



GEORGIA'S INNOVATION &
TECHNOLOGY AGENCY

Georgia: Technology Transfer Pilot Program

Guidelines for Participants

Tbilisi

March 2020

LIST OF ABBREVIATIONS

AC	Advisory Council
DA	Designated Account
DC	Direct Contracting
EU	European Union
FBS	Fixed Budget Selection
FM	Financial Manager
GITA	Georgia's Innovation and Technology Agency
GRM	Grievance Redress Mechanism
IFC	International Finance Corporation
IP	Intellectual Property
NDA	Non-Disclosure Agreement
PCT	Patent Cooperation Treaty (International Patent Cooperation Union)
PDO	Project Development Objective
PP	Procurement Plan
Program	Technology Transfer Pilot Program
PS	Procurement Specialist
R&D	Research and Development
RDI	Research and Development Institution
SL	Service Lines
TOR	Terms of Reference
TRL	Technology Readiness Level
TT	Technology Transfer
TTF	Technology Transfer Facility
TTO	Technology Transfer Office
TTPP	Technology Transfer Pilot Program
Bank	World Bank

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1. INTRODUCTION

1.1 Background

Under the Increasing Institutional Capacity for Innovation Project, financed by the European Union, the Technology Transfer Pilot Program (TTPP) aims to support commercialization of Georgian scientific results that respond to market needs. The project duration is approximately three (3) years, started in April 2019. The project is implemented by the World Bank Group and Georgia's Innovation and Technology Agency (GITA). The team will work closely with Georgian research organizations to detect and select the most promising ideas. Research projects that have reached a Technology Readiness Level (TRL) level 4+ and above will be eligible for evaluation.

During the project, capacity building for scientists and the commercialization team will be delivered via on-the-job training while the commercialization cycle is deployed for the projects that are selected. Financial and technical resources will be made available to a small number of mature projects, before these projects are presented to potential customers in Georgia and abroad.

1.2 Objectives

Technology Transfer Pilot Program (TTPP) aims to:

- Build capacity of GITA and public partner organizations (to be selected by GITA) in technology transfer and commercialization process, from the initial disclosure all way through deal closing.
- Test whether commercialization of inventions originating from public research and development institutions in Georgia are viable, and if so, demonstrate such viability.
- Facilitate contracting between private or public customers and scientific teams.

The TTPP team - within - GITA will work with universities (primarily, but not necessarily limited to those in Georgia), including faculties and research and development institutes, as well as with the private sector, in order to:

- Identify projects with commercial readiness (triage);
- Obtain disclosures from researchers;
- Fund activities that increase the technology and market readiness levels of inventions up to a per-project ceiling of 150,000 EUR;
- Assist researchers in developing and implementing a commercialization roadmap, including access to additional financing from external sources, and identifying key partners;
- Demonstrate viability of technology transfer by successfully closing transactions (from negotiating to contracting stages) and providing support in the process (contract research, Intellectual Property (IP) database search and competitive analysis, etc.);
- Monitor outcomes and recommend further steps necessary for successful commercialization.

TTPP will be executed by GITA, with technical assistance provided by the World Bank, through the deployment of service lines and initiations of technology transfer transactions. An evaluation of the Pilot would also be undertaken.

1.3 Program Cost and Procurement Arrangements

There is EUR 1.0 million resource available to be disbursed by GITA by allocating to maturation of projects that are market-ready.

TTPP will entail procurement of goods, consultancy and non-consultancy service packages (this support includes: testing, industrial proof of concept, intellectual property protection, technical advisory services, market search, customer relationships, legal advices, contracting support, etc.). GITA will undertake procurement under RE component of the Program. No cash will flow from GITA to TTPP beneficiaries.

2. TYPES OF PROGRAM SUPPORT AND SERVICE LINES

Below are the main types of support that the TTPP will provide to the Applicants:

- **Commercialization support** via advice in all aspects and steps of the technology transfer process, from the disclosure submission, technology evaluation for commercial readiness to negotiation with commercial partners and, other transactional aspects and after transaction monitoring support (hereinafter: Commercialization support);
- **Development support** via funding for additional development (soft services in legal, commercial and technical areas, industrial testing, etc.) to advance commercialization transactions that still need proof of commercial readiness (hereinafter: Development support).
- **Other support** via connecting prospective researchers with industrial partners and/or investors looking for technology development. The TTPP will deploy services to facilitate deals between the industry and R&D sector in Georgia for: contract research, service contracts, business intelligence, and support in preparing project proposals for other donor programs.

The Program intends to aggregate demand across Georgian public research organizations and inventors in order to create a pipeline to be commercialized in cooperation with the TTPP.

Table 1. Technology Transfer Facility (TTF) Service Lines (SL):

SL1	Project Scouting Scouting projects at RDIs and defining the invention (a potential solution to a defined problem) and the potential product or service that might be developed.
SL2	Technology and business readiness screening (Triage)

SL3 Due Diligence

Detailed analysis of the validity and attractiveness of inventions (technology review, IP, ownership, transferability).

SL4 Elaborating Commercialization Roadmap

Define an action plan for maturing intellectual property, technology and marketing strategy to increase the attractiveness of the project for prospective business partners;

SL5 Executing maturation investment in selected projects

Executing the Commercialization Roadmap by financing activities promoting project maturity to be more attractive for prospective business partners.

SL6 Identifying potential commercial partners

Finding prospective business partners/licensees for transferring technology.

SL7 Negotiation and closing transactions

Negotiation and closing transactions (contracting) with business partners.

SL8 Monitoring and follow-up of further commercialization commitments

Monitoring and follow-up of commercialization commitments with commercial partners arising from concluded deals

2.1 Technology Transfer Pilot Program Process

2.1.1 Project Scouting

The Agency detects novel project results for technology transfer through multiple channels including but not limited to:

- Organization of calls for proposals;
- Visit to research laboratories
- Analysis of the RDI portfolio of research results and/or intellectual property;
- Direct submission of project results by the RDI.

2.1.2 Due Diligence

Upon successful analysis, the Agency formally invites the Project Holder and/or of the RDI Representative to enter the Project Due Diligence stage through the submission of five forms for the comprehensive description of the project:

- TTPP Application form;

- Invention Disclosure form and/or;
- Project Technology Foundation form;
- Intellectual Property Asset form;
- Business Survey form.

For the purpose of Due Diligence the Project Holder and/or the RDI Representative undertakes to inform the Agency of the rights of third parties of which it is aware on the date of the filing of the forms and which may hinder the realization of an investment for the protection of intellectual property and / or for the realization of maturation plans.

The rights of third parties may come, in particular, from a third party in charge of the management and commercialization of the project results, project results obtained under research grants with specific provisions on foreground, or projects results in co-ownership with a partner private or other academic partners.

In case, the Agency gets the information about the rights of third parties, it may still include the research projects submitted by the RDI which correspond to project results obtained prior to the Effective Date of the Agreement, if it is agreed with the third parties and only under the terms of this Agreement.

2.1.3 Elaborating of the Commercialization Roadmap

After the completion of the Due Diligence stage, the Agency will co-design with the Project Holder and/or the RDI Representative a Project Commercialization Roadmap including investments and action plans for:

- Protection, maturation and management of Intellectual Property;
- Technical maturation of the project technology;
- Commercial maturation of the project.

2.1.4 Selection of projects

After the completion of the Due Diligence stage and elaboration of the Commercialization Roadmap the Agency will select the projects based on the reports provided by TTPP Technology Transfer experts for investment in maturation activities.

2.1.5 Granting of Exclusive License

For the purposes of Exclusive Licensing the RDI or individual project owner should provide the Agency with the Joint Ownership Agreement between co-owners. After the submission of joint ownership Agreement RDI will grant the Agency an exclusive license in all domains to exclusively manage its technology transfer projects.

2.1.6 Signing of the Maturation Agreement

Implementation of the Commercialization Roadmap of selected projects starts after the signing the Maturation Agreement.

2.1.7 Commercialization

Upon completion of the project maturation investments to meet adequate commercialization readiness level, the Agency shall engage the commercialization of the project into the market to achieve the effective transfer to a commercial partner of the project results.

3. CONDITIONS OF PARTICIPATION IN TPPP

3.1 Areas of Interest

The TPPP will consider applications coming from all areas of science and technology for potential commercialization. In addition to ‘industrial property’, normally protected by patents, other innovations, referred to as ‘creative works’ normally protected by copyrights and rights related to copyrights, as well as other intellectual assets will also be considered by the TPPP. Additional assets of interest include such things known as research tools, software applications, databases and other examples of “tangible intellectual property”.

3.2 Eligibility

Besides providing commercialization support to RDIs, the TPPP can provide development support for selecting projects coming from public RDIs and private companies. Such development support will be provided in order to bring a project to a higher commercialization readiness level generally in conjunction with a transaction.

Applicants seeking development support will be considered eligible only if they originate from public sector academic institutions or private companies (faculties, institutes, R&D and innovation support organizations and relevant TTOs) registered in Georgia.

The list of ineligible activities:

- Production of spirits/alcohol, tobacco, weapons, etc. (activities that fall into IFC’s Exclusions List (Attachment I)).
- Activities posing hazards to health and safety of communities, involve forced and child labor, involve involuntary land acquisition, loss of land, assets, or livelihoods.
- Applied research requiring experiments on living organisms, extraction of and manipulation on rare, endangered, nationally or internationally protected species.

3.3 Eligible Expenses

Development support allocated to the selected Applicants may be used for consulting and technical services, specifically for advancing towards commercialization readiness levels such as various types of testing (equipment, materials etc.), proof of commercial readiness, IP protection, etc. Costs for specialist consultants to provide expertise for various commercialization steps are allowed. For projects with a clear IP and ownership position, funds may be used for IP services, primarily patent or design applications drafting, submission and prosecution and issuance, both in and outside Georgia.

Eligible expenses may include the following: consulting services for IP search, IP support, market advisory services, technical advisory services, management advisory services, technology testing & scale-up, go to market expenses, etc.

3.4 Management of IP and Know-How During Commercialization

The TTPP, under GITA's auspices, will make arrangements to represent universities/project holders in contacts with the private sector companies to be able to manage IP and facilitate commercialization process. Relationships with universities with respect to use of IP, licenses, and proceeds from commercialization will be arranged through the TTPP Framework Partnership Agreement between the universities (RDIs) and GITA and some other relevant agreements signed during later stage.

All inventions disclosed to the TTPP will be analyzed and in the cases where patent protection is possible and required, a patentability, prior art or freedom to operate search, as applicable, will be carried out to determine if the invention's subject matter fulfills the necessary criteria for protection. When and if needed, the search will be carried out with the assistance of consulting services. The report of this search will be shared with the Applicant irrespective of the decision to support a project commercialization or not. For those inventions that are selected for commercialization, national patent applications will be filed as soon as possible. This will enable the priority period of one year during which the decision to proceed (or not) through the international (PCT) route will be made.

The TTPP may also assist with protection of other types of IP (e.g. industrial design, copyrights and other related rights, plant varieties etc.) if there is a need of such protection for the purposes of increasing attractiveness of a project for a potential business partner.

3.5 Financial Proceeds

In the framework of the Technology Transfer Pilot Program (TTPP) it is specified that in order to implement Commercialization Roadmap, the Agency finances maturation activities in return of:

- a) 10% from the royalty received in accordance of the commercialization contract. The Agency will distribute the remaining 90% of financial proceeds to the RDI with the guaranteed minimum 30%

share of the inventor(s) unless IP ownership agreement (between the RDI, and/or co-owner(s) and inventor(s)) before the filling date of project snapshot states otherwise.

- b) 10% of the total price, in the case of commercialization via IP Assignment.
- c) 10% of profit generated in case of a spin-off company.

4. APPLICATION PROCEDURE

4.1 Instructions for the Application Process (SL1 – Project Scouting)

Applications should meet the following requirements:

- All information and documents need to be written and submitted in English since the evaluation will be conducted by external commercialization experts;
- Applicants can apply via multiple channels including but not limited to: calls of proposals, visit to research laboratories, analysis of RDI portfolio of intellectual property, direct submission of the project to GITA. Submission of the project is done by receiving an application form (Project Snapshot Form) via email (tech-transfer@gita.gov.ge). The submitted snapshot form is assessed by internal and external experts, who check the technology readiness level of the project, which should be TRL+4 (Attachment II) and above. The Applicant will receive an e-mail upon decision is made to proceed with a project. Applicants can seek advice from either TTPP internal experts and coordinator about the application process and updates to their Application necessary for further processing;
- Only complete Snapshot Form will be evaluated and processed;
- After successful analysis of a Project Snapshot, the Applicant is invited to enter the project Due Diligence stage;
- An Applicant should provide all the necessary documents in English with comprehensive description of a project, the following forms need to be filled out and submitted by the Applicant to TTPP:
 1. TTPP Application Form
 2. Invention Disclosure Form
 3. Project Technology Foundation Form
 4. Intellectual Property Asset Form
 5. Business Survey Form.
- Resubmission of improved Invention disclosures is allowed once.

Additional supporting documents shall be provided by the selected project owners during the later stages:

- If applicable, Joint-ownership agreement on IP
- Exclusive License Agreement
- Maturation Agreement

4.2 Acceptance of Terms of Engagement

In the Due Diligence stage the Applicant has accepted all prescribed terms of the TTPP Program, which entails various terms of engagement in order for the application to be considered and evaluated by the TTPP. The rights and obligations of the TTPP and RDI are enshrined in the Framework Partnership Agreement that clarifies that the IP and all rights stay with an Applicant. It stresses that GITA will keep not more than 10% of proceeds from commercialization. It also alerts Applicants that the TTPP is acting as a commercialization facilitation entity through an exclusive license (strictly for commercialization purposes) or brokerage model.

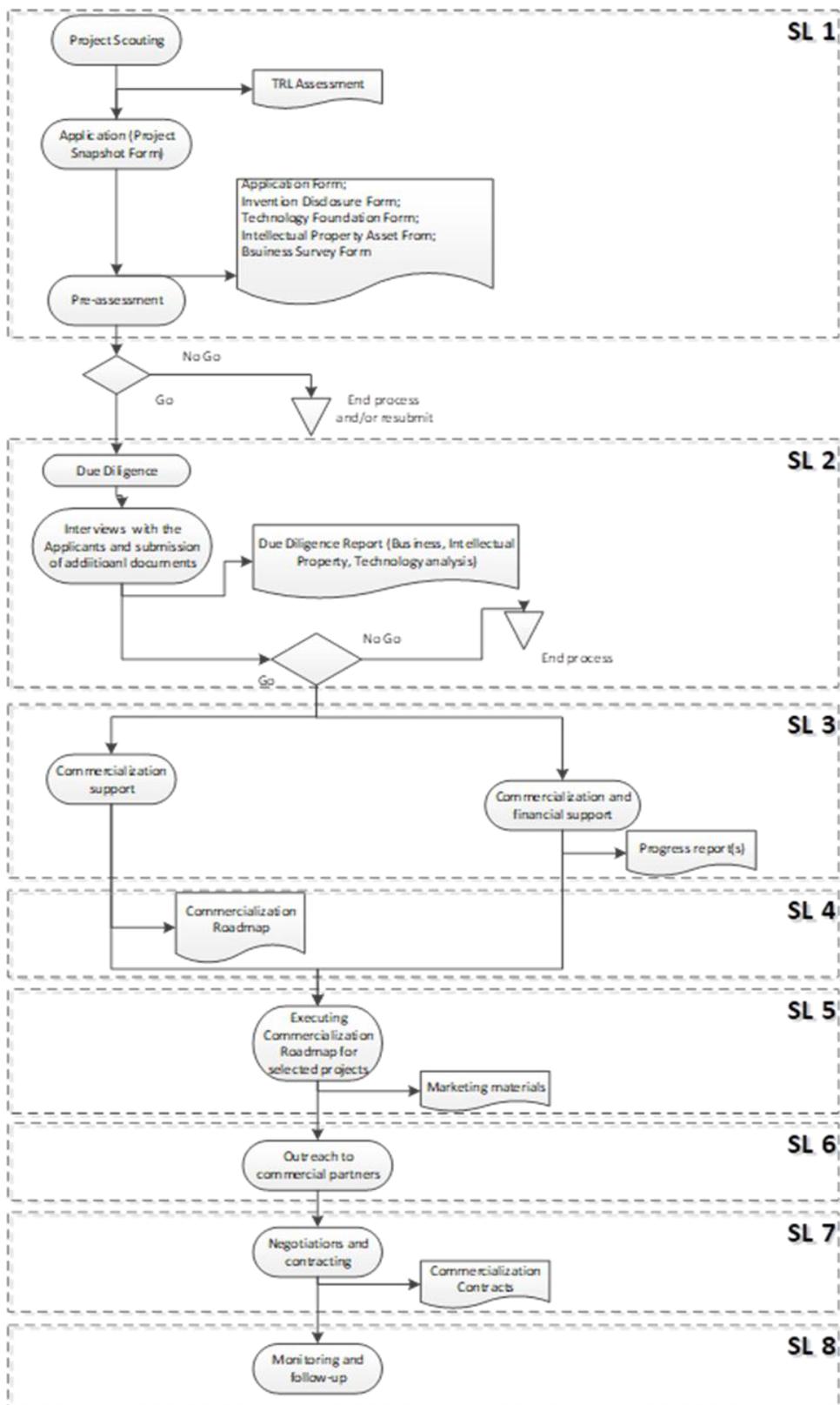
The call for proposals is opened regularly with deadlines for each call.

Normally, all Applicants should expect to receive a decision on their proposals within 45 days upon the submission of the Application for services form and completion of required documentation.

4.3 Selection of a Project for Investment in Maturation Activities

Only projects selected by the TTPP can receive development support for maturation activities after the completion of the Commercialization Roadmap.

Figure 5. Application procedure



5. PROJECT EVALUATION AND SUPPORT DECISION

5.1 Evaluation Criteria

The Chairman of GITA, supported by commercialization experts as needed, will assess incoming applications taking into account the following criteria, as a minimum:

- 1) Level of technology readiness (innovativeness of technology, potential for product or service);
- 2) Information about the relevant competitive landscape;
- 3) Intellectual property issues (IP issues) (novelty and inventiveness of the proposed solution and clarity of the ownership situation);
- 4) Estimation of commercial and financial viability and the potential to create value and benefits for product users and commercial partners;
- 5) Justification of the proposed technologic solutions being least polluting and resource efficient to the extent feasible;
- 6) Estimation of the competitive marketplace and how a potential product based on the invention might fare;
- 7) The strength of the team members, their credentials and the ability to deliver results.
- 8) Expressed interest from potential private sector partner(s).

Only projects with elaborated Commercialization Roadmap that satisfy the above-mentioned criteria and will be selected for Commercialization support.

5.2 Technology and Commercial Evaluation - Technology and Commercial Readiness screening)

Triage is carried out by TTPP experts (foreign and local commercialization experts). An Advisory Council is created to advise on final reports. Projects are presented before an Advisory Council made of respected members of the Georgian community. AC members can ask for clarifications during the council. Ratification and final decision is made by the Chairman of GITA based on the report provided by the TTPP Experts and Advisory Council recommendations.

For all projects that require Development support the opinion of the commercialization experts will be necessary. When making decision The Advisory Council and GITA will take into careful consideration the opinion and recommendations of the Commercialization experts from the Commercialization Roadmap.

The TTPP experts perform and elaborate the Commercialization Roadmap on the basis of a defined set of criteria, which is presented to the Advisory Council and GITA.

In case a patentability/prior art/freedom-to-operate search report is needed, initially, the National Intellectual Property Center of Georgia (Sakpatenti) will be engaged to provide this service. Use of the Sakpatenti for this purpose will be evaluated after 6 months from when the first patentability report is submitted, and if satisfactory this arrangement will be extended.

All applications after completion of the Due Diligence stage, irrespective of the TTPP's decision to finance them or not, will receive the Commercialization Roadmap. This Roadmap contains patent and non-patent related information and IP driven market research. The Roadmap is critical in understanding the novelty, inventiveness and commercial potential of the invention. Information included in the Roadmap may reveal missing research topics, as well as provide guidance towards new research directions which the Applicant might consider.

5.3 Decision

The Advisory Council and GITA based on the report by the TTPP experts will make a decision on whether the Applicant will receive commercialization support and development support within the framework of the program. TTPP will send a formal offer to all Applicants via e-mail, informing them about the decision along with relevant explanations, conditions and comments.

In case the Commercialization support is approved by the Advisory Council and GITA, the TTPP will start internal procedures for procurement of services set by the Commercialization Roadmap.

The TTPP will also inform the Applicant about its offer to provide TTPP development support for maturation of the selected project and will offer signing of the Maturation Agreement with an Applicant.

If the GITA decides not to support the proposed project, it will provide an explanation together with the Commercialization Roadmap.

In the case where the need for support is not within scope of the TTPP, the Applicant will be advised to use alternative support programs.

6. IMPLEMENTATION AND MONITORING OF THE PROJECT

In case of a positive decision to provide development support of maturation activities the Applicant is invited to provide additional project-related documentation and relevant agreements (e.g. Joint Ownership Agreement on IP, Exclusive License Agreement, Maturation Agreement) would be prepared and signed. The Applicant will grant to GITA exclusive license in all domains in order to negotiate contracts with potential commercial partners. After the signing of all the agreements starting implementation of the Commercialization Roadmap commences with procuring relevant services by TTPP.

6.1 Disbursement

Disbursement of program funds is solely done by GITA in compliance with the World Bank's Procurement rules and procedures. The funds can be used to procure the following services: IP search; IP support; market research; market advisory services; technical advisory services; management advisory services; technology scale-up and testing; certifications; go to market expenses, etc.

In the case where a commercial partner co-finances the development activities in a selected project, disbursement of the funds by GITA will be specified in the agreement with a commercial/business partner.

GITA reserves the right to suspend or terminate the financing of maturation activities under the Maturation Agreement, or obtain a refund of all or any part of the amount of the financing disbursed, in the event that other party of the Agreement willfully fails to perform any of its obligations under Maturation Agreement is unable or unwilling to correct the situation to the satisfaction of GITA.

6.2 Executing the Commercialization Roadmap

The Commercialization Roadmap is prepared by TTPP experts and the Applicant. The Roadmap shall address the following:

- Technology development plan (stages, deliverables, milestones, budget estimates)
- IP and legal development plan (actions such as patent applications, legal advice)
- Commercialization development plan (actions, budget estimates, objectives, deliverables, deadlines)
- Investment plan (expense categories, milestones, deadlines, budget estimates)
- A description of the main possible commercialization partners and competitors operating in the field;
- Plans for project development, product development, commercialization financial development;
- Market analysis;
- Determination as to whether to work with existing companies or to create a new start-up company;
- Channels for product market entry;
- Negotiation strategy;
- Other needed information as required.

Each roadmap contains a series of milestones. The review of the milestones leads to a review with Go or No-Go decisions for the further implementation of the roadmap.

6.3 Negotiations and Contracting

In order to finance a project and begin the implementation process of the Commercialization Roadmap, the exclusive license signed in all domains will allow TTPP sufficient authority to conduct and conclude transactions with potential business partners. The authorization shall describe the efforts TTPP will make to seek input from the technology owners at various stages of the project development including negotiation of various transactions with commercialization partners. The TTPP shall make efforts to include the input in the project activities and to ensure the involvement of the owners in commercialization on an as needed basis, as the TTPP recognizes that participation by the owners and acceptance of negotiated responsibilities on certain activities will be the key to successful commercialization. The authorization should enable the TTPP the “power of attorney” during the negotiation phase.

GITA is entitled to negotiate all the relevant commercialization contracts which might include but are not limited to NDAs, licensing contracts, consulting contracts, etc.

6.4 Monitoring and Follow-up

In case of negotiated licenses to which GITA is a signing party, the TTPP is required to monitor activities to ensure progress and acceptable performance of negotiated responsibilities (e.g. maintaining records of royalty payments and monitoring compliance with license terms for example).

In case TTPP assesses unacceptable performance of the contracts the TTPP informs the various parties and attempts to negotiate corrective efforts and remedies.

In case of a start-up company, the TTPP monitors the growth of the firm and provides support as negotiated. An ongoing investigation of options for licensing the technology developed by the start-up is carried out by the TTPP, as needed, as well as identifying additional sources of funding, including but not limited to GITA’s Mini Grant program.

The TTPP maintains records of payments and compliance with contract terms.

6.5 Grievance Redress Mechanism (GRM)

GITA has adopted an independent and confidential Grievance Redress Mechanism (GRM). In case of questions, concerns or complaints, the participants and external stakeholders can use the GRM by contacting GITA’s E&S specialist, Nino Patarashvili by email at npatarashvili@gita.gov.ge or by telephone at 577 38-22-92.

7. Attachments

Attachment I

IFC Exclusions List

- Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, polychlorinated biphenyls (PCBs), wildlife or products regulated under CITES
- Production or trade in weapons or munitions
- Production or trade in alcoholic beverages (excluding beer and wine)
- Production or trade in tobacco
- Gambling, casinos, and equivalent enterprises
- Production or trade in radioactive materials (this does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where the IFC considers the radioactive source to be trivial and/or adequately shielded).
- Production or trade in unbounded asbestos fibers. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.
- Drift net fishing in the marine environment using nets in excess of 2.5 km in length
- Production or activities involving harmful or exploitive forms of forced labor/harmful child labor
- Commercial logging operations for use in primary tropical moist forest
- Production or trade in wood or other forestry products other than from sustainably managed forests
- Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals (includes gasoline, kerosene, and other petroleum products)

Attachment II

Technology Readiness Level Scale

	Development Stage Completed	Definition of Development Stage	TRL Level (NASA)	Evidence (to be collected)
Concept	Unproven Concept (Basic R&D, paper concept)	Basic scientific/engineering principles observed and reported; paper concept; no analysis or testing completed; no design history.	1	Publication and/or paper concept
Proof-of-Concept	Proven Concept (As a paper study or R&D experiments)	<ul style="list-style-type: none"> a) Technology concept and/or application formulated b) Concept and functionality proven by analysis or reference to features common with/to existing technology c) No design history; essentially a paper study not involving physical models but may include R&D experimentation 	2	Paper study and R&D experimental report
	Validated Concept (experimental proof of concept using physical model tests)	Concept design or novel features of design is validated by a physical model, a system mock up or dummy and functionally tested in a laboratory environment; no design history; no environmental tests; materials testing, and reliability testing is performed on key parts or components in a testing laboratory prior to prototype construction	3	Concept design report with picture(s) + test report(s)
Prototype	Prototype Tested (System function, performance and reliability tested)	<ul style="list-style-type: none"> a) Item prototype is built and put through (generic) functional and performance tests; reliability tests are performed including: reliability growth tests, accelerated life tests and robust design development test programme in relevant laboratory testing environments; tests are carried out without integration into a broader system b) The extent to which application requirements are met are assessed and potential benefits and risks are demonstrated 	4	Prototype design & technical specifications + test report(s)

	Environment Tested (Pre-production system environment tested)	Meets all Requirements of TRL 4; designed and built as production unit (or full-scale prototype) and put through its qualification programme in simulated environment (e.g. hyperbaric chamber to simulate pressure) or actual intended environment (e.g. subsea environment) but not installed or operating; reliability testing limited to demonstrating that prototype function and performance criteria can be met in the intended operating condition and external environment	5	Beta design & technical specifications + test report(s)
	System Tested (Production system interface tested)	Meets all the requirements of TRL 5; designed and built as production unit (or full-scale prototype) and integrated into intended operating system with full interface and functional test but outside the intended field environment	6	Final product design & technical specifications + test report(s)
Field Qualified	System Installed (Production system installed and tested)	Meets all the requirements of TRL 6; production unit (or full-scale prototype) built and integrated into intended operating system; full interface and function test program performed in the intended (or closely simulated) environment and operated for less than three years; at TRL 6 new technology equipment might require additional support for the first 12 to 18 months	7	System test report(s)
	Field Proven (Production system field proven)	Production unit integrated into the intended operating system, installed and operating for more than three years with acceptable reliability, demonstrating low risk of early life failures in the field	8, 9	Field test report(s)