

REPUBLIC OF UZBEKISTAN
MODERNIZING UZBEKISTAN'S NATIONAL INNOVATION SYSTEM PROJECT

**SUBCOMPONENT 2.2. BUSINESS INVESTMENTS IN
RESEARCH & DEVELOPMENT (BIRD)**

MATCHING GRANT PROGRAM MANUAL

Tashkent 2023

ABBREVIATIONS AND ACRONYMS

BDM	Business Development Manager
BIRD	Business Investment in R&D
CEO	Chief Executive Officer
CfP	Call for Proposals
CP	Commercialization Partner
CTO	Chief Technology Officer
DCTO	Deputy Chief Technology Officer
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESS	Environmental and Social Standards
FA	Financing Agreement
GFM	Grant Fiduciary Manual
GPM	Grant Program Manual
GR	Grantee
HEI	Higher Education Institution
IEB	International Expert Board
IEP	International Expert Platform
IP	Intellectual Property
MHESI	Ministry of Higher Education Science and Innovation
MUNIS	Modernizing Uzbekistan National Innovation System
NIS	National Innovation System
PDO	Project Development Objective
PIU	Project Implementation Unit
POM	Project Operations Manual
PRO	Public Research Organization
PRI	Public Research Institute
PRIM	Public Research Institutes Modernization Program
RCP	Research Commercialization Program
RI	Research Institution
RUZ	Republic of Uzbekistan
STI	Science, Technology, and Innovation
TA team	Technical Assistance team
TTU	National Office for implementation of Innovations and Technology Transfer Unit
WB	World Bank

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EXECUTIVE SUMMARY

The total available budget for the BIRD matching grant program is US \$10 million.

The BIRD will offer matching grants for joint R&D sub-projects from SMEs, and joint R&D sub-projects between SMEs and PROs. The BIRD will finance matching-grants for sub-projects to (i) support later stages of research commercialization, (ii) R&D for SMEs, and (iii) early stages of knowledge-based startups.

Proposals can be of a multi- or interdisciplinary nature, crossing the boundaries between different fields of research, including pioneering proposals addressing new and emerging fields of research or proposals introducing unconventional, innovative approaches and scientific inventions.

Matching Grant amount – up to US \$ 600,000 per project.

Implementation of the sub-projects – up to 24 months on the territory of the Republic of Uzbekistan.

Co-financing – obligatory, not less than 25% of the matching grant amount (in cash only).

Co-financing sources – industrial partner, financial partner, or own funds.

Applicant – Chief Technology Officer of the sub-project. CTO must be a citizen of the Republic of Uzbekistan and can participate in only 1 commercialization project supported by BIRD with at least 50% of time commitment.

Sub-project team – not more than 12 people (including CTO, deputy CTO, and BDM).

Proposal language – the English version is mandatory. Uzbek or Russian versions can be also submitted together with the English version.

Proposal selection process – up to 8 months including submission of proposals (60 working days), formal compliance (up to 8 working days), external technological evaluation by the International Evaluation Platform (up to 50 working days), commercial evaluation, and shortlisting of proposals by the IEB (20 working days), pitching session and signing protocol of winners by the IEB that lead to the obligatory participation in the acceleration program for winners and signing of a Grant Agreement (20 working days).

The Matching Grant recipient must be a startup company created in RUZ in the form of a limited liability company and established after the matching grant is awarded or an SME company registered in RUZ. The CTO of the project must be included in the founders of the Matching Grant recipient.

Co-financing money must be allocated to the bank account of the Matching Grant recipient before each tranche of the Matching Grant money. All taxes must be covered by co-funding.

The Matching Grant recipient must have registered rights for an IP that is planned to be used during the implementation of the sub-project. The upcoming research discovery results (IP) during the implementation of the sub-project must be registered to the Matching Grant recipient.

Compliance with the fiduciary requirements and procurement procedures of the World Bank is obligatory. Monitoring of the implementation of the sub-projects is conducted through technical reporting (twice a year) and financial control after each withdrawal of the Matching Grant amount, as well as semi-annual visits of the IEB.

According to the Environmental and Social Management Framework of the MUNIS Project, each proposal will be evaluated within the frame of four main risk categories of environmental and social risks and impacts: Low, Moderate, Substantial, and High. The proposals assessed as having “Substantial” or “High” Environmental and Social Risks will not be financed by the MUNIS Project. All assigned categories will be subject to World Bank clearance before approval.

INTRODUCTION

1. The Ministry of Higher Education, Science, and Innovation (MHESI) implements the **Modernizing Uzbekistan's National Innovation System** (MUNIS) Project under the Financing Agreement (FA) between the Republic of Uzbekistan and the International Development Association of the World Bank (WB), signed on May 17, 2021.
2. The MUNIS Project is aligned and complementary to several ongoing and planned initiatives of the MHESI, aimed towards increasing the coverage and effectiveness of scientific activities in the innovative development of the country's economy, ensuring the effectiveness of commercialization and technology transfer, forming an integral startup ecosystem, supporting an initiative society actively participating in innovative development, increasing the share of research and development and innovative products in the gross domestic product (GDP) aimed at creating new products and new jobs focused on the consumer market, as well as improving the quality of life of the population, including in remote regions.
3. The MUNIS Project's main goal is to contribute to the development of the National Innovation System (NIS) capable of effectively supporting the market economy. It will promote cooperation between government, scientific organizations, and the private sector in the field of R&D and the commercialization of scientific and innovative products and services.
4. The MUNIS Project is designed to support the development of four institutional sectors: (i) university-based research and technology transfer, (ii) science throughout public research institutes (RI), (iii) business, and (iv) government. The project contributes to the development of research, commercialization, science, technology, and innovation (STI) policy capacities of beneficiaries in these institutional sectors, thereby supporting the upgrade of Uzbekistan's NIS and, finally, leading to economic and societal impacts.
5. MUNIS' Project development objective (PDO) aims to enable the development of a market-oriented NIS in Uzbekistan. The MUNIS Project is comprised of 4 components:
 - 1) Improving research excellence and commercialization;
 - 2) Promoting innovation in the private sector;
 - 3) Supporting STI policymaking and reforms;
 - 4) Project management and monitoring and evaluation.
6. Component 2 – Promoting innovation in the private sector - is comprised of two sub-components: (i) Innovation Capabilities Program (ICP) and (ii) Business Investments in R&D Program (BIRD). The objective of this component is to increase private sector innovation in Uzbekistan, enable technology adoption by firms and diffusion, and support the initial growth of R&D-driven innovation, as well as the expansion of a knowledge-based startup sector in Uzbekistan.
7. The BIRD is a competitive commercialization matching grant program that will finance several selection rounds of R&D commercialization sub-projects under strict selection and monitoring processes. The total available budget for the BIRD matching grant program is US \$10 million.
8. This document constitutes the BIRD Grant Program Manual (BIRD GPM), providing a program description and defining key program principles, methods, guidelines, and procedures regulating the scope, application, and selection processes. This BIRD GPM is complemented by a second document, the BIRD Grant Fiduciary Manual (BIRD GFM). The BIRD GFM sets forth rules, methods, guidelines, accountability aspects, implementation arrangements, and procedures regulating the execution of the selected research sub-projects.
9. This BIRD GPM document is composed of eight (8) sections:
 - 1) MUNIS BIRD Governance;

- 2) MUNIS BIRD Grant Funding Principles;
 - 3) Proposals Eligibility Principles;
 - 4) Evaluation and Admissibility Principles;
 - 5) Award and Grant Agreement;
 - 6) Monitoring and Evaluation;
 - 7) Closing;
 - 8) Annexes.
10. The purpose of providing BIRD matching grants is to identify the commercial viability of applicants' ideas, finance them for the purpose of licensing technologies, forming start-up companies, and/or selling high-tech products, taking into account the best international experience.
 11. BIRD pursues the following objectives:
 - 1) Build and strengthen systemic partnerships between industry, research institutes, and universities for technology development and transfer to address systemic problems in manufacturing sectors.
 - 2) Stimulate SME's investment activity in R&D and private research organizations of high-quality R&D.
 - 3) Contribute to collective efforts to develop new technologies in areas of national importance.
 - 4) Cooperate with leading international research centers and global businesses.
 12. The BIRD program will finance matching grants for sub-projects to support (i) later stages of research commercialization, (ii) R&D for SMEs, and (iii) early stages of knowledge-based startups. In addition to SMEs, potential beneficiaries can include sub-projects that graduate from the REP and RCP programs and require, for example, funding for the next stage, larger-scale prototyping, small-scale unit production for market testing; and independent inventors with knowledge-intensive ideas that require funding to develop their ideas further to the proof-of-concept and prototyping stages.
 13. The BIRD program is designed to specifically encourage science-driven R&D teams together with their business-driven private investors and partners to reach out and attract industry-driven business enterprises to participate with at least 25% co-investment commitment which will be required for the applicant to secure the BIRD matching grant funding.
 14. All information (including this document) related to the MUNIS Project and the BIRD is available at the project website: <https://wbgrants.uz/>.

1. MUNIS BIRD GOVERNANCE

15. The MUNIS Project is implemented within the framework of the FA between the Government of the Republic of Uzbekistan and the WB, signed on 17.05.2021. The FA has the status of an international treaty and therefore prevails over the national legislation of the Republic of Uzbekistan. Per the provisions of the FA, the Project Operation Manual (POM) for MUNIS adopted by the MHESI in June 2021 sets out the operational, fiduciary, and administrative procedures for the implementation of the MUNIS Project and all its components. In addition, following the FA provisions, each matching grant program financed under MUNIS will be regulated by the respective Grant Program Manual and the Grant Fiduciary Manual developed in line with POM and acceptable to WB.
16. Per the above-described framework, the MHESI is responsible for the MUNIS Project implementation arrangements and execution, creating and maintaining a set of administrative and management units defined within the project framework. Of special relevance to the BIRD are the following organizational structures:
 - 1) **The Project Implementation Unit (PIU).** The PIU provides day-to-day management and implementation of MUNIS activities following the procedures outlined in the POM. The PIU is also responsible for fiduciary activities, such as procurement, financial management, environmental and social compliance, reporting citizen engagement, project audits, maintenance, and updating the Project web portal.
 - 2) **The International Expert Board (IEB).** The IEB has two key roles: (i) advisory, for overall MUNIS Project implementation and (ii) evaluation of proposals received under grant programs including the award decisions and monitoring implementation of the supported BIRD sub-projects. IEB decisions are final and cannot be challenged. Acceptance of this arrangement is a condition for participating in the BIRD matching grant program. The IEB has the right to reject a grant application or suspend implementation of a BIRD sub-project, at any stage, based on, inter alia: a) a proven case of previous funding for the same activity b) fraud; c) change of all principal participants; d) lack of progress; e) misappropriation of funds; f) substantial deviation of the sub-project from the initially declared direction.
 - 3) **National Office for Implementation of Innovations and Technology Transfer Unit (TTU).** The MHESI established the TTU to provide full support for commercialization projects in terms of market sizing exercises, developing commercialization, sales, and marketing strategies, team building, investment attraction, and finance, presentational and pitching skills, as well as promoting research discovery results through forums, international fairs, and exhibitions, and assist in the technology transfer.
 - 4) **International Expert Platform (IEP).** International experts for independent scientific and technological evaluation of matching grant proposals will be engaged for the Call for Proposals (CfP). Proposals will be subject to the evaluation process before IEB review, assessment, and a final award decision.
17. This Grant Program Manual regulates the BIRD matching grant program all aligned with the FA, the POM and is satisfactory to the WB.
18. Non-disclosure – all information that is provided in a proposal under the MUNIS Project will be treated in a confidential manner and will not be disclosed to third parties.

2. MUNIS BIRD GRANT FUNDING PRINCIPLES

2.1. Grants funding criteria

19. The applicant ensures the completeness and accuracy of submitted initial data, calculations, and justifications indicating the sources of data used in the proposal.
20. Selection is based on two core principles: (i) technological readiness, and (ii) commercial potential of the proposal.
21. The following criteria apply to the selection of proposals:

Technological criteria

- Research excellence and degree of novelty
- Feasibility of planned activities
- Readiness of the proposed solution
- Assessment of technical and product-scaling risks and mitigations

Commercial criteria

- Market Opportunity for the proposed solution
- Qualifications of the team
- Product and Competitive analysis and IP
- Assessment of project budget

22. Proposals can be of a multi- or interdisciplinary nature, crossing the boundaries between different fields of research, including pioneering proposals addressing new and emerging fields of research or proposals introducing unconventional, innovative approaches and scientific inventions.
23. The BIRD intends to promote broad outreach and participation, encouraging applications related to any field of industry.
24. As a result of completing implementation of a BIRD sub-project, the sub-projects are expected to achieve the following results stated below:
 1. Development of an Industrial prototype of the proposed product and/or technology
 2. Provision of field trials of the proposed product and/or technology
 3. Small-scale industrial production and/or licensing agreement with an industrial partner
 4. Preparation of technical documentation for the proposed products and/or technology (according to National Standards)
 5. Provide patent search for determination of intellectual property (IP) strategy
 6. Filing a patent application on national and/or international levels (as needed)
 7. Business plan and other materials (presentation, financial model, teaser/project resume, internal corporate documentation) on the proposed product/technology for further development
 8. Commercialization of the product or service within the scope of the sub-project, such as sales and/or licensing deals and/or attracted investments, amounting to a minimum of 10% of the matching grant amount

2.2. Requirements for BIRD applicants

25. The BIRD applicant is the Chief Technology Officer of the proposal.
26. The BIRD applicant must have a Co-financing Partner (CP) who provides co-financing for the sub-project in the amount of not less than 25% of the Matching Grant amount. The co-financing can be in

the following forms: as a direct investment in share capital (private equity), as a convertible loan to the matching grant recipient, as a non-refundable provision (grant), as a stock option purchase agreement, or a combination thereof. NB! A loan to the company must not be guaranteed by the material assets obtained with the matching grant funding. For example, equipment purchased with the matching grant funding can't be used as collateral for the loan re-payment.

27. Applicants must have a project team that implements the sub-project and are required to fill out the team members' roles and responsibilities form.

28. Requirements for BIRD sub-project team:

1) The sub-project team must be staffed with no more than 12 people, and the involvement of key members of the sub-project team in the implementation of the sub-project should be a minimum of 50% of their working time. If the sub-project team size is exceeded, it requires justification and approval by the IEB. Members of the sub-project team may not be included in more than two proposals. However, a CTO can be only in one sub-project but may hold any other position in another sub-project after it has been awarded.

2) The team's mandatory members (key staff) will include:

1) A Chief Technology Officer (CTO) – is an individual, a citizen of RUZ, who takes leadership for the practical implementation of technology development in a commercialization sub-project, including but not limited to, the recruiting, training, and oversight of research assistants, as well as for the overall administration and reporting. A CTO must have already shown research independence and evidence of maturity, for example, by having produced several significant publications and/or patents as a principal or corresponding author.

2) A deputy CTO (DCTO) – is a senior executive responsible for assisting the CTO in managing and implementing technology strategies and in the absence of CTO, takes leadership for a sub-project, including but not limited to, the recruiting, training, and oversight of research assistants, as well as for the overall research administration and reporting.

3) A Business Development Manager (BDM) – is a senior executive responsible for managing and implementing commercial strategies of the sub-project. The BDM must have at least 5 years of business experience with practical experience in conducting market research and negotiations with potential clients/partners, forming a marketing strategy, commercialization roadmap, and business model, and ensuring that sales and/or licensing deals are achieved.

2.3. Requirements for BIRD Grantee (GR)

29. The GR can be a newly established startup company created in RUZ in the form of a limited liability company specifically for the purpose of the sub-project or existing for-profit company, resident of the RUZ. The existing for-profit company GR must be classified as a micro, small, or medium enterprise according to national legislation and must not be bankrupt or insolvent, in the process of liquidation, declared bankrupt by a court decision, whose property has been seized, and/or whose economic activity has been suspended.

30. The founders of the GR must include the CTO and may include other team members. NB! The role of a CEO of the GR can be performed by either the CTO or BDM or a representative of the co-financing partner.

31. A majority (more than 50%) of equity of the GR must be directly owned and controlled by one of the following:

1) One or more individuals who are citizens or permanent resident aliens of the RUZ;

- 2) For-profit business entities (each of which is directly owned and controlled by individuals who are citizens or permanent resident aliens of the RUZ);
 - 3) A combination of (1) and (2) above.
32. The GR must ensure that the sub-project CTO and staff are its employees or contractors at least for the duration of the BIRD-funded sub-project. Key staff (CTO, DCTO, BDM) changes must be coordinated with PIU and subject to IEB's agreement.
 33. The GR must have rights for an IP that is planned to be used during the implementation of the sub-project. The GR must present evidence of possessing the IP rights or provide the letter of intent from PRO or HEI on readiness to transfer existing IP to GR regarding the IP that is planned to be used during implementation (per Annex C). The upcoming research discovery results (IP) during the implementation of the sub-project must be registered on the GR.
 34. The implementation of sub-projects approved for financing must primarily be carried out on the territory of the Republic of Uzbekistan. Funds allocated under matching grant funding must be used for the purposes specified in the proposal.
 35. Co-financing must be provided in the form of monetary contributions. Any procurement of goods, services, or works using co-financing funds must adhere to the procurement procedures described in the BIRD GFM.
 36. Contribution in kind, such as equipment, machinery, land, buildings, facilities, etc. will be considered as a significant advantage of the proposal, but will not be accounted into the 25% co-funding threshold.

2.4. Funding

37. Funding for BIRD matching grants may be up to US \$600,000 per sub-project.
38. The maximum period for the implementation of a sub-project should not exceed 24 months from the date of signing the Grant Agreement.
39. The BIRD Program will allow for the flexibility to establish lower maximum values to encourage more participation. Resources will be defined based on specific needs and activities planned. The IEB, based on the evaluation of the proposal, may recommend different budget targets (recommendations, guidelines, limits) depending on the research field and industry.
40. Joint proposals (involving researchers from the private sector; international researchers; scientists or experts from the Uzbek Diaspora) are encouraged.
41. Payment of the costs related to any tax and other obligatory payments to the budget from matching grant funds is prohibited and must be covered by the co-financing partner.

BUDGET JUSTIFICATION (for total sub-project sum)

42. The matching grant proposal may request funds under any of the categories listed below if the item and amount are necessary, reasonable, allocable, and allowable. Procurement of goods, works, and services must also be carried out following the World Bank's procurement guidelines as described in the BIRD GFM.

Staff

43. The team of GR is a group of individuals who work based on employment contracts or service agreements. The below remuneration is calculated for full-time work. In the case of part-time personnel engagement, the compensation is reduced proportionally. The total payroll remuneration costs shall not exceed 50% of the matching grant amount.

- 1) CTO and DCTO remuneration must not exceed US\$3000 per month, including taxes, fees, and other mandatory payments to the budget, and be pro-rated in case of part-time and/or parallel employment;
 - 2) Remuneration of BDM shall not exceed US\$2500 per month, including taxes, fees, and other mandatory payments to the budget, and be pro-rated in case of part-time and/or parallel employment;
 - 3) Remuneration of other team members shall not exceed US\$1500 per month, including taxes, fees, and other mandatory payments to the budget, and be pro-rated in case of part-time and/or parallel employment.
44. Revealing the facts of fictitious registration of contracts, and overstating the actual salaries can lead to the complete termination of funding and the return of matching grant funds.

Equipment

45. The applicants should provide cost justification for each piece of equipment and describe how it will be used (e.g., list specific project tasks). The cost of equipment can include installation, assembly, tuning, launching, certification, and maintenance costs. The installation and operation of the equipment should conform to the standards and requirements of RUZ.
46. The requirements for the equipment to be purchased:
- 1) Must be new and conform to the objectives of the sub-project;
 - 2) Must contain all the necessary units and components;
 - 3) The cost should include the cost of delivery, installation, and maintenance of the equipment for the entire period of the sub-project;
 - 4) It should be possible to dismantle and re-install the equipment without significant cost losses;
 - 5) The equipment must ensure the quality of production that complies with RUZ or international standards;
 - 6) The equipment purchase must be accompanied by a warranty and post-warranty service, staff training, the availability of prompt repairs, troubleshooting, etc.;
 - 7) The installation and operation of the equipment must comply with the environmental standards and the requirements of RUZ and the World Bank.
47. The equipment purchased at the expense of Matching Grant funds should be used exclusively for sub-project purposes during the implementation period. The total costs of equipment shall not exceed 80% of the matching grant amount.

Travel expenses

48. Local and overseas business travel. Travel expenses may include accommodation, transportation, and per diem costs, as well as visa and consular fees, conference/exhibition registration fees, and other reasonable travel expenses. All trips must be coordinated with and approved by PIU. A preliminary travel plan with a cost estimate should be provided at the time of proposal submission. All travel costs must be aligned with the requirements prescribed by the local legislation.

Materials and supplies

49. This category relates to the purchase of supplies, consumables, and raw materials that are necessary for the implementation of the sub-project.

IP protection

50. The Matching Grant covers the costs associated with the protection of intellectual property rights obtained as a result of the sub-project.
51. The matching grant covers costs associated with the protection of intellectual property such as copyright and related rights, trademark rights, service marks and appellations of origin, patents, and other intellectual property obtained as a result of the Matching Grant's implementation. The costs can include:
- 1) The patent fee paid for the performance of legally significant actions related to the provision of legal protection to inventions, utility models, industrial designs, breeding achievements, topologies of integrated circuits, programs for electronic computers or databases, including registration of agreements on the transfer of intellectual property rights (according to points 10, 11, 13 and 15 of the APPENDIX to the Law of the Republic of Uzbekistan « ON STATE DUTY», 06.01.2020, № LRU-600) - without competitive procurement process.
 - 2) Payments for the services of patent attorneys certified in accordance with national legislation (Resolution of the Cabinet of Ministers of the Republic of Uzbekistan, dated July 1, 2003, No. 298) - through a competitive procurement process.
 - 3) Payments for the services of patent attorneys certified in other countries in case of foreign patenting - through a competitive procurement process.

Third-party services

52. This category relates to the acquisition of professional and consulting services of third parties, which are not included in the team. Procurement of services necessary for the implementation of the sub-project is allowed. Acquiring services at clearly overpriced prices, as well as acquiring services from providers without appropriate permits in the area of licensing and certification is prohibited. The total costs of Third-party services shall not exceed 30% of the matching grant amount.

Marketing services

53. This category can be covered only from co-funding and include expenditures for marketing research and promotional activities for a product/technology; it can be independent companies providing assistance in getting products to their target markets; they include marketing research agencies, advertising agencies, sales promotions specialists, marketing consultants, etc.

Rental of equipment and premises

54. Equipment or lab and office space can be rented exclusively for Matching Grant objectives and related activities.

Overhead and other expenses

55. This category is used to finance other expenses related to the implementation of the sub-project. Taxes, fees, transportation costs, customs clearance (services of customs brokers), and storage must be covered by co-financing funding. Overhead expenses must not exceed 10% of the total matching grant amount as prescribed by the BIRD GFM.

Ineligible expenses

56. Unallowable expenses that cannot be expensed include:

- 1) Payment of bonuses, benefits, compensation, financial aid, interest, or debt owed to any third party;
 - 2) Tobacco products, alcoholic beverages, weapons and military equipment, gambling, entertainment, amusement;
 - 3) Expenses and provisions for possible future losses or debts;
 - 4) Expenses that have already been funded by another state program or company/organization;
 - 5) Losses in currency exchange, commissions, and fines;
 - 6) Memorabilia, including models, gifts, and souvenirs;
 - 7) Salary compensation that exceeds the allowable limit as indicated above;
 - 8) Commercial and/or medical insurance costs;
 - 9) Acquisition of land, real estate, or transportation vehicles;
 - 10) Other goods, works, and services not related to project implementation.
57. If any expenditures found in the application exceed the limits established by this Manual or fall under the category of ineligible expenditures, these funds are not accepted for expenditure and are not subject to reimbursement.

2.5. Ethics

58. Every sub-project funded by the MUNIS is subject to an ethics review process.
59. The process is aimed at ensuring that all the research and innovation activities under MUNIS comply with applicable Uzbekistani and international laws, as well as with the following core science & research ethical principles:
- 1) **Honesty:** ensure honesty in all forms of scientific communication with colleagues, sponsors, and the public.
 - 2) **Objectivity:** avoid bias in all aspects of research.
 - 3) **Integrity:** maintain consistency of thought and action.
 - 4) **Carefulness:** avoid errors or negligence at all times.
 - 5) **Openness:** share information about your research and be open to criticism and new ideas.
 - 6) **Transparency:** disclose all the necessary information needed to evaluate your research.
 - 7) **Accountability:** be responsible for all concerns related to your research.
 - 8) **Intellectual property:** avoid plagiarism, give proper credit to all contributions in your research, and honor all forms of intellectual property.
 - 9) **Confidentiality:** protect and safeguard all confidential information recorded in your research.
 - 10) **Responsible publication:** publish for the sole reason of advancing the knowledge in your field.
 - 11) **Responsible mentoring:** help and mentor other researchers and promote their welfare.
 - 12) **Respect for colleagues:** respect and treat all your colleagues fairly.
 - 13) **Social responsibility:** aim to promote social good through your research.
 - 14) **Non-discrimination:** avoid discrimination in all forms against colleagues.
 - 15) **Competence:** improve your competence and promote the competence of science as a whole.
 - 16) **Legality:** obey all relevant laws and policies.
 - 17) **Animal care:** respect and care for all animal species.
 - 18) **Human subjects' protection:** respect human dignity and take special precautions wherever needed.
 - 19) **Effectiveness:** put all efforts to reach set objectives.
 - 20) **Efficiency:** achieve more output with less input.
 - 21) **Economy:** put all due efforts to save the matching grants funds.

60. The ethics review procedure concerns all sub-projects funded by the MUNIS Project. The applicants should pay particular attention to the ethical aspects of the proposed work.

2.6. Environmental and Social Framework

61. The WB Environmental and Social Framework (ESF) is the primary guidance that ensures compliance with the requirement of environmental and social protection policies in the MUNIS project implementation process. Specific details about ESF applicable compliance processes and requirements will be part of each CfP guidance and instructions.
62. BIRD matching grant proposal needs to be prepared taking into account the requirements set in World Bank Environmental and Social Standards (ESS) which are an integral part of the World Bank's ESF. Only the requirements of ESS 1, 2, 3, 4, and 10 are relevant under the MUNIS Project.
63. All BIRD matching grant proposals will be screened by PIU based on the ESF, which outlines the guiding principles of environmental screening, assessment, review, management, and monitoring procedures. The environmental and social due diligence procedures identified in the ESF comply both with the Uzbek national laws and regulations, as well as the World Bank's Environment and Social Framework.
64. All proposals will also be checked for compliance with the Environmental and Social Commitment Plan (ESCP) of MUNIS which sets out material measures and actions, any specific documents or plans, as well as the timing for each of these.
65. PIU environmental and social staff will carry out a rapid assessment of the likely environmental and social risks and impact, which will be based on the requirements of national legislation and WB ESSs, completing the screening form presented in Annexes 3 and 4 of the Environmental and Social Management Framework (ESMF) prepared for the MUNIS Project. Project activities will be also checked against WB criteria for High-Risk Projects mentioned in Annex 2 of ESMF. This will make it possible to identify the type and scale of potential environmental impacts and determine to which risk category the sub-project should be attributed. Generally, the significance of impacts, and risks, that contribute to resulting environmental and social risk will depend on the *type* and *scale* of the sub-project, its *location*, *sensitivity* of environmental and social issues, and the *nature* and *magnitude* of potential risks and impacts.
66. According to the ESMF of the MUNIS Project, each proposal will be evaluated within the frame of four main categories: Low, Moderate, Substantial, and High. The proposals screened under "Substantial" or "High" Environmental and Social Risks will not be financed by the MUNIS Project. The categories assigned to sub-projects will be subject to World Bank approval before signing the Grant Agreements.

2.7. Call for Proposals

67. The BIRD matching grant applications can only be submitted in response to a "Call for Proposals (CfP)" and only via the online submission service. BIRD matching grant CfP will be announced and published on the MUNIS project website, other web platforms chosen by the PIU, and selected media. To enrich the competition, the matching grant competition will receive considerable media promotion.
68. The PIU can announce indicative dates for the opening of the CfP, as well as respective deadlines. The definite dates are published during the opening of the CfP.
69. Main stages of matching grant application review and award:
- 1) Call for Proposals / Proposals submission
 - 2) Formal compliance check
 - 3) Technological evaluation by IEP
 - 4) Commercial evaluation and shortlisting by IEB

- 5) Pitching session of shortlisted proposals for IEB
 - 6) Protocol of winners
 - 7) Acceleration program
 - 8) Grant agreement signing
70. With a view to smooth planning of the evaluation and the planned time limits for informing applicants of the outcome of evaluations, the CfP requires applicants to go through an online registration stage. Applicants will be informed of what information they need to provide. They will also receive guidance and key references about supporting documents like the GFM, the WB ESF, and the Grant Agreement model for the BIRD matching grants.
71. The applicant accepts responsibility for the correctness of the submitted initial data, calculations, and justifications given in the proposal. If the information is inaccurate, the proposal may be rejected from further consideration. The applicant bears all costs for preparing and submitting the proposal independently.

2.8. Deadline for submission of grant proposals

72. Proposals should be submitted by the deadline, established in the CfP.
73. The deadline established in the CfP will be set for 60 business days.

3. PROPOSALS ELIGIBILITY PRINCIPLES

74. Each BIRD matching grant CfP establishes specific eligibility criteria. Proposals should meet all eligibility criteria in alignment with the set of principles defined in this section, in the GFM and the specific matching grant CfP.
75. A minimum list of required documents:
- 1) An application form completed as per Annex A of this Manual with the attached implementation plan, responsibility matrix of all team members, cost estimate, procurement plan, and supporting documents for budget justification;
 - 2) Letter of guarantee from co-financing partner per Annex B;
 - 3) Certificate of registration of co-financing partner;
 - 4) Certificate of registration of potential GR (for existing company);
 - 5) Letter of intent from PRO or HEI on readiness to transfer existing IP to GR (per Annex C);
 - 6) Technology/product/service commercialization concept presentation;
 - 7) Supporting documents of qualification and scientific (or academic) degree of all team members, starting with the CTO, and assembled into one PDF attachment;
 - 8) List of publications indexed by Web of Science or Scopus on the sub-project topic (if applicable);
 - 9) Existing IP rights that are planned to be used during the implementation of the sub-projects (if applicable).
76. Additional documents:
- 1) memorandum of cooperation with partners or potential customers assembled into one PDF file;
 - 2) letters of interest in a product/service or technology assembled into one PDF file;
 - 3) other supporting documents assembled into one PDF file.

3.1. Eligible Chief Technology Officer (CTO)

77. Proposals must be submitted by eligible CTOs. A CTO should name a Deputy CTO (DCTO) who can replace him/her in leading the sub-project in case of unforeseen circumstances.

78. The scientific achievements of the CTO will be evaluated based on the publications, participation in the implementation of international grants, recommendations from international colleagues, and experience of scientific cooperation with research teams with an international reputation. The CTO needs to have the skills of management and implementation of projects.
79. MUNIS BIRD matching grants are open to CTOs from local PROs or HEIs, who intend to conduct their activity. The team can be of national or transnational character. Matching Grant proposals are submitted by the CTO taking responsibility for the sub-project. Participation of female researchers and female-led sub-projects will be encouraged.

3.2. Language of proposals

80. The sub-project proposal must be written and submitted in English. As an option, an Uzbek or Russian version can be also submitted together with the English version. Due to the international nature of the review process, the English version will be considered the main version of the proposal.

3.3. Submission restrictions

81. An individual may participate as a CTO in only one MUNIS commercialization sub-project after the matching grant is awarded at any time.
82. If a CTO applies to more than one MUNIS call (i.e., from the same 'call year'), only the first eligible proposal will be evaluated, as other proposals will be declared ineligible.

4. EVALUATION AND ADMISSIBILITY PRINCIPLES

4.1. International evaluation platforms

83. The MUNIS project relies on independent national and international experts to ensure that only proposals of the highest quality are selected for funding. The PIU will be responsible for the identification, selection, and hiring, following FA and POM guidance, of independent reviewers at the different BIRD stages. The PIU will set out the applicable conditions, including the code of conduct, and provisions on conflicts of interest.
84. The IEP is responsible for maintaining confidential information contained in the proposal, and a conscientious and impartial attitude to the evaluation process.

4.2. Proposal evaluation process

85. The evaluation is conducted to determine the novelty, technological feasibility, readiness of technology/product, and the sub-project economic feasibility, as well as the potential of business activities of the proposals.
86. The evaluation process includes the following stages:
- 1) Formal compliance check, as stipulated in section 3
 - 2) Technological evaluation of proposals by IEP
 - 3) Commercial evaluation and Shortlisting of proposals by IEB
 - 4) Pitching session to IEB
87. The formal compliance check of proposals is conducted by PIU within 5 business days. If the documents submitted are incomplete, the proposal is returned by email with revision reasons to the applicant for the amendment and resubmission within 3 business days with detailed explanations. If after revision the proposal is still incomplete, the proposal is rejected and PIU emails the applicant about the rejection reason.

88. The formal compliance check procedures include reviewing proposals to exclude cases of possible financing of the same projects by the same authors from budget funds and other grant programs as well as possible plagiarism of other authors' research work.
89. After the formal compliance check, the proposals are sent to the IEP for technological evaluation, which should be performed according to the Technological Evaluation form described in Annex D. The technological evaluation by the IEP should not exceed 50 business days.
90. It is not allowed for a proposal to be assessed by an expert who was directly involved in its preparation, or who is an affiliate of the applicant.
91. After receiving the evaluation from IEP, within 2 business days, PIU forwards the proposals that received a technological evaluation score of > 50 to IEB for the combined evaluation of the technological and commercial merits of the proposal. IEB evaluates and scores the proposal according to Technological and Commercial evaluation forms described in Annex D and within 20 business days provides a short list of proposals that scored > 60. These proposals will be invited to a pitching session.
92. According to the Environmental and Social Management Framework of the MUNIS Project, after the technological evaluation and within 20 business days, the PIU will conduct evaluation of the shortlisted proposals under four main risk categories: Low, Moderate, Substantial, and High. The proposals assessed as having "Substantial" or "High" Environmental and Social Risks will not be financed by the MUNIS Project.
93. Applicants must be notified by PIU through e-mail or the Project website about the admission or rejection to the pitching session within 2 business days from the date of submission of the shortlist by IEB.
94. The IEB hearing of applicants (pitching) can take place either in person or by videoconference. Each applicant should present the technological and commercial strategy of the proposal in a 10-minute presentation, which is followed by a 10-minute Q&A session. Both the presentation and the Q&A session are performed in English. If needed, the presenter can use the help of an English translator, but the presentation and Q&A sessions will be restricted to 20 minutes.
95. Each presentation will be evaluated and an evaluation report with strengths and weaknesses of the proposal will be prepared by the IEB. Based on the results of the pitching and the following Q&A, IEB will identify the best proposal and prepare a signed protocol of winners.
96. A list of the awarded proposals will be published on the Project website and communicated to selected applicants with further instructions. All other applicants will receive feedback regarding their proposal status, including the detailed reasons for rejection.
97. IEB decisions are final and cannot be challenged. Acceptance of this rule is mandatory to participate in the BIRD matching grants program.
98. The complete application and evaluation process is presented in Annex E of this Manual.

5. AWARD AND GRANT AGREEMENT

99. The PIU will ensure timely and transparent publication of information about the announcement, application, evaluation, awarding process, and key documents like the Grant Agreement model, through the Project website.
100. Based on the final award decision of the IEB, the sub-project team must participate in a 10-day Acceleration Program provided by the TTU and TA team. Acceleration Program intended for preparation of the GR for implementation of commercialization sub-projects according to WB

standards as well as providing training sessions in terms of commercialization and IP strategy, market assessment, patent search, pitching, attraction of investment, certification, standardization, etc.

101. Before signing the Grant Agreements, the winners are requested to identify GR (new or existing LLC) and open separate bank accounts for matching grant funds and co-financing money. Co-financing money must be allocated to the bank account of the GR before each tranche of Matching Grant money.
102. Based on the final award decision of the IEB and approval of the MHESI, the PIU concludes Grant Agreements per Annex F with the GR. The Grant Agreement must be used in a standard form that is compliant with all relevant rules and procedures of the World Bank. The standard Grant Agreement form is not subject to change. In addition, negotiations are conducted with the GR on the terms of the funding schedule, and the size and frequency of tranches of financial resources. The financing schedule, size, and frequency of tranches for the implementation of the sub-project must be harmonized with the financing schedule of the PIU.
103. The IEB's final award decision may include conditions to be accepted by the GR to receive funding. Such conditions can be the modification of the requested budget, the inclusion of additional activities, and other activities aiming at the improvement of the implementation of a sub-project.
104. Detailed matching grant implementation guidance will be included in the GFM and the Grant Agreement. Such mechanisms will strike the right balance between making the process less onerous on the GR and preventing wastage and fraud at the same time.
105. The Grant Agreement must be signed by the GR and the PIU no later than 20 business days from the date of signing the protocol of winners. If the Grant Agreement is not signed within the specified period, except for force majeure circumstances and PIU delays, the decision to allocate a matching grant will be declared invalid.

6. MONITORING AND EVALUATION OF SUB-PROJECTS

106. The GR should maintain basic financial and accounting controls required to keep records of the BIRD matching grant funds utilization, supported by the financial specialist/accountant in the sub-project team or outsourced contractor, satisfactory to provisions of the GFM. The PIU's procurement and financial specialists will guide (advise) GR in order to provide full compliance with applicable WB grant management rules.
107. Any changes to the sub-project objectives or procurement plan during its execution require IEB and PIU approval as per the Grant Agreement.
108. Matching Grants may be subject to external audit on the terms of references stated in the Grant Agreement.
109. Matching Grant implementation reports should be submitted to the PIU in the terms stated in the Grant Agreement.
110. Technical reports should be provided by the Grantee twice a year, within 15 days after the 6th month and 15 days after the 12th month of the reporting year. The final technical report needs to be presented within 30 working days from the date of completion of the sub-project. Semi-annual, annual, and final technical reports should contain all the relevant technical information on the implementation of the sub-project necessary for an objective evaluation of results. Financial control is conducted per each tranche and is divided into current and final audits. The PIU carries out regular monitoring of technical progress, and fiduciary compliance. The IEB evaluates the implementation progress of the awarded sub-projects through semiannual visits, prepared and facilitated by PIU. As a result of the progress, the IEB may recommend (conditional) continuation or suspension/cancellation of a given sub-project. A project may be suspended or canceled in the case of non-compliance with the requirements described in the BIRD GFM and Grant Agreement.

111. Detailed monitoring and evaluation guidance, and framework on administrative, financial, and technical aspects are included in the BIRD GFM.
112. When publishing scientific works, articles, or any public coverage during and/or after the completion of the sub-project, authors are required to refer to the WB and the received matching grant.
113. The PIU and TTU reserve the right to publish abstracts of the approved sub-projects (in printed or electronic forms) without requiring the consent of the author.

7. CLOSING

114. When completed, the grantee will provide feedback on the BIRD experience, learning, best practices, challenges, and potential improvement to the PIU as part of the sub-project completion report.
115. Detailed closing criteria, reporting, and legal and administrative processes are included in the Grant Agreement and BIRD GFM.
116. Hierarchy of Documents. In the event of any conflict or inconsistency among the following documents, the order of precedence will be:
 - 1) The Financing Agreement signed between the Republic of Uzbekistan and the International Development Association of the World Bank;
 - 2) MUNIS Project Appraisal Document;
 - 3) MUNIS Project Operations Manual;
 - 4) Grant Fiduciary Manual;
 - 5) BIRD Grant Program Manual;
 - 6) Grant Agreement.
117. Prevailing Language. In the event of a conflict between the two versions, the English version will prevail.

8. ANNEXES

Annex A – APPLICATION FORM

Annex B – LETTER OF GUARANTEE FOR CO-FINANCING

Annex C - LETTER OF INTENT TO TRANSFER OF IP RIGHTS

Annex D – EVALUATION FORMS

Annex E – BIRD PROGRAM SELECTION PROCESS

Annex F – GRANT AGREEMENT TEMPLATE

Annex A: Application form for the BIRD program

PARTICIPANT APPLICATION FOR THE COMPETITION “BUSINESS INVESTMENTS IN RESEARCH & DEVELOPMENT” (BIRD)

for the right to conclude a Grant Agreement with The Ministry Of Higher Education, Science And Innovations Of The Republic Of Uzbekistan (hereinafter referred to as the “MHESI”) for the implementation of the sub-project “_____”
(*name of the sub-project*).

(*name of the applicant*), PINFL _____,

submits an application to participate in the BIRD competition on the conditions established by the Matching Grant Program Manual and Grant Fiduciary Manual of the BIRD program.

BIRD SUB-PROJECT PASSPORT

FULL NAME OF APPLICANT (CTO):		
Citizenship	Degree/date of graduation	E-mail
Current workplace	Current position	Mobile phone number
TITLE OF THE PROJECT:		
ABSTRACT:		
Key words applicable for the project:		
INDUSTRY AREA	RESEARCH FIELD	
GRANT AMOUNT (\$)	CO-FINANCING AMOUNT (\$)	DURATION (months)
Deputy CTO (DCTO)		
FULL NAME:		
Citizenship	Degree/date of graduation	E-mail
Current workplace	Current position	Mobile phone number
CO-FINANCING PARTNER		
NAME OF THE PARTNER (COMPANY OR INDIVIDUAL)		NAME OF THE HEAD OF THE PARTNER (FOR COMPANIES)
Type of Co-financing Partner		<input type="checkbox"/> Industrial Partner <input type="checkbox"/> Financial Partner
CONTACT DATA: Tel: E-mail:		ADDRESS

By submitting an application to participate in the competition under the Business Investments in Research & Development program, I confirm that:

- a. the applicant is a citizen of the Republic of Uzbekistan;
- b. the applicant has not violated the rights of third parties to the results of intellectual activity and other intellectual property rights of third parties;
- c. the applicant provides reliable information contained in the documents provided as part of the application;
- d. the sub-project for which matching grant funds are requested has not been financed (previously or currently) from other budget sources;
- e. the proposed sub-project is aimed at implementing technologies for civilian use and does not contain information constituting a state secret;
- f. the research and innovation activities comply with applicable Uzbekistani and international laws, as well as with the core science & research ethical principles per para 59 of the BIRD GPM.

Applicant

_____ (*Full Name*)

1. Summary of the proposal (not to exceed one page, Arial font 11)

Please provide a summary of the proposal including the scope of work, what research discoveries and results were previously achieved, previous funding that was placed to achieve those results, what is planned to be achieved by the end of the current initiative, how you see the commercialization process of the final product/technology, etc.

Please identify your technology readiness level (TRL) that characterizes the maturity level of the proposed technology from idea to mass production expressed in a certain research discovery result and measured by relevant performance indicators.

The scale of TRL is a list of stages that contains various measurable indicators that allow assessing the readiness of the technology and characterizes the degree of development of the technology being developed to create the final product and industrial implementation.

The scale of TRL is represented in the following definitions:

TRL 1 – basic principles observed

TRL 2 – technology concept formulated

TRL 3 – experimental proof of concept

TRL 4 – technology validated in lab

TRL 5 – technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)

TRL 6 – technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)

TRL 7 – system prototype demonstration in an operational environment

TRL 8 – system complete and qualified

TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies)

A. Technological implementation of the sub-project

2. Research results proposed for commercialization (not to exceed 3 pages, Arial font 11)

It is necessary to provide a description of previously implemented scientific activity (including when, under what program or on an initiative basis, where, and the amount of funding).

The specific result that is proposed for commercialization is also indicated: models, layouts, samples of new products, materials and substances, technologies, new knowledge or solutions with graphic materials (photos, drawings, diagrams, etc.).

Prerequisites for the development of the project, justification for the novelty, with a mandatory review of previous scientific research conducted in the world related to the topic under study and their relationship with this project.

3. What problem does the proposed scientific result solve and how will it be commercialized? (not to exceed 2 pages, Arial font 11)

The purpose and objectives of the proposed work on technology commercialization must be stated concisely and clearly, corresponding to the subject of the announced competition. What product or service will be developed as a result of the project.

Here you must show:

- what market problem does the proposed technology solve?*
- How do you propose to solve this problem?*
- The demand and significance of the proposed technology for commercialization?*

In addition, it is necessary to indicate the degree of focus of the project on the creation of new production of goods with high added value, confirmed by reasonable quantitative data on the technical and economic characteristics of products and a description of markets.

What business strategy will you pursue in terms of the «market-pull» or «technology-push» approach? Will you be solving a specific pain-point / problem in a market (market-pull) or you will be creating a new product and a new market that never existed before (technology-push)? In case of market-pull, describe a specific problem that your project will be solving. In case of technology-push, describe what kind of new potential and/or benefits your customers will receive (new user experience, new business / production opportunity, economic / savings benefits, etc.)

B. Commercial implementation of the sub-project

4. Competition assessment and comparative description of the proposed product or service with existing analogues or substitutes on the market, indicating technical characteristics (not to exceed 4 pages, Arial font 11)

The section provides detailed information about the technical and consumer characteristics of the proposed product or service. In addition, it is necessary to conduct a comparative analysis with existing analogues and substitutes on the market.

It is important to identify potential competitors to the proposed solution by providing information on existing products or services or companies that provide substitute solutions. When providing competitors' assessment, please, note that competitors' product characteristics might improve in time; therefore, if you compare your future product parameters with existing completion today, that will not give you adequate comparative analysis. Please, use an appropriate approach to describe competitive landscape at the moment when your product will reach the market.

It is advisable that the following points be described in the proposal:

- 1) Availability of analogues and substitutes*
- 2) Competing companies*
- 3) Market price per unit of product and (or) service of a competitor*
- 4) The main target audience of the product and (or) service of a competitor*
- 5) The main advantage of the proposed solution compared to competitors*
- 6) Comparative analysis with competitors*

Comparative analysis

Index	Competitor 1	Competitor 2	Competitor N	Project
Indicator 1				
Indicator 2				
Indicator N				

Comparative analysis can be carried out for specific companies or products (or) services

In addition, if the development, production and sale of products or services require permits and certification procedures, then describe how the activities for obtaining and passing them will be organized (including time and financing).

5. Business model of the sub-project (not to exceed 1 pages, Arial font 11)

It is necessary to describe possible ways of commercialization through proposed business model of the project by answering the following questions:

- 1) *What will be sold as a result of the project: product, service, intellectual property (licensing contract, sale of a patent, other)?*
- 2) *When do you plan to start generating income from commercial activities?*
- 3) *When do you plan to raise capital for establishing mass production? Give a preliminary estimation of the amount of the next funding round for product/service scaling?*
- 4) *Do you plan to establish your own manufacturing or use contractual outsourced manufacturing?*
- 5) *Revenue projections. Future sales volume can be estimated as a potential market share when the business is at full scale and product / service is in mass production. See TAM-SAM-SOM terminology below.*

6. Market opportunities (not to exceed 4 pages, Arial font 11)

It is necessary to describe the Total Addressable Market (TAM), Serviceable Addressable Market (SAM), and Serviceable Obtainable Market (SOM) in order to define the customer and revenue opportunities within the market.

TAM represents the absolute maximum market size or potential revenue that a business can generate with their product or service. TAM does not take into account competition, geographical boundaries, marketing budgets, or any other market-narrowing constraints.

SAM is a subset of the Total Addressable Market, defined by the different segmentation approaches (demographics, geography, industrial segmentation, etc.) of your product niche. The Serviceable Addressable Market shows how big of a market segment exists that can be served by your product/service and business model.

SOM provides a realistic look at what share (%) of market a business can reasonably capture in the next 4 – 7 years. To calculate the SOM, businesses need to account for competition, marketing strategies, pricing plans, and other variables. The value of SOM in monetary terms will equal the projected sales volume of the business.

Description of the TAM, SAM and SOM of the potential market (characteristics and volume in units or monetary terms) indicating the source of information.

- 1) *What are the target markets for sales of products or services, identified by geographic, sectoral and other characteristics (what market share is planned to be conquered, volume in units or monetary terms).*
- 2) *Potential costumers (specifically the name of the companies, the field of activity, the expected volume of use of products (services), indicate a list of organizations with which there are preliminary agreements and (or) letters of intent).*
- 3) *Has the market been studied by identifying interest in products or services that can be produced using the developed solution? It is necessary to indicate the names of companies, organizations or individuals who have already documented interest in the product (service). If available, you must indicate a list of organizations that have expressed interest in the product or service.*

7. Description of risks and mitigation (not to exceed 2 pages, Arial font 11)

In this section, it is important to outline potential challenges that could hinder the attainment of the project's anticipated outcomes. This encompasses technical risks linked to the execution of a technical and/or technological solution, encompassing scenarios where technical implementation might not be feasible. Additionally, it includes production-related risks tied to the organization's production processes, such as issues with obtaining essential raw materials and the identification of environmental concerns. Furthermore, it is crucial to address prevailing regulations and legal prerequisites that may pose obstacles to market entry.

No.	Risk	Factors	Mitigation
1	<i>Environmental and Social</i>		
2	<i>Technological</i>		
3	<i>Economic</i>		
...			

8. Implementation plan (not to exceed 4 pages, Arial font 11)

The project schedule outline should include a roster of project tasks specifying the scheduled start and finish dates, the timeframe required for each task, the anticipated outcomes of each task's completion, and the team member(s) responsible for carrying out each task.

NOTE! The following data will be used as a base for the implementation plan in a Grant Agreement.

No	Stages & Activities	Start date	End date	Result	Responsible
1	<i>Stage 1</i>				
1.1	<i>Activity 1</i>				
1.2	<i>Activity 2</i>				
	...				
2	<i>Stage 2</i>				
2.1	<i>Activity 1</i>				
2.2	<i>Activity 2</i>				
	...				

9. Project team

It is necessary to describe the competence of the sub-project team by filling out the table for each member of the sub-project team.

FULL NAME	
Date of Birth	
Position in the sub-project	
Duration of employment in the project (months)	

Role and functions in project implementation		
Available diplomas, certificates, scientific degree etc.		
Education (name: university; specialty; academic degree (if available))		
WORK EXPERIENCE		
Position and name of organization	Work period	Responsibility and main results of the work
Participation in other relevant projects		
Publications, patents related to the project scope		

Expected responsibilities of the key project staff:

CTO of the sub-project:

- *Plan, coordinate, and execute sub-project activities*
- *Lead team to complete the sub-project within allotted timelines and budgets*
- *Develop and enforce policies and procedures*
- *Identify resources, people, processes, systems, and tools*
- *Create the plan to achieve the task – deliverables, measures, timescales, strategy and tactics*
- *Set standards, quality, time, and reporting parameters*
- *Perform day-to-day management of the sub-project team and address any team issues promptly*
- *Conduct team meetings to discuss project status and issues*
- *Monitor and maintain overall performance against the plan*
- *Report on progress towards the project's aim*
- *Act as primary contact for communications with PIU*

DCTO of the sub-project:

- *DCTO performs all or some of the CTO functions, but he/she does not accept primary responsibility for the project implementation. DCTO, under the supervision of the CTO, is responsible for performing related procedures and /or making important decisions in compliance with the ethical conduct of the project.*

BDM:

- *conduct market research*
- *prepare commercialization strategy*
- *form a marketing strategy*
- *prepare business model for possible commercialization ways*
- *conducts negotiations with potential clients/partners*
- *prepare marketing materials*
- *ensure that sales and/or investments are achieved*
- *cooperate with TTU staff in terms of project commercialization*

10. Third-party consulting services involved in the project

In the section, it is necessary to describe all specialists involved as third-party services.

No.	Involved specialist	Number of months	Role and functions in the project implementation
1			
2			
3			
...			

11. Questionnaire on intellectual property

1	EXISTING INTELLECTUAL PROPERTY	
1.1	Are there any documents of protection that protect the intellectual property of the project authors?	<input type="checkbox"/> - Yes <input type="checkbox"/> - No
1.2	Type of protected intellectual property (IP)	<input type="checkbox"/> invention <input type="checkbox"/> utility model <input type="checkbox"/> industrial model <input type="checkbox"/> selection achievement <input type="checkbox"/> computer programs <input type="checkbox"/> database <input type="checkbox"/> know-how <input type="checkbox"/> other (specify) _____
1.3	Type of security document	<input type="checkbox"/> innovative patent for an invention of the Republic of Uzbekistan <input type="checkbox"/> application for a patent for an invention of the Republic of Uzbekistan <input type="checkbox"/> patent for invention of the Republic of Uzbekistan <input type="checkbox"/> application for a patent for a utility model of the Republic of Uzbekistan <input type="checkbox"/> utility model patent of the Republic of Uzbekistan <input type="checkbox"/> Eurasian application <input type="checkbox"/> Eurasian patent for invention <input type="checkbox"/> international application (Patent Cooperation Treaty) <input type="checkbox"/> foreign patent (specify country _____) <input type="checkbox"/> certificate of state registration of the copyrighted object

1.4.	Number of the title of protection/application number	
1.5.	Priority date (application filing date)	
1.6.	Name of the IP	
1.7.	Authors of the IP	
1.8.	Patent holders/Copyright holders of IP	
1.9.	Protection document status	<input type="checkbox"/> - valid <input type="checkbox"/> - may cease to operate <input type="checkbox"/> - ceased to be effective, but can be restored <input type="checkbox"/> - ceased to operate
1.10	Who pays for maintaining the protection documents in force?	
1.11	If the result of intellectual activity is protected under the regime of undisclosed information (know-how), indicate whether the following are available:	<input type="checkbox"/> documents on the content of know-how (technical documentation: descriptions of technological processes, techniques, etc.) <input type="checkbox"/> documents establishing a trade secret regime, i.e. list of information constituting know-how, list of persons having access to it, regime of access to know-how and the obligation of persons familiar with it not to disclose it, provision on trade secrets, etc.; <input type="checkbox"/> documents on the commercial value of know-how, i.e. calculations of the actual economic efficiency of implementing know-how, production indicators before and after implementation, planned calculations of the efficiency of use, feasibility studies, expert opinions, etc.;
1.12.	Has a valuation of the IP been carried out (if yes, please indicate the cost)	
1.13.	Has the IP been registered as an intangible asset?	
1.14.	Within the framework of what work was the IP created?	<input type="checkbox"/> in connection with the performance of their job duties; <input type="checkbox"/> when performing work under a contract; <input type="checkbox"/> when performing work under a government contract; <input type="checkbox"/> when performing work under a grant <input type="checkbox"/> when performing initiative work <input type="checkbox"/> other (specify) _____

1.15.	Are there any restrictions on the use of intellectual property?	<input type="checkbox"/> agreement of intent, <input type="checkbox"/> concluded license agreements, <input type="checkbox"/> open license statement, <input type="checkbox"/> a statement with a public offer to conclude an assignment agreement <input type="checkbox"/> - other (specify) _____
2	INTELLECTUAL PROPERTY CREATED WITHIN THE PROJECT	
2.1.	Are there any plans to create new IP during the implementation of the project?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.2.	If yes, indicate the proposed IP	<input type="checkbox"/> invention <input type="checkbox"/> utility model <input type="checkbox"/> industrial model <input type="checkbox"/> selection achievement <input type="checkbox"/> computer programs <input type="checkbox"/> database <input type="checkbox"/> know-how <input type="checkbox"/> other (specify) _____ _____
2.3.	The proposed method of protecting the created IP	<input type="checkbox"/> patent for invention of the Republic of Uzbekistan <input type="checkbox"/> - utility model patent of the Republic of Uzbekistan <input type="checkbox"/> - Eurasian patent <input type="checkbox"/> - international application (Patent Cooperation Treaty) <input type="checkbox"/> - foreign patent (specify country/s) _____ <input type="checkbox"/> - as an object of copyright <input type="checkbox"/> - mode of undisclosed information (know-how)
2.4.	How do you plan to use the created IP?	<input type="checkbox"/> in own production <input type="checkbox"/> conclusion of a license agreement <input type="checkbox"/> conclusion of outsourced production agreement <input type="checkbox"/> conclusion of an assignment agreement <input type="checkbox"/> - other (specify) _____
3	LEGAL RELATIONS	
	<i>Exclusive rights to existing intellectual property objects belong to the Institute/University</i>	
3.1.	Indicate the availability of contracts for existing IP	<input type="checkbox"/> employment contract (Institute/University) – Author of the IP The agreement reflects the distribution of rights to the created intellectual property:

		<input type="checkbox"/> Yes <input type="checkbox"/> No There is a provision for payment of royalties <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> work contract (civil contract): if the Author participated in the creation of the IP not at his main place of work The agreement reflects the distribution of rights to the created intellectual property: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> written order/assignment of the Employer to create an IP <input type="checkbox"/> agreement between co-authors on the distribution of royalties <input type="checkbox"/> agreement between patent holders on joint patenting and use of IP (if there is more than one patent holder)
	<i>Exclusive rights to existing intellectual property objects belong to the Author/ s</i>	
3.2.	If the IP was created using the material and technical resources of the Institute/University where the authors work, please indicate the availability of:	<input type="checkbox"/> a document confirming the non-official nature of the IP <input type="checkbox"/> agreement (notification, letter, etc.) confirming the granting of the right to the author to receive a title of protection, <input type="checkbox"/> agreement for the transfer of the exclusive right to the official IP to the Author, <input type="checkbox"/> another document confirming the refusal of the Institute/University to claim exclusive rights to the intellectual property

12. Available resources for implementation of the project

In this section, it is needed to provide details about the technical resources that are accessible and will be utilized during the project's execution. Furthermore, in the table below, it is essential to specify the proprietor of each item and the rationale for its utilization in the project's implementation.

No	Object with technical characteristics	Units	Qty	Owner	Location	Basis for use in the project (rental contract, partnership agreement, etc.)
1	Production premises	(m ²)				
2	Office space	(m ²)				
3	Production equipment					
3.1	Equipment 1					
3.2	Equipment 2					

	...					
4	Consumables					
4.1	Consumable 1					
4.2	Consumable 2					
	...					

13. Budget of the project

Please identify the necessary funding required in US dollars through different sources (grant and/or co-financing) in order to achieve the goals of the project by using the following tables.

NOTE! The following data will be used as a base for financial and procurement plan in a Grant Agreement.

Total budget of the sub-project

№	Expenses	Grant amount	Co-financing amount	Total
1	Staff			
2	Equipment			
3	Travel expenses			
4	Materials and supplies			
5	IP protection			
6	Third-party services			
7	Rental of equipment			
8	Rental of premises			
9	Marketing expenses			
10	Overhead and other expenses			
11	Audit			
12	Taxes and other obligatory payments			
	Total			

Grant budget of the sub-project

№	Expenses	1 year	2 year	Total
1	Staff			
2	Equipment			
3	Travel expenses			
4	Materials and supplies			
5	IP protection			
6	Third-party services			
7	Rental of equipment			
8	Rental of premises			
9	Overhead and other expenses			
10	Audit			
	Total			

Co-financing budget of the sub-project

№	Expenses	1 year	2 year	Total
1	Staff			
2	Equipment			
3	Travel expenses			
4	Materials and supplies			
5	IP protection			
6	Third-party services			
7	Marketing expenses			
8	Rental of equipment			
9	Rental of premises			
10	Overhead and other expenses			
11	Audit			
12	Taxes and other obligatory payments			
	Total			

Staff of the sub-project

№	Full name	Position in the project	% of participation	Qty of months in the project	Salary per month (\$)	Remuneration fund		
						1 year	2 year	Total
1		CTO						
2		DCTO						
3		BDM						
4								
5								
6								
7								
	Total:							

Procurement plan of the sub-project

Expenses	Qty of units	Price Per unit	Total	Grant and/or co-financing*
Equipment				
1.				
2.				
...				
Materials and supplies				
1.				

2.				
...				
IP protection				
1.				
2.				
...				
Third-party services				
1.				
2.				
...				
Rental of equipment				
1.				
2.				
...				
Rental of premises				
Marketing expenses				
1.				
2.				
...				
Overhead and other expenses				
1.				
2.				
...				

** the source of funding can be grant funding or co-funding or either both. In case of combined funding please specify amounts for each source.*

14. Used sources of information

It is necessary to indicate a list of information sources used, links to which must be indicated in the text of the proposal.

Each source must contain the full name of the source, the full name of the article, book, journal, etc., year of publication, page numbers, and names of authors.

Annex B: LETTER OF GUARANTEE FOR CO-FINANCING

On the company's letterhead
indicating the date and reference number.

TO WHERE

LETTER OF GUARANTEE

By this letter _____, INN /ID _____,

(name of co-financing partner)

Represented by _____

(position, full name of the head or authorized person)

guarantees co-financing of the BIRD sub- project on the topic

(sub-project topic proposed by the Applicant)

declared for the competition " _____ " , in the amount of not less than

_____ (*amount in words*) US dollars.

_____ have been identified as sources of co-financing ¹.

Head of the enterprise _____ *(name)*

(signature, stamp)

Attachment ²:

1. ...

¹Possible options for co-financing the project:

- the enterprise's own funds;
- investor funds;
- borrowed funds from an individual and (or) legal entity;
- funds received under loan agreements concluded with credit institutions for the purpose of project implementation.

It is possible to use either one of the proposed options or a combination of them. In this case, the total volume of extrabudgetary funds must be at least 15% of the Matching grant amount.

²The following documents may be submitted as evidence of co-financing:

- minutes of the general meeting (decision) of the founders or shareholders of the specified enterprise on investing the enterprise's own funds in the implementation of the project;
- documents confirming the investor's solvency (financial statements for the last calendar year or a current account statement confirming the presence in the investor's current account of the entire amount specified in the investment agreement);
- documents confirming the solvency of the lender (financial statements for the last calendar year or a bank account statement confirming the presence in the lender's current account of the entire amount specified in the loan agreement);
- loan agreement concluded with credit institutions for the purpose of project implementation;
- other documents.

Annex C: LETTER OF INTENT TO TRANSFER OF IP RIGHTS

On the letterhead of the organization

Letter of intent to transfer of intellectual property rights

This Letter of intent (LOI) is made on the date first above written between:

(1) Name _____ (the "Institute");

(2) Name _____ (the "Scientist");

hereinafter collectively referred to as the "Parties" and individually as a "Party".

WHEREAS

The Parties intend to negotiate in good faith for the purposes of entering into a set of agreements and/or execution of a set of legal and/or other actions in order to implement of research commercialization project (the "Sub-project"), and

WHEREAS

The Scientist intends to participate in the matching grant program "BUSINESS INVESTMENTS IN R&D" (BIRD), and

WHEREAS

The Institute is the owner of intellectual property rights (IPR) that can be used in the Sub-project.

This LOI outlines the terms and conditions to be included within the prospective definitive license agreement (the "LA") with such other representations, warranties, conditions, and other terms that the parties may agree upon.

The parties hereby agree that their mutual interest herein is to bring about the Transaction. The Parties warrant that they will negotiate the terms of the LA in good faith for the period set forth below.

By this letter, the Institute confirms its intention to license IPR, listed in the Scientist's application for the BIRD matching grant, to a Limited Liability Company (Licensee) that will be formed to implement the Project within the framework of the BIRD.

The main terms of the LA will be as follows:

- Type of License - The License shall be exclusive / non-exclusive. The Institute retains / shall not retain its right to license the Invention to third parties. The Institute retains / shall not retain its right to use the Invention for the purposes of education, research and development with no limitations.
- Territory of License - The entire territory of exclusive rights / exclusions of countries from the entire territory of exclusive rights / selection of countries

- Term of License - The License shall be granted for the life of exclusive rights / selection of validity period
- Use of Invention - The Institute shall grant to the Licensee the right to use the Invention by any methods, not contradicting the applicable law / Specifying the method of use
- Right to sublicense - The License shall be entitled to sublicense the Invention to its affiliates subject to prior written notice to the Institute / Specifying the sublicense conditions
- License fee - For the term of the License the License shall undertake to pay the Institute _____% of the License annual revenue not later than [_____] days after the end of each calendar year. The Parties agreed that provided that the License's total annual revenue for the first, second and third calendar years will be less than _____ USD, the License fee for such a 3-year period shall be fixed to _____ USD. The Parties agree that the License shall be obliged to pay the above-mentioned lump sum of the Licensee fee for the above-mentioned period irrespective of the Institute's right of withdrawal. The Licensee revenue shall be calculated on and evidenced by its accounting and financial statements as applicable under its laws of incorporation. The total amount of all the license fees should not exceed _____ USD. When reaching this amount license fees are equal to 0 (zero), but the license continues to be granted to the Licensee.
- Withdrawal - The Institute shall have a right to withdraw from the LA provided that either: The Licensee failed in revenue generation after ____ years from its incorporation; and/or in case of the Licensee delay to calculate, evidence and/or pay the License fee for more than [_____] days. For the purpose of this clause failure in /revenue generation shall mean that the Licensee revenue after _____ years from its incorporation will be less than [_____] USD.
- other terms and conditions.

The validity period of this LOI is ____ years.

This LOI does not give rise to financial or other property obligations between the parties.

Signatures and dates

Annex D: EVALUATION FORMS

Technological evaluation

Proposal #	
Principal Investigator:	
Proposal title:	
Requested grant amount	
Expert name	
Date of evaluation	

No.	Evaluation criteria	Comments	Score
1	Research excellence and degree of novelty	<ul style="list-style-type: none"> - assessment of the compliance of the proposed solution with the national and international level of scientific, technical and technological knowledge, trends and priorities of scientific and technological progress in terms of qualitative and quantitative indicators, which will allow consumers to gain a competitive advantage - assessment of the practical significance and relevance of the proposal and is characterized by novelty/uniqueness of the applied research idea, concepts and methodology 	
2	Feasibility	<ul style="list-style-type: none"> - assessment of the possibilities of achieving the goal of the project through planned activities, staffing, financial requests and available material resources - assessment of the CTO and DCTO eligibility and potential in the implementation of the project according to section 9 of the technological implementation of the project - technological (technical) feasibility – achievability of the project's goals, presence of technological barriers - feasibility of the project using the proposed methods within the specified time frame 	
3	Readiness	<ul style="list-style-type: none"> - objective and comprehensive consideration of the expected results of the implementation of the project in terms of content, organizational, material, and information support for the implementation of development, implementation and production work, comparison of the expected results with the stated goals 	
4	Assessment of technical and product-scaling risks and mitigations	<ul style="list-style-type: none"> technical risks and mitigations – associated with the development of a technical/technological solution, including the impossibility of technical implementation, lack of the necessary technological and raw material base, identification of environmental problems production risks and mitigations – associated with the organization of production 	
Conclusion		<ul style="list-style-type: none"> - Strengths - Weaknesses 	

Commercial evaluation

Proposal #	
Principal Investigator:	
Proposal title:	
Requested grant amount	
Expert name	
Date of evaluation	

No.	Evaluation criteria	Comments	Score
1	Market Opportunity	<i>Was a clear, brief description of the product or service provided? Was Customer demand addressed? Does the proposal identify a potential customer and a business model?? Has a description been provided of how the team will move the innovation forward to market? Were the steps needed to bring their product/service to market clearly identified?</i>	
2	Project Team	<i>Based on the information provided in the proposal, is the team an emerging, developing, or experienced team. Is a clear description of the team and its capabilities given? How prepared is the team for the process of introducing technology to the market? Does the team have experience introducing a similar product to the market? Are there additional consultants, managers, partners, and shareholders?</i>	
3	Product/Technology and Competitors analysis and IP	<i>Has the team described which characteristics of the product/service have special value to the customer? How well does the team understand the pricing process for their product/service in the market? Who is the main competitor for this company? How does the company intend to compete in the market: price proposition, results, etc.? Does the company understand its position on intellectual property protection and is there any evidence that the team has a plan for the creation, protection, and use of intellectual property?</i>	
4	Assessment of project budget	<i>How well does the company demonstrate its understanding of the amount of funding needed to bring its innovative product/service to market? Is there a detailed (phased) financing plan? Is there any confirmation of additional funding? Was any income received? Is there a balance sheet (cash balance sheet)? How well has the team described and tested its proposal?</i>	
Conclusion		<i>- Strengths</i> <i>- Weaknesses</i>	

SCORING SCALE FOR CRITERIA

<i>5 points</i>	Excellent	The proposal successfully addresses all relevant aspects of the criteria in question. Any shortcomings are minor
<i>4 points</i>	Very Good	The proposal addresses the criteria very well, but a small number of shortcomings are present
<i>3 points</i>	Good	The criteria is well addressed, although certain improvements are still possible
<i>2 points</i>	Fair	While the proposal broadly addresses the criteria, there are significant gaps and improvements are necessary
<i>1 point</i>	Poor	The criteria is not addressed adequately. Relevant information is missing
<i>0 point</i>	Criteria not addressed	The proposal fails to address the criteria under examination or cannot be judged due to missing or incomplete information

ASSOCIATED WEIGHTS OF THE TECHNOLOGICAL EVALUATION

Nº	Technological evaluation criteria	Maximum points awarded	Weight coefficient	Maximum points allowed	Points awarded by the expert
1.	Research excellence and degree of novelty	5	x7	35	
2.	Feasibility	5	x5	25	
3.	Readiness	5	x5	25	
4.	Technical and product-scaling risks and mitigation	5	x3	15	
	Total	20		100	

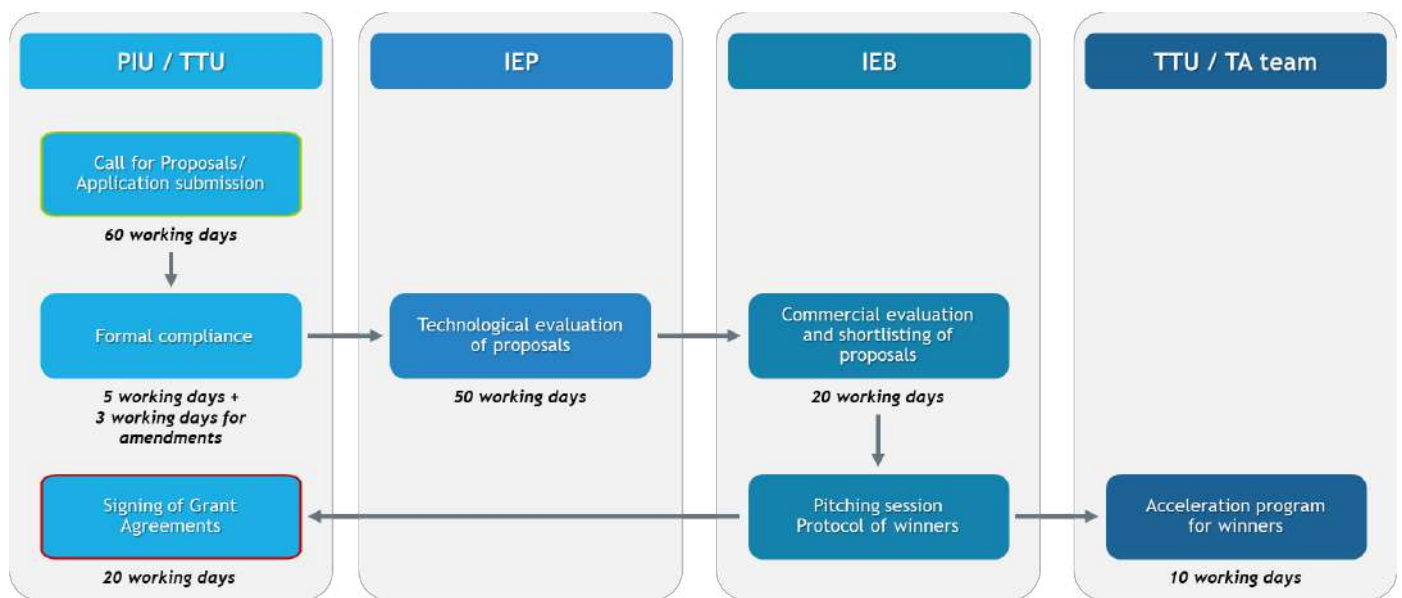
The minimum passing score for technological reviews **by the IEP is 50 points**

ASSOCIATED WEIGHTS OF THE COMMERCIAL EVALUATION

Nº	Commercial evaluation criteria	Maximum points awarded	Weight coefficient	Maximum points allowed	Points awarded by the expert
1.	Market Opportunity	5	x7	35	
2.	Project Team	5	x6	30	
3.	Product/Technology and Competitors analysis and IP	5	x5	25	
4.	Assessment of project budget	5	x2	10	
	Total	20		100	

The minimum passing score for technological and commercial reviews by the **IEB is 60 points**

Annex E: BIRD PROGRAM SELECTION PROCESS



Duration: up to **158 working days** (~8 months)

Annex F: GRANT AGREEMENT TEMPLATE

No. _____ from « ____ » _____ 20 _

between

THE MINISTRY OF HIGHER EDUCATION, SCIENCE AND
INNOVATIONS OF THE REPUBLIC OF UZBEKISTAN

and

(NAME OF GRANTEE)

Matching grant type: _____

Grantee name: _____

Legal address: _____

Head of the Grantee (CEO): _____

Chief Technology Officer: _____

Grant amount: _____ (amount in words) (VAT is not included.).

Co-financing amount: _____ (amount in words).

Grant implementation period: _____ since signing date of the Grant Agreement until __ __ 20 __, inclusive.

INN: _____, KBE: _____

Bank details in which the account is opened:

Bank name:

IIC:

BIC:

This Grant Agreement (hereinafter referred to as “the Agreement”) signed on « ____ » _____ 202_ between the Ministry of Higher Education, Science and Innovations of the Republic of Uzbekistan / Project Implementation Unit (hereinafter referred to as “PIU (MHESI)”), represented by _____, acting on the basis of _____, for one Party and the Grantee (hereinafter referred to as “Grantee”), represented by the Head of the Grantee _____, acting on the basis of _____, for second Party (hereinafter referred to as «Parties»).

1. The MHESI provides Matching Grant to the Grantee under the Modernizing Uzbekistan National Innovation System (MUNIS) project, based on the award decision of the IEB and in accordance with the MHESI Decree dated " ____ " _____ 202_ in the amount of _____ (in _____ words,) for _____ implementation of _____ Sub-project _____. A copy of the Sub-project Proposal is attached to the Agreement.
2. In accordance with the signed Financing Agreement #6784-UZ between the Government of the Republic of Uzbekistan and the International Development Association of the World Bank dated May 17, 2021 (hereinafter referred to as “FA”) and the Project Operations Manual (POM) the World Bank procedures in terms of procurement of goods, works and consultants’ services, financial, environmental and social management are applicable for all goods and services procured from the Loan proceeds under the Modernizing Uzbekistan’s National Innovation System Project (hereinafter referred to as “Project”), including the Sub-project, which is financed by the Matching Grant proceeds.

Article I - Subject-Matter of the Agreement

3. The MHESI provides Matching Grant to the Grantee on a pro-bono basis and the Grantee commits to ensure the achievement of the research and development results for further commercialization of the approved Sub-project.
4. This Agreement defines the conditions of the provision of the Matching Grant and regulates the rights and obligations of the Parties arising from the date of signing of this Agreement. This Grant Agreement must fully comply with the Grant Fiduciary Manual (hereinafter referred to as “GFM”), and for any conflicting provisions, the provisions of the GFM shall prevail.

Article II- Matching Grant Purpose

5. The Matching Grant is awarded under the terms of the _____ Matching Grant Program of the Project, implemented by the MHESI, in accordance with the requirements, criteria, organizational arrangements and operational procedures set in the FA, POM, Matching Grant Program Manual (hereinafter referred to as “GPM”), GFM and the Environmental and Social Management Framework (hereinafter referred to as “ESMF”).
6. The Matching Grant is used by the Grantee solely for the purpose of achievement of Sub-project goals, procuring the goods and services provided for the Grantees in accordance with the Sub-project “Work Plan” set out in Annex 1 of the Agreement. Matching Grant funds may not be transferred to a third party.
8. The assets acquired from the proceeds of the Matching Grant cannot be sold, exchanged, or mortgaged during the Sub-project implementation.

Article III - Amount of Matching Grant and Co-financing

9. The Matching Grant in amount of _____ (in words) local currency (VAT exclusive) is provided to the Grantee by the MHESI to finance the Sub-project under the conditions set in Grant Agreement.
10. The Matching Grant proceeds are disbursed to the Grantee in accordance with the Matching Grant Payment Schedule in Annex 1 to the Grant Agreement.
11. The matching grant funds are to be held in a separate settlement dedicated bank account at a commercial bank acceptable to the PIU (MHESI).
12. The co-financing in the amount of _____ (in words) is deposited by the Grantee in a separate bank account and must be fully used during the implementation of the Sub-project under the respective categories of expenditures of the Financial Plan of the Agreement.
13. The co-financing amount is paid exclusively in cash and must be allocated to the bank account of the Grantee before each tranche of the matching grant funding and cannot be used for other purposes.
14. During the implementation period of the Sub-project, withdrawal of contributed co-financing funds is prohibited, except for use for the purposes of the Sub-project specified in the financial plan of the Grant Agreement.
15. Any procurement of goods, services, or works using co-financing funds must adhere to the World Bank's procurement regulations and the GFM.

Article IV – Disbursement of Matching Grant Proceeds

16. Disbursements of the Matching Grant funds will be done in local currency after opening a Dedicated Bank Special Account in the financial institution acceptable to the PIU (MHESI). The Grantee is responsible for opening the Dedicated Bank Special Account.
17. Disbursement of Matching Grant proceeds follows the Sub-project Financing Plan, attached to this Agreement (Annex 1), based on the positive decision of the IEB, supported by the results of the technical and financial monitoring of the Sub-project activities by the PIU(MHESI).

Article V – International Expert Board

18. The International Expert Board (IEB) is an independent advisory body to MHESI - which provides guidance on all scientific and commercialization issues of the Project, selecting Sub-projects for matching grant financing and monitoring the Grantees' scientific and commercialization progress in accordance with the requirements, criteria, organizational arrangements and working procedures outlined in the FA, POM, GPM and GFM.
19. IEB evaluates the implementation progress and achieved results of the Sub-projects receiving matching grants based on the technical reports of the Grantees, periodic on-site visits, and the results of technical and financial monitoring performed by the PIU (MHESI).
20. Based on the evaluation results, the IEB advises the PIU (MHESI) on the commencement, continuation, suspension, or cancellation of an individual Sub-project.
21. Any changes that significantly impact on the Sub-project implementation during its execution require IEB approval, following the next list, but not limited to:
 - a. redistribution of matching grant funds between approved categories in the financial plan in the amount of more than 20% of the total initial amount of the category;
 - b. elimination or adding new categories of expenditures in the financial plan;
 - c. replacement of the key staff (CTO, DCTO, BDM) of the sub-project;
 - d. replacement of the co-financing partner, equipment;
 - e. changing objectives of the sub-project.

Article VI – Project Implementation Unit

22. The Project Implementation Unit (PIU (MHESI)) supports the MHESI in managing implementation, monitoring, and evaluation, building awareness, and strengthening the Project's capacity in accordance with the FA.
23. Changes that have an indirect or insignificant impact on the Sub-project implementation during its execution require PIU approval, following the next list, but not limited to:
 - a. redistribution of matching grant funds between approved categories in the financial plan in the amount of not more than 20% of the total initial amount of the category;
 - b. redistribution of co-financing funds between approved categories in the financial plan;
 - c. replacement of non-key staff in the sub-project team;
 - d. changes in the implementation plan;
 - e. changes in the procurement plan, except equipment.
24. PIU (MHESI) is responsible for daily administration of the Project activities, including (i) organizing competitions for selection of the Grantees and other organizations that are selected on a competitive basis within the Project; (ii) monitoring of the procurement of all goods and services carried out by the Grantees supported by the Project to ensure that procurement procedures comply with all applicable World Bank rules and instructions; (iii) maintaining communication between the Grantees, the MHESI and the IEB and if necessary, informing the Grantees of and implementing the decisions of the PIU (MHESI) and IEB; (iv) conducting monitoring and evaluation activities for the sub-project and the Grantees; (v) ensuring that individual activities of the Project and the Grantees are carried out in accordance with all applicable fiduciary and environmental and social requirements of the World Bank; and (vi) other functions in line with the FA.

Article VII - Rights and Obligations of the Parties

25. The PIU (MHESI) has the right to:
 - a. Execute the decision of the IEB to suspend and/or terminate the rights of the Grantee to use the Matching Grant funds and to demand compensation of the whole or any part of the Matching Grant, in case of any failure by the Grantee to perform its obligations under the Agreement and/or improper use of the Matching Grant, as well as in case of reputational risks for the Government of Uzbekistan and World Bank from the implementation of the Matching Grant, duplicated financing, late submission of reports and elimination of comments on reports, knowingly provision of false information by the Grantee.
 - b. Before the signing of this Agreement, to review and clear against the information provided in the Proposal the Procurement Plan to avoid price overstatement and/or inexpediency.
 - c. After the signing of this Agreement to suspend procurement procedures in the event of breaches of the procurement procedures under Article IX of the Agreement.
 - d. Request the Grantee to conduct the audit of the matching grant funds usage on the terms of references acceptable to the PIU (MHESI) and which shall be conducted by the audit firm acceptable to the PIU (MHESI).
26. The PIU (MHESI) is obliged to:
 - a. Monitor and evaluate the results of the Sub-project, authorize payments to the dedicated bank account, and control procurement procedures in accordance with the Agreement.
 - b. Receive and evaluate the submitted Withdrawal Application of the Grantee, in accordance with Annex 3 to the Agreement: "Withdrawal Application Form", to assess the work progress of the Grantees, proper use of proceeds of the Matching Grant, the completeness and accuracy of the data in the reports.

- c. Provide information on World Bank procedures and guidelines for the Grantees, ESMF and Environmental Safeguards policies to the Grantee and other relevant parties.

27. The Grantee has the right to:

- a. If necessary, adjust the approved Financial Plan specified in Annex 1 to the Agreement. The reallocation of funds or creation of a new category of expenditure must take place through the conclusion of an Amendment to the Agreement on the introduction of changes. The Grantee is allowed to redistribute the matching grant funds between the approved categories of expenses, for an amount not exceeding 20% of the total initial amount of the category being increased and should not lead to an increase in the total amount of the Matching Grant and should be approved by PIU.
- b. The Grantee is entitled to receive advice from PIU (MHESI) on issues related to the implementation of the Sub-project and the use of Matching Grant funds.
- c. The Grantee is entitled, in agreement with the PIU (MHESI), to convert Grantee's local currency funds to foreign currency to make payments for goods and services procured from abroad in accordance with the signed contract. In accordance with the terms of the contracts, conversion is made on the day of payment under the contract.

28. The Grantee is obliged to:

- a. Accomplish their obligations under the Grant Agreement in accordance with objective technical, economic, financial, managerial, environmental, and social standards and practices that comply with the applicable rules and procedures of the World Bank, including the provisions of the GPM, GFM, ESMF and the World Bank Guidelines On Preventing and Combating Fraud and Corruption in Projects financed by IBRD Loans and IDA Credits and Grants;
- b. Adopt an internal order: (i) granting the Sub-project Chief Technology Officer full rights to use the Matching Grant proceeds and manage Sub-project implementation, (ii) ensuring sufficient administrative support to the Sub-project team to effectively implement the Sub-project, (iii) ensuring full and uninterrupted access to and use of the equipment purchased from the Matching Grant proceeds and adequate access to other facilities and equipment needed for the effective implementation of the Sub-project ("Title to the equipment purchased in the framework of Sub-project will vest in the Grantee at the time of delivery", para 2.2 (76) of GFM), (iv) distributing ownership shares of the intellectual property generated by the implementation of the Sub-project, (v) providing facilities and (if needed) registration/certification of the new equipment purchased from the Matching Grant proceeds, (vi) stating the co-financing amount and the type of expenses covered. The order must be acceptable to the Sub-project team, and confirmed by the signature of the Chief Technology Officer. The order must be attached to the Grant Agreement.
- c. Carry out procurement of goods and services financed under the Sub-project Procurement Plan set out in Annex 1 of the Agreement, in accordance with the provisions of the FA (IDA 6784) and GFM;
- d. Implement Matching Grant in accordance with the Sub-project Implementation Plan described in Annex 1 to this Agreement;
- e. Implement Matching Grant in accordance with the Grantees' Environmental Management Plan (as applicable) of Annex 2 of the Agreement and in accordance with the provisions of ESMF and the World Bank environmental and social standards;
- f. Contribute co-financing funds to the Sub-project in accordance with the financial plan of the Agreement;
- g. Spend the Matching Grant funds in accordance with the Sub-project Financial Plan set out in Annex 1 of this Agreement;
- h. Maintain and keep accurate account/records of goods or services (including waybills, invoices, delivery-acceptance acts, acts of rendered services) procured from third parties separately from other records of Grantee that are not related to this Agreement. The primary financial documents such as invoices,

construction contracts, invoices suppliers, delivery-acceptance acts, etc. must be stored properly in accordance with the legislation of the Republic of Uzbekistan;

- i. As the spending of matching grant funds and co-financing funds proceeds, shall provide information on the disbursement of funds in his/her account on the Project Portal with electronic copies of supporting primary documents attached;
- j. In case there is any unutilized/excess amount of Matching Grant funds, the Grantee shall return unused Matching Grant funds directly to MUNIS Designated Account on the basis of instructions by PIU (MHESI) at the expiration of the Agreement or early completion of the Sub-project;
- k. Suspend using Matching Grant funds in the event of receiving written notification by the PIU (MHESI) from the date of receiving such notification;
- l. Provide access to all requested documentation and information related to the implementation of the Sub-project to external auditors, staff of the MHESI, PIU (MHESI), World Bank and/or World Bank assigned parties (consultants, experts, etc.);
- m. Provide, upon request of the PIU (MHESI), information on the results of the commercialization, with supporting documentation in the form of contracts/agreements, payment orders, account statements, etc.
- n. Provide access to the PIU (MHESI), MHESI, and the World Bank assigned staff to the Grantee's premises, data, records, information, systems etc. related to Sub-project implementation activities and funds utilization;
- o. Prepare and submit to the PIU (MHESI) all information related to the Sub-project implementation, which may be reasonably required by the PIU (MHESI) or the World Bank;
- p. Take appropriate measures to protect confidential information and intellectual property pursuant to relevant legislation of the Republic of Uzbekistan;
- q. Inform the PIU (MHESI) immediately of the difficulties encountered in achieving the expected outcome or of failure to successfully complete the Sub-project;
- r. At the formal request by the PIU (MHESI), the Grantee is obliged to duly arrange the audit of the usage of matching grant funds on the terms of references acceptable to the PIU (MHESI) and furnish the audit report within the period prescribed in the terms of references acceptable to the PIU (MHESI) and at the expense of the Matching Grant proceeds-

Article VIII – Responsibility of the Parties

- 29. The Grantee, in accordance with the legislation of the Republic of Uzbekistan, shall bear full responsibility for all taxes and mandatory contributions to the state budget, their timely payment in the framework of the Matching Grant, and the use of Matching Grant and co-financing funds.
- 30. The Grantee is responsible for the proper use of the Matching Grant and co-financing funds and implementation of the Sub-project in accordance with this Agreement, GPM, GFM and the legislation of the Republic of Uzbekistan.
- 31. Failure to comply with the provisions of this Agreement shall be considered as a violation of the conditions of the Agreement.
- 32. The Grantee is responsible for damage caused intentionally or unintentionally to anyone as a result of the use of the Matching Grant proceeds, for the methods and the results of the Sub-project implementation or for any claim from third parties to the Grantee on any matter, which may arise during implementation of this Agreement.
- 33. Grantee is obliged to follow all the requirements of the MHESI, World Bank and the requirement of FA in terms of procurement. In case of non-compliance with the terms of this paragraph, the Grantee shall be liable for misuse of other person's monetary assets and actions will be taken in accordance with Para 5 "Termination of Grant Agreement and Grant Completion" of GFM.

34. If the World Bank, in connection with the violation of the Grantee's obligations under this Agreement, applies penalties to the MHESI, the Grantee shall reimburse all losses of the MHESI incurred in connection with the violation of the Grantee's obligations.

Article IX – Procurement

35. For each contract which will be financed under the Matching Grant, different procurement methods or methods of consultant selection, cost estimates, the requirements of the PIU (MHESI) on the preliminary review, and terms should be agreed between the PIU (MHESI) and the Grantee in accordance with procedures described in the GFM and provisions prescribed in the FA.
36. The Procurement Plan can be updated on a regular basis when there is a need to add new items but no later than 6 months before the end of the Matching Grant in order to reflect the practical needs of the Sub-project's implementation and should be approved by PIU.
37. The Grantee shall ensure that all procured goods financed out of the Matching Grant proceeds, are provided with the necessary warranty period, have been certified and safe, as well as are provided with protection against the risk arising from the acquisition, transportation, and delivery to the place of their application or installation.

Article X – Bank Account

38. The Grantee is responsible for opening a Dedicated Bank Special Accounts in the financial institution acceptable to the PIU (MHESI).
39. The Dedicated Bank Accounts of the Grantee are used only for receiving and disbursing of Matching Grant funds and co-financing funds. Matching Grant and co-financing funds can be withdrawn from the account solely to cover expenditures set in the Sub-project Financial Plan specified in Annex 1 to this Agreement or other purposes stipulated by this Agreement.

Article XI – Reporting

40. Semi-annual, Annual, and Final technical reports shall be prepared following the "Structure of the technical report" (Annex 4 to the Agreement) and submitted by the Grantee in accordance with instructions set out in Para 2 (2.1) of GFM "Technical Monitoring and Reporting".
41. In case of misuse (spending funds not according to list of expenses) of the Matching Grant and co-financing funds and other violations of the conditions of the Agreement on the monitoring results, the PIU (MHESI), in agreement with IEB, may apply relevant sanctions to the Grantee, which are provided in the Article VII "Rights and Obligations of the Parties" of the Agreement, Para 2 (2.2) "Financial Monitoring and Reporting" and Para 5 "Termination of Grant Agreement and Grant Completion" of GFM.
42. Quarterly, Annual, and Final environmental impacts reports shall be prepared following the "Structure of the Environmental Impacts Report" (Annex 5 to the Agreement) and submitted by the Grantee in accordance with instructions set out in Para 4 of GFM "Environmental and Social Impact Monitoring and Reporting".
43. Failure to submit technical, and environmental impact reports within the time limits provided for in the GFM may be considered a violation of the obligations of the Grantee.
44. A final technical (achievements), financial (received and utilized Matching Grant funds and co-financing funds), and environmental impacts reports need to be presented within 30 calendar days from the date of Matching Grant completion. In case of failure to submit final reports within the specified period, the Grantee shall pay to the PIU (MHESI) a penalty of 0.1% for each overdue day of the matching grant amount under the Agreement. The maximum volume of penalty is 10% of the Matching Grant amount.
45. The PIU (MHESI), MHESI, or the World Bank does not bear any responsibility for foreign exchange losses. The Grantee shall apply necessary reasonable and precautionary measures to manage the foreign exchange loss

with contracts quoted in foreign currency. Any foreign exchange loss arising from the contracts and transactions in foreign currency shall be covered by the Grantee's own resources.

Article XII – Evaluation of Implementation and Monitoring of the Sub-projects

46. Sub-project assessment will be based:
- a. on technical and audit reports submitted to the PIU (MHESI), as well as;
 - b. on the assessment, carried out by IEB, of the performance of the works and technical reports carried out within the Sub-project.
47. Evaluation of the Grantee's performance will be made by the IEB and, if necessary, by independent scientific experts, recommended by the IEB. The assessment may include direct visits to the Grantee's site, meetings with scientists and team members, and an analytical review of technical reports. The performance assessment is carried out every six months. Evaluation reports are submitted to the PIU (MHESI). Based on the results of the performance assessment and IEB recommendation, the PIU (MHESI) shall continue or suspend financing of the Sub-project without the right of the Grantee to appeal the decision of the PIU (MHESI).

Article XIII – Amendment of the Agreement

48. This Agreement and Annexes to the Agreement may be amended by signing the Additional Agreement upon written approval of the PIU (MHESI) after receiving approval from the IEB (if necessary). Any Amendments to the Grant Agreement must comply with the provisions and requirements of the GFM.
49. All cases that are not regulated in this Agreement shall be governed by the legislation of the Republic of Uzbekistan.

Article XIV – Record Keeping

50. The Grantee conducts accounting in accordance with the current legislation of the Republic of Uzbekistan.
51. Original financial statements and all other supporting documentation (invoices, payments, contracts, etc.) shall be duly archived and retained by the Grantee for a period of 3 years after submission of the final financial report for Sub-project implementation. The PIU (MHESI) has the right to have copies of the above documents in its own possession.
52. In the event of a reorganization of the Grantee after the completion of the Sub-project, any successor of the Grantee will retain the documents in accordance with the legislation of the Republic of Uzbekistan.

Article XV - Public Statements and Publications

53. The Grantee provides to the PIU (MHESI) copies of public statements and publications related to the Matching Grant and financed within the sub-project framework. The Grantee will include the following sentence in all public statements and publications, funded by the Matching Grant (including written, audio, and video materials, electronic publications, etc.): «This publication has been produced within the framework of the Matching Grant "(Sub-project title)", funded under the MUNIS Project, supported by the World Bank and the Government of the Republic of Uzbekistan. The statements do not necessarily reflect the official position of the World Bank and the Government of the Republic of Uzbekistan.»
54. The Grantee should notify the PIU (MHESI) 14 business days in advance of scheduled meetings, press conferences and other important events to promote the Matching Grant and will, when possible, include the participation of the PIU (MHESI) in these activities.

55. The PIU (MHESI) shall be entitled to publish general information (abstract) on this Grant Agreement including the identity of the Grantee, the title and objective of the Sub-project, its estimated costs and duration, and the names of Sub-project team members and laboratories where the research is being carried out.

Article XVI – Intellectual Property

56. The IP rights obtained during the implementation of the Sub-project belong to the Grantee.
57. Distribution of intellectual property rights for the produced outputs shall be fixed in a separate agreement between the Grantee and Co-financing partner.

Article XVII - Termination and Closure of Grant

58. The PIU (MHESI) is authorized to terminate this Agreement at any time with the mandatory return of Matching Grant funds by written notice to the Grantee following the prior agreement with IEB and the World Bank in accordance with Para 5 “Termination of Grant Agreement and Grant Completion” of GFM. In case Grant funds are not refunded to the PIU (MHESI) within 30 calendar days after the official notification, the Grantee shall pay to the MHESI a penalty of 0.1% for each overdue day of the matching grant amount under the Grant Agreement. The maximum volume of penalty is 10% of Matching Grant amount.
59. In the event of a dispute between the Grantee and the MHESI that may require legal action, all legal costs and expenses related to legal actions and/or proceedings shall not be covered by the Matching Grant funds.
60. Upon approval of the final financial report and final technical report and return of unused funds, the Grantee will be notified by the PIU (MHESI) of sub-project closure.

Article XVIII - Force Majeure

61. This Grant Agreement may be suspended or terminated in the event of force majeure, the fact of occurrence of which must be formally confirmed by the competent authorities of the Republic of Uzbekistan.
62. In the case of impossibility to fulfill obligations by reason of force majeure, the Grantee is required to notify in writing the PIU (MHESI) not later than 10 (ten) business days from the date of occurrence of such situations. Failure to notify or untimely notification deprives the Grantee of the right to invoke the above circumstance as grounds for exemption from liability for failure to fulfill obligations under this Agreement.
63. The occurrence of force majeure, as well as the termination of its actions, are documented in writing and signed by both Parties of this Agreement.

Article XIX – Duration of the Agreement

64. This Agreement enters into force from the date of signing and is valid until _____ year and full performance by the Parties of the obligations accepted in accordance with the Agreement.
65. In case the Matching Grant falls under the Grant audit or Project audit scope, the Grant Agreement remains valid until the Grant audit report, or the Project audit report is finalized and accepted by the final recipient.

Article XXI – Language and Copies

66. The Grant Agreement shall be executed in English and Uzbek languages. In the event of any ambiguity or conflict between the English and Uzbek language versions, the English version shall prevail. Each Party shall hold one (1) original, each of which shall have the same legal effect.

IN WITNESS WHEREOF, this Agreement is duly executed by each Party or its legal representative as of the date set forth below.

Parties:

Official Stamp and signature:

Official Stamp and signature:

Ministry of Higher Education, Science and
Innovations of the Republic of Uzbekistan

Head of the Grantee

Signature:

Chief Executive Officer Name and Title

_____ (registration address)

BIN _____

IIC _____

BIC _____, Beneficiary code _____

_____ (bank name)

Date:

Date:

WORK PLAN

1. SUB-PROJECT SUMMARY INFORMATION

1.1 Sub-project title:

Full title of the sub-project.

1.2 Research domain(s):

Domain nature (single research domain or cross-domain nature) of the project.

1.3 Chief Technology Officer (CTO):

Name:

Title:

Position:

Phone:

E-mail:

Deputy Chief Technology Officer (DCTO):

Name:

Title:

Organization:

Position:

Phone:

E-mail:

1.4 Co-financing partner:

Name:

Address/contact information:

Name of Signature Authority:

Title:

Position:

Participating Institutions:

Name:

Address/contact information:

Name of Signature Authority:

Title:

Position:

1.5 Sub-project duration:

months

1.6 Study location and facilities:

Statement about the site(s) where the implementation will take place, facilities and principal equipment available for implementation the Sub-project.

2. DETAILED DESCRIPTION OF SUB-PROJECT WORK PLAN

2.1 Introduction and overview:

2.2 Background and objectives:

2.3 Expected results:

2.4 Benefits and value to Uzbekistan:

2.5 Innovation and/or potential for commercialization of the proposed research:

2.6 Sub-project team, qualification, and staffing management plan:

2.7 Research methodology and procedures:

2.8 Risks and response strategies:

2.9 Confidentiality of research data:

2.10 Scope of Activities:

SUB-PROJECT IMPLEMENTATION PLAN

Stages / Substages			Description of deliverables	Duration (months)
# Stages	## Substages	Task description and main milestones		
1				
	1.1			
	1.2			
2				
	2.1			

Work schedule chart (1st year):

Key stages/substages	Duration (months)	Q 1			Q 2			Q 3			Q 4		
		1	2	3	4	5	6	7	8	9	10	11	12
Stage 1													
Substage 1.1													
Substage 1.2													
Stage 2													
Substage 2.1													
Substage 2.2													
Stage 3													
Substage 3.1													
Stage 4													
Substage 4.1													
Substage 4.2													

Work schedule chart (2nd year):

Key stage description	Duration (months)	Q 1			Q 2			Q 3			Q 4		
		1	2	3	4	5	6	7	8	9	10	11	12
Stage 1													

Substage 1.1													
Substage 1.2													
Stage 2													
Substage 2.1													
Substage 2.2													
Stage 3													
Substage 3.1													
Stage 4													
Substage 4.1													
Substage 4.2													

3. SUB-PROJECT FINANCIAL PLAN

Estimated Sub-project Cost (UZS)

Cost Category	Amount		Total Cost
	Grant amount	co-financing amount	
Staff			
Equipment			
Travel expenses			
Materials and supplies			
IP protection			
Third-party services			
Rental of equipment			
Rental of premises			
Marketing expenses			
Overhead and other expenses			
Audit	10 000 USD equivalent		
Taxes and other obligatory payments			
Estimated Total Cost of the Sub-project			

Personnel remuneration, 1st year (UZS)

#	Name of Employee	Organization, Position	Birth Year	Title	Function in Sub-project	% of Time	Months (1-12)	Cost		
								Grant amount	co-financing	Total
1.					CTO					
2.					DCTO					
3.					BDM					
4.										
5.										
...										
Subtotal										

Personnel remuneration, 2nd year (UZS)

#	Name of Employee	Organization, Position	Birth Year	Title	Function in Sub-project	% of Time	Months (1-12)	Cost		
								Grant amount	co-financing	Total
1.					CTO					
2.					DCTO					
3.					BDM					
4.										
5.										
...										
Subtotal										

Equipment (UZS)

#	Description	Anticipated Use	Anticipated Procurement Time (Q 1-8)	Cost		
				Grant amount	co-financing	Total
1.						
2.						
3.						
Subtotal						

Laboratory materials and consumables (UZS)

#	Description	Anticipated Use	Anticipated Procurement Time (Q 1-8)	Cost		
				Grant amount	co-financing	Total
1.						
2.						
3.						
Subtotal						

Travel expenses (UZS)

#	Country of Destination	City	Organization of Destination	People	Purpose of Travel	Cost		
						Grant amount	co-financing	Total
		International						
1.								
2.								
3.								
		Total International Cost						
		Domestic						
1.								
2.								
Total Domestic Cost								
Subtotal								

Services of third-party organizations and individuals (UZS)

#	Description	Anticipated Use	Anticipated Procurement Time (Q 1-8)	Cost		
				Grant amount	co-financing	Total
		Consulting Services				
1.						
2.						
3.						
		Non-consulting Services				
1.						
2.						
3.						
Subtotal						

Protection of intellectual property (UZS)

#	Description	Anticipated Use	Anticipated Procurement Time (Q 1-8)	Cost		
				Grant amount	co-financing	Total
1.						
2.						
3.						
Subtotal						

Rental of premises (UZS)

#	Description	Anticipated Use	Anticipated Procurement Time (Q 1-8)	Cost		
				Grant amount	co-financing	Total
1.						
2.						

3.						
Subtotal						

Rental of equipment (UZS)

#	Description	Anticipated Use	Anticipated Procurement Time (Q 1-8)	Cost		
				Grant amount	co-financing	Total
1.						
2.						
3.						
Subtotal						

Marketing services (UZS)

#	Description	Anticipated Use	Anticipated Procurement Time (Q 1-8)	Cost		
				Grant amount	co-financing	Total
1.						
2.						
3.						
Subtotal						

Other expenses (UZS)

#	Description	Anticipated Use	Anticipated Procurement Time (Q 1-8)	Cost		
				Grant amount	co-financing	Total
1.						
2.						
3.						

Subtotal			
-----------------	--	--	--

4. SUB-PROJECT PROCUREMENT PLAN

Name	Estimated value		Procurement method	Anticipated Procurement Time (Q 1-8)	Note
	Per unit	Total			
Goods (basic means, commodity - material assets and supplies)			RFQ		
Goods 1 ... n					
Consulting services			CQS		
Services 1...n					
Non-consulting services			RFQ		
Services 1...n					

Funding Sources

Estimated total cost of the sub-project (local currency)	
---	--

Financial Sources

Financial Source	Written confirmation (Y/N)	Amount
Requested from the MUNIS		
Other financial source 1 (co-funding) name of the organization:		
Other financial source 2 (co-funding) name of the organization:		

Non-Financial Sources

Source	Short Description of the Contribution	Written confirmation (Y/N)	Estimated amount

5. GRANT AND CO-FINANCING PAYMENT SCHEDULE

Payments (local currency)		Amount
202_ year	Tranche 1	
202_ year	Tranche 2	
202_ year	Tranche 3	
202_ year	Tranche 4	
202_ year	Tranche ...	
202_ year	Tranche ...	
202_ year	Tranche ...	
TOTAL		

**Indicative Summary of
Environmental and Social Management Plan**

1. Environmental and social management plan should describe how an action might impact on the natural environment in which it occurs and set out clear commitments from the borrower taking the action on how those impacts will be avoided, minimized and managed so that they are environmentally acceptable. An ESMP consists of the set of prevention, mitigation, monitoring, and institutional measures to be taken during implementation and operation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. The plan should include the actions needed to implement these measures. ESMPs are essential tools for Sub-projects with Low and Moderate Environmental Risk categories, as long as Sub-project under the category of Substantial and High Environmental Risk will not be financed by MUNIS to prepare ESMP, the Grantee and its ESIA design team (a) identify the expected adverse impacts to the environment; (b) envisage necessary responses to potentially adverse impacts; (c) determine requirements for ensuring that those responses are made effectively and in a timely manner; and (d) describe the means for meeting those requirements.
2. The ESMP should include the following elements:
 - a. *Mitigation measures*
 - i. The ESMP should represent the key measures for mitigating and preventing major E&S impacts, formulated into actionable plans with defined framework and mechanisms for effective implementation.
 - ii. The ESMP should outlines the execution and monitoring procedures of mitigation measures for each E&S impact identified in the ESIA and described in the Environmental Assessment, management responses to monitoring outcomes, and the reporting systems to be used. Mitigation measures are used to prepare the detailed monitoring plans within the ESMP (see below). The plan includes compensatory measures if applicable.
 - iii. Specifically, the ESMP:
 - lists and describes all anticipated significant adverse E&S impacts;
 - provides detailed descriptions of each mitigation measure, its application, and conditions (e.g., continuously or in the event of contingencies), along with any necessary designs, equipment, and procedures, as appropriate; In case of engaging contractors by the Borrower, the ESMP should be incorporated as part of the contract between the Borrower and the contractor, together with appropriate monitoring and enforcement provisions estimates any potential E&S impacts of these measures; and
 - considers other mitigation plans required for the Sub-project.
 - b. *Monitoring*
 - i. Environmental and social monitoring during project implementation provides information about E&S impacts of the project and the effectiveness of prevention and mitigation measures. Such information enables the PIU (MHESI) and the World Bank to evaluate the success of mitigation as part of project supervision and allows corrective action to be taken when needed. Therefore, the ESMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the ESIA report and the mitigation measures described in the ESMP.

ESMP must include a description of the planned monitoring plan and the overall approach and methodology for risk management.

- ii. Specifically, the monitoring section of the ESMP provides (a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

c. Capacity Development and Training

- i. If necessary, in the framework of ESMP staff training for implementation of environmental and social protection measures is considered. Specifically, the ESMP provides a specific description of institutional arrangements - who is responsible for carrying out the mitigatory and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training).
- ii. To strengthen E&S management capacity in the agencies responsible for implementation, the ESMP recommends the establishment or expansion of the parties responsible, the training of the staff and any additional measure that may be necessary to support implementation of mitigation measures and any other recommendations of the E&S assessment.

d. Implementation Schedule and Cost Estimates

- i. The ESMP must include:
 - a timeline for implementing all three aspects (mitigation, monitoring, and capacity development), aligning with the overall project implementation plans.
 - capital, recurrent cost estimates and sources of funds for ESMP implementation. These figures are also integrated into the total project cost tables.

e. Integration of ESMP with Project

- i. The Borrower's decision to proceed with a project, and the World Bank's decision to support it, are predicated in part on the expectation that the ESMP (either stand alone or as incorporated into the ESCP) will be executed effectively. Consequently, each of the measures and actions to be implemented will be clearly specified, including the individual mitigation and monitoring measures and actions and the institutional responsibilities relating to each, and the costs of so doing will be integrated into the project's overall planning, design, budget, and implementation.
- ii. Such integration is achieved by establishing the ESMP within the Sub-project so that the plan will receive funding and supervision along with the other components.

Disbursement Application Form

A

Ministry of Higher Education, Science and
Innovation of the Republic of Uzbekistan
PO Box 100174
Tashkent, University 7 str.
Uzbekistan

Attention: Project Implementation Unit for MUNIS Project

1 Date dd/mm/yyyy
2 RCP no. #
3 Grant Agreement no./date
4 Application no. #

5 Project name Title of Subproject

6 Application for payment of (amount & currency) USD XXX XXX.XX

7 Type of disbursement: Special account ☒ Direct payment ☐
Reimbursement ☐

8 Payment instructions

a Payee name Name of the Grantee
b Payee address Address of Grantee
c Payee account number
d Personal account
e Payee Bank name
f Payee Bank address
g Payee Bank code
h Payee Bank SWIFT code (if applicable)

9 The Grantee applies for payment in accordance with the terms and conditions of the Grant Agreement dated dd/mm/yyyy with the Implementation unit of World Bank Project "Modernizing Uzbekistan National Innovation System" at the Ministry of Higher Education, Science and Innovation of the Republic of Uzbekistan. The Grantee certifies and agrees to the following:

- a The amount requested is required solely for the payment or reimbursement for payment for goods and services as described in the attached summary statement(s).
- b The expenditures were or will be for the sole purpose of the Project as specified in the Grant Agreement and the cost and procurement terms are in accordance with the relevant contract(s).
- c No amount has been previously withdrawn or applied for to meet these expenditures.
- d No other funds have been or will be obtained by any other grant, loan or credit for the purpose of fully or partially meeting these expenditures.
- e At the date of this application the grantee is not in default of any obligations under any grant agreement with the Project Implementation Unit under Ministry of Higher Education, Science and Innovation of the Republic of Uzbekistan.
- f The amount requested is consistent with the percentage financed by the Implementation unit of World Bank Project "Modernizing Uzbekistan National Innovation System" at the Ministry of Higher Education, Science and Innovation of the Republic of Uzbekistan for these expenditures as specified in the Grant Agreement.
- g The goods and services have been procured / will be procured in accordance with procedures outlined in the Grant Fiduciary Manual and Grant Agreement and are from eligible sources.
- h For expenditure claimed on the basis of a Statement of Expenditure (SOE), all documentation which verifies these expenditures is retained in the location stated on the summary sheet and is available for review by the PIU/World Bank or auditors upon request.

10 This application consists of 2 page(s) including 1 page summary statement(s).

11 a Name of Grantee Name of the Grantee
Signature(s) of Authorized Representative(s)
Print Name & Title of Signator(y)(ies) Name of Head of the Grantee

*** Please ensure your application and annexes are complete and correct to avoid any delays ***

Disbursement Application Form
Forecast Statement (Special Account)

1 Date dd/mm/yyyy
2 Grant Agreement no. / Appl No. #
3 Special Account no. _____

4 Period Covered dd.mm.yyyy-dd.mm.yyyy
5 Sheet no 1
6 Total no of sheets 1

1 Item no.	2 Component / Budget Line	3 Contract Description / Activities	4 Contract date & no.	5 Total Cost (signed contracts)	6 Previous Payment made from Special Account	7 Total Due in the period	8 Remarks
	Total			USD 0,00	USD 0,00	USD 0,00	
1	Title of Subproject	Personnel remuneration	* Detailed is attached	USD 0,00	USD 0,00	USD 0,00	
		Equipment		USD 0,00	USD 0,00	USD 0,00	
		Laboratory materials and consumables		USD 0,00	USD 0,00	USD 0,00	
		Travel International		USD 0,00	USD 0,00	USD 0,00	
		Travel Domestic		USD 0,00	USD 0,00	USD 0,00	
		Services of third-party organizations and individuals		USD 0,00	USD 0,00	USD 0,00	
		Protection of intellectual property and publications		USD 0,00	USD 0,00	USD 0,00	
		Training courses and seminars		USD 0,00	USD 0,00	USD 0,00	
		Internal Audit		USD 0,00	USD 0,00	USD 0,00	
		Overhead expenses (not exceed the 15% of the total Grant amount)		USD 0,00	USD 0,00	USD 0,00	

* Requested amount in this Application will be paid in UZS

9 Total Required amount in USD USD 0,00
10 Available balance in S.A. in USD USD 0,00
11 Requested in this Application* USD 0,00

12 Name of Grantee Name of the Grantee

Signature(s) of Authorized Representative(s) _____

Print Name & Title of Signator(y)(ies) Name of the Head of the Grantee

Name of Grantee

Reconciliation of special account

Part 1		Account currency UZS	Equivalent in USD
	Opening balance		
1	UZS Special Account - No. _____	dd/mm/yyyy 0,00	0,00
2	Amount received from PIU (World Bank)	dd/mm/yyyy-dd/mm/yyyy 0,00	0,00
3	Fund transferred to different contractors	dd/mm/yyyy-dd/mm/yyyy 0,00	0,00
4	Closing balance	dd/mm/yyyy 0,00	0,00

Name of the Grantee

Name of the Head of the Grantee

Name of Grantee
 STATEMENT OF EXPENDITURES (SOE)
 For the Period from dd/mm/yyyy-dd/mm/yyyy

1	2	3	4	5	6	7
No.	Name of supplier	Description of Goods & Services	Date of payment	Exchange rate Used	Expenditures (in UZS)	USD Equivalent
	Total				-	-

 Name of the Grantee

 Name of the Head of the Grantee

Procurement report
on the Grant Agreement as of «___» _____ 202_ No. ____

in local currency

Name of goods and services	Name of supplier/contract number/ Date of signing	Total amount of the contract	Paid sum	Savings
Goods (Description)				
Total				
Services (Description)				
Total				
TOTAL				

Head of the Grantee Name:

Official Stamp and signature:

Chief Executive Officer Name:

Signature:

Accountant: _____ Name:

Signature:

“ _____ ” _____ 202_

STRUCTURE OF THE TECHNICAL REPORT

«Administrative data» section:

- Type and date of the technical report (*semi-annual, annual, final*):
- Reporting period (*start and end date of the reporting period*):
- Sub-project title:
- Grantee name:
- Full name of the Principal Investigator:

«Result Statement» section:

- Achievement of planned results, conducting planned activities with explanations and justification in terms of quantitative and qualitative data:
- Compliance with ESMF:
- Unplanned results/deviations/discoveries with explanations and justification in the form of quantitative and qualitative data:

«Conclusion» section:

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

Annexes: Documentary proof of the achievement of significant results of the Matching Grant, arranged activities, services, etc.

STRUCTURE OF THE ENVIRONMENTAL AND SOCIAL REPORT

«Administrative data» section:

Type and date of the technical report (semi-annual, annual, final):

Reporting period (start and end date of the reporting period):

Sub-project title:

Grantee name:

Full name of the Principal Investigator:

«Result Statement» section:

1. Expected activity of the Sub-project: _____

2. Expected type of pollution from the activity to the environment (*please underline*):

Atmospheric air, Land, Surface water, Underground water

3. Expected types of waste, effluent or emission to the environment:

4. Expected adverse exposures from the activity (*please underline*):

Noise, Nuisance, Vibration, Radiation

5. The category of risk and environmental impact of the activity (*please underline if you know*):

Moderate (Category III), Low (Category IV).

Obligations of the Grantee:

- (a) Following applicable Environmental and Social Standards and EHS Guidelines of the World Bank and local E&S legislation in realization of its activities.
- (b) Conduction of the national Environmental Impact Assessment and the State Environmental Expertise (according to the Law of Uzbekistan "On Environmental Expertise" No73-II, 25 May 2000 and Resolution of Cabinet Ministries (RCM) of Republic of Uzbekistan # 541 dated from 2020) before starting its activity.
- (c) Following E&S requirements mentioned in ESMF of the PIU (MHESI), develop ESMP for monitoring the activities in all stages of the Sub-project and ensure E&S, health and safety measures are met.
- (d) Submitting E&S reports and calculated compensation payments for environmental pollution (if applicable).