**REGULATIONS on**

**the International Open Competition to Create Experimental Research Laboratories in Fundamental Physics in the Field of Quantum Technologies and**

**New Functional Materials**

1. **General Provisions**
   1. Regulations on the International Open Competition to Create Experimental Research Laboratories in Fundamental Physics in the Field of Quantum Technologies and New Functional Materials at National Research University Higher School of Economics (hereinafter - "Regulations", "Project", "HSE" and "University", respectively) set forth the requirements and organisational procedures related to the international open call for proposals to establish new experimental research laboratories in Fundamental Physics in the field of quantum technologies and new functional materials at the University for the period from June 10, 2019 to December 31, 2024 (hereinafter - the "Competition").
   2. The key goals of the Competition are as follows: establish, support and develop relevant research areas, as well as world-class research schools at the HSE Faculty of Physics (hereinafter - "Faculty"), as well as facilitate the development of modern infrastructure at the Faculty, which is a part of HSE active endeavours to bring its research in line with the global research processes. The competition is held with the aim of establishing new experimental research laboratories (hereinafter - the "Laboratory") at HSE campuses in Moscow[[1]](#footnote-1) and St. Petersburg as per the established procedure.
   3. The Competition is organised by the University.
2. **Competition Participants**
   1. Young scholars focusing on quantum technologies and new functional materials, whose professional experience does not exceed 15 years after getting a Candidate of Sciences/PhD degree, are eligible to take part in the Competition.
   2. The winners of the Competition shall be hired full-time as Laboratory heads at HSE, which will become their primary place of employment for the period from June 10, 2019 to December 31, 2024. To continue working at HSE in 2025 and beyond under a tenure contact the Laboratory head may re-apply via the University's international recruitment programme as per the established procedure.
   3. Should a participant violate the terms and condition set forth therein or commit professional misconduct in the course of the competitive procedure, the University may disallow his/her participation or disqualify the candidate.
3. **Financing the Laboratory’s Operations**
   1. The Laboratory shall be established as an HSE subdivision in line with the prescribed procedure based on the Competition results. Financing shall be provided by the University up until December 31, 2024.
   2. The Laboratory may continue working beyond 2024 subject to successful independent expert review undertaken every 5 years.
   3. Each project supported in the framework of the Competition shall be financed as follows:

3.3.1 up to 150 million roubles (including overhead charges, customs fees, delivery and set-up costs) shall be allocated for the acquisition of research equipment in 2019-2020;

3.3.2 salaries and other research-related expenses:

3.3.2.1 up to 7 million roubles (gross) shall be available in 2019; up to 50% of this amount may be allocated for the Laboratory staff wages (including the Laboratory head's and other team members' salaries and all relevant social payments);

3.3.2.2 up to 13 million roubles per year shall be available in 2020 – 2024; 8-10 million roubles may be allocated for the Laboratory staff wages (including the Laboratory head's and other team members' salaries and all social payments) and 3-5 million roubles per year - for other expenses, including research mobility, expendables, equipment maintenance, etc.

* 1. All expenses related to setting up and equipping the Laboratory are not included in the above-mentioned budget and shall be additionally covered by the University.
  2. If the research proposal foresees the purchase of more than one item of the same equipment (as per the specification), the University reserves the right to purchase only one copy and ensure its rational and effective use by the team.
  3. Laboratories established in the framework of the Competition undertake to secure co-financing as follows:

3.6.1 in 2022 – at least than 30 % of total funds, provided by HSE;

3.6.2 in 2023 – at least than 65 % of total funds, provided by HSE;

3.6.3 in 2024 – at least than 100 % of total funds, provided by HSE.

* 1. If the Laboratory fails to comply with the annual key performance indicators as specified in the Competition proposal, the University shall be entitled to reduce or terminate the Laboratory’s financing.

1. **Requirements to Research Projects, and Related Terms and Conditions** 
   1. The proposed research project cannot be a repetition of ongoing or completed research projects, implemented in the framework of other HSE projects or external projects financed at the expense of the Russian budget of different levels, as well as other sources. 4.2 The Laboratory head undertakes to:

4.2.1 set up a research team for conducting research;

4.2.2 serve as the academic supervisor of the Laboratory;

4.2.3 purchase the equipment and ensure its rational and reasonable use;

4.2.4 formulate the Lab’s research agenda;

4.2.5 lead the Lab's grant activities and attract external resources from field-specific organisations;

4.2.6 blend the Lab's operations with HSE educational processes and streamline the involvement of the University's (doctoral) students in the Lab's operations;

4.2.7 to create and maintain links with other HSE subdivisions, including laboratories operating in related research fields under joint institutes with the Russian Academy of Sciences at the HSE Faculty of Physics, as well as other educational institutions.

* 1. Requirements to the Laboratory’s staff throughout the entire project duration: the Laboratory’s staff shall include at least two Doctor of Sciences / Candidate of Sciences / PhD holders employed at HSE full-time (primary place of employment), as well as at least 3 HSE (doctoral) students.
  2. Based on the research results, the Laboratory's team undertakes to publish a certain number of academic papers in a relevant research field, as set out in the proposal[[2]](#footnote-2), in scientific journals indexed in Q1 and Q2 of the Web of Science in at least one WoS subject area[[3]](#footnote-3), featuring HSE affiliation and references to the source of financing, but no less than:

- in 2020 – 1 papers

- in 2021 – 2

- in 2022 – 3

- in 2023 – 4

- in 2024 – 4.

4.5. The HSE Faculty of Physics shall ensure interactions between the Laboratory and joint institutes with the Russian Academy of Sciences at the HSE Faculty of Physics, other HSE subdivisions and Russian and foreign research organisations in order to reinforce the Laboratory’s operations. The research results obtained through such cooperation shall be highlighted in publications featuring HSE affiliation (at least 2 in 2020, at least 2 in 2021, at least 2 in 2022, at least 2 in 2023, at least 2 in 2024) produced in leading global journals in physics. These publications shall be counted in addition to key publications mentioned in p. 4.4 of these Regulations.

1. **Assessment of the Laboratory’s Operations**
   1. An Expert Panel comprised of the members of the Faculty of Physics' Research Committee and international experts in the Laboratory’s key research field shall be in charge of the ongoing assessment of the Laboratory’s operations.
   2. The Laboratory team shall submit an annual report to be reviewed and approved by the Expert Panel mentioned in p.5.1 hereof.
   3. An international expert review of the Laboratory’s operations in 2019 – 2024 shall be conducted to verify the attainment of the proposed research outcomes and approved annual KPIs. International experts in relevant research fields will take part in the assessment.
   4. After that, the expert review of the Laboratory’s performance shall be conducted every five years. International experts in relevant research fields will take part in the assessment.
2. **Competition Procedure** 
   1. All proposals submitted for the Competition must be prepared in line with requirements set out in Section 8 hereof.
   2. Competition proposals shall be prepared and submitted in English.
   3. In the proposal, the requested financing should be specified in Russian roubles and may not exceed the limits specified in p. 3.3 hereof.
   4. Any inconsistencies in the competition proposal shall be deemed as a violation of the Competition requirements.
   5. If any documents referenced in the Competition proposal are missing, or in case any documents supporting the proposal are inconsistent with the established template form, or any mandatory information is missing, it shall be deemed as a violation of the Competition requirements.
   6. Candidates must send their full name, ORCID and research topic to [concurs\_labs@hse.ru](mailto:concurs_labs@hse.ru) by March 1, 2019.
   7. The proposal shall be submitted by email to [concurs\_lab@hse.ru](mailto:concurs_lab@hse.ru) from February 01, 2019 to April 01, 2019 and must include the following files:
      1. Proposal in English (Word file);
      2. Proposal in English (PDF file with the candidate’s scanned signature).
   8. Any proposals submitted after the deadline specified herein shall not be accepted.
   9. Upon submission, proposals shall be checked for compliance with the established requirements, as well as qualification requirements to the Laboratory head set out in these Regulations. Incomplete or improperly executed proposals shall not be accepted.
   10. Upon completion of the technical review, which is carried out to establish whether or not the competition proposals meet all requirements set forth herein, they shall be submitted to independent experts for review as per the established criteria.
   11. Successful candidates shall be invited for an interview by conference call, or in person (all expenses shall be covered by the University). The time and place of the interview shall be agreed upon by the parties.
   12. Competition proposals submitted by the participants (including all supporting documents) shall not be returned and no peer reviews shall be provided. All expenses related to the proposal submission shall be covered by the participants.
   13. The Competition results shall be announced by May 30, 2019.
3. **Proposal Contents**
   1. The Competition Proposal (Annexes 1-5) should include the following documents:
      1. Completed Form No. 1 (Competition Proposal Factsheet);
      2. Completed Form No. 2 (Candidate’s Profile);
      3. Completed Form No. 3 (Research Project Description);
      4. Completed Form No. 4 (Laboratory's Key Performance Indicators);
      5. Completed Form No. 5 (Requested Laboratory Equipment).
4. **Proposal Assessment Criteria**

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| No. | Criteria | Requirements |
| 1. The candidate's academic achievements and professional experience | | |
| 1. | Academic publications | Scores shall be assigned for: the number of publications and type of journals (leading, professional) where the candidate published his/her papers; whether or not this research productivity level is typical of leaders in this field; citation rates of the candidate’s publications; |
| 2. | The candidate's experience in research team supervision | Scores shall be assigned for: the Laboratory head’s administrative experience in building and managing research teams, and whether or not the Laboratory head has sufficient experience in training future researchers; |
| 1. The Laboratory’s research potential | | |
| 3. | The relevance of the Laboratory’s proposed research agenda | Scores shall be assigned for: relevance of the Laboratory’s proposed research agenda and its coherence with the recent developments in a given field; potential to obtain new, world-class cutting-edge research outcomes/deliverables; |
| 4. | Feasibility of the proposed research agenda in view of the given timeframe and methods | Scores shall be assigned for: detailed research results elaboration, and their compliance with world-class standards; |
| 5. | Correlation between the requested equipment and the Laboratory’s goals | Scores shall be assigned for: correlation between the requested equipment and the Laboratory’s goals and objectives and its sufficiency. |

1. The winning Moscow-based experimental research laboratory will become a subdivision of the HSE Faculty of Physics located on the premises of the Faculty of Physics at Bldg. 5, 21/4 Ul. Basmannaya, Moscow. [↑](#footnote-ref-1)
2. Hereinafter, academic papers refer to articles and reviews, as well as oral presentations included in the main programmes of conferences from the List of Conferences in the field of Computer Science, Level А\* according to CORE ranking (as updated in 2014), which are eligible for the purposes of awarding Tier 3 academic bonuses, as well as monographs released by publishers included in the List of Publishers, eligible for the purposes of awarding Tier 3 academic bonuses (monographs), published on the website of the HSE Scientometrics Centre at https://scientometrics.hse.ru/en/evaluation/. [↑](#footnote-ref-2)
3. The list of journals indexed in Q1/Q2 of the Web of Science in at least one subject area is available on the HSE website at <https://scientometrics.hse.ru/quartiles/wos>. Oral presentations included in the main programmes of conferences from the List of Conferences, as well as monographs (up to 4 authors) released by publishers from the relevant List of Publishers, shall be deemed as equivalent to such papers. [↑](#footnote-ref-3)