

## TERMS OF REFERENCE

for Consulting Services (Individual Consultant)

### “Data Analyst”

Contract No. MOES-C3-05-SUP-IC-03

Ukraine Improving Higher Education for Results Project

World Bank Loan No. 9238-UA

#### I. BACKGROUND

Ukraine and the International Bank for Reconstruction and Development (IBRD; the World Bank) have signed Loan Agreement No. 9238-UA in the amount of US\$200 million for the Project Ukraine: Improving Higher Education for Results' (hereinafter referred to as the Project). The Project is implemented in Ukraine by the Ministry of Education and Science of Ukraine (MoES) with the support of the World Bank Group. The Project implementation period is 2021-2026.

The Project Development Objective (PDO) is to improve efficiency, conditions for quality, and transparency in the higher education system of Ukraine.

The Project includes six components:

- Part 1: Sector-Wide Improvements to Governance, Financing, Quality, and Transparency;
- Part 2: Alliances/Partnerships for Improved Efficiency and Quality;
- Part 3: Capacity Building and Education Environment Enhancement;
- Part 4: Project Management, Monitoring & Evaluation;
- Part 5: Support to Academic Scholarships under MOES and Social Scholarships under MOSP for Higher Education Students;
- Part 6: Contingent Emergency Response (CERC).

The Project supports two categories of expenditures: (i) traditional investments in goods, works, and services, for which disbursements are made against eligible expenditures, and (ii) defined performance-based conditions (PBCs), for which disbursements are also made against eligible expenditures conditional on the achievement of the PBCs as defined in the Loan Agreement and Project Operational Manual.

As a requirement of the Loan Agreement, MoES established a Project Implementation Unit (PIU) to conduct day-to-day Project management and coordination in disbursement, procurement, financial management, compliance with environmental and social standards, reporting and other Project-related activities. In order to ensure efficient implementation of the Project, MoES shall engage individual consultants for the PIU.

More detailed information is given at the link

<https://projects.worldbank.org/en/projects-operations/project-detail/P171050>

The contract with the Consultant will be awarded through a competitive process in accordance with the Procurement Regulations for IPF Borrowers, November 2020. This Terms of References

defines the purpose, scope and duration of consulting services and qualification requirements for the Consultant.

## **II. OBJECTIVE**

This assignment aims to support MoES in collection, analysis and forecasting of data to support effective management decisions related to the higher education system of Ukraine.

## **III. SCOPE OF SERVICES**

The Data Analyst's work will be integral to supporting the Project, providing crucial data-driven insights and recommendations that will guide decision-making processes and contribute significantly to achieving the Project Development Objective (PDO). The Data Analyst will support the collection, analysis, and forecasting of data, which are crucial for effective project management and the evaluation of project outcomes. This role directly contributes to monitoring progress and evaluating the impact of various activities, especially within UIHERP's Parts 2 and 3. He/she will also contribute directly to Part 1 of the Project by conceptualizing the needs and solutions for data flows and their management for the Unified Electronic Information Database on Education (EDEBO) and the Higher Education Management Information System and other IT systems. Data Analysts will also play a role in effective communication strategies by making complex data understandable to a wider audience.

The Scope of services to be provided by the Consultant shall include but not be limited to the following:

- Develop technical requirements for data needed for decision-making, build data structures.
- Develop tools for effective data collection from various sources, using modern data collection tools.
- Perform effective data processing and cleaning.
- Data analysis, including statistical and intellectual analysis methods.
- Build and fill databases and knowledge bases to assist structured data monitoring and management.
- Develop and implement models, conduct simulations including machine learning methods.
- Data presentation and their graphic visualization, incl. analytical information panels for information transfer.
- Develop and implement machine learning models to assist in decision making processes. ;
- Advise on development of information systems foreseen in the Project in terms of data collection, processing and analysis as well as data flows, in particular for purposes of the transition from the current Unified Electronic Information Database on Education (EDEBO) system to full scale information system.
- Execution of other assignments and tasks related to project implementation within the scope of competence at the request of the Project Coordinator(s) or Project Manager - Lead of a group of consultants.

## **IV. REPORTING**

Consultant will report to the Project Coordinator(s) and Project Manager - Lead of the group of consultants, and act under the supervision of the Project Coordinator(s) / Project manager – Lead of the group of consultants.

The Consultant shall submit monthly reports in hard copy. The reports shall include a description of the Consultant's services during the reporting period.

## **V. PROVIDED RESOURCES**

MoES shall provide the Consultant with the information necessary to carry out the assignment in a timely manner. MoES may provide the Consultant with a workplace, including necessary equipment to carry out the functions (e.g. PC, communications and office equipment).

## **VI. QUALIFICATIONS REQUIREMENTS**

Minimum requirements (mandatory):

- At least a Master's Degree;
- At least 3 years of professional experience as a Data Analyst, Data Engineer or Data Scientist or similar;
- At least 2 years of experience with SQL, statistical and data mining tools;
- Proven experience working with large amount of data;
- Experience getting data from sources (API, XML, JSON, CSV);
- Knowledge of mathematical statistics, intelligent data analysis, machine learning methods;
- Experience with visualization and data analysis tools (Tableau, Google Data/Looker Studio, BI, Amplitude), professional knowledge of Excel;
- Experience writing scripts for analysis (Python, R, VBA);
- Working proficiency in English;
- Fluent in the Ukrainian language.

Desirable qualifications and competencies which provide the advantage

- Experience of cooperation with state institutions.

The MoES may, at its discretion, invite the potential Consultant to an interview to prove the Consultant's skills and qualifications, request additional clarifications in writing and perform due-diligence actions.

## **VII. PERIOD AND LOCATION OF EMPLOYMENT**

The Consultant shall provide his/her services for 12 (twelve) months with the possibility to extend the contract.

MoES will conduct annual performance reviews.

The Consultant is expected to provide the services based on the 100% workload. The Employer and the Consultant may negotiate other workloads at any time, given the actual scope of the assignment.

The services can be rendered remotely with mandatory presence upon request to be in the premises of MoES.

Particular contract and work mode modalities are subject to negotiations.

## VIII. APPLICATION PACKAGE

Interested persons should submit their CVs in Ukrainian and English at the following email address: [uiherp@mon.gov.ua](mailto:uiherp@mon.gov.ua) Cc: [serhiy.artemenko@uiherp.org](mailto:serhiy.artemenko@uiherp.org), [oleksandr.radchenko@uiherp.org](mailto:oleksandr.radchenko@uiherp.org) indicating the email's subject: "Data Analyst: [NAME]".

The deadline for submission of applications is 11:00 am Kyiv time February 6, 2024.

If the Consultant fails to provide CVs in both languages, the Client reserves the right to reject the Consultant's application.