Project: “E-Governance for Citizen-Oriented and Transparent Administrative Processes"

Mission: Development of a Concept Paper, ToR for Big Data for Urban Planning

1. **Introduction**

Financed by the German Federal Ministry of Development and Cooperation, GIZ operates the Eastern Partnership Regional Fund for Public Administration Reform. The Regional Fund aims, by means of fund-financed projects, to improve the conditions for the implementation of administration reform in the Eastern Partnership (EaP). The EaP includes the countries Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine. The intention of such reform is to make public administration more citizen-oriented and transparent, while providing faster and better services to citizens and businesses. The Regional Fund facilitates capacity development and the establishment of national and regional expert communities for professional- and management staff of relevant institutions. Additionally, the Regional Fund supports the development of innovative tools that target public administration issues.

The fund-financed project “E-governance for more citizen orientation and transparency in public administration” facilitates the transfer of learning experience and practice-oriented IT solutions as well as the joint development of new proposals. The exchange of experiences aims to address IT-related questions in conjunction with rules of procedure in public administrations as well as organisational and decision-making processes. The aim thereof is to facilitate the subsequent technical implementation of ideas into specific IT solutions which increase citizen-orientation and transparency in public administration. The countries participating in this project include Armenia, Azerbaijan, Belarus, Georgia and Ukraine.

In the scope of the Project three working groups have been formed composed of representatives from the above countries. The current assignment will be implemented in the scope of Working Group 2 – “Smart City”. The participating countries for the assignment are Armenia, Georgia and Belarus.

1. **Background and purpose of the assignment**

Economic, environmental and technological changes caused by globalization, growing urban population, increasing demand for high quality services and efficiency raise a necessity of introducing innovative solutions, new approaches to urban planning and management covering areas of economy, people, governance, mobility, environment and living. These challenges have to be dealt with in a “smart” way.

With the development of new technological innovations, the “Smart City” concept is considered as a means to achieve more efficient and sustainable cities. Deploying ICT into various areas of the urban life can lead to better, more efficient and sustainable urban planning and management, better quality of life of residents. Meanwhile, sustainable urban planning is a complex issue integrating different action fields in the city. To tackle all the issues using all the resources and data at the disposal, a look from the top is required.

In a “Smart city” all the systems, intelligent instruments are interconnected thus providing for centrally coordinated city where real-time or non-real time collection and analysis of structured or non-structured data is conducted.

The interconnection enables not just the collection, but also the processing and sharing of the data with city facilities and services. Big Data collection, processing, analysis and data-based decision making can convert cities into smart.

The current assignment is aimed at the development of a Concept Paper, ToR for Big Data for Urban Planning.

1. **Tasks and deliverables**

### *Task 1: Analysis of the current situation*

An analysis of the current situation should be conducted at the start of the effort in Yerevan, Tbilisi and Minsk which should include the strategic view of the current situation, existing systems, databases, resources in city infrastructure, appropriate legal framework, etc. The consultant should assess and determine expectations and needs of main stakeholders, evaluate and propose a conceptual approach to Big Data for Urban planning in the respective countries.

In total, up to 2 visits to Tbilisi and Minsk are envisioned for the assignment. Flying dates are to be agreed upon in advance.

## Task 2: Development of a Concept Paper, ToR for Big Data for Urban Planning

Based on the assessment results a Concept paper should be developed which should include but not be limited to:

* Design of a strategic concept for Big Data for Urban Planning to be introduced in Armenia, Georgia and Belarus, including piloting and roll-out phases. The pilot phase should focus on GSM data for urban planning and transport/utility management. The approach recommended should be sustainable, cost effective and efficient. The Concept paper should describe, among other issues, also the management and financial model of Big Data platform, as well as legal issues to be addressed in the respective counties.

On the basis of the point above, design of:

* General architecture of the platform,
* ToR for Big Data for Urban Planning (detailed technical and functional specifications of the platform), which should include but not be limited to:
  + Collection and storage of structured and unstructured data from all available systems and sources of the city infrastructure (also via Application programming interfaces (APIs)) into the Big Data platform,
  + Integration and synchronization of data available in different databases,
  + Main functionality of the application for data analysis,
  + The processes, principles and methods of data collection, storage and quality assurance,
  + Requirements for data accuracy, confidentiality, privacy and security.
* Technical and functional requirements for the pilot phase project (GSM data for urban planning and transport/utility management) should be specified separately.
* Any other particular field of observation.

1. **Proposed Schedule and Consultant Inputs**

Tentative commencement of the assignment is **10th of January, 2019.** The contract will terminate on **15th of March, 2019.** All below listed tasks will be implemented within **up to 48 expert-days** during the mentioned period.

The consultant is obliged to perform the assignment based on these TOR while ensuring close contact with GIZ throughout the implementation of the assignment. The consultant shall provide all the results directly and in the first turn to GIZ for discussion and further action.

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| N | **Tasks/Deliverables** | **Home-based days (up to)** | **On site days**  **(up to)** |
| 1. | Pre-mission preparation, including collection of necessary information, desk review, agreements on the detailed work-plan, methodological and technical work plan for the consultancy. | 3 |  |
| 2. | Analysis of the current situation, identification of key elements and main needs and expectations of the stakeholders for the development of the Concept Paper and ToR (Task 1) | 8 | 8 |
| 3. | Based on Task 1 results development of the draft Concept paper and ToR (Task 2) in English | 25 |  |
| 4. | Development of the final version of the Concept Paper and ToR | 4 |  |
|  | **Total** | **40** | **8** |

* Flight tickets, accommodation and all other expenses during site visits are to be organized and covered by the consultant.

1. **Requirements for the consultancy profile**

* At least 5 years of experience in data analysis and data architecture,
* At least 2 years of experience in designing Big Data projects and at least 2 successful projects implemented,
* Sector specific experience (Smart city) is highly preferred, experience in the field of application of GSM data for urban planning and transport/utility management is preferred,
* Capacity to communicate, produce and deliver services and products in English,
* Excellent analytical skills,
* High level of communication and interpersonal skills.

1. **Reporting**

The Consultant will directly report to the GIZ on the progress and completion of the tasks. All the documents provided by the consultant should be in English.

1. **Project coordination**

The below organizations will be responsible for the technical oversight of the assignment:

* “Centre for management technologies of Yerevan” CJSC, Yerevan Municipality, Armenia,
* Municipal Service Development Agency, Georgia,
* Design and research municipal unitary enterprise "Minskgrado”, Belarus.

In particular, the above partners will take an active stance in supporting the following activities:

* Provide input to the work-plan of the mission.
* Meet with the Consultant and outline the scope of expectations, pledge their support and consult on the modus operandi of the mission,
* Discuss the scope of work and the expectations from the works of the mission versus the challenges,
* Act as resource institutions to facilitate and support the consultant in response to request that may emerge in the course of the implementation of the activities under this assignment,
* Provide clarifications and explanatory overviews as may be needed by the consultant to perform duties to the utmost efficiency and relevance, including prior to, during and after the mission.

**NOTE**

**The financial proposal of the consultant should include the daily honorarium in AMD, as well as the breakdown of any expenses with regards to the travel and stay in Tbilisi and Minsk (for each country separately) and/or any other possible cost that may occur during the implementation of the assignment.**

**GIZ reserves the right to exclude offers with a total price of more than 15,000.00 EUR.**