

**Fostering Productive Innovations Project
PhD Research and Training
Grant Program Manual (Type A)**

Astana, 2018

Content

1. Definitions	3
2. General provisions	5
3. Grant type A: PhD research grants	6
3.1 Conditions for participants	6
3.2 Financing	7
4. Selection Procedure.....	8
4.1 Application procedure	8
4.2 Examination of research work for plagiarism	8
4.3 Verification of compliance with requirements	8
4.4 Quality assessment	9
5. Grant Agreement Signing Procedure	9
6. Monitoring	12
6.1 Financial reporting	12
6.2 Technical reporting.....	13
6.3 Environmental reporting.....	14
6.4 Monitoring of Sub-projects	14
6.5 Grant funds disbursement procedure.....	15
6.6 Termination of grant.....	15
6.7 Grant Closure Procedure	15
6.8 Financial procedures.....	15
6.9 Environmental management.....	16
Annex 1 Selection Methodology of ISCB	
Annex 2 Application Form	
Annex 3 Grant Argeement	
Annex 4 Monitoring Statement	

1. Definitions

1. **Project** means Fostering Productive Innovations Project within the framework of the Loan Agreement between the Republic of Kazakhstan and the International Bank for Reconstruction and Development №8463-KZ on June 9, 2015, ratified by the Republic of Kazakhstan Law №450-IV on February 2, 2016;

2. **PhD Research and Training Grant Program** (hereinafter GP) – a program for advancing human capital through competitive selection and funding of research and development activities (hereinafter - R&D) with potential for introduction to production and/or display technologies on the market with a view to further commercialization;

3. **Innovation** (Oslo Manual) means implementation of a new or significantly improved product (good or service) or process, a new marketing method or a new organizational method in business practices, workplace organization or external relations;

4. **Commercialization** means activities related to practical application of results of scientific and (or) scientific and technical activities, including the results of intellectual activity, with the aim of bringing to market the new or improved products, processes and services aimed at income generation, according to the Law of the Republic of Kazakhstan "On commercialization of results scientific and (or) scientifically-technical activity";

5. **Science Committee** – Science Committee of the Ministry of Education and Science of the Republic of Kazakhstan;

6. **International Science and Commercialization Board** (hereinafter - ISCB) is an independent advisory body to the Ministry of Education and Science of the Republic of Kazakhstan (hereinafter - MES) in accordance with the Loan Agreement between the Republic of Kazakhstan and the International Bank for Reconstruction and Development №8463-KZ on June 9, 2015, ratified by the Republic of Kazakhstan Law №450-IV on February 2, 2016. ISCB is responsible for evaluation of commercialization and scientific potential of applications;

7. **Grant** means budget and (or) extra-budgetary funds provided on a gratuitous and irrevocable basis for carrying out R&D;

8. **Grantee** is a legal entity competitively selected and awarded Grant. A Grantee is responsible and accountable for the use of funds provided and reports to the Science Committee on performance of the grant-supported activity;

9. **Applicant** is a legal entity carrying out activities in the territory of the Republic of Kazakhstan, which has applied for grant in accordance with this Manual (in case the Candidate studies or works outside Kazakhstan, the Applicant must be the host domestic organization);

10. **Candidate** means an individual sent/to be sent to internship. A Candidate is responsible and accountable for the use of funds provided to him/her and reports to the Grantee on performance of the grant-supported activity;

11. **Application** means preliminary and full proposals submitted by an Applicant to receive grant funding;

12. **Sub-project** is a systematic, intensive study intended to increase knowledge or understanding of the subject studied, a systematic study specifically directed toward applying new knowledge to meet a recognized need, or a systematic application of knowledge to the production of useful materials, devices, and systems or methods, including design, development, and improvement of prototypes and new processes to meet specific requirements.;

13. **Grant Agreement** means an agreement concluded between the Science Committee and the Grantee on grant funding of implementation of the Sub-project;

14. **Monitoring Statement** means Sub-project assessment document that reflects the results of sub-project implementation and is the basis for further funding;

15. **Technology** is a process and (or) equipment system operating in a single production cycle, which if used provides new or improved goods and services;

16. **Examination of application** means an activity undertaken by the ISCB members with expertise in science, technology and commercialization of R&D results, related to evaluation of opportunities and prospects of implementation of sub-projects that are brought on behalf of stakeholders, in order to answer to questions requiring special knowledge.

17. **Sending organization** means a research organization that carries out activities on the territory of the Republic of Kazakhstan and sends a Candidate under the PhD Research and Training Grant Program (domestic organization, if the Candidate studies or works within the Republic of Kazakhstan, or a foreign organization, if the Candidate studies or works outside the Republic of Kazakhstan)

18. **Host organization** means a legal entity (education and/or research organization) that temporarily hosts the Candidate under the PhD Research and Training Grant Program ensuring the implementation of Grant (organization where Applicant is studying/working in Kazakhstan or a foreign country).

19. **NCSSTE** means JSC "National Center of State Scientific and Technical Expertise".

20. **Resident of the Republic of Kazakhstan** means an individual citizen of Kazakhstan or a legal entity registered in the Republic of Kazakhstan, which is fully covered by national legislation.

21. **Research organization** means a legal entity, the activity of which is implementation of scientific, scientific-technical and innovation activities, including implementation of the right to intellectual property, and also research and development work.

22. **Scientific research work** (hereinafter - R&D) work related learning, conducting research and experiments in order to expand existing and acquire new knowledge, verification of scientific hypotheses, establishing laws of development of nature and society, scientific synthesis, scientific justification of projects;

23. **Portal** means a systemic, structured multilevel integration of software components that interact between users and the database (portal.fpip.kz) operated for the purpose of selecting and monitoring performance of sub-projects funded under the Project;

24. **Project Management Unit** (hereinafter - PMU) means an authority responsible for daily administration of the Project.

25. **Environmental Management Framework** (hereinafter-"EMF") means the Environmental Management Framework prepared for the Project and published on September 10, 2014.

2. General provisions

1. This PhD Research and Training Grant Manual (hereinafter - Manual) is designed in accordance with the Loan Agreement No. 8463-KZ signed on June 9, 2015, ratified by the Law of the Republic of Kazakhstan "On ratification of the Loan Agreement (Fostering Productive Innovation Project) between the Republic of Kazakhstan and the International Bank for Reconstruction and Development" No. 450-V, dated February 2, 2016, Fostering Productive Innovation Project Operations Manual dated February 25, 2016.
2. PhD Research and Training Grant Program is aimed at applying the potential of the world's leading educational, scientific and production organizations in the development of industrial and innovative potential of the Republic of Kazakhstan in the field of training, professional development and retraining, as well as joint scientific research, introduction of scientific developments to the industry.
3. Objectives of the Grant Program:
 - assistance in the development of fundamental training in technical disciplines of higher education that promotes science, production (training researchers, research engineers, constructors and designers of industrial enterprises of the Republic of Kazakhstan);
 - focus the domestic research on the needs of the real economic sector;
 - creating conditions to stimulate research and innovations by establishing research and development departments;
 - development and further maintenance of the partnership between scientific and research institutes, academic institutes of Kazakhstan with leading international organizations and universities.
4. Grants will be awarded to projects addressing strategic issues related to the future of Kazakhstan in priority areas of scientific and technological development defined by Higher Scientific-Technical Commission under the Government of the Republic of Kazakhstan and President of the Republic of Kazakhstan N.A. Nazarbayev on January 31, 2017 (with the exception of studies that do not meet the administrative criteria of Section 3.1, section 3.):
 - Rational use of natural, incl. water resources, geology, processing, new materials and technologies, safer products and structures;
 - Information, telecommunication and space technologies, scientific research in the field of natural sciences;
 - Energy, fuel and mechanical engineering;
 - Sustainable development of agricultural complex and safety of agricultural products;
 - Life Sciences and health;
 - National security and defense;
 - Digital services, 3D printing, automation, robotics, artificial intelligence, nanotechnology and big data.
5. Each application for the PhD Research and Training Grant Program must:
 - be market-oriented and scientifically competitive on international scale;
 - be relevant for current or future scientific, economic and industrial development of Kazakhstan, including possibility of establishing research partnerships with local or foreign commercial companies;
 - have potential and interest in conducting multidisciplinary research;
 - include suggestions for outreach at universities, secondary schools and the public;
 - be selected, evaluated and implemented in accordance with principles and procedures stipulated in POM, Procurement Guidelines and EMF.

3. Grant type A: PhD research grants

3.1 Conditions for participants

1. *Grant type A:* Scholarship program for researchers aims to ensure effective provision of grants to promising researchers in Kazakhstan who wish to develop their career in R&D through completion of research abroad in leading centers (University or research institute engaged in R&D) or within Kazakhstan, if the Candidate works or studies outside Kazakhstan.
2. Target group for grant A includes research organizations for researchers who are studying or have recently graduated from the doctoral program (PhD) in Kazakhstan or abroad (only for residents of the Republic of Kazakhstan).
3. Proposals are reviewed on the following eligibility criteria:
 - The Candidate must meet one of the following criteria:
 - doctoral students who have completed 1st year in doctoral program (PhD) (at the time of application) in technical, life science and health fields;
 - received PhD degree within last 5 years in technical, life science and health fields (at the time of application);
 - **To participate in the grant program of type A, Applicant shall:**
 - have R&D and/or research work, on which the candidate will work during the stay in the host foreign organization (or in the domestic host organization in case the Candidate studies or works outside Kazakhstan);
 - submit a letter of support describing the potential of the proposed research/technology and its readiness, and the need for additional research in the host organization (in free form);
 - submit a letter from an industrial organization¹ about the interest in research project and/or training a candidate (letter must contain the specific scope of the proposed research/technology, with attached economic forecasts in monetary terms per year);
 - theme of the sub-project should correspond to priority areas in accordance with Section 2 of this Manual;
 - have co-financing of at least 5% of the total amount of the sub-project from the sending organization/individual (availability of the letter of guarantee);
 - the host organization should have a leading center² (in case the Candidate works or studies outside Kazakhstan, the leading center should be the sending organization);
 - submit reference from NCSTE about the absence of plagiarism in research work in accordance with section 4.2, with the exception of applicant's own works;
 - provide copies of documents confirming the unconditional invitation³ Candidate (except financial conditions) or a contract with a host organization, including timelines, cost (with detailed calculations) of the planned research. Qualifications of the host group and/or leader should be in line with the scope of the Candidate's sub-project;
 - availability of an application in languages defined in this Manual (State and/or Russian, English).
 - **The following applications will be rejected:**
 - applications related to production and/or trade of tobacco, alcoholic beverages, weapon and ammunition, gambling, dual-use goods and nuclear enrichment research;

¹ Local industrial organization should be focused on the scope of the proposed research/technology.

² Advanced centers are:

for Universities not less than the 100th place, inclusive, of the QS World University Rankings by Subject by for 2018 - <https://www.topuniversities.com/subject-rankings/2018>;

for scientific-research institutes not less than the 500th place, inclusive, in the Ranking WEB of research centers - <http://research.webometrics.info/en/world>;

³ Unconditional invitation means an invitation from the host party taking into account all the conditions of internship, including medical conditions and language skills of the host party (language of internship).

- applications relating to forced relocation;
- applications that can be classified as "Category A" in accordance with the EMF. Preliminary environmental assessment form is part of the Application and is mandatory to fill in;
- applications envisaging i) activities identified as not eligible in the EMF or ii) any activities likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented, as determined by the Bank.

4. Non-conformity with the above eligibility criteria is a basis for rejection of applications are by PMU.

3.2 Financing

5. Grant funds cover:

- living expenses in the country which an applicant intends to visit for research up to 1 000 000 (one million) tenge per month (country's correction coefficient is used for calculation⁴);
- transport costs, insurance and visa fees - up to 500 000 (one thousand and five hundred) tenge;
- family allowance - up to 170 000 (one hundred seventy thousand) tenge per month, as contribution towards the cost of maintaining an applicant's family (only for spouse and underage children) in the host country.
- expenses for patents and publications up to 2,000,000 (two million) tenge (expenses related to filing, obtaining a patent, while it is allowed to pay for those patent applications that relate to the subject matter of this sub-project and the costs of publishing research results in peer-reviewed (International Scientific Indexing (ISI) journals with a non-zero impact-factor of Web of Science Core Collection and/or journals indexed in Scopus with a percentile of at least 25%.

In case of shortage of funds, these categories can be funded from co-financing funds.

6. Co-financing funds cover:

- expenses for remuneration payment to the host organization/company, supplies, equipment rental, all taxes and fees arising during the implementation of the sub-project and other overhead costs associated with implementation of the sub-project;

7. Based on the results of the sub-project implementation, the following mandatory key indicators shall be achieved:

- experiment/test is conducted (with submission of the test report), if envisaged in the Plan of the proposed research (see Annex 2);
- submitting an international application for invention via Patent Cooperation Treaty (PCT) procedure with registration number assigned or obtaining a patent under the PCT (Patent Cooperation Treaty) , if this is stipulated in the Implementation Plan (Annex 2);
- published/submitted for consideration scientific publication with a non-zero impact-factor of Web of Science Core Collection and/or journals indexed in Scopus with a percentile of at least 25%;
- developed software (if the sub-project is in information technologies);
- developed business plan/commercialization strategy for the sub-project.

8. At the end of the sub-project, in case of failure of one of the abovementioned indicators, grant funds shall be refunded in full amount.

9. Maximum amount of grant (excluding co-financing) is 17 000 000 (seventeen million tenge).

10. Maximum duration of sub-project is not more than 12 (twelve) months.

⁴ For calculation coefficients of the "Horizon 2020" Program are applied http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-msca_en.pdf, p. 71-72

4. Selection Procedure

4.1 Application procedure

1. In order to conduct transparent competition, the grant program will receive considerable media coverage and an announcement will be published on the websites of the Project and Science Committee describing the competition conditions. Then, within at least 20 working days, preliminary proposals are collected through the electronic portal in Kazakh or Russian and English. For ensuring a competitive environment and increasing the number of proposals, as well as in case of technical problems in the application process, the Science Committee may extend the application deadline.

2. Applicant submits an application online through the Portal portal.fpip.kz. Online application consists of the following main sections:

- section with Applicant and Candidate's personal data;
- section with information on the proposed scientific research/technology;
- section with information about the host organization;
- section with financial plan and implementation plan;
- section on environmental protection;
- intellectual property section;

3. Application must be fully completed and uploaded to the online platform portal.fpip.kz before the specified deadline of the competition (Annex 2 – Application Form).

4. Application is considered to be submitted for consideration only if the Applicant has completed the following conditions:

- fill in all required fields in Kazakh or Russian and English in his/her personal account (mandatory fields are marked with a "*"). For convenient tracking of the application completion level, Applicant's personal account has a graphical scale for the status of the fullness of each section and application itself as a whole;
- submit application for review by clicking the "Send" button, when the progress on filling the application in State or Russian and English will be equal to 100%.

4.2 Examination of research work for plagiarism

5. Within the scope of this grant program, applications must undergo a procedure for analyzing scientific work and author's degree of autonomy to detect plagiarism and other violations in accordance with the internal normative document of NCSTE.

6. Based on the results of the examination of scientific works using the "Anti-Plagiarism" program, Reference Certificate is issued, which must be submitted to PMU as part of the application.

4.3 Verification of compliance with requirements

7. After the submission deadline, all electronic applications are checked by PMU for conformity to eligibility criteria specified in the sub-section 3.1 of section 3. Only those applications that meet all the established eligibility criteria are allowed for further evaluation. Examination of compliance with eligibility criteria should not exceed ten working days.

4.4 Evaluation of proposals

8. Applications undergo an environmental screening procedure, and an environmental category (A, B +, B-, C) is assigned to each application in accordance with EMF for no more than 30 (thirty) working days from the day of the end of grant competition.
9. Evaluation of proposals shall be carried out by experts in accordance with the Selection Methodology (Annex 1). Evaluation of proposals is an expert assessment of the nature of the proposed research and the applicant's capacity for successful implementation of the sub-project. Assessment takes into account the purpose and objectives of the proposed grant program. Evaluation of proposals should not exceed 30 (thirty) working days from submission of applications to ISCB.
10. Evaluation of proposals is based on all selection criteria described in Annex 1. The evaluation should be supplemented with comments by ISCB. Based on the evaluation results, applications will be ranked based on the average score, calculated according to the Selection Methodology. Applications that have received 50 (fifty) points and above are proposed for grant financing. The list of awardees is approved by an order of the Science Committee within five working days on the basis of the ranked list presented by ISCB. In the event that duplication of research and funding is identified, Science Committee has the right to reject the Application or the Sub-project.
11. Based on selection results, PMU will publish the list of awardees at the Project website within one working day after approval of the list of awardees by the Science Committee.
12. Within one working day after approval of list of awardees, a notification about the result will be emailed to all participants of the competition and information about assessment results (ISCB's comments) will be available in the personal account of each Applicant on the Portal.

5. Grant Agreement Signing Procedure

1. A grantee fills out a standard form of agreement in accordance with application. In case of amendments in implementation plan, financial plans, the grantee provides detailed justification for experts' review in English and State or Russian. These amendments are agreed upon with ISCB via email, within not more than 10 working days after receiving the proposed amendments.
2. The Agreement is coordinated with PMU;
3. Based on the application, environmental screening is conducted and an environmental category (A, B +, B-, C) is assigned to each application in accordance with the World Bank's EMF (see Section 6.9 of this Manual);
4. PMU submits the Grant agreement for signing to the Science Committee within 5 working days after receiving the full package of documents from the Grantees.
5. When drafting the Agreement, the Grantee must consider the following points:
On Annex 1, "Implementation Plan":
 - **Implementation plan** — this annex must contain a description of the methodology and a detailed plan of activities within the scope of implementation of the sub-project. Name of activities envisaged by the sub-project, timing of activities should be specified.

The work plan shall include timetable of mandatory and optional achievements of *key performance indicators (KPIs)* – to be used for sub-project progress monitoring (mandatory *KPIs are specified in the Section 3.2 item-7*).

On Annex 2 "Sub-project Financial Plan":

Financial plan of the proposal should consist of details and description of the costs of a sub-project (grant and co-financing) with justification and commercial offers attached.

a) The scholarship covers living expenses, accommodation for researchers (for stays of up to 12 (twelve) months. Scholarship amount is calculated in accordance with the corrective coefficients of the "Horizon 2020" program with equivalent in tenge and monthly amount equals to:

- for PhD students, postdocs, monthly scholarship amounts up to 1 000 000 (one million) tenge;
- family allowance up to 170 000 (one hundred seventy thousand) tenge per person, if researcher's family members-dependents go with him/her (only spouse and underage children);

b) transport costs and visa fees in the amount up to 500 000 (five hundred thousand) tenge;

c) expenses for patents and publications up to 2 000 000 (two million) tenge (expenses related to filing, obtaining a patent, while it is allowed to pay for those patent applications that relate to the subject matter of this sub-project and the costs of publishing research results in peer-reviewed journals with a non-zero impact-factor of Web of Science Core Collection and/or journals indexed in Scopus with a percentile of at least 25%;

d) Expenses for remuneration to the host organization/company, supplies, rental of equipment, all taxes and fees, arising during implementation of the sub-project, and other overhead expenses associated with implementation of the sub-project.

6. Before signing the Agreement the Grantee shall:

a) open settlement account in a second-tier bank, for transferring grant funds; account is opened in national currency. Expenditure of grant funds from this account must be carried out only in cashless form;

b) open a separate bank account for co-financing funds. Applicant's own funds and/or investor's co-financing funds will be transferred to this settlement account. Before signing the Agreement, the Applicant confirms previously declared amount of co-financing. In the case of co-financing funds by the investor, the contract is concluded (in any form) on cooperation between applicant and partner, specifying the amount and timing of co-financing in accordance with submitted application. Failure to comply with the timetable to ensure co-financing is the basis for termination of the Agreement. Expenditure of grant funds from this account must be carried out only in cashless form.

7. For implementation of the above activities (listed under paragraph 6) ten working days are given from the date of publication of the awardees on the official Project website. Failure to comply with the above conditions is a ground for refusal in signing the Agreement.

8. Grantee, after declaring as an awardee, must provide the following documents to PMU:

a) Legal documents of the Applicant (notarized copy⁵ charter, certificate on registration of a legal entity, order/power of attorney signature right, if the Grant Agreement is signed by other persons than the first manager);

b) original statements from bank on availability of co-financing funds on Grantee's settlement account in the amount specified in application. Co-financing funds shall be made available prior to the signing of Grant agreement, if not indicated otherwise in proposal. If the funds are made by partner in tranches, the Grantee must submit the Investment Contract with a specific timetable;

⁵ Documents must be notarized by notaries with licensee of the Republic of Kazakhstan.

- c) notarized copy⁵ of the Grantee's ID card;
- d) notarized copy⁵ of diploma of education with appendices and their notarized translations into English;
- e) notarized copies⁵ of certificates of marriage and children's birth certifications;
- f) notarized copy⁵ contract between the Applicant and the Candidate, taking into account all conditions of the internship;
- g) employment reference letter/certificate of enrollment certified by the teaching department/organization and notarized translation into English.

9. The Agreement must be signed by Grantee and the Science Committee not later than 20 working days from the date of notification on grant award.

10. The Agreement must follow the template described Annex 3 to this Manual. The Agreement is signed in three copies in Kazakh or Russian.

6. Monitoring

1. During the implementation period of the Sub-project, the Grantee shall provide three types of reporting to PMU: technical, financial and environmental (environmental report for sub-projects under environmental category B).
2. Current financial reports are provided quarterly not later than the 10th of the month following the reporting period. All financial information, including expenses, funded from grant funds and co-financing in the report, is reflected in national currency (tenge) in State or Russian.
3. Final financial report is provided within 10 working days from the date of completion of the Sub-project.
4. Technical, financial and environmental reports for review by PMU are accepted through the Portal. It is mandatory to attach electronic copies of supporting documents to current financial statements.

6.1 Financial reporting

5. Financial report consists of the following forms:
 - a) Form "Report on use of grant funds and co-financing funds";
 - b) Form "Cost Discrepancy Report";
 - c) Form "Bank Account Status Report";
 - d) Explanatory note.
6. Financial report cover sheet contains the following information:
 - Report type (current or final);
 - Reporting period (date of beginning and end of the reporting period);
 - Full name of the Sub-project;
 - Grantee's name.
7. Explanatory note to the financial statements shall contain the following information:
 - description of transactions carried out on disbursement of grant funds;
 - main reasons for non-disbursement of grant funds by category of expenditures;
 - reasons for re-payment of the same operation indicating the reasons for refund, etc.
8. Explanatory note shall be signed by the Grantee.
9. Cost of goods, works and services purchased in foreign currency is indicated in tenge at the actual rate of the second-tier servicing bank on the day of payment.
10. All documents in the report is grouped by categories of expenditure, and shall be filed in the above order, starting with copies of contracts and ending with copies of payment documents.
11. The following is a list of documents by category of expenditure, copies of which are attached to the financial report:
 - a) *Category 1. Scholarship*

In this category of expenses, scholarships are paid for actually used time for research/training.

 - it is prohibited to pay allowances, material assistance from grant funds.Upon payment of scholarship, copies of the following documents are provided:

- payment order confirming payment of a scholarship or fee with the Bank note about transfer of scholarship;

b) *Category 2. Travel costs*

For this category, copies of following documents are required:

- copies of travel documents, receipts for payment of fees for visa, receipt of payment of compulsory insurance and other costs associated with trip;
- payment order with the bank's mark on purpose of payment.

c) *Category 3. Expenses for patents and publications (expenses related to filing, obtaining a patent, while it is allowed to pay for those patent applications that relate to the subject of this sub-project and the costs of publishing research results in peer-reviewed journals with a non-zero impact-factor of Web of Science Core Collection and/or journals indexed in Scopus with a percentile of at least 25%).*

In this category copies of the following documents shall be provided:

- contract, signed and stamped by both parties (if any);
- invoice;
- payment order confirming payment with the bank's note about transfer of scholarship;
- bank statement from the settlement account in national or foreign currency;
- copy of an article or other published materials, CD with video etc.

d) *Category 4. Expenses for remuneration payment to the host organization/company, consumables, rental equipment, registration of patents, publications, and other overhead costs associated with implementation of the Sub-project.*

In addition, expenses for publication of the sub-project results in peer-reviewed journals are funded. Publication of materials associated with intellectual property items in open press prior to application for a protection document is prohibited.

In this category copies of the following documents shall be provided:

- contract, signed and stamped by both parties (if any);
- invoice;
- payment order confirming payment with the bank's note about transfer of scholarship;
- bank statement from the settlement account in national or foreign currency;
- payment order with bank's mark on transfer of taxes and deduction for the reporting period;

6.2 Technical reporting

12. Technical reports are provided by the Grantee semiannually, not later than ten working days after the end of the reporting period. The final technical report need to be presented within fifteen working days from the date of completion of the Sub-project. All technical reports must be in electronic and paper form in Kazakh or Russian and English.

13. Semi-annual and final technical report shall contain all the relevant technical information on implementation of the Sub-project necessary for an objective evaluation of results and making decisions about continuation of funding and shall be prepared according to the following structure:

Section "Administrative Data":

- Date and type of technical report (semi-annual, final).
- Reporting period.
- Full name of the Sub-project: _____.
- Full name of the Grantee.

Section "Report on results":

- Achievement of the planned results, planned activities with explanations and justification in form of quantitative and qualitative data.

- Compliance with EMF (for sub-projects under environmental category B).
- Unplanned results/deviation/opening with explanations and justification in form of quantitative and qualitative data.

Section "Conclusion":

- Analysis of stability of the achieved research results and their possible application in practice.
- Prospects for further development and implementation of the technologies developed.
- Prospects for achieving the objectives of the Sub-project during the next reporting period, with a clear indication and explanation of key success factors.
- Necessary changes to planned activities with explanation of reasons.

Annexes:

- Documentary evidence of achievement of meaningful results of the sub-project, events held, services, photos, videos, etc.

Results of activities carried out should be described in technical report, and in explanatory note of the financial report for the tranche disbursed.

6.3 Environmental reporting

14. Environmental reporting is provided once a year within ten working days after the end of the reporting period. Environmental report contains information on the implementation of the EMP of a Sub-project and includes the following:

- implemented measures on reducing air pollution, discharges and waste management,
- compliance with occupational health and safety instructions
- conducting of Monitoring and Mitigation Plans.

15. Failure to submit reports is considered as a violation of the Agreement terms.

6.4 Monitoring of Sub-projects

16. During the implementation of the Sub-project, ISCB with the support of PMU monitors achievement of results of the Sub-projects and targeted use of grant funds.

17. Conducting methodological guidance on all issues including the issue of monitoring of progress, in accordance with the requirements, criteria, organizational arrangements and operational procedures set forth in this Manual and Grant Agreement is assigned to ISCB.

18. Grantee's performance evaluation is carried out by ISCB, which includes:

- meeting with the Head and staff of the Sub-project (if necessary);
- analytical review of technical reports.

19. Performance evaluation is carried out semiannually. After completion of the Sub-project, ISCB conducts the final evaluation of the Sub-project results. According to the technical monitoring results provided by the PMU, the ISCB can propose/concur with adjustments to sub-project's plans. Evaluation reports of ISCB are submitted to the Science Committee and, if necessary, to the World Bank. Based on evaluation results of ISCB, Science Committee makes the final decision on whether to continue or suspend the financing of the Sub-project.

20. PMU conducts financial monitoring of the sub-project activities.

21. Based on the results of financial report examination, the financial monitoring report on the funds disbursed during the reporting period (hereinafter - Monitoring Statement) is drawn up in accordance with Annex 4 to this Manual.

22. Monitoring Statement indicates the expenditure incurred at the expense of grant and co-financing, the list of supporting documents and comments on the financial report. All comments listed in the Monitoring Statement should be addressed by the Grantee within ten working days. All copies of the supporting documents shall be attached to current financial report. Final report must contain copies of all documents with originals of report forms attached and sent to PMU in a numbered and strung form.

23. A paper version of the financial report should be fully consistent with the electronic versions of the report, submitted through Portal. Changes to the financial report, after approval of the electronic version, is prohibited.

6.5 Grant funds disbursement procedure

24. The Science Committee will send a notice on mandatory suspension of grant funds in the following cases:

- in agreement with ISCB until the Grantee addresses the remarks made during the monitoring of the sub-project conducted by PMU and approved by the ISCB;
- Grantee has not complied with remarks on the results of the financial monitoring as submitted by PMU.

6.6 Termination of grant

25. The Science Committee has the right to terminate the Agreement in cases when the Grantee fails to fulfill provisions of the Agreement, after consultation with the ISCB and the World Bank, through written notice to Grantee.

26. Remaining grant funds shall be returned no later than ten working days after the termination of the Agreement.

6.7 Grant Closure Procedure

27. After approval of the final financial report unused grant funds shall be returned within 10 working days. Only grant funds shall be returned.

28. Funds received as income from sales of goods and services and other income shall remain the property of the Grantee.

29. After approval of the final financial report and final technical report and return of unused funds, the Science Committee sends a notification to the Grantee about closure of the grant.

6.8 Financial procedures

30. Prior to financing of approved sub-project, responsible person of the Applicant signs the Grant Agreement (hereinafter – Agreement) with an authorized representative of Science Committee. The Agreement obliges the Applicant to implement the sub-project in accordance with the structure specified in implementation plan and financial plan, according to the Application. The Agreement defines the

rights and obligations of parties, including intellectual property rights, and rights arising from results of the sub-project.

31. Actual transfer of funds begins after signing of the Agreement. Costs incurred prior to the date of signing of the Agreement will not be included in the costs of the sub-project.

32. Grantees must implement sub-projects under grant efficiently in accordance with the Agreement. Any significant deviation from the Agreement (e.g., change of the schedule or failure to comply with the proposed stages of works) requires an additional agreement with approval of ISCB and PMU.

6.9 Environmental management

33. The baseline document that defines procedures for environmental management of the Fostering Productive Innovation Project is EMF, which was adopted by the Ministry of Education and Science of the Republic of Kazakhstan (MoES RK) in accordance with requirements of the World Bank Operational Policies 4.01 "Environmental Assessment" and environmental legislation of RK. EMF requires an environmental assessment during the process of EMP composing for sub-projects under category "B" in order to ensure environmental safety and, consequently, make an informed decision on funding of the proposed activities within the application.

Sub-project Selection Methodology of ISCB

1. Eligibility criteria for grant type A

Selection criteria must ensure that grants are awarded to scientists in accordance with objectives of the Program "PhD Research and Training Grants" according to expert assessment by ISCB members. Criteria are evaluated in accordance with the rules and scoring table specified in this Manual.

Selection criteria:

I. Advantage of the research and innovation proposal (30 points maximum)

- Level of scientific/technical quality, international competitiveness, originality and innovativeness of the proposals and feasibility of the project, with particular emphasis on multidisciplinary approach: (0 – 10 points)
- Level of market orientation of R&D project – prospect of commercialization and importance of the market or potential contribution to science and technology transfer: (0 – 10 points)
- Potential growth and/or inclusiveness impact on economy of Kazakhstan (commercial potential, potential to reduce extreme poverty and/or inequality, potential to improve access of excluded population to service and goods, innovations, patents, new products or technologies) or other importance for current or future scientific, economic and industrial development of Kazakhstan: (0 – 10 points)

II. Outstanding achievements in research and professional activities of the applicant and the host organization (maximum 20 points)

- Candidate's achievements, research and management capacity (publications and other academic or professional results, necessary expertise, previous achievements, cooperation): (0 – 10 points)
- Achievements of the host organization and its top leadership, and compatibility of the field of scientific/technological interests with those of Candidate. (0 – 10 points)

III. Quality and profitability of the proposal (maximum 50 points)

- Availability of the PCT (Patent Cooperation Treaty) application in the Action Plan (0 – 20 points);
- Future potential for receiving co-financing or subsidies from other sources or companies (for sub-projects in commercial sector) and possibilities of establishing partnerships with local or foreign universities, organizations or commercial enterprises, quality of proposed implementation of the sub-project, infrastructure, practical measures and organizational measures and other conditions for implementation of the project and management (0 – 10 points);
- Amount of co-financing, each percent over the mandatory threshold (5%) is worth one point (0 - 20 points).

Scores are quantitative indicators of the level of compliance with specific criteria. Point scale is 0-10 points, scores indicate the following (for point scale of 0-20 points):

№	Point scale from 0 to 10 points	Point scale from 0 to 20 points	Score
1	0-1	0-2	Unsatisfactory; does not meet any aspect of the criterion or meets only some of them
2	2-3	3-6	Satisfactorily; meets some aspects, but does not meet one of important aspects of the criterion
3	4-6	7-12	Good; meet most of the aspects

4	7-8	13-16	Very good; fully consistent with the criterion except for one minor aspect
5	9-10	17-20	Excellent; fully meets the criterion in all aspects

ISCB members score and comment each application. Comment shall contain at least three negatives (in case of a low score) and/or three positive (in case of a high score) aspects.

Based on results of scoring of ISCB members, an average score for each application will be derived, which is calculated by summing up all the final scores of ISCB members and dividing their sum to number of ISCB members (by formula $\sum_{\text{средняя}} = \frac{\sum_1 + \sum_2 + \dots + \sum_n}{n}$ where \sum_{average} – average score, \sum_1 – final score of ISCB member, n – number of ISCB members).