

REGULATIONS

on the monitoring and evaluation of research activities performed by higher education institutions and science organizations, as well as the activities of the National Science Fund

Section I

GENERAL

Art. 1. These Regulations shall govern the setup and operation of a monitoring and evaluation system for the research activities performed by higher education institutions and science organizations, as well as the activities of the National Science Fund, hereinafter respectively referred to in short as the “Organizations” and the “Fund”.

Art. 2. The system referenced in Art. 1, hereinafter referred to in short as the “System”, shall provide conditions for:

1. improving the quality of research via implementation of international quality standards, as applicable to research activities;
2. improving the governance of research;
3. accountability of research outputs and outcomes from the Fund operations before the science community, the relevant government authorities and other funding institutions, as well as before the general public.

Art. 3. The System’s main objective is support for the formulation of an effective and efficient national policy in the area of research, which targets achievement of high-grade, competitive research outcomes and development of Bulgarian science organizations as equal partners of leading science organizations in the European Union (EU) and on a global scale.

Art. 4. The System’s specific objectives are to:

1. Evaluate the research activities of the relevant units of the Organizations and analysis of their positioning in the European and global research area
2. Identify and support research activities of proven national significance and/or international recognition;

3. Encourage the Organizations to achieve high-grade, internationally recognized research outcomes, based on a system of fair, measurable, and transparent evaluation criteria;
4. Analyse the effectiveness of investments in research for innovation and economic growth, and planning the budget funds for the Organizations and the Fund;
5. Ensure publicity of the process of implementation of the national policy in the area of research and transparency of the funding.

Art. 5. (1) The System shall include annual monitoring, evaluation, and analysis of research activities carried out by the Organizations, as well as of the Fund's operations.

(2) The monitoring referenced in Para 1 shall constitute collection of impartial data and establishment of the dynamics in the Organizations' development and the Fund's effectiveness.

(3) The evaluation referenced in Para 1 shall be formed as per the procedure of Section II as regards research performed by the Organizations, respectively, as per the procedure of Section III – as regards the Fund's activities.

(4) Based on the monitoring and evaluation, analysis shall be performed on the Organizations' research activities and the Fund's activities.

Art. 6. (1) The System's main sources and tools shall be:

1. the global science databases – SCOPUS, WEB of SCIENCE, Harzing's Publish or Perish (Google Scholar);
2. the statistical databases maintained by the National Statistical Institute (NSI) and Eurostat;
3. the Registry of Science Activities in Republic of Bulgaria;
4. The databases maintained by the National Information and Documentation Centre, by the Republic of Bulgaria Patent Office, and by international databases for patents.
5. The reports on the Fund's activities.

(2) Independent evaluations and reports of the EU and Ministry of Education and Science institutions may be further sources for the System.

Art. 7. (1) The monitoring, evaluation, and analysis of research activities carried out by the Organizations shall be performed by a Commission composed of a Chair and 12 independent experts.

(2) The monitoring, evaluation, and analysis of the Fund's activities shall be performed by a Commission composed of a Chair and 6 independent experts.

Art. 8. (1) Members of the Commissions referenced in Art. 7 must meet the following requirements:

1. have experience in the setting up, governance, and evaluation of science policies and organizations;
2. be habilitated scholars with Hirsch index (h) different from zero;
3. have publications in the course of the last 5 years in referenced and indexed science journals, as reported in the databases referenced in Art. 6, Para 1, Sec 1;
4. have experience in the implementation and/or management of national and/or international science projects in the course of the last 5 years;

(2) No individuals holding the following management positions shall be eligible for election to the Commission referenced in Art. 7, Para 1:

1. rectors and faculty deans of higher education institutions and their deputies;
2. the chair, deputy chairs, Management Board members, the chief science secretary of the Bulgarian Academy of Sciences and the science secretaries by divisions;
3. the chair, deputy chairs, Management Board members, and the chief science secretary of the Agriculture Academy;
4. directors of science institutes of the Bulgarian Academy of Sciences and the Agriculture Academy.

(3) Individuals, who are members of the Executive Board and of the temporary and standing science expert commissions of the Fund shall be ineligible for election to the Commission referenced in Art. 7, Para 2.

(4) Prior to commencement of Commission activities, all members shall sign a confidentiality, impartiality, and fairness declaration, as well as a no-conflict-of-interest declaration.

Art. 9. (1) The Minister of Education and Science shall via order determine the member-by-member composition of the Commissions referenced in Art. 7.

(2) The Commission referenced in Art. 7, Para 1 shall consist of a non-voting chair and twelve experts, two from each science area pursuant to Appendix 1.

(3) The Commission referenced in Art. 7, Para 2 shall consist of a non-voting chair and six experts, one from each science area pursuant to Appendix 1.

(4) Chairs of the Commissions referenced in Art. 7 shall be representatives of the Ministry of Education and Science and shall be appointed by the Minister of Education and Science.

(5) The Commissions referenced in Art. 7 shall adopt rules governing their work, which shall be ratified by the Minister of Education and Science.

(6) The Commissions shall pass decisions with a majority of two thirds of their listed composition.

(7) Commission members shall receive remuneration for their Commission work, to an amount fixed in an order of the Minister of Education and Science, except for the representative of the Ministry of Education and Science.

Art. 10. (1) Commission members shall be appointed for a term of 4 years with a right to no more than two successive terms in office. Upon expiry of their term in office the relevant Commission's chair and members shall perform their duties until election of a new Commission composition.

(2) The term in office of the chair and members of the Commissions referenced in Art. 7 shall be terminated early:

1. at the relevant individual's request;
2. in the event of actual inability to take part in the Commission proceedings for more than two months;
3. upon occurrence of any of the circumstances referenced in Art. 8, Para 2, 3, or 4;
4. at the Minister of Education and Science's initiative by means of a justified termination order.

(3) Vacancies in the Commission composition shall be filled according to Art. 9 until expiry of the relevant term in office.

Art. 11. Administration and technical support of the activities of the Commissions referenced in Art. 7 shall be provided by the Ministry of Education and Science.

Section II

MONITORING AND EVALUATION OF THE RESEARCH ACTIVITIES PERFORMED BY THE ORGANIZATIONS

Art. 12. The System referenced in Art. 1 shall enable annual quantified evaluation of the Organizations' units, which carry out research, based on fair and measurable internationally recognized indicators under three main criteria:

1. Research outcomes
2. Research capacity;

3. National and international distinction.

Art. 13. The Organizations shall submit, on annual basis and until the end of March, to the Ministry of Education and Science hardcopy and softcopy information about the previous calendar year for each of their units, which carry out research, as follows:

1. list of the research staff members hired under main employment contract, along with their publishing names, their science degrees and academic positions;
2. average salary of the research staff members at the relevant organization for the reporting period;
3. a list of national and international projects, under which cash funds have been received during the relevant reporting period from competition/project-based funding, with the amount of the funds received;
4. a list of contracts with Bulgarian or overseas enterprises and/or organizations under which cash funds have been received during the reporting period and amount of the funds received;
5. a list of doctoral students successfully defending their dissertation theses during the relevant reporting period;
6. a list of membership in international editorial boards of journals registered in the international databases referenced in Art. 6, Para 1 Sec 1.
7. a list of membership of the Organizations' units and the units' research staff members in international science networks and/or science companies, a list of textbooks, learning accessories, popular science publications of anticipated social significance, which have been published during the relevant reporting period.
8. Number of textbooks, learning aids, popular science publications, with the expected social significance, as published during the relevant reporting period.¹

(2) Higher education institutions shall provide the information referenced in Para 1 for each of their main units, pursuant to Art 25, Para 2 of the Higher Education Act.

¹ The information in Art13, Para 1, Sec 8 "Number of textbooks, learning aids, popular science publications, with the expected social significance, as published during the relevant reporting period" will be taken into consideration in pursuance of Art 16 of the Regulations.

Art. 14. The Commission referenced in Art. 7, Para 1 shall perform monitoring of the research activities performed by the relevant Organizations' units by tracking changes in the values of the Appendix 2 indicators since the previous reporting period, vis-à-vis which indicators from the evaluated reporting period shall be compared.

Art. 15. (1) Based on the information referenced in Art. 13 and the sources referenced in Art. 6, the Commission shall perform evaluation of the research activities under the criteria, indicators and relevant evaluation methods stated in Appendix 2.

(2) The Commission shall compose an overall evaluation of the relevant unit's research activities under each of the three Appendix 2 criteria.

Art. 16. Based on the monitoring and evaluation, the Commission shall prepare analysis of the research activities performed by the relevant Organizations' units and the efficiency of their funding.

Art. 17. (1) The Commission referenced in Art. 7, Para 1 shall submit to the Minister of Education and Science a report containing the results from the overall evaluation of the research activities of each unit, along with analysis, conclusion, and recommendations for the Organizations.

(2) The report referenced in Para 1 shall be published on the Ministry of Education and Science's website.

Section III

MONITORING AND EVALUATION OF THE NATIONAL SCIENCE FUND ACTIVITIES

Art. 18. The System referenced in Art. 1 shall enable annual evaluation of the Fund's activities in regards to its contribution towards achievement of the objectives of the National Development of Research Strategy 2020, the European Framework Programs, the European and National Roadmap for Research Infrastructure, as well as the expediency, balance, and justification of public funding for research, and the effectiveness from implementation of the competitive programs and projects funded.

Art. 19. The Fund shall submit, on annual basis and until the end of March, to the Ministry of Education and Science hardcopy and softcopy information about the previous calendar year, as follows:

1. a list of the competitions held for funding science programs and projects during the reporting year, as well as the related competition documentation;

2. reports of the temporary science expert commissions on the outcomes from the competitions held and projected ranked during the reporting period;
3. the Executive Board's decisions determining the funded projects, respectively, the amount of their allocated funds;
4. the Executive Board's rules on current financial control and accountability in regards to implementation of the research funding contracts;
5. a report on the implementation and reporting of the projects funded during the relevant reporting period as per the sample form in Appendix 3;
6. a list of the research infrastructures developed during the relevant reporting period as a result of implementation of programs and projects financed by the Fund;
7. a list of the research outputs (patents, publications, models, algorithms, programs, methodologies, etc.) during the reporting period, as resulting from implementation of projects financed by the Fund;
8. a copy of the research outputs during the reporting period, as used in innovation projects.

Art. 20. The Commission referenced in Art. 7, Para 2 shall perform monitoring of the Fund's activities by tracking progress in the achievement of the Fund's objectives and in implementation of the annual operational program.

Art. 21. The evaluation criteria for the Fund's activities shall be:

1. the Fund's contribution to the achievement of the objectives of the National Development of Research Strategy, the European Framework Programs, the European and National Roadmap for Research Infrastructure;
2. impact from and efficiency of implementation of the Fund's Annual Operational Program towards development of research and innovations in Bulgaria;
3. outcomes from the prioritization of the funding of research programs and projects by science areas, pursuant to Appendix 1;
4. effectiveness of the activities associated with the control performed over the implementation and reporting of the funded projects;
5. social-economic impact of the outputs from the funded projects;
6. quality of work processes and practices, as applied at the Fund during the evaluated period.

(2) In accordance with the criteria referenced in Para 1 and based on the information referenced in Art. 19, the Commission shall evaluate the Fund's activities during the relevant reporting period.

Art. 22. Based on the monitoring and evaluation, the Commission shall prepare analysis of the Fund's activities.

Art. 23. (1) The Commission referenced in Art. 7, Para 2 shall submit to the Minister of Education and Science a report containing the analysis, conclusion, and funding proposal for the next period and recommendations on how to improve the Fund's activities.

(2) The report referenced in Para 1 shall be published on the Ministry of Education and Science's website.

SUPPLEMENTARY PROVISIONS

§ 1. Within the meaning of these Regulations:

1. "Confidentiality" is a prohibition for the independent experts referenced in Art. 7 to disclose or make available to third parties any information coming into their knowledge during or on account of performance of their duties, unless otherwise prescribed by law.

2. „Research staff members” are employees of higher education institutions and science organizations, who hold academic positions or have acquired the educational-scientific degree of Doctor and are hired under main employment contract.

3. „Impact Factor (IF)” is a numeric indicator of a significance of a given science journal, as reflected in the Web of Science e-database.

4. „Impact Rank (SJR)” is a numeric indicator of a significance of a given science journal, as reflected in the SCOPUS e-database.

5. „Hirsch Index (h)” is a measure of the up-to-date nature of the research carried out by a given researcher.

6. „Monograph” is an original science paper developed on the author's own research outcomes, with analysis of the subject matter discussed, which must make evident that there is space for new research. Monographs are published by specialized science publishing houses, which have provided evaluation of the incoming paper by peer reviewers.

7. „Main employment contract” is the main employment contract within the meaning of § 4e, Cl. 1 of the Supplementary Provisions of the Higher Education Act.

8. "Global referencing, indexing, and evaluation system" is an publication environment for science papers via a system based on primary and secondary print and/or electronic literature sources and anonymous, independent, expert evaluation.

9. „Use of published science papers by the global science community" is a measure of the usefulness of the research carried out by number of citations and/or feedback received by science publications in the relevant literature.

10. "Research network" is an informal association of science organizations, laboratories, teams and/or individual researchers for the accomplishment of common objectives in a certain science area, wherein the member communicate to exchange information and technologies and also make their research resources available for use.

11. "Science company" is a Bulgarian or overseas legal entity registered under the Non-Profit Legal Entities Act or under its national legislation, which units organizations and/or individual researchers to accomplish common objectives in a certain science area.

TRANSITIONAL AND FINAL PROVISIONS

§ 2. In the first monitoring referenced in Art. 14 after the Regulations' entry in force no tracking of changes in the values of individual indicators referenced in Appendix 2 from a previous reporting period shall be performed, as well as any comparison to the Organization's indicator values from the evaluated reporting period.

§ 3. These Regulations are issued on the grounds of Art. 7a of the Promotion of Research Act.

List of science areas and science directions

SCIENCE AREAS	SCIENCE DIRECTIONS
1. Liberal sciences and arts	Philology History and Archeology Philosophy Religion and Theology Theory of Art Visual Arts Music and Dance Art Drama and Film Art
2. Social, business, and legal sciences	Sociology, Anthropology and Culture Sciences Psychology Political Sciences Social Activities Public Communications and Information Sciences Law Administration and Management Economy Tourism

	<p>Theory and Management of Education</p> <p>Pedagogy</p> <p>Pedagogy of Training in .</p>
<p>3. Natural sciences, mathematics, and informatics</p>	<p>Physical Sciences</p> <p>Chemical Sciences</p> <p>Biological Sciences</p> <p>Earth Sciences</p> <p>Mathematics</p> <p>Informatics and computer sciences</p>
<p>4. Technical sciences</p>	<p>Mechanical Engineering</p> <p>Electrical Engineering, Electronics, and Automatics</p> <p>Communication and Computer Equipment</p> <p>Energy</p> <p>Transport, Navigation, and Aviation</p> <p>Materials and Materials Science</p> <p>Architecture, Civil Engineering, and Geodesy</p> <p>Surveying, Mining, and Processing of Minerals</p> <p>Chemical Technologies</p> <p>Biotechnologies</p> <p>Food Technologies</p> <p>General Engineering</p>
<p>5. Agrarian sciences and veterinary medicine</p>	<p>Horticulture</p> <p>Plant Protection</p>

	Animal Husbandry Veterinary medicine Forestry
6. Healthcare and sport	Medicine Dental Medicine Pharmacology Public Health Healthcare Sport

CRITERIA AND INDICATORS
for evaluation of research activities performed by the organizations

CRITERION	INDICATORS		EVALUATION METHOD	FORMULA FOR EVALUATION UNDER THE INDICATOR	FORMULA FOR EVALUATION UNDER THE CRITERION
	No	INDICATOR			
1. RESEARCH OUTPUTS DURING THE REPORTING PERIOD (U_1)	1.1. <i>(a)</i>	Number of science publications referenced and indexed in global secondary literary sources (A)	The number of publications (A) is divided by the number of the organization's research staff (N)	$a=A/N$	$U_1 = a + b + 10b1 + d + g + \hat{h} + f$
	1.1.1 <i>(b)</i>	Number of science publications forming part of 1.1, which have been published in publications with impact factor, IF (Web of Science) and impact rank SJR (SCOPUS) (B)	The number of publications (B) is divided by the number of research staff (N)	$b=B/N$	
	1.1.2 <i>(b1)</i>	Number of science publications published in the top 10% of impact factor journals in the relevant science area ($B1$)	The number of publications ($B1$) is divided by the number of research staff (N)	$b1=B1/N$	
	1.2. <i>(d)</i>	Number of monographs (D)	The number of monographs (D) is divided by the number of research staff (N)	$d=D/N$	
	1.3.	Number of citations/references of	The number of citations/references	$g=G/N$	

	(g)	science publications of the science organization's research staff, as published in science literature during the reporting period (G)	during the reporting year (G) is divided by the number of research staff (N)		
	1.4. (\hat{h})	Averaged <i>h</i> -index according to SCOPUS data, vis-à-vis the number of research staff	The values of <i>h</i> -indices of all members of the science organization, as documented in SCOPUS, are aggregated and the resulting number is divided by the number of research staff (N)	$\hat{h} = \frac{1}{N} \sum_{i=1}^N h_i$	
	1.5. (f)	*Number of patents: - registered patent applications - patents - patents resulting from contracts concluded with companies (F)	The aggregate of the three indicators in Sec.1.5 (F) is divided by the number of research staff (N)	$f = F/N$	
2. SCIENCE CAPACITY DURING THE REPORTING PERIOD (U_2)	2.1. (n_d)	Number of the science organization's fellows, who hold the educational-science degree of "Doctor" (N_d)	The number of science degree fellows (N_d) is divided by the number of research staff (N)	$n_d = N_d/N$	$U_2 = n_d + n_s + n_p + m + q + v + r$
	2.1.1. (n_s)	Number of fellows forming part of 2.1, who hold the science degree of "Science Doctor" (N_s)	The number of science degree fellows (N_s) is divided by the number of research staff (N)	$n_s = N_s/N$	
	2.1.2. (n_p)	Number of fellows forming part of 2.1, who hold the academic position of „Professor" (N_p)	The number of science degree fellows (N_p) is divided by the number of research staff (N)	$n_p = N_p/N$	
	2.2. (m)	Funds received during the reporting period via the project-based funding system in Bulgaria and	The total amount of funds received via projects (K BGN) is divided by the number	$m = k/l = K/IN$	

		abroad (K BGN)	of research staff (N) resulting in κ BGN; the number κ is divided by the research staff's average gross annual employment salary (l BGN)		
	2.2.1. (q)	Funds received during the reporting period from project funding external for the organizations, under national and international projects (P)	The total amount of funds received via projects (P BGN) is divided by the number of research staff (N) resulting in p BGN; the number p is divided by the research staff's average gross annual employment salary (l BGN)	$q=p/l=P/lN$	
	2.2.2. (v)	Funds received during the reporting period from contracts concluded with Bulgarian or overseas enterprises (V)	The total amount of funds received via projects (V BGN) is divided by the number of research staff (N) resulting in v BGN; the number v is divided by the research staff's average gross annual employment salary (l BGN)	$v=v/l=V/lN$	
	2.3. (r)	Number of doctoral students, who defended their thesis during the reporting year (R)	Number of doctoral students, who defended their thesis during the reporting year (R) is divided by the number of research staff (N)	$r=R/N$	
3. NATIONAL AND INTERNATIONAL IDENTIFIABILITY DURING THE REPORTING PERIOD (U_3)	3.1. (s)	Number of memberships in editorial boards of science journals included in the global referencing, indexing, and evaluation system (S)	The number of memberships (S) is divided by the number of research staff (N)	$s=S/N$	$U_3 = s+t+k$
	3.2 (t)	Number of memberships of the organizations and the members of the organizations' research	The aggregate number of memberships (T) is divided by the number of research staff (N)	$t=T/N$	

		staff in international science networks		
	3.3. <i>(k)</i>	Number of memberships of the organizations and the members of the organizations' research staff in international science companies	The aggregate number of memberships (K) is divided by the number of research staff (N)	$k=K/N$

Notes:

*) For Indicator 1.5. „Number of Patents“ information about each of the stated components is to be submitted

REFERENCE REPORT

ON THE IMPLEMENTATION AND REPORTING OF THE FUNDED PROJECTS FOR THE YEAR

Name of competition /year announced ¹	Total number of project implementation contracts ²	Stage of implementation: interim / final	Number of doctoral students involved in contract implementation	Number of young scholars involved in contract implementation	Number of contracts implemented within schedule	Number of completed contracts	Number of contracts where results are rated as excellent ³	Number of terminated contracts	Funds provided during the reporting year (in BGN)	Total funds provided for the competition (in BGN)	Number of science publications resulting from completed projects, incl. in publications with impact factor and impact rank (...)	Number of patents resulting from completed projects, incl. registered patent applications (...)
1	2	3	4	5	6	7	8	9	10	11	12	13

Notes:

¹ Describe by name all competition sessions where the funded research projects were evaluated by the standing science-expert commissions during the reporting year

² The number of contracts in column 2 constitutes the aggregate of the number of contracts in columns 6, 7, and 9, irrespective of the stage of implementation, as reported in column 3.

³ The number of contracts in column 8 constitutes the number of contracts, whose implementation has concluded and have been evaluated as excellent by the relevant SE Commission