

**Enhancing Digital Government & Economy Project
Bangladesh Computer Council (BCC)
Information and Communication Technology Division
Ministry of Posts, Telecommunications and Information Technology
ICT Tower, Plot # E-14/X, Agargaon, Dhaka-1207,
Bangladesh**

Terms of Reference

For

**Digital Transformation Pathways for Selected Industry and SMEs
(Contract Package No: EDGE-S5)**

August 2023



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(CONTRACT PACKAGE NO: EDGE-S5)

1. Background:

The People's Republic of Bangladesh has received for a Credit from the International Development Association (IDA) – a member of the World Bank Group – for financing the cost of the Enhancing Digital Government and Economy (EDGE) Project, being implemented by the Bangladesh Computer Council (BCC). BCC intends to apply part of the IDA Credit to select a competent, qualified, and experienced firm (the Consultant) to provide consulting services for developing sector Transformation Roadmaps for key industries .

The project's overall objective is to improve the adaptability and efficiency of the digital economy, and increase local IT industry innovation through digital transformation to raise revenues of the IT industry.

The Project consists of four (4) major components to be implemented by BCC:

Component 1: Enabling Environment for Digital Economy. The key tasks under this component are:

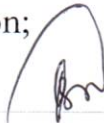
- ICT Governance and Sustainability;
- Change and Stakeholder Management; and
- Digital Leadership Academy (DLA).

Component 2: Public Sector Support for Digital Economy. The key tasks under this component are:

- Cloud Platform (CP) for Digital Economy;
- Public Sector Capacity Building; and
- Mainstreaming Bangladesh National Digital Architecture (BNDA).

Component 3: Private Sector Support for Digital Economy. The key tasks under this component are

- Digital Economy Coordination;



- Hire and Train Program for 20,000 Youth and Women;
- Strengthening and Promoting the IT / Digital Economy-Enabling Industry;
- Digitalization of Small and Medium-Enterprises (SMEs); and
- Establish Research and Innovation Centers.

Component 4: Project Management Support. This component will support BCC to manage and implement the EDGE project effectively and efficiently.

The project works on creating an enabling environment for digital government and the digital economy. By attaining the Digital Bangladesh vision, the IT-ITES industry of Bangladesh has been playing a remarkable contribution to our economy. The EDGE project, funded by World Bank and GoB, will ensure an integrated, cloud-computing digital platform for all government agencies and improve cyber-security, which will result in savings of \$200 million in the public sector's IT investments. In the private sector, businesses will be benefitted from the development activities focused, industry promotion programs, and opportunities to learn from global IT companies.

As part of the component 3 of the project, the objective is to implement digital transformation pathways at the IT industry and SME levels. The selected consultant shall be contracted to provide “Industry Digital Transformation” roadmaps for three industries, Health, Agriculture and Climate, and execute at the industry level to help companies prepare for the digital economy through innovation and productivity-boosting measures. The digital transformation activities would include making connections with research and innovation centers (RIC) of EDGE projects for three sectors, Health, Agriculture and Climate. The primary objectives of digital transformations include various critical areas, including customer experience, technology infrastructure, process efficiency, data management, company culture, and employee experience. With these objectives in mind, industries are diligently optimizing their strategies and processes to yield even more favorable outcomes. Within the framework of the Digital Transformation Pathways of the Industries and SMEs of EDGE project, it is imperative to engage an experienced and highly proficient Consultant.

2. Objective of the assignment:

The primary objective is to develop Sector Transformation Roadmaps for three key industries: Health, Agriculture, and Climate. This will involve conducting training and experiments that lead to the creation of prototypes, even in the face of challenges such as natural emergencies.

3. Scope of Services:

The specific responsibilities of the Consultant include, but not limited to, as following,

- 3.1. The consultant will develop "**Industry Digital Transformation**" **roadmaps** for each industry (Health, Agriculture and Climate). The Consultant shall include in the strategic plans the comprehensive step-by-step guidance on the digital technologies to be adopted at each stage of their growth journey. It should include proof of concepts and use case demonstrations, research on the technologies impact on job, develop content and curriculum for training and support with reskilling and upskilling. Considering these issues, the consultant will create a detailed plan outlining the steps needed to achieve the digital transformation goals. This should include milestones, timelines, and responsibilities for each task. Also, identify any potential risks and how to mitigate them.

- 3.2. The consultant will study the market and the use cases and then carry out local market analysis according to the demand of the user end to **identify 3 (three) sectors of those industries** (Health, Agriculture and Climate). They also need to do research and identify emerging trends in those industries that are driving the need for digital transformation. To identify the sectors the consultant will arrange several meetings with the relevant government bodies, Associations and Chambers. They need to arrange at least 9 workshops or FGDs (focus group discussion) with the concerned authorities, industry leaders and associations. They will also have to coordinate Key Person interviews within the relevant industry, at least one for each industry.



- 3.3. The Consultant will develop **three Implementation Roadmaps** for the selected industries (Health, Agriculture and Climate) in line with the strategic plan which must include reskilling and upskilling training and at least three experiments in three sectors. To craft these roadmaps effectively, they will establish and maintain strong connections with the relevant industries. Workshops, focus group discussions (FGDs), and meetings must be organized to actively engage the stakeholders. Through collaborative efforts, ideas and proposals will be co-created, fostering connections between government bodies, private sectors, and the EDGE project. Selection of the sectors/areas from the targeted industries will be settled by the consultation of EDGE project.
- 3.4. The Consultant will **implement the proposed roadmap** in the selected sites of nominated sectors as per their Implementation Roadmaps for each sector. The sites will be selected in consultation with the EDGE project. The consultant will arrange training for each industry. First, they will identify the partner institute of the industry and then in collaboration with them they will arrange training for each industry. They will provide training for at least 250 participants (mid-level and higher level) from each industry. The training curriculum will be designed in consultation with the EDGE project.

The implementation plan for digital transformation pathways in the industrial sector includes a comprehensive approach to modernizing operations. The Consultant will supply a set of technological instructions. To fully grasp the impact of these instructions over time, the Consultant will create prototypes for each industry. These prototypes could involve processes, devices, or applications that aid in this transformation. The prototypes will take the form of Minimum Viable Products (MVPs) and are required to have two setups for each sector. For instance, in the case of the health industry, two setups will be established at two hospitals, diagnostic centers, or relevant health sites for prototyping purposes. Similarly, for the agriculture and climate industries, the consultant will follow the same process. The consultant will seek assistance from the pertinent EDGE Research and Innovation Centers (RIC) while performing these experiments.

- 3.5. The Consultant will develop and deliver three separate reports named **“Report on Highlighting Experiment Results”** which will consist of the



findings during and after the prototypes are being developed and that will provide feedback for future product development for the selected three industries, This report will help to focusing on future industry projections and the necessary innovation to achieve competitiveness in the changing global technology trend.

3.6. Team Composition

4.1. Key Experts:

The broad qualifications of the Key Experts are given below. The responsibilities shall be assigned by the Consultant to complete all the deliverables in a professional manner.

1. Team Leader

- Education:
 - Masters's in relevant disciplines such as ICT, Business Administration, Human Resources Management, Economics etc.
- Experience:
 - 15 (Fifteen) years of professional work experience, out of which five (5) years of experience in the leading position of a relevant organization/project
 - Experience in large ICT projects will be an added advantage.
 - Working experience for a similar position.

2. Strategy Specialist

- Education:
 - Masters's in relevant disciplines such as ICT, Business, Economics or any other discipline etc.
- Experience:
 - 15 (Fifteen) years of professional work experience, out of which five (5) years of experience in leading position with relevant experience
 - Experience in large ICT projects will be an added advantage.
 - Working experience for a similar position.

3. Digital Technology Expert



- Education:
 - Masters's in relevant disciplines such as ICT, Economics, Mathematics, Statistics
- Experience:
 - 10 (Ten) years' professional work experience, out of which five (5) years of related experience in ICT/Digital Transformation planning for large corporations will be added advantage.
 - Experience in large ICT projects will be an added advantage.
 - Working experience for similar position.

3. Sectoral Experts (3) (one from each sector)

- Education:

Bachelor's in relevant disciplines such as ICT, Business, Economics or any other discipline etc.
- Experience:
 - 10 (Ten) years' professional work experience, out of which five (5) years of related experience in related sector
 - Experience in large ICT projects will be an added advantage.
 - Working experience for similar position.

4. Senior Researcher

- Education:
 - Master's degree in relevant disciplines such as ICT, Business, Economics or any other discipline etc.
 - PhD degree holder in Economics, Mathematics, Statistics, or ICT will get preference.
- Experience:
 - 10 (Ten) years' professional research experience, out of which five (5) years of related research experience in related sector
 - Experience in large ICT projects will be an added advantage.



4.2 Non-Key Experts/Other Experts

In addition to key experts, the following non-key experts/staff may be required to perform the activities in accordance with the Terms of Reference. Indicative non-key staff list is a guideline for the consultant. However, the Consultant is free to make its own estimate to propose non-key staff.

1. Associates

- Education:
 - Bachelor's degree in relevant subjects such as business, marketing, math, or statistics.
- Experience:
 - 3 (three) years of experience in similar field

2. Field Investigators (Data Collection)

- Education:
 - At least Bachelor's degree in relevant subjects such as Economics, Statistics, Sociology or ICT.
- Experience:
 - 3 (three) years of experience in similar field

3. Data Entry Operator

- Education:
 - Bachelor's degree in relevant subjects.
- Experience:
 - 3 (three) years of experience in similar field

4.3 Time Inputs of Key and Non-Key Experts

S.N.		Inputs in month
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	Key Experts (CVs shall be evaluated)	No	Person-month (pm)	Total (pm)
1	Team Leader (Project Manager)	1	12	12
2	Strategic specialist (Co-Lead)	1	18	18
3	Digital Technology Expert	1	15	15
4	Sectoral Experts (1 must be International)	3	15	45
5	Senior Researcher (International)	1	15	15
	Total Key-Staff Inputs			111
	Non-Key Experts/Other Experts			
1	Associates	3	15	45
2	Field Investigators (Data Collection)	3	15	45
3	Data Entry Operator	2	10	20
	Total Non-Key-Staff Inputs			110
	Total Staff Inputs (Key Experts + Non-Key Experts)			221

The total estimated key experts' input is **111** person-months.

- Note:

- The Consultant is responsible to review the required services and may propose its own requirements for the key experts and other support staff required to complete the proposed services in a satisfactory manner.*
- The financial proposal should include all the direct and indirect costs necessary to execute the services.*
- The number of experts proposed for different positions shall match the Consultant's Technical Proposal.*



5. Deliverables:

The following table describes the deliverables of this assignment, which are the outputs of the activities specified under the Scope of Services.

Note: T0 = Date of commencement of the Contract

SL.	Deliverables	Submission Deadline (T1, T2,, TN)
5.1	<p>Inception Report</p> <p>Outline in detail the activities that the Consulting firm will undertake to develop industry specific transformation roadmap and implementation plan with detailed timetable.</p> <p>The Consultant will give a presentation to the project authority in respect of the Inception Report and within two weeks following this presentation, they will provide the hard copies of Revised Inception Report, reflecting any amendments.</p>	T1 = T0 + 1 Month
5.2	<p>Selection of Sectors/areas from each industry</p> <p>Develop Report on 3 Sectors/areas need to be defined using multiple tasks.</p> <p>1. Arrange minimum 9 Workshop/FGD/meeting with related government bodies, Associations and Chambers of each industry</p>	T3 = T0 + 3 Month
5.3	<p>Prepare the strategy of the “Industry Digital Transformation” roadmap.</p> <p>Develop Report for 3 individual and unique strategic roadmaps for 3 sectors</p>	T3 = T0 + 5 Month



SL.	Deliverables	Submission Deadline (T1, T2,, TN)
5.4	Prepare the Implementation roadmap against the strategy roadmaps Develop Report for 3 individual implementation roadmaps for 3 sectors	T3 = T0 + 6 Month
5.5	Prepare the activity lists against the implementation roadmaps Develop Report for 3 individual Activity roadmaps for 3 sectors	T3 = T0 + 7 Month
5.6	Individuals Training (Mid-level and Higher level) from each industry The Consultant will arrange digital transformation related trainings to the mid level and higher level employees or c-level executives of each industries. The total number of trainings will be at least 750 (at least 250 from each industry)	T3 = T0 + 10 Month
5.7	Experiment according to the proposed implementation roadmap <ul style="list-style-type: none"> The Consultant must develop 3 prototypes according to the experiments. These prototypes will be established in 2 sites of each sectors (total in 6 sites), which will be conducted in collaboration with EDGE RICs. 	T3 = T0 + 15 Month
5.8	Report on Highlighting Experiment Results Develop 3 individual reports on Highlighting Experiment Results for three industries according to the experiments	T3 = T0 + 178 Month
5.9	Final Delivery Report	T3 = T0 + 18 Month

6. Duration

The entire consultancy work including submission of reports, documentation, deliverables, etc. shall be completed within 18 (eighteen) months from the contract effective date.

7. Reporting Arrangement:

SL. #	Report Name	Report Format and Quantity	Submission Deadline
1.	Quarterly Progress Delivery Report	Softcopy (PDF) – 1 Hardcopy – 3	T=T3 (each quarter)

Note: The Consultant will provide the reports in hardcopy format, with three copies of each.

8. Management of the Assignment

The Client for the assignment will be the Project Implementation Unit (PIU) of Enhancing Digital Government and Economy (EDGE) of Bangladesh Computer Council (BCC) under the ICT Division, who will also issue the contract. The assignment focal points will be the Project Director, Enhancing Digital Government and Economy (EDGE) Project. The general obligations are as follows:

8.1 To be provided by the Consultant: During the assignment, the Consultant shall provide all the facilities for their staff and other logistical requirements like computers, printers, and facilities for the production and binding of reports, etc. on their own to fulfill their obligations. These will also include support staff and office facilities, office equipment and supplies, required equipment and materials for the assignment, and communications as required. The Consultant will be responsible for bearing the logistics, insurance cost and associated expenses (e.g., venue, food, transportation) related to the training, workshops, seminars, events, FGDs, etc. The Consulting firm will set out the requirements in the technical proposal and provide the financial cost estimates for these in their financial proposal.



8.2. To be provided by the Client: The client will provide appropriate direction, data, information, etc., and assist in communicating with other Government departments, communities, and stakeholders.

8.3. Administrative Arrangements: The Consultant will work in close consultation with the project director under the general supervision and guidance of the respective team leaders and supervisors. The Consultant will assist in arranging all meetings with other government departments, communities, universities, and stakeholders.

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