Loan Agreement

(Fostering Productive Innovation Project)

between

REPUBLIC OF KAZAKHSTAN

and

INTERNATIONAL BANK FOR RECONSTRUCTION
AND DEVELOPMENT

Dated June 9, 2015
LOAN AGREEMENT

Agreement dated June 9, 2015, between REPUBLIC OF KAZAKHSTAN ("Borrower") and INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT ("Bank"). The Borrower and the Bank hereby agree as follows:

ARTICLE I -- GENERAL CONDITIONS; DEFINITIONS

1.01. The General Conditions (as defined in the Appendix to this Agreement) constitute an integral part of this Agreement.

1.02. Unless the context requires otherwise, the capitalized terms used in this Agreement have the meanings ascribed to them in the General Conditions or in the Appendix to this Agreement.

ARTICLE II — LOAN

2.01. The Bank agrees to lend to the Borrower, on the terms and conditions set forth or referred to in this Agreement, the amount of eighty-eight million Dollars ($88,000,000), as such amount may be converted from time to time through a Currency Conversion in accordance with the provisions of Section 2.08 of this Agreement ("Loan"), to assist in financing the project described in Schedule 1 to this Agreement ("Project").

2.02. The Borrower may withdraw the proceeds of the Loan in accordance with Section IV of Schedule 2 to this Agreement.

2.03. The Front-end Fee payable by the Borrower shall be equal to one quarter of one percent (0.25%) of the Loan amount. The Borrower shall pay the Front-end Fee not later than sixty (60) days after the Effective Date.

2.04. The Commitment Charge payable by the Borrower shall be equal to one quarter of one percent (0.25%) per annum on the Unwithdrawn Loan Balance.

2.05. The interest payable by the Borrower for each Interest Period shall be at a rate equal to the Reference Rate for the Loan Currency plus the Variable Spread; provided, that upon a Conversion of all or any portion of the principal amount of the Loan, the interest payable by the Borrower during the Conversion Period on such amount shall be determined in accordance with the relevant provisions of Article IV of the General Conditions. Notwithstanding the foregoing, if any amount of the Withdrawn Loan Balance remains unpaid when due and such non-payment continues for a period of thirty days, then the interest payable by the Borrower shall instead be calculated as provided in Section 3.02(e) of the General Conditions.
2.06. The Payment Dates are June 15 and December 15 in each year.

2.07. The principal amount of the Loan shall be repaid in accordance with the amortization schedule set forth in Schedule 3 to this Agreement.

2.08. (a) The Borrower may at any time request any of the following Conversions of the terms of the Loan in order to facilitate prudent debt management:

(i) a change of the Loan Currency of all or any portion of the principal amount of the Loan, withdrawn or unwithdrawn, to an Approved Currency;

(ii) a change of the interest rate basis applicable to: (A) all or any portion of the principal amount of the Loan withdrawn and outstanding from a Variable Rate to a Fixed Rate, or vice versa; or (B) all or any portion of the principal amount of the Loan withdrawn and outstanding from a Variable Rate based on a Reference Rate and the Variable Spread to a Variable Rate based on a Fixed Reference Rate and the Variable Spread, or vice versa; or (C) all of the principal amount of the Loan withdrawn and outstanding from a Variable Rate based on a Variable Spread to a Variable Rate based on a Fixed Spread; and

(iii) the setting of limits on the Variable Rate or the Reference Rate applicable to all or any portion of the principal amount of the Loan withdrawn and outstanding by the establishment of an Interest Rate Cap or Interest Rate Collar on the Variable Rate or the Reference Rate.

(b) Any conversion requested pursuant to paragraph (a) of this Section that is accepted by the Bank shall be considered a “Conversion”, as defined in the General Conditions, and shall be effected in accordance with the provisions of Article IV of the General Conditions and of the Conversion Guidelines.

ARTICLE III — PROJECT

3.01. The Borrower declares its commitment to the objective of the Project. To this end, the Borrower shall carry out the Project through its Ministry of Education and Science ("MOES"), in accordance with the provisions of Article V of the General Conditions.

3.02. Without limitation upon the provisions of Section 3.01 of this Agreement, and except as the Borrower and the Bank shall otherwise agree, the Borrower shall ensure that the Project is carried out in accordance with the provisions of Schedule 2 to this Agreement.
ARTICLE V — EFFECTIVENESS; TERMINATION

4.01. The Additional Conditions of Effectiveness consist of the following:

(a) The MOES has issued an order to establish the PMU, as provided in Section I.A.2. of Schedule 2 to this Agreement.

(b) The Project Operations Manual, satisfactory to the Bank, has been adopted by the Borrower, through MOES.

4.02. The Effectiveness Deadline is the date one hundred eighty (180) days after the date of this Agreement.

ARTICLE V — REPRESENTATIVE; ADDRESSES

5.01. The Borrower’s Representative is the Minister of Finance.

5.02. The Borrower’s Address is:

    Ministry of Finance  
    11 Pobedy Avenue  
    Astana 010000  
    Republic of Kazakhstan

    Telex: 265126 (FILIN)  
    Facsimile: (7) (7172) 717785

5.03. The Bank’s Address is:

    International Bank for Reconstruction and Development  
    1818 H Street, N.W.  
    Washington, D.C. 20433  
    United States of America

    Cable address: INTBAFRAD  
    Telex: 248423(MCI) or 64145(MCI)  
    Facsimile: 1-202-477-6391
AGREED at Astana, Republic of Kazakhstan, as of the day and year first above written.

REPUBLIC OF KAZAKHSTAN

By

Authorized Representative

Name: Bakhyt Sultanov
Title: Minister of Finance

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

By

Authorized Representative

Name: Ludmilla Butenko
Title: Country Manager
SCHEDULE 1

Project Description

The objective of the Project is to promote high-quality, nationally relevant research and commercialization of technologies.

The Project consists of the following parts:

Part 1: Development of the Knowledge Base for Innovation

Promoting high-quality, nationally relevant research and development and advanced human capital activities through the provision of Junior Researcher Group Grants, Senior Scientist Group Grants, and PhD Research and Training Grants.

Part 2: Innovation Consortia

Promoting collaboration among existing scientific research institutes and design bureaus and scientific and engineering profile laboratories in Kazakhstan: (a) in respect of research and development activities for purposes of improving the productive sectors of the Borrower’s economy, through the provision of Productive Sector Consortia Grants; and (b) in respect of the delivery of social services, including improving the livelihood of the urban and rural population, through the provision of Inclusive Innovation Consortia Grants.

Part 3: Consolidation of the Technology Commercialization Cycle

Promoting the development of start-up companies through:

A. Establishment of the Early Stage Venture Capital Fund ("ESVC Fund") for purposes of providing ESVC Investments to finance ESVC Subprojects, including provision of management support;

B. Provision of consultants’ services to develop technology and innovation ideas into viable commercial projects, through innovation brokerage and deal flow generation activities, pursuant to criteria set forth in the POM;

C. Establishment and operation of Technology Acceleration Offices outside of Kazakhstan; and

D. Establishment of the capacity of existing Technology Transfer Offices at major Kazakh universities and enhancing their capacity through the provision of Training.
Part 4: Strengthening Coordination of the National Innovation System: Enhancing the Capacity of the Existing Institutional Structures

Promoting better coordination among key stakeholders and relevant authorities and ministries of the Borrower in the National Innovation System, by designing and establishing an innovation observatory, consisting of a formal framework to monitor innovation performance of the public and private sectors, through provision of goods, consultants’ services, all pursuant to criteria set forth in the POM.

Part 5: Support Project Implementation

Support the PMU in carrying out the Project management, monitoring and evaluation, awareness raising activities and capacity development.
SCHEDULE 2

Project Execution

Section I. Implementation Arrangements

A. Institutional Arrangements

1. The Borrower, through the MOES, shall carry out the Project in accordance with the requirements, criteria, organizational arrangements and operational procedures set forth in the POM.

2. The Borrower, through the MOES, shall establish, and thereafter operate and maintain throughout Project implementation, a Project Management Unit (PMU) with functions and responsibilities (including the responsibility to assist the MOES in carrying out the day-to-day Project activities), staff with qualifications and experience (including a director, a procurement specialist, a financial management specialist, a monitoring and evaluation specialist, a safeguards specialist and an accountant) and adequate resources, all satisfactory to the Bank.

3. The Borrower shall not assign, amend, abrogate or waive any provisions of the POM without the prior approval of the Bank.

4. The Borrower, through the MOES, shall establish and thereafter maintain a Project Steering Committee with composition (including, *inter alia*, representatives of the Department of Finance of the MOES, Legal Department of the MOES, Head of the PMU, and chaired by the Vice-Minister of the MOES in charge of Project implementation), and functions and responsibilities, acceptable to the Bank, including, *inter alia*, the responsibility to: (i) provide strategic guidance to the MOES for overall Project implementation; (ii) develop and approve annual plans for Project activities, Project budget, and the relevant Procurement Plan, as well as regular review of Project monitoring and evaluation data to determine progress and propose adjustments to the MOES to ensure satisfactory achievement of the Project objective; (iii) coordinate and promote among key stakeholders consensus building on key policy issues related to Project implementation; and (iv) monitor implementation of innovation reforms.

5. The Borrower, through the MOES shall rely on and shall cause the Science Fund to provide necessary assistance to MOES in the technical aspects of the Project, including, *inter alia*, preparing and monitoring technical aspects of implementation plans (work programs and budgets), drafting technical aspects of terms of reference participating in selection processes of Subproject Grant recipients, monitoring the technical aspects of performance of Subprojects, collecting technical data on Project monitoring indicators, all pursuant to the POM.
6. Without limitations to the provisions of Section 5.03 of the General Conditions, the Borrower shall provide to the MOES, promptly, as needed, the funds and other resources for the implementation of Parts 4 and 5 of the Project.

7. The Borrower, through the MOES, shall establish and maintain, at all times during implementation of the Project, the ISCB with staff with qualifications and experience acceptable to the Bank (including scientists with qualifications and experience representing the fields of scientific expertise that are of strategic importance for the Borrower, including, inter alia, physical chemistry, geophysical sciences, engineering, mathematics, biomedical or bioengineering, ecology, information technology and electronics, and materials science), as well as resources, and term: of reference, all satisfactory to the Bank.

8. The Borrower, through the MOES, shall enable the ISCB to provide guidance on all scientific matters associated with the Project, including guidance in connection with the selection of the recipients of SSG Grants, JRG Grants, and PhD Research and Training Grants, and on the monitoring of their scientific and commercialization progress, all in accordance with the requirements, criteria, organizational arrangements and operational procedures set forth in the POM and the EMF.

9. Within six (6) months from the Effective Date, the Borrower, through the MOES, shall develop and launch a new financial management system which shall be used to, inter alia, generate the interim unaudited financial reports referred to in Section II.B.2 of this Schedule.

B. Subprojects

1. For the purposes of carrying out any Junior Researcher Group Subproject, Senior Scientist Group Subproject, or PhD Research and Training Subproject under Part 1 of the Project, the Borrower, through the MOES, shall make SSG Grants, JRG Grants, and PhD Research and Training Grants in accordance with the eligibility criteria and procedures set forth in the POM. Each proposal for any given Junior Researcher Group Subproject, Senior Scientist Group Subproject, or PhD Research and Training Subproject, shall:

   (a) be market-oriented and scientifically and internationally competitive;

   (b) have research relevance for the current or future scientific, economic, and industrial development of Kazakhstan, including the possibility of forging research partnerships with local or foreign business firms;

   (c) include plans for mentoring graduate and undergraduate students and providing training fellowships aimed at nurturing the next generation of scientists;
have potential for, and interest in conducting multidisciplinary research;

(e) include proposals for outreach activities to universities, secondary schools and the general public; and

(f) be selected, appraised, implemented and evaluated in accordance with the principles and procedures set forth in the POM, the Procurement Guidelines, and the EMF.

2. For the purposes of carrying out any Productive Sector Consortia Subproject, or Inclusive Innovation Consortia Subproject under Part 2 of the Project, the Borrower, through the MOES, shall make PSC Grants and IIC Grants in accordance with the eligibility criteria and procedures set forth in the POM. Each proposal for any given Productive Sector Consortia Subproject or Inclusive Innovation Consortia Subproject, shall be:

(a) selected by MOES upon the advice of the ISCB;

(b) be market-oriented and scientifically and internationally competitive;

(c) have research relevance for the current or future scientific, economic, and industrial development of Kazakhstan;

(d) be selected, appraised, implemented and evaluated in accordance with the principles and procedures set forth in the POM, the Procurement Guidelines, and the EMF.

3. The Borrower, through the MOES, shall make each SSG Grant under a SSG Grant Agreement, each JRG Grant under a JRG Grant Agreement, each PhD Research and Training Grant under a PhD Research and Training Grant Agreement, each PSC Grant under a PSC Grant Agreement, and each IIC Grant under an IIC Grant Agreement, all on terms and conditions approved by the Bank, which shall include the following:

(a) SSG Grants, JRG Grants, PhD Research and Training Grants, PSC Grants, and IIC Grants shall be denominated in Tenge; and

(b) the Borrower shall obtain rights adequate to protect its interests and those of the Bank, including the right to:

(i) suspend or terminate use of the proceeds of an SSG Grant, JRG Grant, PhD Research and Training Grant, PSC Grant, or IIC Grant, as the case may be, or obtain a refund of all or any part of the amount of the SSG Grant, JRG Grant, PhD Research and Training Grant, PSC Grant, or IIC Grant upon failure by the
per:in:ent recipient to perform any of its obligations under the cor:es:pon:ing SSG Grant Agreement, JRG Grant Agreement, PhD Research and Training Grant Agreement, PSC Grant Agreement, or IIC Grant Agreement, respectively; and

(ii) require each recipient of an SSG Grant, JRG Grant, PhD Research and Training Grant, PSC Grant or IIC Grant, to:

(A) carry out the pertinent Subproject, as the case may be, with due diligence and efficiency and in accordance with sound technical, economic, financial, managerial, environmental and social standards and practices satisfactory to the Bank, including in accordance with the provisions of the EMF and the Anti-Corruption Guidelines;

(B) provide, promptly as needed, the resources required for the purpose;

(C) procure the goods, minor works and services to be financed out of a SSG Grant, JRG Grant, PhD Research and Training Grant, PSC Grant, or IIC Grant, as the case may be, in accordance with the provisions of this Agreement, and the provisions set forth in Section III of this Schedule (including the Attachment to this Schedule);

(D) maintain policies and procedures adequate to enable it to monitor and evaluate, in accordance with indicators acceptable to the Bank, the progress of the pertinent Subproject and the achievement of its objectives;

(E) (1) maintain a financial management system and prepare financial statements in accordance with consistently applied accounting standards acceptable to the Bank, both in a manner adequate to reflect the operations, resources and expenditures related to the Subproject; and

(2) at the Bank’s or the Borrower’s request, have such financial statements audited by independent auditors acceptable to the Bank, in accordance with consistently applied auditing standards acceptable to the Bank, and promptly furnish the statements as so audited to the Borrower and the Bank;
(F) enable the Borrower and the Bank to inspect the respective Subproject, its operation and any relevant records and documents; and

(G) prepare and furnish to the Borrower and the Bank all such information as the Borrower or the Bank shall reasonably request relating to the foregoing.

4. The Borrower, through the MOES, shall exercise its rights and carry out its obligations under each SSG Grant Agreement, JRG Grant Agreement, PhD Research and Training Grant Agreement, PSC Grant Agreement, and IIC Grant Agreement in such manner as to protect the interests of the Borrower and the Bank and to accomplish the purposes of the Loan. Except as the Bank shall otherwise agree, the Borrower shall not assign, amend, abrogate, waive, terminate or fail to enforce any SSG Grant Agreement, any JRG Grant Agreement, any PhD Research and Training Grant Agreement, any PSC Grant Agreement, any IIC Grant Agreement, or any of their provisions.

5. For the purposes of carrying out Part 3.A. of the Project, the Borrower, through MOES, shall hire and retain a private management company for the ESVC Fund with qualifications and experience and terms of reference, all acceptable to the Bank, which shall be responsible, inter alia, for actively seeking ESVC Subprojects, presenting them to the ESVC Fund Investment Committee, monitoring performance of ESVC Investments, and regularly informing the ESVC Fund Steering Board on the ESVC Fund’s performance.

6. For the purposes of carrying out Part 3.A. of the Project and in order to ensure the ESVC Fund ability to provide early stage financing for ESVC Subprojects, the Borrower, through MOES, shall transfer the proceeds of the Loan allocated to Category (4) to the ESVC Fund pursuant to an agreement to be entered into between the Borrower, through MOES, and the ESVC Fund (the “ESVC Fund Establishment Agreement”) on terms and conditions, acceptable to the Bank, which shall include inter alia:

(a) the right of the Borrower, through the MOES, to take remedial actions against the ESVC Fund in case the ESVC Fund shall have failed to comply with any of its obligations under the ESVC Fund Establishment Agreement (which actions may include, inter alia, the partial or total suspension and/or cancellation or refund of all or any part of the proceeds of the Loan transferred to the ESVC Fund pursuant to the ESVC Fund Establishment Agreement (as the case may be);

(b) the obligation of the Borrower, through the MOES, to: (i) provide from the proceeds of the Loan, up to 50% of the total funds required to make ESVC Investments, on a matching basis, provided that funds equivalent to
the remaining percentage necessary to attain 100% of the relevant ESVC Investment are provided from private investors, pursuant to criteria set forth in the POM, and from sources acceptable to the Bank; and (ii) comply with the pertinent obligations set forth in this Agreement, as applicable to Part 3.A of the Project; and

(c) the obligation of the ESVC Fund to, upon approval of any given ESVC Subproject, make a ESVC Investment to the recipient of said ESVC Investment pursuant to an agreement to be entered into between the ESVC Fund and said recipient (the “ESVC Fund Investment Agreement”) on terms and conditions acceptable to the Bank, which shall include, inter alia:

(i) the ESVC Fund shall ensure that the ESVC Fund obtains rights adequate to protect the interests of the Borrower, the ESVC Fund, and those of the Bank, including the right to suspend or terminate use of the proceeds of any given ESVC Investment, or obtain a refund of all or any part of the amount of the pertinent ESVC Investment upon failure by the recipient to perform any of its obligations under the corresponding ESVC Fund Investment Agreement; and

(ii) require each recipient of any given ESVC Investment to:

(A) carry out the pertinent ESVC Subproject with due diligence and efficiency and in accordance with sound technical, economic, financial, managerial, environmental and social standards and practices satisfactory to the Bank, including in accordance with the provisions of the EMF and the Anti-Corruption Guidelines;

(B) provide, promptly as needed, the resources required for the purpose;

(C) procure the goods, minor works and services to be financed out of an ESVC Investment in accordance with the provisions of this Agreement and Section III of this Schedule (including the Attachment to this Schedule);

(D) maintain policies and procedures adequate to enable it to monitor and evaluate, in accordance with indicators acceptable to the Bank, the progress of the ESCV Subproject and the achievement of its objectives;
(E) (1) maintain a financial management system and prepare financial statements in accordance with consistently applied accounting standards acceptable to the Bank, both in a manner adequate to reflect the operations, resources and expenditures related to the Sub-project; and

(2) at the Bank’s or the Borrower’s request, have such financial statements audited by independent auditors acceptable to the Bank, in accordance with consistently applied auditing standards acceptable to the Bank, and promptly furnish the statements as so audited to the Borrower and the Bank;

(F) enable the Borrower and the Bank to inspect the pertinent ESVC Subproject, its operation and any relevant records and documents; and

(G) prepare and furnish to the Borrower and the Bank all such information as the Borrower or the Bank shall reasonably request relating to the foregoing.

7. The Borrower shall exercise its rights and carry out its obligations under the ESVC Fund Establishment Agreement in such manner as to protect the interests of the Borrower and the Bank and to accomplish the purposes of the ESVC Investment. Except as the Bank shall otherwise agree, the Borrower, through the MOES shall ensure that the ESVC Fund shall not assign, amend, abrogate, terminate, waive or fail to enforce any ESVC Fund Grant Agreement or any provision thereof.

C. Anti-Corruption

The Borrower shall ensure that the Project is carried out in accordance with the provisions of the Anti-Corruption Guidelines.

D. Safeguards

1. The Borrower shall carry out the Project through MOES in accordance with the Environmental Management Framework and any site-specific environmental management plans prepared thereunder, and shall not assign, amend, suspend, abrogate, repeal or waive any provision of the EMF or any site-specific environmental management plans without the prior approval of the Bank.
2. The Borrower, through MOES, shall ensure that proposals for Subprojects, including proposals for ESVC Subprojects shall not be approved if they involve:

(a) Any activities involving Involuntary Resettlement;

(b) Any activities likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented, as determined by the Bank; or

(c) Any activities identified as not eligible in the EMF.

Section II. Project Monitoring Reporting and Evaluation

A. Project Reports

The Borrower, through the MOES, shall monitor and evaluate the progress of the Project and prepare Project Reports in accordance with the provisions of Section 5.08 of the General Conditions and on the basis of indicators acceptable to the Bank. Each Project Report shall cover the period of one calendar quarter, and shall be furnished to the Bank not later than forty-five (45) days after the end of the period covered by such report.

B. Financial Management, Financial Reports and Audits

1. The Borrower, through the MOES, shall maintain or cause to be maintained a financial management system in accordance with the provisions of Section 5.09 of the General Conditions.

2. Without limitation on the provisions of Part A of this Section, the Borrower, through the MOES, shall prepare and furnish to the Bank not later than forty-five (45) days after the end of each calendar quarter, interim unaudited financial reports for the Project covering the pertinent calendar quarter, in form and substance satisfactory to the Bank.

3. The Borrower, through the MOES, shall have its Financial Statements audited in accordance with the provisions of Section 5.09 (b) of the General Conditions. Each audit of the Financial Statements shall cover the period of one fiscal year of the Borrower. The audited financial statements for each such period shall be furnished to the Borrower and the Bank not later than six months after the end of such period, and be made publicly available in a timely fashion and in a manner acceptable to the Bank.

4. The Borrower, through the MOES, shall ensure: (a) that the ESVC Fund prepares financial statements in accordance with consistently applied accounting standards acceptable to the Bank, both in a manner adequate to reflect the operations and financial condition of the ESVC Fund, including the operations, resources and
Section III. Procurement

A. General

1. Goods and Non-consulting Services. All goods, minor works and non-consulting services required for the Project and to be financed out of the proceeds of the Loan shall be procured in accordance with the requirements set forth or referred to in Section I of the Procurement Guidelines, and with the provisions of this Section.

2. Consultants’ Services. All consultants’ services required for the Project and to be financed out of the proceeds of the Loan shall be procured in accordance with the requirements set forth or referred to in Sections I and IV of the Consultant Guidelines and with the provisions of this Section.

3. Definitions. The capitalized terms used below in this Section to describe particular procurement methods or methods of review by the Bank of particular contracts refer to the corresponding method described in Sections II and III of the Procurement Guidelines, or Sections II, III, IV and V of the Consultant Guidelines, as the case may be.

B. Particular Methods of Procurement of Goods and Non-consulting Services

1. International Competitive Bidding. Except as otherwise provided in paragraph 2 below, goods, minor works and non-consulting services shall be procured under contracts awarded on the basis of International Competitive Bidding.

2. Other Methods of Procurement of Goods and Non-consulting Services. The following methods, other than International Competitive Bidding, may be used for procurement of goods, minor works and non-consulting services for those contracts specified in the Procurement Plan:

(a) National Competitive Bidding, subject to additional provisions set forth in the Attachment to this Schedule 2;

(b) Shopping; and

(c) Direct Contracting.
C. **Particular Methods of Procurement of Consultants’ Services**

1. **Quality- and Cost-based Selection.** Except as otherwise provided in paragraph 2 below, consultant’s services shall be procured under contracts awarded on the basis of Quality and Cost-based Selection.

2. **Other Methods of Procurement of Consultants’ Services.** The following methods, other than Quality and Cost-based Selection, may be used for procurement of consultants’ services for those contracts which are specified in the Procurement Plan:

   (a) Selection under a Fixed Budget;
   (b) Least Cost Selection;
   (c) Selection based on Consultants’ Qualifications;
   (d) Single-source Selection of Consulting Firms;
   (e) Selection of Individual Consultants; and

D. **Review by the Bank of Procurement Decisions**

The Procurement Plan shall set forth those contracts which shall be subject to the Bank’s Prior Review. All other contracts shall be subject to Post Review by the Bank.

**Section IV. Withdrawal of Loan Proceeds**

A. **General**

1. The Borrower may withdraw the proceeds of the Loan in accordance with the provisions of Article II of the General Conditions, this Section, and such additional instructions as the Bank shall specify by notice to the Borrower (including the “World Bank Disbursement Guidelines for Projects” dated May 2006, as revised from time to time by the Bank and as made applicable to this Agreement pursuant to such instructions), to finance Eligible Expenditures as set forth in the table in paragraph 2 below.

2. The following table specifies the categories of Eligible Expenditures that may be financed out of the proceeds of the Loan (“Category”), the allocation of the amounts of the Loan to each Category, and the percentage of expenditures to be financed for Eligible Expenditures in each Category.
<table>
<thead>
<tr>
<th>Category</th>
<th>Amount of the Loan Allocated (expressed in USD)</th>
<th>Percentage of Expenditures to be financed (exclusive of Taxes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) JRG Grants and SSG Grants under Part 1 of the Project</td>
<td>30,000,000</td>
<td>100%</td>
</tr>
<tr>
<td>(2) PhD Research and Training Grants under Part 1 of the Project</td>
<td>10,000,000</td>
<td>100%</td>
</tr>
<tr>
<td>(3) PSC Grants, IIC Grants, and consultants’ services under Part 2 of the Project</td>
<td>35,000,000</td>
<td>100%</td>
</tr>
<tr>
<td>(4) Establishment of the ESVC Fund, ESVC Investments, and management fees, and audits, under Part 3.A of the Project</td>
<td>10,000,000</td>
<td>100%</td>
</tr>
<tr>
<td>(5) Consultants’ services under Part 3.B of the Project</td>
<td>2,000,000</td>
<td>100%</td>
</tr>
<tr>
<td>(6) Operating Costs under Part 3.C of the Project</td>
<td>600,000</td>
<td>37.5%</td>
</tr>
<tr>
<td>(7) Consultants’ services under Part 3.C of the Project</td>
<td>400,000</td>
<td>100%</td>
</tr>
<tr>
<td>TOTAL AMOUNT</td>
<td>88,000,000</td>
<td></td>
</tr>
</tbody>
</table>
For purposes of this table:

"Operating Costs" means the reasonable and incremental expenses incurred by the MOES, on account of implementation of Part 3.C of the Project, for office supplies and other consumables, office rent, internet connection and communications costs, support for information systems, translation costs, bank charges, utilities, reasonable travel, transportation, per diem, accommodation costs (lodging), and other reasonable expenditures directly associated with implementation of Part 3.C of the Project, as agreed between the Borrower, through MOES and the Bank on the basis of semi-annual budgets acceptable to the Bank.

B. Withdrawal Conditions; Withdrawal Period

1. Notwithstanding the provisions of Part A of this Section, no withdrawal shall be made:

   (a) from the Loan Account until the Bank has received payment in full of the Front-end Fee;

   (b) for payments made prior to the date of this Agreement; and

   (c) under Clause (4), until the Borrower, through the MOES, has provided evidence satisfactory to the Bank of the following: (i) that the ESVC Fund has been established; (ii) the ESVC Fund Establishment Agreement has been duly executed by the parties thereto and is legally binding upon each such party in accordance with its terms; (iii) the ESVC Fund Manual has been approved by the MOES, and adopted by the ESVC Fund, all on terms and in a manner acceptable to the Bank.

2. The Closing Date is December 31, 2020.

Section V. Other Undertakings

A. Supervision of Activities Outside of the Borrower’s Territory

1. The Borrower shall ensure that no activity under Part 3.C of the Project shall be carried out without obtaining the necessary assurances and relevant permits from the relevant authorities of the countries where any activity under Part 3.C of the Project is intended to be carried out, sufficient for the Borrower and the Bank, to carry out any supervision activities.
Attachment

to

SCHEDULE 2

The procurement procedures to be followed for National Competitive Bidding shall be the tender procedures set forth in the Law of the Borrower on Public Procurement No. 303-III dated July 21, 2007, as amended by the Law of the Borrower “On amendments and additions to certain legislative acts of Republic of Kazakhstan on the delimitation of powers between different levels of public administration” No. 239-V dated September 29, 2014; provided, however, that such procedure shall be subject to the provisions of Section I and Paragraphs 3.3 and 3.1 of the Procurement Guidelines and the following additional provisions:

(a) Eligibility: The eligibility of bidders to participate in a procurement process and to be awarded a Bank-financed contract shall be as defined under Section I of the Procurement Guidelines; accordingly, no bidder or potential bidder shall be declared ineligible for contracts financed by the Bank for reasons other than those provided in Section I of the Procurement Guidelines. Foreign bidders shall be allowed to participate in NCB procedures, and shall not be obligated to partner with local bidders in order to participate in a procurement process.

(b) Registration: Bidding shall not be restricted to pre-registered firms, and foreign bidders shall not be required to be registered with local authorities as a prerequisite for submitting bids.

(c) Preferences: No preference of any kind shall be applied in bid evaluation on the basis of bidder nationality; origin of goods, services or labor; local content; citizen degree of ownership; and/or any other preferential programs.

(d) Bidding Documents: Procuring entities shall use the appropriate standard bidding documents, including contractual provisions, satisfactory to the Bank.

(e) Cost Estimates: Cost estimates shall be confidential and shall not be disclosed to prospective bidders.

(f) Bid Validity: An extension of bid validity, if justified by exceptional circumstances, may be requested in writing from all bidders before the expiration date and for a minimum period required to complete the evaluation or award a contract, provided that such extension shall cover only the minimum period required to complete the evaluation and/or award a contract, but not to exceed four (4) weeks. No further extensions shall be requested without the prior written concurrence of the Bank.
(g) **Bid Submission and Bid Opening**: Prospective bidders shall be given at least thirty (30) days from the date of publication of the invitation to bid or the date of availability of the bidding documents, whichever is later, to prepare and submit bids. Bids shall be opened in public immediately after the deadline for their submission. A copy of the bid opening minutes shall be promptly provided to all bidders who submitted bids, and to the Bank with respect to contracts subject to the Bank's prior review.

(h) **Qualification**: Qualification criteria shall be clearly specified in the bidding documents. All criteria so specified, and only such specified criteria, shall be used to determine whether a bidder is qualified. Qualification shall be assessed on a "pass or fail" basis, and merit points shall not be used. Such assessment shall be based entirely upon the bidder's or prospective bidder's capability and resources to effectively perform the contract, taking into account objective and measurable factors, including: (i) relevant general and specific experience, and satisfactory past performance and successful completion of similar contracts over a given period; (ii) financial position; and where relevant; (iii) capability of construction and/or manufacturing facilities.

(i) **Prequalification procedures and documents**: satisfactory to the Bank shall be used for large, complex and/or specialized works contracts. Verification of the information upon which a bidder was prequalified, including current commitments and the bidder's capability with respect to personnel and equipment, shall be carried out at the time of contract award.

(j) Where prequalification is not used, the qualification of the bidder who is recommended for award of contract shall be assessed by post-qualification, applying the qualification criteria stated in the bidding documents.

(k) **Bid Evaluation**: Evaluation criteria shall be clearly specified in the bidding documents. Evaluation of bids shall be made in strict adherence to the quantifiable criteria declared in the bidding documents. Evaluation criteria other than price shall be quantified in monetary terms. Merit points and bracketing shall not be used, and no minimum point or percentage value shall be assigned to the significance of price, in bid evaluation. Bidders shall not be eliminated on the basis of minor, nonmaterial deviations. The procuring entity shall ask bidders for clarifications needed to evaluate their bids, but shall not ask or permit bidders to change the substance or price of their bids after the bid opening.
(l) Contracts shall be awarded to the qualified bidder whose bid has been determined (i) to be substantially responsive to the bidding documents; and (ii) to offer the lowest-evaluated cost. No negotiation as to the price or substance of the bid shall take place.

(m) Rejection of Bids and Re-Bidding: No bids shall be rejected solely because they fall below or exceed the estimated cost or outside of a range or "bracket" of bid values. All bids (including in the case when less than two bids are received) shall not be rejected, the procurement process shall not be cancelled, and new bids shall not be solicited without the Bank's prior written concurrence.

(n) Guarantees: Bid and contract guarantees shall be in the format and have the required period of validity specified in the bidding documents. If required, bid security shall be expressed as a fixed amount and shall not exceed two percent (2%) of the estimated cost of the contract. No advance payments shall be made to contractors without a suitable advance payment guarantee.

(o) Confidentiality: The process of bid evaluation shall be confidential until the publication of contract award.

(p) Electronic Procurement Systems: Electronic procurement systems may be used, provided that the Bank is satisfied with the adequacy of the systems, including, *inter alia*, that the system is secure, maintains the integrity, confidentiality and authenticity of bids submitted.

(q) Fraud and Corruption: In accordance with the Procurement Guidelines, each bidding document and contract shall include provisions stating the Bank's policy to sanction firms or individuals, found to have engaged in fraud and/or corruption as defined in the Procurement Guidelines.

(r) Inspection and Audit Rights: In accordance with the Procurement Guidelines, each bidding document and contract financed out of the proceeds of the Loan shall provide that bidders, suppliers, contractors and their subcontractors, agents, personnel, consultants, service providers, or suppliers shall all permit the Bank to inspect all accounts, records and other documents relating to the bid submission and performance of the contract and to have said accounts and records audited by auditors appointed by the Bank. Acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for in the Procurement Guidelines constitute an obstructive practice as defined in the Guidelines.
(s) Publication of the Award of Contract: The procuring entity shall publish the following information on contract award in a free and open access website or on another means of publication acceptable to the Bank: (a) name of each bidder who submitted a bid; (b) bid prices as read out at bid opening; (c) name and evaluated price of each bid that was evaluated; (d) name of bidders whose bids were rejected and the reasons for their rejection; and (e) name of the winning bidder, price it offered as well as the duration and summary scope of the contract awarded.
SCHEDULE 3

Amortization Schedule

1. Subject to the provisions of paragraph 2 of this Schedule, the Borrower shall repay each Disbursed Amount in semiannual installments payable on each June 15 and December 15, the first installment to be payable on the eleventh (11th) Payment Date following the Maturity Fixing Date for the Disbursed Amount and the last installment to be payable on the thirtieth (30th) Payment Date following the Maturity Fixing Date for the Disbursed Amount. Each installment except for the last one shall be equal to one-twentieth (1/20) of the Disbursed Amount. The last installment shall be equal to the remaining outstanding amount of the Disbursed Amount.

2. If any one or more installments of principal of the Disbursed Amount would, pursuant to the provisions of paragraph 1 of this Schedule, be payable after December 15, 2035, the Borrower shall also pay on such date the aggregate amount of all such installments.

3. The Bank shall notify the Loan Parties of the amortization schedule for each Disbursed Amount promptly after the Maturity Fixing Date for the Disbursed Amount.

4. Notwithstanding the provisions of paragraphs 1 through 3 of this Schedule, in the event of a Currency Conversion of all or any portion of a Disbursed Amount to an Approved Currency, the amount so converted in the Approved Currency that is repayable on any Principal Payment Date occurring during the Conversion Period, shall be determined by the Bank by multiplying such amount in its currency of denomination immediately prior to the Conversion by either: (i) the exchange rate that reflects the amounts of principal in the Approved Currency payable by the Bank under the Currency Hedge Transaction relating to the Conversion; or (ii) if the Bank so determines in accordance with the Conversion Guidelines, the exchange rate component of the Screen Rate.

5. If the Withdrawn Loan Balance is denominated in more than one Loan Currency, the provisions of this Schedule shall apply separately to the amount denominated in each Loan Currency.
APPENDIX

Section I. Definitions


2. “Category” means a category set forth in the table in Section IV of Schedule 2 to this Agreement.


4. “Early Stage Venture Capital Fund” or “ESVC Fund” means an early stage venture capital fund to be established by the Borrower, through the MOES, in line with the provisions of the Borrower’s legislation, using selection and eligibility criteria set forth in the POM.

5. “Environmental Management Framework” or “EMF” means the Environmental Management Framework prepared for the Project and published on September 10, 2014, and disclosed in the World Bank’s InfoShop on September 11, 2014, satisfactory to the Bank, and consisting of the set of mitigation, monitoring, and institutional measures to be taken to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels, as well as actions needed to implement these measures, through the preparation of applicable environmental management plans, all under the Project, as the same shall be amended from time to time with the prior approval of the Bank.

6. “ESVC Fund Establishment Agreement” means the agreement between the MOES and the ESVC Fund, referred to in Section I.B.6 of Schedule 2 to this Agreement, on terms and conditions approved by the Bank.

7. “ESVC Fund Investment Agreement” means the agreement between the ESVC Fund and the recipient of an ESVC Investment, referred to in Section I.B.6(c) of Schedule 2 to this Agreement, on terms and conditions approved by the Bank.

8. “ESVC Fund Investment Committee” means a committee of the ESVC Fund responsible for selecting ESVC Subprojects, and formed pursuant to criteria set forth in the ESVC Fund Manual, which may include representatives of the MOES and private sector investors.
9. "ESVC Fund Manual" means a document developed by the ESVC Fund, adopted by the MOES, and acceptable to the Bank, that regulates all business processes, reporting lines and distributions of responsibilities and accountability, including procurement and financial management of the ESVC Fund.

10. "ESVC Fund Steering Board" means a committee of the ESVC Fund responsible for providing strategic guidance and oversight to the operation of the ESVC Fund, and formed pursuant to criteria set forth in the ESVC Fund Manual, which may include senior representatives of the MOES and private sector investors.

11. "ESVC Investment" means any investment made out of the proceeds of the Loan under Part 3.A of the Project, for the purpose of carrying out an ESVC Subproject, which investment is: (i) selected in accordance with criteria and procedures set forth in the POM; (ii) provided to finance recipients which meet the eligibility criteria set forth in the POM; and (iii) for the financing of goods, non-consulting services and consultants' services, as detailed in the POM.

12. "ESVC Subproject" means any group of investments or activities of eligible technology start-ups under Part 3.A of the Project, which meet the eligibility criteria set forth in the POM.

13. "Fiduciary Handbook for Subproject Grant Recipients" means a document prepared and officially approved by MOES, and acceptable to the Bank that regulates all procurement and financial management procedures and reporting arrangements applicable to the recipients of Subproject Grants.


15. "Inclusive Innovation Consortia Grant" or "IIC Grant" means any grant made out of the proceeds of the Loan under Part 2 of the Project, for the purpose of carrying out Inclusive Innovation Consortia Subprojects, which grants are (i) selected in accordance with criteria and procedures set forth in the POM; (ii) provided to inclusive innovation sector consortia who meet the eligibility criteria set forth in the POM; and (iii) for the financing of goods, non-consulting services and consultants’ services, as detailed in the POM.

16. "Inclusive Innovation Consortia Subproject" means any group of research and development investments or activities under Part 2 of the Project to improve the delivery of social services, including the livelihood of the urban and rural population, all of which meet the eligibility criteria set forth in the POM.
17. "Inclusive Innovation Grant Agreement" or "IIC Grant Agreement" means any agreement entered into between the Borrower, through MOES, and the recipient of an Inclusive Innovation Consortia Grant, referred to in Section I.B of Schedule 2 to this Agreement.

18. "Involuntary Resettlement" means the impact of an involuntary taking of land under the Project, which taking causes affected persons to have their: (i) standard of living adversely affected; or (ii) right, title or interest in any house, land (including premises, agricultural and grazing land) or any other fixed or movable asset acquired or possessed, temporarily or permanently; or (iii) access to productive assets adversely affected, temporarily or permanently; or (iv) business, occupation, work or place of residence or habitat adversely affected, temporarily or permanently.

19. "ISCB" means the International Science and Commercialization Board, referred to in Schedule 2, Section I.A.7 of this Agreement.

20. "Junior Researcher Group Grant" or "JRG Grant" means any grant made out of the proceeds of the Loan under Part 1 of the Project, for the purpose of carrying out a Junior Researcher Group Subproject, which grant is: (i) selected in accordance with criteria and procedures set forth in the POM; (ii) provided to young researchers who meet the eligibility criteria set forth in the POM; and (iii) for the financing of goods, non-consulting services and consultants' services, as detailed in the POM.

21. "Junior Researcher Group Grant Agreement" or "JRG Grant Agreement" means an agreement entered into between the Borrower, through the MOES, and the recipient of a JRG Grant referred to in Section I.B.3 Part B, of Schedule 2 to this Agreement.

22. "Junior Researcher Group Subproject" means any group of research and development investments or activities under Part 1 of the Project which meet the eligibility criteria set forth in the POM.

23. "Ministry of Education and Science" or "MOES" means the Borrower's Ministry of Education and Science, or any legal successor thereto.

24. "National Innovation System" means the Borrower's network of organizations, rules and procedures related to the creation and dissemination of knowledge, including enterprise sector firms, universities, research centers and think tanks.
25. “PhD Research and Training Grants” means any grant made out of the proceeds of the Loan under Part 1 of the Project, for the purpose of carrying out a PhD Research and Training Subproject, which grant is: (i) selected in accordance with criteria and procedures set forth in the POM; (ii) provided to PhD students studying outside of Kazakhstan who meet the eligibility criteria set forth in the POM; and (iii) for the financing of goods, non-consulting services and consultants’ services, as detailed in the POM.

26. “PhD Research and Training Grant Agreement” means any agreement entered into between the Borrower, through the MOES, and the recipient of a PhD Research and Training Grant, referred to in Section I.B.3 of Schedule 2 to this Agreement.

27. “PhD Research and Training Subproject” means any group of activities to promote human capital in respect of research and development under Part 1 of the Project which meet the eligibility criteria set forth in the POM.

28. “PMU” means the unit referred to in Section I.A.2 of Schedule 2 to this Agreement.


30. “Procurement Plan” means the Borrower’s procurement plan for the Project, prepared by the MCES, dated November 6, 2014, and referred to in paragraph 1.18 of the Procurement Guidelines and paragraph 1.25 of the Consultant Guidelines, as the same shall be updated from time to time in accordance with the provisions of said paragraphs.

31. “Productive Sector Consortia Grant” or “PSC Grant” means any grant made out of the proceeds of the Loan under Part 2 of the Project, for the purpose of carrying out a Productive Sector Consortia Subproject, which grant is: (i) selected in accordance with criteria and procedures set forth in the POM; (ii) provided to productive sector consortia who meet the eligibility criteria set forth in the POM; and (iii) for the financing of goods, non-consulting services and consultants’ services, as detailed in the POM.

32. “Productive Sector Consortia Grant Agreement” or “PSC Grant Agreement” means any agreement entered into between the Borrower, through MOES, and the recipient of a Productive Sector Consortia Grant, referred to in Section I.B.3 of Schedule 2 to this Agreement.
33. "Productive Sector Consortia Subproject" means any group of research and development investments or activities under Part 2 of the Project to improve productive sectors of the Borrower's economy, such as agriculture, extractive industries, and manufacturing, all of which meet the eligibility criteria set forth in the POM.

34. "Project Operations Manual" or "POM" means the Project Operations Manual, describing procedures for implementation of the Project, consistent with the provisions of this Agreement and with the national laws and regulations of the Borrower and including, inter alia: (i) procedures governing administrative, procurement, accounting, financial management matters, and monitoring and evaluation arrangements; (ii) sample formats for annual reports; (iii) terms and conditions for the selection, appraisal, evaluation and implementation of the SSG Grants, JRG Grants, PhD Research and Training Grants, PSC Grants, and IIC Grants; and (iv) the Fiduciary Handbook for Subproject Grant Recipients, as the same may be amended from time to time with the agreement of the Bank.

35. "Project Steering Committee" means the committee referred to in Schedule 2, Section I.A.4. of this Agreement.

36. "Science Committee of the MOES" means the committee established under the Borrower's MOES, pursuant to the Borrower's Government Decree No. 700, dated July 21, 2006, or any successors thereto.

37. "Science Fund" means the Joint Stock Company Science Fund, established by the Borrower, pursuant to the Borrower's Government Decree No. 1057, dated November 7, 2006, (including all amendments to such Decree made to the Decisions of the Borrower's Government referenced therein as of the date of this Agreement), whose sole shareholder is the Science Committee of the MOES, and any successor thereof.

38. "Senior Scientist Group Grant" or "SSG Grant" means any grant made out of the proceeds of the Loan under Part 1 of the Project, for the purpose of carrying out a Senior Scientist Group Subproject, which grant is: (i) selected in accordance with criteria and procedures set forth in the POM; (ii) provided to senior researchers who meet the eligibility criteria set forth in the POM; and (iii) for the financing of goods, non-consulting services and consultants' services detailed in the POM.

39. "Senior Scientist Group Grant Agreement" or "SSG Grant Agreement" means any agreement entered into between the Borrower, through the MOES, and the recipient of a SSG Grant, referred to in Section I.B.3 of Schedule 2 to this Agreement, on terms and conditions approved by the Bank.
“Senior Scientist Group Subproject” means any group of research and development investments or activities under Part 1 of the Project which meet the eligibility criteria set forth in the POM.

“Subproject” means, indistinctively, any Inclusive Innovation Consortia Subproject, Junior Researcher Group Subproject, PhD Research and Training Subproject, Productive Sector Consortia Subproject, ESVC Subproject or Senior Scientist Group Subproject.

“Subproject Grant” means, indistinctively, any SSG Grant, JRG Grant, PhD Research and Training Grant, PSC Grant and IIC Grant.

“Technology Acceleration Office” means any office to be financed from the Loan proceeds and co-financed by the Borrower from its own resources, and located outside of the Borrower’s territory and intended to enhance marketing and technological capabilities of Kazakhstan’s technology companies.

“Technology Transfer Office” means any existing office within Kazakhstan universities which have been established to facilitate the transfer of technical knowledge and capabilities throughout the territory of the Borrower.

“Tenge” means the lawful national currency of the Borrower.

“Training” means all expenditures (other than those for consultants’ services) related to training activities under the Project such as training workshops, study tours and local training and including training registration fees, travel costs and per-diem allowances for the trainers and trainees, cost of training materials, space and equipment rental, and other training related expenditures, as approved by the Bank.

Section II. Modifications to the General Conditions

The General Conditions are hereby modified as follows:

1. In the Table of Contents, the references to Sections, Section names and Section numbers are modified to reflect the modifications set forth in the paragraphs below.

2. Section 3.01. (Front-end Fee) is modified to read as follows:

“Section 3.01. Front-end Fee; Commitment Charge

(a) The Borrower shall pay the Bank a front-end fee on the Loan amount at the rate specified in the Loan Agreement (the “Front-end Fee”).
(b) The Borrower shall pay the Bank a commitment charge on the Unwithdrawn Loan Balance at the rate specified in the Loan Agreement (the "Commitment Charge"). The Commitment Charge shall accrue from a date sixty days after the date of the Loan Agreement to the respective dates on which amounts are withdrawn by the Borrower from the Loan Account or cancelled. The Commitment Charge shall be payable semi-annually in arrears on each Payment Date."

3. In the Appendix, Definitions, all relevant references to Section numbers and paragraphs are modified, as necessary, to reflect the modification set forth in paragraph 2 above.

4. The Appendix is modified by inserting a new paragraph 19 with the following definition of "Commitment Charge", and renumbering the subsequent paragraphs accordingly:

"19. "Commitment Charge" means the commitment charge specified in the Loan Agreement for the purpose of Section 3.01(b)."

5. In the renumbered paragraph 49 (originally paragraph 48) of the Appendix, the definition of "Front-end Fee" is modified by replacing the reference to Section 3.01 with Section 3.01 (a).

6. In the renumbered paragraph 68 (originally paragraph 67) of the Appendix, the definition of the term "Loan Payment" is modified to read as follows:

"68. "Loan Payment" means any amount payable by the Loan Parties to the Bank pursuant to the Legal Agreements or these General Conditions, including (but not limited to): any amount of the Withdrawn Loan Balance, interest, the Front-end Fee, the Commitment Charge, interest at the Default Interest Rate (if any), any prepayment premium, any transaction fee for a Conversion or early termination of a Conversion, the Variable Spread Fixing Charge (if any), any premium payable upon the establishment of an Interest Rate Cap or Interest Rate Collar, and any Unwinding Amount payable by the Borrower."

7. In the renumbered paragraph 73 (originally paragraph 72) of the Appendix, the definition of "Payment Date" is modified by deleting the word "is" and inserting the words "and Commitment Charge are" after the word "interest".