TERMS OF REFERENCE

for selection of the Consulting Company for development of the Feasibility Study within the Project "Digital CASA – Uzbekistan"

Tashkent 2019

Content

Client's Data

Client: Ministry for the Development of Information Technologies and Communications of the Republic of Uzbekistan

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The basis for engagement of the services

The Republic of Uzbekistan has received a grant from The Europe and Central Asia (ECA) region Capacity Development Trust Fund for preparation of “Digital CASA - Project Uzbekistan” (hereinafter - the Project). Grant Agreement No. TF0A9900 between the International Development Association (IDA) and the Republic of Uzbekistan was signed on April 13, 2019.

Anticipated time for provision of services

Start of consulting services: December 1, 2019

Completion of services: March 31, 2020

Source of funding: Grant of The Europe and Central Asia (ECA) region Capacity Development Trust Fund

Introduction

The Europe and Central Asia (ECA) Regional Capacity Development Trust Fund (ECAPDEV) has allocated to the Republic of Uzbekistan a grant for preparation of the Project "Digital CASA – Uzbekistan" (hereinafter - the Project). Part of these grant funds will be used for development of the Feasibility Study of the Project. The World Bank has engaged the Consulting Company PricewaterhouseCoopers (Slovakia) in order to prepare pre-feasibility studies. Research and pre-feasibility studies of PWC may be used for preparation of the feasibility study by the selected Company.

The Implementing Agency of this Project is the Ministry for Development of Information Technologies and Communications of the Republic of Uzbekistan (hereinafter - the Client).

The proposed country-specific Project Development Objective (PDO) for Uzbekistan is to increase access to more affordable internet, crowd-in private investment in the ICT sector, and improve the government's capacity to deliver digital government services in Uzbekistan, by contributing to the development of a regionally integrated digital infrastructure and enabling environment.

In particular, Project will facilitate:

- provision of the open equal access to broadband networks;

- saving of the capital and operating costs due to implementation of a single infrastructure;

- improvement of the investment climate in the regions through development of the broadband tele-communications infrastructure and services, including using of the Public Private Partnership (PPP);

- reaching a new level of quality of services and life, including for the population in rural and remote areas;

- creation of new jobs, especially for young people.

The Project will include the following components:

Component I: Regional Digital Connectivity Infrastructure

This component consists of the following subcomponents:

1.1. Development of the main connectivity network of the regional connection with the countries of the Central Asia;

1.2. Development of the infrastructure of the national data network;

1.3. Development of broadband access in remote and border areas.

Component II: Datacenters, Digital Platforms and Smart Solutions

This component consists of the following subcomponents:

2.1. Regional Datacenters;

2.2. Regional Digital Platforms, Shared Services and Smart Solutions;

Component III: Enabling Environment for Digital Transformation

This component consists of the following subcomponents:

3.1. Legal, Regulatory and Institutional framework for Digital Transformation;

3.2. Digital Leadership and Capacity Building;

3.3. Public Awareness of Digital Transformation.

Component IV: Digital Innovations, Entrepreneurship and Skills

This component consists of the following subcomponents:

4.1. Digital Entrepreneurship (Technopark, Venture Financing, IT incubator);

4.2. Human Capital Development and Digital Skills;

4.3. Regional Center for Digital Transformation.

Component V: Project Management – Support of the Project Implementation Unit.

This component is aimed to supporting of the activities of the Project Implementation Group (PIU), including employees' salaries, operating and other expenses stipulated by the Loan Agreement. The budget will be determined based on the prepared feasibility study.

1. Basic requirements

1.1. Consulting company shall be specialized in the field of Information Technology with the possibility of the provision of services for development of the Feasibility Study, conducting of Pre-project survey, Designing and development of the IT system architecture, management of the projects on automation of technological and organizational processes, and other issues related to use of the modern telecommunications technologies.

1.2. The main tasks of the consulting company within the Project are:

a thorough study of the current state, analyze the information needs of the Client, identifying the existing problems and the needs for optimization and upgrading of infrastructure systems;

development of optimal and practical architectural, organizational, technological and technical solutions;

advising on selection of ready modern and effective technological and technical solutions necessary for development of telecommunication technologies;

design work and development of the requirements for development of digital technologies, which will be imposed to the Contractor during implementation of the Project;

development of the Feasibility Study (FS) of the Project in accordance with the legislation of the Republic of Uzbekistan.

2. Qualification requirements

2.1. Work Experience Requirements

2.1.1. The consulting company shall have experience in providing of consulting services related to the design and implementation of various information and telecommunication technologies for at least 3 years, including in the Republic of Uzbekistan.

2.1.2. The consulting company shall have experience in participation in at least five similar projects as a consultant and developer of project related and pre-project documents.

2.1.3. The consulting company shall have experience in carrying out pre-design and design work on implementation of the projects in the field of information and telecommunication technologies with a cost of more than USD 5 million.

2.1.4. The consulting company shall have a high reputation in the market of consulting services in the field of information and telecommunication technologies, which is determined by its position in the ranking of consulting companies in the country.

2.1.5. The consulting company must have cooperation and experience with leading international, foreign consulting companies, research institutions and/or industry associations and experts in the field of research, as well as leading manufacturers and integrators in the field of information and telecommunication technologies.

2.1.6. The consulting company shall have at least three positive references (recommendations) from previous clients regarding participation in the implementation of projects in the field of information technology, which are state government and local authorities or large companies.

2.2. Requirements for availability and qualification of the specialists

2.2.1. The consulting company shall have high qualified specialists and in the quantity necessary to carry out the work specified in sub-clause 1.2.

For component I:

expansion of the data transmission network (IP/MPLS) to increase the volume of services and ensure the reliability of the systems using funds of the Public Private Partnership (PPP);

provision of wired optical and mobile broadband access networks using xPON/FTTx, 4G and 5G technologies using PPP funds;

expansion of the capacity of regional and international communication networks using PPP funds;

For component II:

establishment of data processing centers (DPC), based on hybrid cloud computing, to create a high-performance information infrastructure and oriented to solving of business problem by providing services in the form of information services;

development and implementation of regional integrated platforms, including cloud solutions, centralized information systems, CRM, etc.;

the ability to create a national hybrid “cloud” based on PPP with the ability to integrate turnkey solutions (National Cloud “UzCloud”);

creation and implementation of an online educational platform;

creation and implementation of a startup platform (investors, startups, competitions);

creation of a crowdfunding and crowdinvesting platform for development of the investment ecosystem in the country;

creation of appropriate mechanisms for authenticating of the citizens (including through mobile applications) and appropriate integration with national information systems;

maintenance and further development of state information systems and resources, including an open data platform;

identification, implementation and scaling of smart solutions, common services and platforms for both the needs of the public and private sectors;

development of PPP in direction of the development of the infrastructure of the information technology industry;

provision of capacities for regional needs (countries of Central Asia and South Asia).

For component III:

strengthening and harmonizing the regulatory framework, in particular laws, regulations, organizational structures and human resources (at the regional and national levels), to create favorable conditions for economic development;

development of an updated legal and regulatory framework for digital transformation including interconnection rules, licensing framework, cybersecurity, cross border taxation for digital business, data sharing across borders, etc.;

digital leadership development to drive digital transformation;

enhancing the investment climate for IT market of Uzbekistan;

increasing of public awareness of digital transformation.

For component IV:

development of innovation and startup ecosystems;

improvement of legal, organizational and economic conditions for the activities of innovation centers and technology parks;

job creation in the IT industry through the creation of new enterprises;

development of digital technology entrepreneurship skills and venture capital development;

development of training programs and conducting training courses in the IT industry;

attraction of investors of various stages to technology companies and startups;

creation of a platform for interaction between government entities, business and the scientific community within the regional center of competence;

attraction of the consultants in order to organize the awareness-raising campaigns, knowledge-sharing seminars, workshops and conferences.

For component V:

calculation of the cost estimate of the component including supporting of activities of the PIU including salary, operating costs, taxes, administration costs etc.

2.2.2. The consulting company shall provide CVs of the following key specialists for assessment of their qualification:

No.	**Position Name**	**No. of Experts**	**No. of men-months**	**General /Specific Work Experience in years**
1.	Specialist /Engineer on Telecommunications	*1*	*3*	*10/5*
2.	Specialist on Databases and Networks	*1*	*2*	*10/5*
3.	Lawyer in ICT field	*1*	*2*	*10/5*
4.	Specialist on Information Systems	*1*	*2*	*10/5*
5.	Specialist on Financial Management	*1*	*2*	*10/5*
6.	Specialist on PPP	*1*	*2*	*10/5*
7.	Specialist on management of the Projects in ICT field	*1*	*2*	*10/5*
	TOTAL	**7**	**15**	

3. Requirements for volume and quality of the services, to presentation of the deliverables

3.1. The following works shall be carried out within the Project:

1) pre-project survey of existing information and communication infrastructure and facilities;

2) development of the Feasibility Study of the Project for all 4 components;

3) joint development with the Client of the criteria for evaluation of the works performed within the Project on the basis of KPI key performance indicators.

3.2. As part of the pre-project surveys, the consulting company shall:

Under component I:

1) conduct a thorough study of the current state of the capacity of regional networks, including an identification of existence or lack of the infrastructure (state or independent) to provide services to the population across the country;

2) determine a volume of PPP to be attracted for complying with the needs for equipment to expand the capacity of regional networks using DWDM technology;

3) determine a volume of PPP to be attracted for complying with the needs for equipment to expand the capacity of regional data networks using IP/MPLS technology;

4) carry out the analysis of coverage of the population and social objects (schools, medical institutions, etc.) by networks of wire optical and mobile broadband access, including, in hardly accessible and remote settlements of the Republic of Uzbekistan;

5) determine a scope of PPP to be attracted for complying with the needs for equipment to expand the coverage of the population and social facilities with the laying of fiber-optic cable using xPON/FTTx, 4G and 5G technologies.

Under component II:

1) carry out the analysis (including demand assessment) and prepare preliminary calculations for construction and equipment of data processing centers and the national hybrid “Cloud”, with the possibility of integrating of ready-made solutions (National Cloud “UzCloud”), possibly based on PPP

2) carry out the analysis of development and implementation of regional integrated platforms, including cloud solutions, centralized information systems, CRM, etc., aimed to provide data center services;

3) carry out the analysis and offer recommendations on development of the electronic identification in Uzbekistan and further integration with other countries of the region, as well as on implementation of the appropriate mechanisms for authentication of citizens in the digital environment (including through mobile applications)

4) preparation for development and implementation of digital platforms (online educational platform, start-up platform, crowdfunding and crowdinvesting platforms, etc.), including for needs of other components of the Digital CASA Project;

5) preparation of measures for implementation of the data-driven smart solutions (including further development of the open data platform and identification of data sources to be digitized (through scanning, mass input, etc.);

6) carry out the analysis of the feasibility of introducing of the official store of applications and digital services for public and private sectors, allowing users to view and download applications developed by residents of IT Park and having passed the appropriate certification procedure;

7) identification of the opportunities for development of PPP in direction of development of infrastructure of the information technology industry;

8) identification and preparation of measures to ensure cybersecurity of the elements of the 2nd component;

Under component III:

1) collect and analyze thoroughly the regulatory framework of the Republic of Uzbekistan in the field of information and communication technologies;

2) prepare the proposals for amending existing regulatory documents in order to ensure the development of the digital transformation, including development of telecommunication sector, digital trade, digital finances, cybersecurity, attractiveness for investors and mechanisms for attracting venture capital;

3) develop mechanisms to support digital leadership and capacity building, including stimulating the participation of women;

4) prepare preliminary outreach programs for the general public in order to increase an awareness about digital transformation.

Under component IV:

1) carry out an analysis of the current state of the startup-ecosystems and digital entrepreneurship (innovation centers and technopark, IT incubators and accelerators, venture financing, PPP);

2) study and analyze the experience of leading countries in the development of a startup-ecosystem of digital entrepreneurship;

3) prepare proposals for holding contests, hackathons, ideathons for involving the wide masses in a startup culture;

4) assess a status of ICT personnel deficit;

5) develop proposals for creation of the professional educational programs in the field of ICT, entrepreneurship and venture financing;

6) develop proposals for programs to teach basic digital skills a wide segment of population;

7) develop proposals for creation of the regional center of digital transformation.

3.3. The results of the pre-project survey shall be:

reports on study of the current state and results of the inspection of automation objects;

recommendations based on the objectives of the surveys set out in the above sub-clause 3.2 of these requirements.

3.4. Development of the Feasibility Study shall be conducted in order to determine the preliminary cost of the Project.

3. 5. Feasibility Study of the Project shall be developed in accordance with the current legislation.

3.6. A Structure of the pre-feasibility study shall include the following sections:

1) Introduction - Description of existing political, socio-economic, climatic, legal conditions, in which the Project will be implemented, indices, provision of infrastructure, an anticipated location and area of impact of Project, including a justification of the Project purposes and options for achieving goals

2) The marketing section - a preliminary estimate of the current and anticipated future demand for Project services;

3) Technical and economical Section – reflection of various technological solutions for Project implementation describing the project structure, technical solutions on the Project, which are defining parameters, components of the Project and its cost estimate;

4) Environmental Section - reflection environmental aspects of the Project;

5) Institutional section - including the contents of the Project management schemes, the description of the legal basis, the structure of management and assess of the financial costs, interaction of participants of the Project, distribution of costs, benefits and responsibilities among the participants, as well as institutional risks, key risk determinants, assumptions and range of changes, assumptions for risk mitigation;

6) The architectural and construction section – a justification of choice of the location area, the principal architectural and construction and space-planning solutions, main parameters, compliance with national urban planning requirements;

7) Financial section - containing the preliminary assessment and the justification of the financial costs of alternative schemes and funding sources of the Project, the effects of inflation to the Project implementation, as well as evaluation of the financial performance model of the financial implementation of the Project;

8) Economic section - reflecting the analysis of the Project in terms of the country's economy in general and region;

9) Social section - reflecting social aspects of the Project and benefits of beneficiaries from the Project implementation;

10) General conclusions - identifying the main advantages and disadvantages of the Project, conclusions and description of the logic for choosing of the optimal option of the Project implementation, the main risks for the Project and other conclusions;

11) Appendix - financial and economic models for each of the considered options of the Project implementation, expenditure tables, dynamics, graphs, charts, drawings, terrain maps and other materials.

3.7. The preliminary cost of the Project shall include all costs for all 4 components of the Project including:

- calculation of the total investment costs, distribution of the needs for financing in each stage of the Project and financing sources;

- calculation of production costs (operating costs);
- calculation of other costs of the Project, including staff training;
- Financial indicators of the Project.

Financial indicators of the Project shall include:

- calculation of the cost of services and income;
- summary calculation of cash flow;
- analysis of the Project using discount methods, including calculation of net present value (NPV), internal rate of return (IRR), discounted benefit/cost ratio (B/C), discounted payback period;
- analysis in the face of uncertainty, including sensitivity analysis by the main parameters (sales volume, sales price, direct costs), break-even analysis of the Project;
- analysis of the Project liquidity;
- forms of financial statements of project participants who are recipients of credit or budget funds for the last two years;
- the current financial condition of the project participants who are recipients of credit or budget funds, including:
- assessment of the liquidity of the enterprise;
- assessment of the autonomy of the enterprise;
- assessment of return on equity;
- assessment of the profitability of invested funds, taking into account obligations;
- analysis of the scheme, sources and conditions of financing, as well as their alternatives;
- an assessment of financial risks, the main determining risk factors, the estimated nature and range of changes, the proposed measures to reduce risks.

The result of this phase of work is a preliminary technical and economic calculation.

3.8. The results of the consulting company's work within the framework of the Project shall be drawn up and presented to the Client in paper and electronically.

3.9. All the deliverables provided by the consulting company to the Client shall be presented in Russian.

4. Requirements for organization and conduction of works

4.1. Consultancy work shall be carried out on the basis of an agreement concluded with the Client in the result of tender (bidding).

4.2. The responsibilities of the Client for organization of work include:

- setting the tasks, setting requirements for performance of the consulting company;
- providing the consulting company, including upon its request, the information necessary for performance of the work;
- providing the consulting company with regulatory legal acts to perform the required work under the Project;

- organization of the studies of the localities by specialists of the consulting company, their trips to the facilities, holding joint meetings with representatives of the Project's Client and the World Bank for implementation of pre-design surveys;

- holding joint meetings and working meetings with a consulting company to discuss existing issues, negotiate, make decisions and exchange information;

- jointly with a consulting company development of criteria for evaluation of the work performed within the framework of the Project based on KPI key performance indicators;

- consideration of the results of the consulting company, sending of available comments and suggestions to the consulting company or discussion at joint meetings.

4.3. A consulting company is required to:

- perform work in accordance with the requirements of the Client;

- provide all kinds of consulting assistance at the request of the Client with the provision of explanatory, clarifying or additional information;

- together with the Client, develop criteria for evaluation of the work performed within the framework of the Project based on KPI key performance indicators;

- eliminate comments and suggestions of the Client based on consideration of the results of the consulting company's performance.

4.4. A consulting company has the right:

- send a request to the Client for organizing meetings with representatives of interested organizations and the World Bank, trips and studies of localities and facilities for the implementation of pre-project surveys;

- request from the Client the information necessary for its work, including the relevant regulatory legal acts;

- interact with leading international, foreign consulting companies, research institutes and/or industry associations and research experts, as well as leading manufacturers and integrators in the field of information technology.

4.5. Interaction and exchange of information between the consulting company and government entities, agencies, companies located in the Republic of Uzbekistan shall be carried out through the Client.

4.6. Separate working groups can be created with the participation of representatives and specialists of the Client, a consulting company and other government entities, agencies and companies in order to organize effective work by interested parties.

5. Deadlines

5.1. The work specified in Section 4 of these Requirements must be performed by the consulting company in the following terms from the date of entry into force of the contract between the Client and the consulting company:

1) pre-design survey - 1 month;

2) development of a preliminary version of the Feasibility Study **for all 4 components** of the Project – 3 months;

3) presentation of the final version of the Feasibility Study of the Project – 4 months.

6. The procedure for design and presentation of the results of work

6.1. The work performed by the consulting company shall be presented as follows:

- the Report on the pre-design survey for all 4 components - in paper form (in 4 copies) and on electronic media (DVD-disc);

- the Feasibility Study of the Project - in paper form (6 copies) and on electronic media (DVD -disc)

LIST
For approval of the draft Terms of Reference for selection of the consulting company to prepare Feasibility Study of the Project "Digital CASA – Uzbekistan"

_____ B. Abdullaev

_____ A. Karamatov _____ I. Ishankulov

_____ A. Arifdjanov _____ L. Yadgarov

Appendix to the Terms of Reference - Components of the project "Digital Casa – Uzbekistan"

Component I: "Regional Digital Connectivity Infrastructure"

Subcomponent 1.1: "Development of the main connectivity network of the regional connection with the countries of the Central Asia"

Project Name	Development of the main connectivity network of the regional connection with the countries of the Central Asia
Project Description	Installation of equipment to expand the capacity of regional networks using DWDM technology
Implementation period	2021-2023
Source of financing	Loan of the World Bank
Project Capacity	The expansion of regional and international networks to not less than 2.4 Tbps
Expected Result	As a result of the project, the throughput capacity of regional and international communication networks, transit connections with the Central Asian states bordering the Republic of Uzbekistan by laying fiber-optic lines and installing of the spectral multiplexing (DWDM) channels are ensured
Project payback period	Will be determined after development and approval of the Feasibility Study of the Project

Subcomponent 1.2: "Development of the infrastructure of the national data network"

Project Name	Development of the Infrastructure of the National Data Network
Project Description	Installation of equipment to expand the capacity of the regional networks using IP/MPLS technology
Implementation period	2021 – 2023
Source of financing	Loan of the World Bank
Project Capacity	Data Network Development: - up to the regional level for at least 200 Gbps; - up to the district level for at least 10 Gbps.
Expected Result	As a result, the Project provides: - expansion of the data transmission network (IP/MPLS) to increase the volume of services provided, backup, ensure the reliability of the systems, as well as to provide the public and social facilities with broadband access; - the ability to transfer various information and exchange data in large volumes between the regions of the country.
Project payback period	Will be determined after development and approval of the Feasibility Study of the Project

Subcomponent 1.3: "Development of broadband access in remote and border areas"

Project Name	Development of broadband in remote and border areas
Project Description	Installation of the equipment, fixed and mobile broadband in remote and border areas
Implementation period	2021 – 2023
Source of financing	Loan of the World Bank
Project Capacity	Installation of equipment, fixed and mobile broadband access for up to not less than 1.0 million ports.
Expected Result	As a result of the Project, the coverage of the population and social facilities with wired, optical, mobile broadband networks with fiber optic lines, an installation of xPON/FTTx , 4G, 5G technologies in hard-to-reach and remote and border areas of the Republic of Uzbekistan will be ensured. At the same time, the bandwidth of broadband access networks increases significantly (up to 100-1000 Mbps) and an opportunity to provide high-speed Internet, IPTV, OTT, etc. arises.
Project payback period	Will be determined after development and approval of the Feasibility Study of the Project

Component II: “Datacenters, Digital Platforms and Smart Solutions”

Subcomponent 2.1: “Regional datacenters”

Project Name	Regional Datacenters
Project Description	Creation of the Regional Data Processing Center (DPC) and the National Hybrid “Cloud” (National Cloud “UzCloud”), which will be a comprehensive organizational and technical solution designed to create a high-performance, fault-tolerant information infrastructure and focused on solution of the business problems by providing services in the form of information services. The main infrastructures of the DPC are: - informational; - telecommunication; - engineering. It is also planned to create the DPC within the framework of the subcomponent according to the reliability level of Tier III and the international standard Uptime Institute.
Implementation period	2020-2025
Source of financing	Loan of the World Bank
Project Capacity	Satisfaction of needs in production capacities of the ICT sector of Uzbekistan (both public and private)
Expected Result	Regional DPC will be the main platform in Central Asia, with a concentration of the latest technology for placement and maintenance of reliability of the client’s equipment. The largest governmental and corporate clients will host their servers in the DPC due to high level of the engineering infrastructure, each element of which will be reserved.
Project payback period	Will be determined after development and approval of the Feasibility Study of the Project

Subcomponent 2.2: "Regional Digital Platforms, Shared Services and Smart Solutions"

Project Name	Regional digital platforms, shared services and Smart Solutions
Project Description	The subcomponent will be aimed at developing and finalizing regional integrated platforms (including an online educational platform, start-up platform, crowdfunding and crowdinvesting platforms, etc.) and smart data-based solutions, which are also necessary for successful maintenance of the state information systems through online or mobile platforms, regardless of the sector. Also, a possibility of introduction of the official store of applications and digital services for easier development of the regional integrated platforms and smart data-based solutions for both the public and private sectors will be considered. Also, the creation of appropriate mechanisms for authentication of the citizens (including through mobile applications) and appropriate integration with the national information systems. Moreover, the subcomponent is aimed to satisfy the needs of the residents of IT-Park and the private sector and identify opportunities for development of PPPs in the field of development of infrastructure of the information technology industry. The subcomponent will also include measures to ensure cybersecurity of all elements of subcomponents 2.1 and 2.2.
Implementation period	2020-2025
Source of financing	Loan of the World Bank
Project Capacity	
Expected Result	Increasing of ICT penetration in the population, increasing of availability of electronic platforms
Project payback period	Will be determined after development and approval of the Feasibility Study of the Project

Component III: “Enabling Environment for Digital Transformation”

Subcomponent 3.1: “Legal, regulatory and institutional framework for digital transformation”

Project Name	Legal, regulatory and institutional framework for digital transformation
Project Description	The sub-component will focus on the study and development of the regulatory framework for the digital transformation of the best international practices in the area of formation of the legal framework and analysis and current trends in the field of digital transformation with participation of the international consulting companies. Nevertheless, the proposals to improve the legislative framework of the Republic of Uzbekistan will be prepared in result of the above works. Introduction of changes, additions to the existing legal forms of legal entities in the civil legislation of the Republic of Uzbekistan in order to simplify the procedures **for conducting joint business**. Creation of a legal framework **(mechanism) for investors** who are not going to create entrepreneurial structures on their own and offer their own funds for doing business (including **crowdfunding and crowdinvesting legal entities**) Improvement **of protection of the intellectual property** in Uzbekistan. The patent system shall ensure a steady growth of innovation, as many startups and technology companies are created around ideas, which is the main product of these companies. Elaboration of regulatory acts on development of the stock market, in order to approve the mechanism **for venture capital exit** through the sale of company shares on the stock exchange.
Implementation period	2020-2025
Source of financing	Loan of the World Bank
Project Capacity	
Expected Result	- preparation of draft legislative decisions providing an introduction of digital technologies in priority areas of activity;

	- preparation of the proposals for amendments that impede to the full implementation of the digital technologies.
Project payback period	Will be determined after development and approval of the Feasibility Study of the Project

Subcomponent 3.2: Digital Leadership and Capacity Building

Project Name	Digital Leadership and Capacity Building
Project Description	The subcomponent will aim to establish a digital leadership center. The center will be of a semblance of a hub designed for joint development with domestic and foreign enterprises, for organization of events for businesses facilities and trainings for population in order to demonstrate new technological innovations
Implementation period	2020-2025
Source of financing	Loan of the World Bank
Project Capacity	
Expected Result	- involving of experts and trainers; - carrying out the events aimed to increase the digital literacy of population.
Project payback period	Will be determined after development and approval of the Feasibility Study of the Project

Subcomponent 3.3: "Public Awareness and Digital Transformation"

Project Name	Public Awareness and Digital Transformation
Project Description	The subcomponent will focus on development of training programs and media coverage of trainings. An action plan will also be developed to compile and publish materials in the field of digital transformation in the media.
Implementation period	
Source of financing	Loan of the World Bank
Project Capacity	
Expected Result	Based on the results of the above activities, relevant trainings in the field of digital transformation will be held in order to expand the use of the digital technologies in everyday life. Also, the educational programs and various educational events will also be organized to promote platforms in order to increase public involvement in the field of digital technologies.
Project payback period	Will be determined after development and approval of the Feasibility Study of the Project

Component IV: Digital Innovations, Entrepreneurship and Skills

Subcomponent 4.1: "Digital Entrepreneurship (technology park, venture capital financing, IT incubator)"

Project Name	Digital Entrepreneurship
Project Description	Provision of the startup incubator and accelerator of the Technological Park of software products and information technologies (IT-Park) with infrastructure and human resources. Creation and maintenance of activities of the Advisory Board of the IT-Park for strategic planning of the startup ecosystem and attraction of the venture capital investment. Creation and maintenance of the venture financing industry. Creation of incubation programs, industry-specific business accelerators, as well as mentoring programs for startup projects. ● Carrying out acceleration programs ● Mentor support ● Financing trips to local and global startup summits and conferences ● Participation in international acceleration programs ● Support to ecosystem-forming organizations and enthusiasts ● Conducting schools of mentors, trackers, trainings of trainers ● Support for private business incubators and accelerators ● Training for incubation and acceleration programs ● Internships at the best innovation centers ● Support for companies to develop the software development market ● Support companies stimulating programmer training ● Conducting trainings for the development of export of IT services Organization and conduct of contests, hackathons, ideathons for involving the wide masses of population in the startup culture. Holding conferences and forums on venture financing in order to attract investors.

Implementation period	2020-2025
Source of financing	Loan of the World Bank
Project Capacity	
Expected Result	As a result of the project, it is expected to develop the export potential of IT industry, which can become a driving force for the regional economic growth, and to create incubators and accelerators under the IT-Park, as well as the subsequent creation of 3 thousand jobs in the field of IT services
Project payback period	Will be determined after development and approval of the Feasibility Study of the Project

Subcomponent 4.2: “Human Capital Development and Digital Skills”

Project Name	Human Capital Development and Digital Skills
Project Description	Provision of IT-Academy under IT-Park with infrastructure and human resources. - Development of a matrix of digital competencies, on the basis of which curricula and courses are developed, systems of certification standards and knowledge assessment of target groups of the Project - Development and localization of training programs and training courses - TOR for educational platform (subcomponent 2.2) - Financial incentives and student support (grants and scholarships) - Development and support of a network of experts and teachers - Analysis of the labor market and prospective professions - Support in the development and operation of a career center - Development and support of a program to promote digital entrepreneurship - Support for the administrative team of the IT-Academy Creation of the methodology for training at the Venture Academy (for business angels, investors and startups) and training for management companies.
Implementation period	2020-2025
Source of financing	Loan of the World Bank
Project Capacity	
Expected Result	Creation of the IT-Academy, development of educational programs, creation of the constant online educational platform
Project payback period	Will be determined after development and approval of the Feasibility Study of the Project

Sub-component 4.3: "Regional Centers for Digital Transformation"

Project Name	Regional Centers for Digital Transformation
Project Description	Creation of an innovative laboratory for creation and piloting of digital data-based solutions, breakthrough technologies and smart solutions. An innovative laboratory will identify sectoral problems, generate, prototype and pilot solutions for the needs of the state. Attraction of international technology companies in collaboration with an innovative laboratory. Creation and implementation of an online platform for interaction between government entities and private business, including startups for implementing innovative digital solutions and products, including those developed during the implementation of the subcomponent 4.1, as well as finding solutions to the needs and challenges of government entities, including within the subcomponent 2.3. through interaction of the state, business and scientific community.
Implementation period	2020-2025
Source of financing	Loan of the World Bank
Project Capacity	
Expected Result	A platform has been created for implementing innovative digital ideas and solutions in government entities. Under this platform, government entities will get an access to innovative solutions developed by both startups, that have passed acceleration under subcomponent 4.1, and international technology companies. On the other hand, government entities will get an access to a platform for finding solutions to sectoral challenges, solutions to which can be found in the Center of Excellence by attracting the business community. Solutions can be prototyped and piloted within the framework of this Project by startups and other technology companies involved in collaboration within the Center.
Project payback period	Will be determined after development and approval of the Feasibility Study of the Project