

EVALUATION METHODOLOGY FOR THE ATTESTATION OF RESEARCHERS OF STATE RESEARCH INSTITUTE CENTER FOR PHYSICAL SCIENCES AND TECHNOLOGY

CHAPTER I GENERAL PROVISIONS

1. The Evaluation Methodology for the Attestation of Researchers (hereinafter – Evaluation Methodology) of the State Research Institute Center for Physical Sciences and Technology (hereinafter – FTMC) establishes the procedure for the formal evaluation of the performance of researchers and guidelines for expert evaluation. The Evaluation Methodology is followed by the FTMC Attestation and Competition Commission (hereinafter – Commission), when conducting regular and/or extraordinary attestation of researchers and/or the evaluation of researchers, the FTMC departments that provide data to the Commission, heads of structural units and researchers.

2. The Evaluation Methodology is applied inseparably from the Description of the Procedure for Organization of the Competitions for Positions of Researchers of FTMC, the Description of the Procedures for Attestation and Evaluation of Researchers of FTMC, and the Description of the Minimum Qualification Requirements for the Positions of Researchers of FTMC.

CHAPTER II MAIN METHODOLOGICAL CONCEPTS AND ABBREVIATIONS

3. Concepts used in the Evaluation Methodology:

3.1. **Author's sheet** (auth. l) – 40,000 characters (including spaces) of text or 3,000 cm² printed area of illustrations; if the volume cannot be determined by characters, 14 pages are considered the equivalent of the author's sheet; if the scientific work is in an electronic medium, then the author's sheet is calculated only by characters (including spaces);

3.2. **Outstanding Scientific Article** – an article in the top 5% of journals in the Clarivate Analytics Web of Science database in a single discipline or in multidisciplinary journals such as Nature, Science, etc.;

3.3. **Scientific article** – an article published in peer-reviewed periodical journals and having a citation index (IF) in the "Clarivate Analytics Web of Science" database or (and) having a scientific apparatus common in a specific field of science (footnote or (and) bibliography, or (and) formulas, or (and) drawings, or (and) a description of the methodology, or (and) statistical tables, etc.) and corresponding to the scientific criteria recognized in that field of science;

3.4. **Scientific monograph** – a non-periodical and non-continuous publication, in which a single topic (subject) is systematically and/or comprehensively analysed, with clear and significant elements of novelty and scientificity for the field or direction of science; the monograph must have an ISBN number;

3.5. **3.6. Affiliation** – the affiliation of the author to the Institution specified in the scientific work.

4. Abbreviations used in the Evaluation Methodology:

4.1. **AIF (Aggregate Impact Factor)** – the aggregated index of citations of the directional category of journals, which is calculated annually by Clarivate Analytics;

4.2. **AT** – high-tech technologies;

4.3. **Clarivate Analytics JCR** – Clarivate Analytics Journal Citation Reports;

4.4. **CNIPA** – China National Intellectual Property Administration;

- 4.5. **EPO** - European Patent Office;
- 4.6. **IF** - impact factor;
- 4.7. **ISBN** –International Standard Book Number;
- 4.8. **ISSN** –International Standard Serial Number;
- 4.9. **JPO** - Japan Patent Office;
- 4.10. **JCR** - Journal Citations Reports;
- 4.11. **KIPO** - Korean Intellectual Property Office;
- 4.12. **R&D** - research and experimental development;
- 4.13. **R&D&I** - research, experimental development and innovations;
- 4.14. **PCT WIPO** - The International Patent System, World Intellectual Property organization;
- 4.15. **SCI** - Science Citation Index;
- 4.16. **USPTO** - United States Patent and Trademark Office.

CHAPTER III EVALUATION PROVISIONS

5. Attestation includes all works performed during the evaluation period, which are subject to formal and expert evaluations:

5.1. For expert evaluation, performance results coordinated with the researcher are submitted, illustrating the researcher's perspective, activity in submitting project applications, participation in science popularization activities, and the execution of important tasks and other assignments. Points for expert activity are awarded by the head of the structural unit (Subparagraph 5.1 of the table in Chapter IV) and the Commission (Subparagraph 5.2 of the table in Chapter IV), justifying the awarded points with reasoned written comments.

5.2. Works submitted for the formal performance evaluation are evaluated according to the types of the scientific work results specified in Chapter IV of this Evaluation Methodology.

6. The Commission, when performing the formal evaluation of the works, credits the works as they are declared for the evaluation of scientific works at FTMC.

7. The Commission, having completed the formal evaluation of the declared scientific and experimental development works and innovations, determines their total quantitative value (in points).

8. The values of scientific activity results are calculated in the following order:

8.1. The value of a scientific article, SV , is calculated as follows:

$$SV = \frac{1}{\sqrt{N_A}} * \left(2 + \frac{7*IF}{AIF} \right) \quad (1)$$

N_A - the number of authors;

IF - impact factor of the journal;

AIF - an aggregated impact factor calculated annually by Clarivate Analytics for each directional category of journals. If the article is published in a journal that belongs to several Clarivate Analytics JCR scientific categories, experts determine the most appropriate category or use the average of the AIF of several categories. The head of the scientific Department may apply to the Commission with a reasoned explanation that the article is published in a journal whose Clarivate Analytics JCR scientific category AIF is strongly influenced by interdisciplinary journals or other factors and does not reflect the average citation of articles in the relevant scientific discipline. After examining the clarification, the Commission may apply a different AIF to this journal based on Clarivate Analytics JCR data. If a researcher has several affiliations in one scientific article, then the total SV is divided by the number of affiliations.

8.2. The value of a patent, PV , is calculated as follows:

$$PV = \frac{1}{\sqrt{N_A}} * (2 + 7 * k) \quad (2)$$

Here $k = 1.5$ if the patent was issued by the EPO, USPTO, CNIPA, KIPO or JPO;

$k = 0.5$ if an application is published by EPO, USPTO, PCT WIPO, CNIPA, KIPO or JPO;

$k = 0.3$, if a patent has been issued by the Lithuanian Patent Office.

If the researcher has several affiliations in one of the patents or in one of the published patent applications, the total PV is divided by the number of affiliations.

8.3. The value of the monograph, MV , is calculated as follows:

$$MV = \frac{1}{\sqrt{N_A}} * (3 * N_L) \quad (3)$$

where N_L is the number of author sheets, and N_A is defined in the Subparagraph 8.1. If the researcher has several affiliations in one monograph, the total MV is divided by the number of affiliations.

8.4. All data required for attestation are submitted to the FTMC Department of Scientific Information and Doctoral Studies.

CHAPTER IV EVALUATION OF SCIENTIFIC WORKS

9. Types of scientific work results in the fields of natural and technological sciences and points awarded per unit:

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	Type of scientific work results	VALUE	THRESHOLD		
			chief researcher, minimum points	senior researcher, minimum points	Researcher, minimum points
1	Science and intellectual property				
1.1	Scientific article in Q1 or Q2 ranked journal	Calculated according to equation (1)	30	15	8
1.2	Patents issued by EPO, USPTO, CNIPA, KIPO or JPO	Calculated according to equation (2)			
1.3	Monographs and book chapters published by internationally recognized scientific publishing houses	Calculated according to equation (3)			
1.4	Receiving a grant from the European Research Council (ERC)	50 points			
1.5	Scientific article in Q3 or Q4 ranked journal	Calculated according to equation (1)			

1.6	Patents issued by the Lithuanian Patent Office	Calculated according to equation (2)			
1.7	Patent applications published by EPO, USPTO, PCT WIPO, KIPO, CNIPA or JPO	Calculated according to equation (2)			
2	R&D activities		5	2	1
2.1	R&D projects financed by the EU, foreign countries and business entities ¹	100 thousand Eur - 10 points			
2.2	R&D projects are financed from the budget of the Republic of Lithuania ¹	100 thousand Eur - 4 points			
2.3	R&D project financed from the budget of the Republic of Lithuania or business entity of the Republic of Lithuania, (>5kEur) coordinator/implementer	4/1 points			
2.4	EU and other international R&D/R&D&I projects coordinator/FTMC part coordinator/implementer	20/10/1 points, respectively			
2.5	Submitted and unfunded project applications that scored the threshold amount of points: international/Lithuanian ²	1/0.5 points, respectively			
3.	Scientific services and solutions, work with industry and high-tech business, creation of business entities.				
3.1	Technologies and intellectual property developed on the order of the business, patent license sold	5 points			
3.2	Technologies or <i>know-how</i> introduced in businesses entities	5 points			
3.3	Established high-tech entities	5 points			

¹for all project implementer is given the same amount of points

²attributed to the project leader. If most of the work was done by other implementers, the head of the department should indicate this in his motivation when providing his expert evaluation points.

4	Training of highly qualified specialists		1 ³		
4.1	Supervisor of doctoral student	1 point for each year of supervision			
4.2	Supervisor of the defended doctoral thesis	5 points			
5	Expert evaluation				
5.1	The evaluation carried out by the head of the structural unit (short motivation according to Subparagraph 5.1 of the Evaluation Methodology)	up to 10%			
5.2	The evaluation carried out by the Attestation and Competition Commission (short motivation according to Subparagraph 5.2 of the Evaluation Methodology).	up to 30%			
The minimum amount of points for the entire working time of the position⁴, for a 5-year term			60	35	20

10. The minimum amount of points is obtained by summing up the threshold points allocated for obtained scientific achievements, listed in the Paragraph 9 given table's Subparagraphs 1, 2 and 4 (the latter applicable only for chief researcher) and all other points gained from all remaining types of scientific achievements, listed in the same table.

11. The main criteria of the expert evaluation:

- 11.1. Outstanding Scientific Article;
- 11.2. Popularization of science in the mass media;
- 11.3. Participation in working groups, commissions;
- 11.4. Expert evaluation of project applications, review of articles;
- 11.5. Invited presentations at international conferences (plenary, keynote, invited);
- 11.6. Organization of international conferences in Lithuania;
- 11.7. Perspectivity;
- 11.8. Creativity.

³this requirement may not be applied if the attested person has supervised at least 7 doctoral students during his scientific career, or leads a formal FTMC research group that has at least three doctoral students.

⁴the working time rate includes the working time of all scientific employments at the Center.