors: 302

Students: 22923 Graduates: 180648 PhD students: 575

Post-graduate students: 699

SUT confers the following scientific degrees:

Doctor of Technical Sciences – in 23 disciplines Doctor of Chemical Sciences – in 1 discipline

Doctor of Economics – in 1 discipline

Doctor Habilitatus of Technical Sciences — in 16 disciplines Doctor Habilitatus of Chemical Sciences — in 1 discipline



HRS4R implementation and analysis process

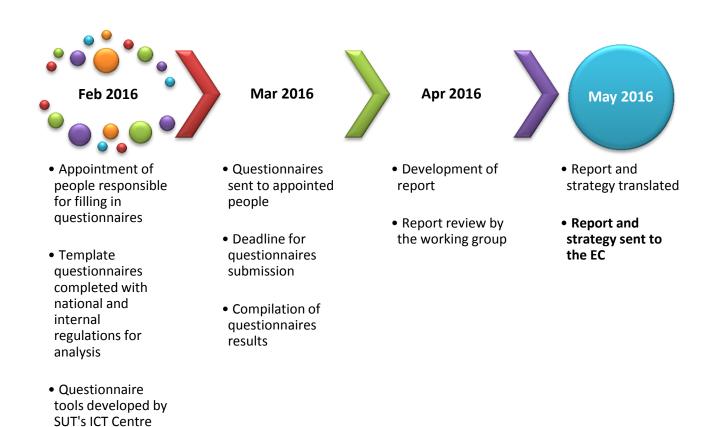
In April 2015 the Rector of SUT, Prof. Andrzej Karbownik, signed Declaration of Commitment to "The European Charter for Researchers" and "The Code of Conduct for the Recruitment of Researchers".

The project "Development of the programme for implementation of «The European Charter and Code for Researchers» for researchers recruitment" was initiated in February 2016 by Rector's Ordinance no. 32/15/16. A special working group for the project was established:

- 1. Dr hab. inż. Krzysztof Wodarski, prof. nzw. w Pol. Śl. Head of the project, Director of the Project Management Centre
- 2. Prof. dr hab. inż. Leszek Blacha Vice-Rector for Organization and Development
- 3. Prof. dr hab. Wojciech Moczulski representative of researchers
- 4. Prof. dr hab. inż. Joanna Polańska representative of researchers
- 5. Prof. dr hab. inż. Andrzej Szlęk representative of researchers
- 6. Beata Borszcz Grela Head of HR Department
- 7. Ewa Brońka Legal counsel
- 8. Anna Kiljan representative of PhD students
- 9. Agnieszka Kwiatkowska European Projects Office specialist
- 10. Katarzyna Markiewicz-Śliwa Vice-head of the project, Head of European Projects Office
- 11. Grażyna Maszniew Head of Education and Students Office
- 12. Dr inż. Jerzy Mościński Head of International Scientific Cooperation Office
- 13. Joanna Mrowiec-Denkowska Head of International Mobility Office
- 14. Anna Nogieć Rector's Plenipotentiary for Disabled People
- 15. Anna Ober Head of Structural Projects Office
- 16. Marta Snopkowska Head of Research Office
- 17. Małgorzata Sołtyńska-Rąb Head of Student Career Office
- 18. Dr inż. Arkadiusz Szmal Head of Innovation and Technology Transfer Centre
- 19. Witold Ścieszka project's secretary, Head of Organization Management Department



The working group developed a road map for gap analysis and strategy development in February 2016. The following activities were foreseen:



The actions have been performed according to the plan. By the end of February 2016 questionnaires were prepared along with the on-line tool to fill them in. The target group was determined based on the employment structure at the University. All academic staff groups were included and special attention was paid to keep the gender balance, as shown in the table below:

	Profe	essors		ciated essors		stant essors			PhD students		Academic teachers	
Faculties/units	F	M	F	М	F	М	F	М	F	M	F	М
Architecture				1	5	5					1	2
Automatic Control, Electronics and Computer Science		3		4	5	27	1	5	12	27		2
Civil Engineering		1		2	3	9	2	1	4	10	1	1
Chemistry		2	1	2	6	4	1	2	12	5		1
Electrical Engineering		2		2	1	15		1	3	5		2
Mining and Geology		1		4	5	11	1	1	4	3	1	2
Biomedical Engineering		1	1		2	4						



Energy and Environmental Engineering	1	3	1	3	9	13	1	2	12	16		1
Physics		1		1	2	3					1	1
Mathematics		1		1	2	3		1		1	1	2
Mechanical Engineering	1	2	1	5	6	22		2	10	15		
Material Engineering and Metallurgy	1	2	1	4	4	7		1	3	5	1	2
Transport				1	1	6						2
Organization and Management		1	2	3	11	11	1		6	5	1	1
Sport Centre											1	3
Geometry and Graphics Engineering Centre					1							
Foreign Langugages Centre											14	1
Foreign Langugages College					1						3	1
Pedagogy College					1						1	
Biotechnology Centre								1				
Total	500											

The Heads of respective units selected a representative group of staff members from their faculties to complete the questionnaires. The on-line questionnaire was made available **to 500 selected responders** on 1 March 2016 at https://eczp.polsl.pl/ankiety/ankieta.aspx. The temporary login and password which allows to see how the whole questionnaire looked like has been send with the email to the European Commission on 12 July 2016. It will expire on 1 November 2016.





The survey included all 40 questions from the Charter& Code as follows:

I. Ethical and professional aspects

- 1. Do you think that the Silesian University of Technology guarantees freedom of scientific research is?
- 2. Do you as a scientist working at the Silesian University of Technology comply with recognized practices, rules and ethical standards regarding to your scientific discipline?
- 3. Do you as a scientist working at the Silesian University of Technology observe the principles of professional responsibility?
- 4. Do you as a scientist working at the Silesian University of Technology use a professional approach at work?
- 5. Do you as a scientist working at the Silesian University of Technology know and respect the obligations arising from contracts or regulations governing training and/ or work?
- 6. Do you as a scientist working at the Silesian University of Technology observe the principles of sound, transparent and efficient financial management?
- 7. Do you as a scientist working at the Silesian University of Technology observe the principles of good practice in your research?
- 8. Do you a scientist working at the Silesian University of Technology disseminate and use the results of your research in an effective way?
- 9. Do you as a scientist working at the Silesian University of Technology disseminate among the public the results of your research in an understandable way?
- 10. Do you think that, as a scientist working at the Silesian University of Technology, you are discriminated against in any way?
- 11. Do you think that, as a scientist working at the Silesian University of Technology, you are properly assessed for your professional achievements?

II. Recruitment

- 12. Do you think that the admission standards for researchers working in the Silesian University of Technology (first job, return to work) are clearly defined and appropriate?
- 13. Do you think that the way of the recruitment of researchers in the Silesian University of Technology is open, efficient and transparent?
- 14. Do you think that admissions committees at the Silesian University of Technology are properly organized and guided by the best practices?
- 15. Do you think that the information about recruitment process for candidates for SUT's researchers is reliable and sufficient?
- 16. Do you think that the assessment of the merits of candidates for SUT's researchers is appropriate and includes a variety of aspects of their business?
- 17. Do you think that the career evaluation of candidates for SUT's researchers allows for derogation from the chronological order of CVs?
- 18. Do you think that the career evaluation of SUT's researchers includes a properly appreciative of mobility experience?
- 19. Do you think that the funders (including National Science Centre, National Centre for Research and Development, Ministry of Science and Higher Education, EC) and/or the Silesian University of Technology properly evaluate and recognize your academic and professional qualifications, including international?
- 20. Do you think that candidates for scientific work in the Silesian University of Technology are properly assessed for eligibility, regardless of circumstances or professional reputation?
- 21. Do you think that the scientists with a doctoral degree are informed about the purpose of their employment in the Silesian University of Technology and a maximum period of exercising their position?



III. Working conditions and social security

- 22. Do you think that the SUT's scientists are treated as professionals from the start of their careers?
- 23. Do you think that the funders (including National Science Centre, National Centre for Research and Development, Ministry of Science and Higher Education, EC) and/or the Silesian University of Technology care about creating a stimulating environment for research or research training?
- 24. Do you think that the funders (including National Science Centre, National Centre for Research and Development, Ministry of Science and Higher Education, EC) and/or the Silesian University of Technology ensure adequate working conditions for all researchers?
- 25. Do you think that funders (such as National Science Centre, National Centre for Research and Development, Ministry of Science and Higher Education, EC) and/or the Silesian University of Technology care about improving the stability of the working conditions for scientists?
- 26. Do you think that the funders (including National Science Centre, National Centre for Research and Development, Ministry of Science and Higher Education, EC) and/or the Silesian University of Technology care about fair and attractive conditions of remuneration and/or financing of scientists?
- 27. Do you think that the funders (including National Science Centre, National Centre for Research and Development, Ministry of Science and Higher Education, EC) and/or the Silesian University of Technology care about the gender balance at all levels of staff?
- 28. Do you think that funders (such as National Science Centre, National Centre for Research and Development, Ministry of Science and Higher Education, EC) and/or the Silesian University of Technology create a specific career development strategy for their scientists at every stage?
- 29. Do you think that the funders (including National Science Centre, National Centre for Research and Development, Ministry of Science and Higher Education, EC) and/or the Silesian University of Technology properly recognize the value of the broader mobility of researchers (eg. geographical, intersectoral and interdisciplinary)?
- 30. Do you think that the funders (including National Science Centre, National Centre for Research and Development, Ministry of Science and Higher Education, EC) and/or the Silesian University of Technology ensure that all their researchers have career counseling and assistance in finding work?
- 31. Do you think that the funders (such as National Science Centre, National Centre for Research and Development, Ministry of Science and Higher Education, EC) and/or the Silesian University of Technology enable researchers to benefit from the exploitation of their research results through the protection of intellectual property rights?
- 32. Do you have the ability to use the rights to the recognition of contribution you make as a co-author of publications and to be mentioned on authors list and/or citation?
- 33. Do you think that your teaching duties are not unduly burdensome, are adequately remunerated and taken into account in the assessment systems of the employees?
- 34. Do you think that the funders (such as National Science Centre, National Centre for Research and Development, Ministry of Science and Higher Education, EC) and/or the Silesian University of Technology provide adequate procedures to deal with complaints and appeals?
- 35. Are you as a researcher actually represented in the relevant information, consultation and decision-making at the Silesian University of Technology and other institutions?

IV. Training

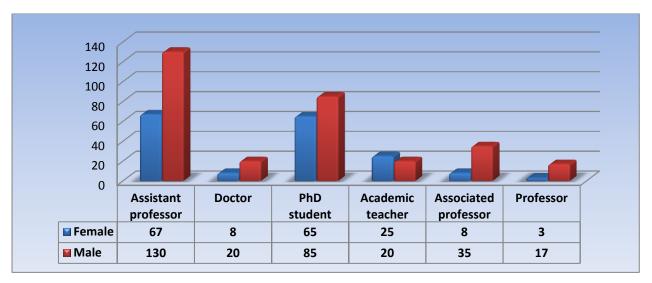
- 36. Do you think that in the Silesian University of Technology, early stage researchers have the opportunity to establish organized and regular forms of contact with their mentor and with the department representatives?
- 37. Do you think that there are good relationships between older researchers performing various functions (eg. mentors, project coordinators) and their dependents at the Silesian University of Technology?
- 38. Are you, as a researcher, looking for possibilities of continuing your professional career development?

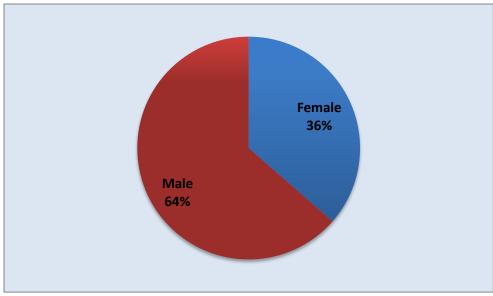


- 39. Do you as a scientist at Silesian University of Technology think you have access to solutions that enable the development of skills and qualifications?
- 40. Do you think that young researchers in the Silesian University of Technology have an access to designated people to support them in the proper performance of professional duties?

In the two weeks that followed, **483 responders** (96,6%) completed the questionnaire. Responders could add their remarks, and **3388 comments** were made in total.

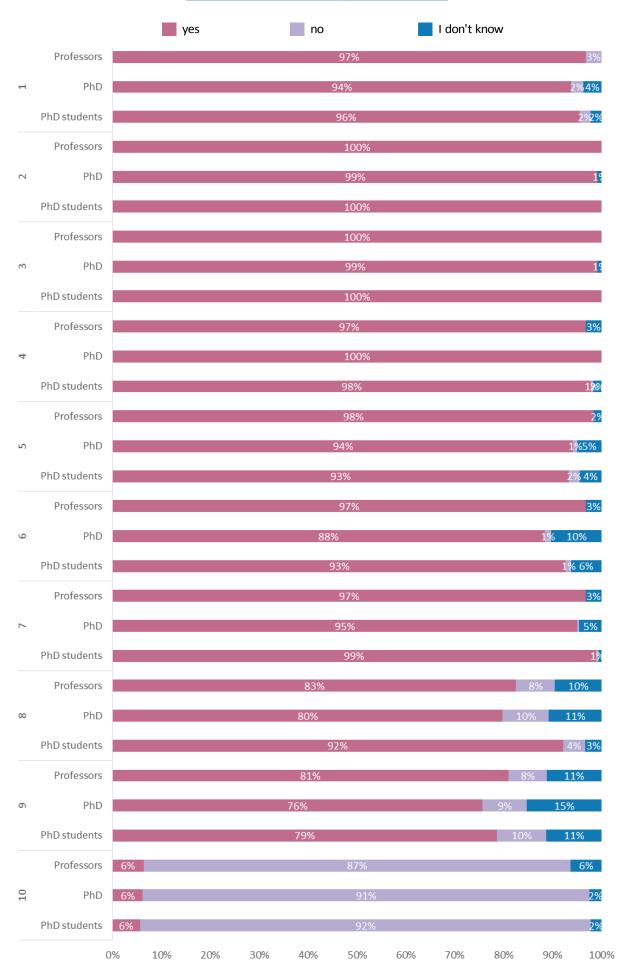
The number of responders and answers to respective questions by groups of staff and gender are shown in two following charts:



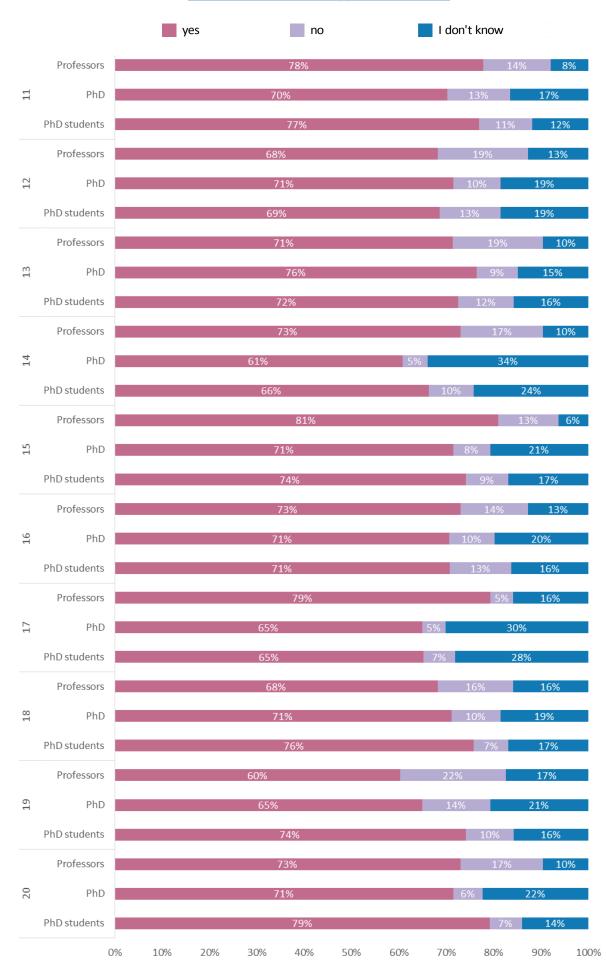


Due to graphical reasons, the number of answers to respective questions by 3 groups of staff (Associate Professors + Professors, Assistant Professors + PhD students, Doctors + Academic teachers) are presented in the next chart.

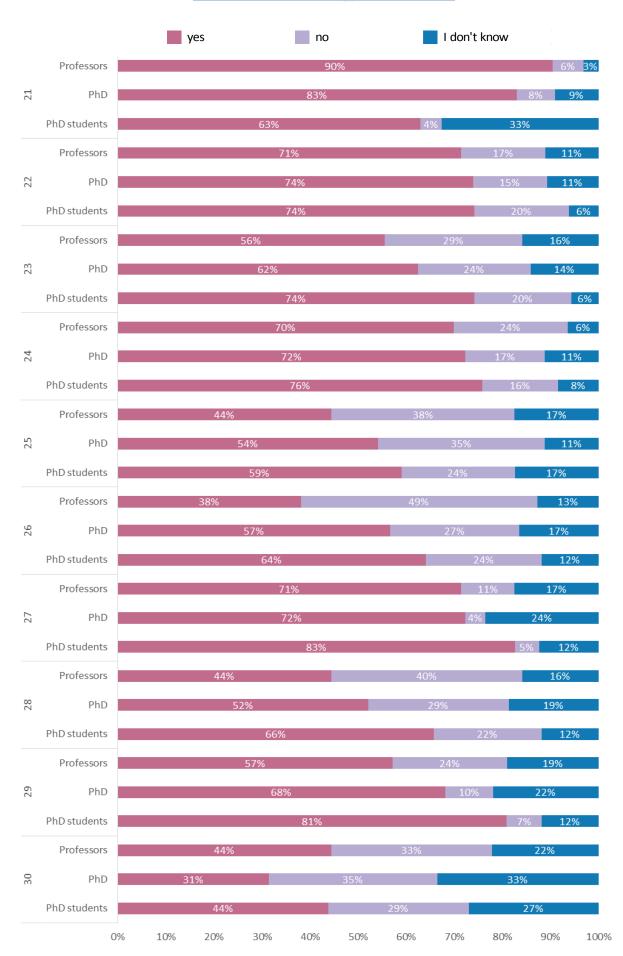




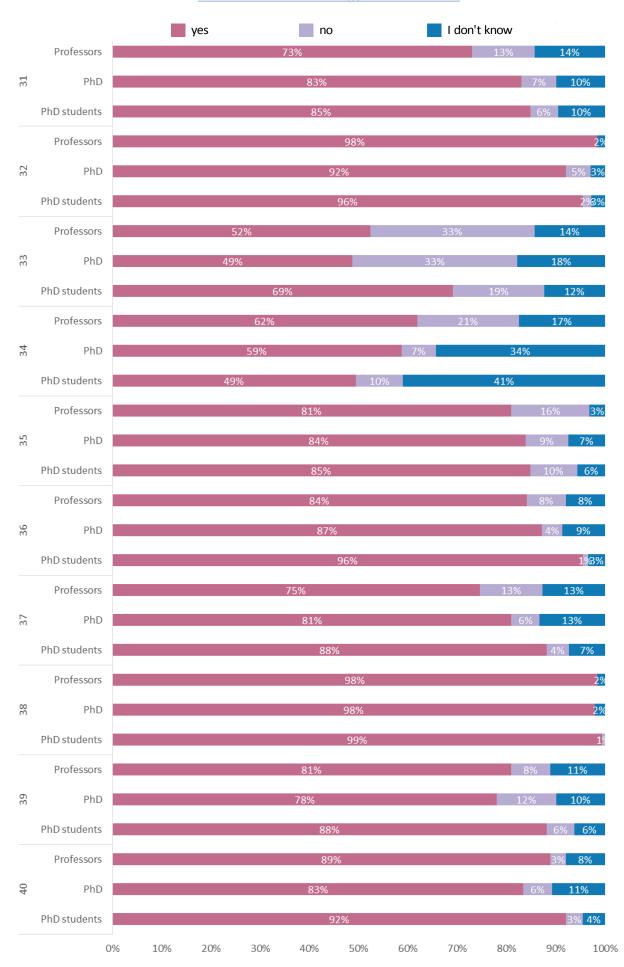














25 questions with less than 80%, 'Yes', with more than 88% 'No', and more than 80% 'Don't know' answers were analyzed in detail.

The questions regarding discrimination at work for gender, age, job position or other reasons were also thoroughly analyzed. Questions no. 1-8, 31-32, 35-40 were not analyzed in detail, because according to the answers provided, SUT researchers think that those Charter & Code requirements are fulfilled at SUT and do not require any action.

All the comments in all responding staff groups were analyzed.

Internal analysis

The analysis of the questionnaire results has been performed by the working group established for this project mentioned on page 4 with the specific representation of the researchers.

During the process of gap analysis University internal documents have been used as well as the national regulation. They are obviously encrypted, but all of the listed links are available for all of the University researchers, PhD students and administrative staff after using their permanent logins and passwords used in their business mailboxes.

Full text of the *Internal gap analysis* is available at http://www.polsl.pl/Jednostki/CZP/Strony/HRS4R.aspx.

Action Plan & monitoring

After completing the internal analysis and making the final text of the outcome of the survey, the working group concluded that SUT's practice is already mostly in accordance with the general principles of the Charter and Code. At the same time, it concluded that in some areas there is still room for improvement. Based on the internal analysis and outcome of the survey, the same group made this Human Resources Strategy for Researchers – Action Plan that contains priority areas in which SUT has to make additional effort in implementation of the principles from C&C. As it was mentioned above, 25 questions with less than 80% 'Yes', with more than 88% 'No' and more than 80% 'Don't know' answers were analyzed in detail and this activity leaded to identify 12 tasks that must be implemented to University's procedures. The following table shows 12 planned activities arising from the particular questions from the internal gap analysis (column no 3 includes number of the question from the survey that induces this task). The table identify also who and when will be responsible for the execution of required tasks.



Task no.	Planned action	Task refers to C&C Internal Gap Analysis	Responsibility	Deadline
1	 Implementation of a regulation regarding training on Intellectual Property Rights IN TERMS OF: trainings to promote the practice of a broad analysis of the state-of-the-art, using PATLIB database organisation of IPR protection and commercialisation trainings for interested researchers mandatory verification with ITTC for publishing and exploitation for every project and industry cooperation contract, information for project team members concerning publishing and implementation with regards to limitations resulting from the grant agreements 	3.1, 5.1, 8.1, 31.1	Innovation and Technology Transfer Centre	Dec 2016
2	 Modification of the ordinance on the Projects Management System IN TERMS OF: in the scope of introducing an agreement with the Project Manager defining his/her responsibility for the ongoing project 	6.1	Project Management Centre	Mar 2017
3	Creation of a central repository of protected work results and regulations to use it IN TERMS OF: • more effective use of the research results achieved by SUT researchers	7.1	Innovation and Technology Transfer Centre	Mar 2018
4	 Modification of the criteria for employees evaluation IN TERMS OF: bilingual information about experts in the experts database recognition of activities popularizing science non-discrimination of persons on parental or health leave scoring for spreading scientific awareness, mobility, increasing the importance of actions relevant to cooperation with industry and teaching, fitting the criteria for the position held recognition of mobility recognition of international and professional mobility, the need to establishing criteria relating to the additional qualifications of researchers transition to research positions intersectoral and international mobility by a clear recognition of the period of active academic and scientific mobility in the interim evaluation of the employee – secondments and hosting researchers (PhD students, graduates, post-docs, lecturers, visiting professors) from foreign entities at SUT provisions allowing to declare publications whose co-authors work in different organizational units - to improve the method for assigning achievements of employees from different units teaching activities participation in decision-making processes, advisory and evaluation bodies, only with activity reports documenting the work 	8.2,9.1,10.1,11.1,12.1,18.2,1 9.2,20.2,21.2,24.3,26.1,28.1, 29.1,30.1,32.1,33.1, 35.1	Vice-Rector for Organization and Development	Dec 2016

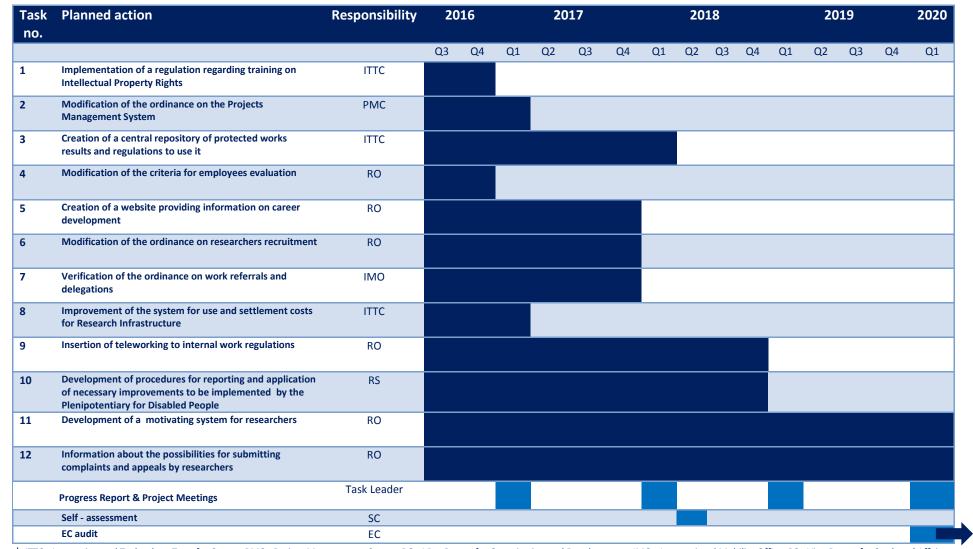


5	 Creation of a website providing information on career development IN TERMS OF: containing contacts and information, where to look for announcements of vacancies and general requirements, about career path with references to the faculty pages development (publication of rules for transitioning to research positions and reducing teaching hours) 	12.2, 13.1, 15.1, 16.1, 17.1, 18.3, 20.1, 21.1, 24.4, 25.1, 28.2, 30.2	Vice-Rector for Organization and Development	Dec 2017
6	 Modification of the ordinance on researchers recruitment IN TERMS OF: inviting committee representatives of other sectors and foreign experts (in justified cases) introducing general recruitment rules, announcement in Public Information Bulletin and Euraxess, researchers selection criteria and information about the strengths and weaknesses of their applications recognition of doctoral studies as professional experience 	14.1, 15.2, 16.2, 19.1, 22.1, 25.2	Vice-Rector for Organization and Development	Dec 2017
7	Verification of the ordinance on work referrals and delegations IN TERMS OF: simplification of the procedures for outgoing and incoming researchers enabling mobility	18.1	International Mobility Office	Dec 2017
8	Improvement of the system for use and settlement costs for Research Infrastructure IN TERMS OF: • rules of providing equipment among University units to increase capacity of working time	23.1	Innovation and Technology Transfer Centre	Mar 2017
9	 Insertion of teleworking to internal work regulations IN TERMS OF: remote collaboration methods including usage of international research infrastructure (for researchers in justified cases) including remote work methods and detailing the rights of disabled researchers (in justified cases) 	23.2, 24.1	Vice-Rector for Organization and Development	Dec 2018
10	Development of procedures for reporting and application of necessary improvements to be implemented by the Plenipotentiary for Disabled People IN TERMS OF: • improving working conditions of disabled people	24.2	Vice-Rector for Students' Affairs and Education	Dec 2018
11	Development of a motivating system for researchers IN TERMS OF: • periodic assessment of researchers (which includes research as well as teaching responsibilities).	26.2	Vice-Rector for Organization and Development	Dec 2019
12	Information about the possibilities for submitting complaints and appeals by researchers • e-mail with information on the manner in which the complaints and appeals can be submitted, with reference to specific documents regulating those issues and information about the established Conciliation Commission (sending once every half a year to all researchers of the University)	34	Vice-Rector for Organization and Development	Dec 2019

The table below presents in which areas of Charter and Code the required tasks will be implemented. It is easy to see that some of those points concern more than one area. According to the outcome of the survey there is no need to foresee any additional tasks in the C&C Area 4 – training, which means that SUT meets the expectations of the researchers in this matter. Lucky us and our researchers! Unfortunately, there is still more to be done in the working conditions and social security area, but we strongly believe that there is no challenge we cannot overcome.

TASK	AREA 1	AREA 2	AREA 3
	Ethical and professional aspects	Recruitment	Working conditions and social security
Implementation of a regulation regarding training on Intellectual Property Rights	√		✓
2. Modification of the ordinance on the Projects Management System	√		
3. Creation of a central repository of protected work results and regulations to use it	/		
4. Modification of the criteria for employees evaluation	√	√	✓
5. Creation of a website providing information on career development		√	✓
6. Modification of the ordinance on researchers recruitment		√	✓
7. Verification of the ordinance on work referrals and delegations		√	
8. Improvement of the system for use and settlement costs for Research Infrastructure			✓
9. Insertion of teleworking to internal work regulations			✓
10. Development of procedures for reporting and application of necessary improvements to be implemented by the Plenipotentiary for Disabled People			✓
11. Development of a motivating system for researchers			√
12. Information about the possibilities for submitting complaints and appeals by researchers			✓





Legend: ITTC - Innovation and Technology Transfer Centre, PMC - Project Management Centre, RO - Vice-Rector for Organization and Development, IMO - International Mobility Office, RS - Vice-Rector for Students' Affairs and Education, SC - Steering Committee



The Gantt chart shows the duration of tasks and units responsible for their implementation. Every two years an internal evaluation by the SUT, and every 4 years an external evaluation will be performed to assess the progress in implementation of the activities named in this Action Plan. What is more, 4 periodic reports will be delivered by the working group to the Rector during the Evaluation Meetings, which are scheduled for the first quarters of 2017-2020 period.

After awarding a *HR Excellence of Research* logo, the Rector will announce the launch of the project and appoint a project team and the Steering Committee made up of the Rector (as a Chairman of the Committee), the Vice-Rector for Organization and Development and the Director of the Project Management Centre. The implementation of the Action Plan will be continuously monitored and coordinated by the Steering Committee. The units responsible for respective tasks will submit reports after their completion to the Steering Committee.

According to the internal "Strategy of development of the Silesian University of Technology in the years 2012-2020" implemented since 16 July 2012, the University strategic goals were formulated there in the context of four perspectives: financial, customer, internal processes, learning and development. Each of 12 tasks within this project will be assigned to an appropriate strategic project and implemented according to the rules given in this strategy and in the internal ordinance. Strategic projects covering 12 tasks will be in line with the timeliness given in the Gantt chart. Each of strategic projects will have its own coordinator and working group responsible for its implementation. Progress monitoring of each project will be made by University Advisor for Monitoring of Strategic Projects performing his work according to the normal rules.

There are some serious actions among the above 12 tasks, but all of them are in line with the new vision of the university presented by the newly elected Rector who accede his position on 01/09/2016. The task regarding "Development of motivating system for researchers" will be done in connection with periodic assessment of researchers that also will be modified. The periodic assessment includes the research as well as the didactic responsibilities.

According to the underlying internal analysis, the issues of submitting complaints and appeals at the University are arranged in the applicable ordinances. In the survey, the researchers said that they lack information regarding those issues, but their comments primarily concerned the funders other than the Silesian University of Technology, which they emphasized in the survey. This is the main reason why one of our 12 tasks will be "Information about the possibilities for submitting complaints and appeals by researchers". Once every half a year, all researchers of the University will receive an e-mail with information on the manner in which the complaints and appeals can be submitted, with reference to specific documents regulating those issues and information about the established Conciliation Commission.

For the second quarter of 2018 a self-assessment is planned. Researchers will be asked to fill in questionnaire on the current state of the implementation of the Charter and Code principles at the University. In July – September 2018 the data obtained from the internal audit will be analyzed by the project team and corrective actions to the Action Plan will be proposed, if necessary.

And after awarding HR Excellence in Research...



