

## **TERMS OF REFERENCE**

Individual consultant to elaborate the Terms of Reference for development of a web based information system for external evaluation in the general education that will be integrated in the web page of the National Agency for Quality Assurance in Education and Research (ANACEC)

### **1. BACKGROUND**

The „Moldova Education Reform” Project (MERP) is a World Bank-financed Project to be implemented between April 2013 and June 2020.

The total cost of original credit is SDR 26.1 million (USD 40 million equivalent) and the Additional Financing in the amount of SDR 7.1 million (US\$ 10 million equivalent) is provided to the Republic of Moldova in support of Moldova Education Reform Project.

The MERP supports the Government of Moldova (GoM) reform program by financing activities that will strengthen the quality of education and lead to a more efficient education sector. Through this Project, the World Bank support the GoM in implementing the needed reforms, which include initiatives for:

- Improve learning conditions in targeted schools;
- Strengthen the education monitoring systems;
- Promoting efficiency reforms in the education sector.

The objective of the Project is to improve learning conditions in targeted schools and strengthen the Recipient’s education monitoring systems, while promoting efficiency reforms in the education sector.

MERP’s focus is to support interventions that would lead to improvements in the quality and efficiency of primary and general secondary education. Specifically, the AF would allow Ministry of Education, Culture and Research (MoECR) to expand the coverage and depth of selected activities already initiated under MERP, such as teacher and school managers’ training, participation in PISA, and development of an additional module to Moldova’s Education Management Information System (EMIS) (TVET module) and roll-out of the preschool module.

The MERP has three components:

- A. “Strengthening the Quality of Education”,
- B. “Improving the Efficiency of the Education Sector”
- C. “Improving the Ministry of Education, Culture and Research’s Capacity to Monitor the Reform”.

Component A is divided into three sub-components: A.1, A.2 and A.3.

The objective of component A.1 is to contribute to the strengthening of the quality of education in the General Education subsector by improving systems in the following areas: school standards, teacher and school director training, student assessments, and data collection.

The objective of component A.2 is to contribute to the strengthening of the quality of education in the General Education subsector by rehabilitating and upgrading 17 receiving schools. The activities under component A.2 is carried out by the Moldova Social Investment Fund.

The objective of component A.3 is to contribute to the strengthening of the quality of education by supporting the following activities:

- a) providing selected schools with science and technology equipment;

- b) (i) developing in-depth special education modules and training teaching support staff and psycho-pedagogues working with students with disabilities or special educational needs; and (ii) providing special education teaching and learning materials, and selected equipment;
- c) (i) evaluating training programs for school managers and teachers and updating such programs; and (ii) training and evaluating a second cohort of school managers and teachers based on the updated training programs;
- d) supporting the National School Inspectorate and the National Agency for Curriculum and Evaluation to increase their respective capacities;
- e) supporting the design and implementation of mechanisms to address the gender, inclusiveness, and citizen engagement dimensions in education;
- f) (i) developing and incorporating a vocational education and training module into EMIS; and (ii) training users on the use of EMIS.

*Component B* was designed to support the GoM's efforts to improve the efficiency of the sector by eliminating excess capacity and creating a leaner education system, which will be better equipped to provide education that meets the demands of a modern economy.

*Component C* has the objective to finance Technical Assistance (TA) for the MoECR to support the implementation, monitoring and measurement of the MERP.

## **2. RATIONALE**

One of the activities mentioned in component A.3 is supporting the National School Inspectorate and the National Agency for Curriculum and Evaluation to increase their respective capacities.

The National School Inspectorate was reorganized by absorption with the National Agency for Quality Assurance in Education and Research (ANACEC), which is the successor of rights and obligations of the absorbed legal entity, according to the Law no. 190 dated September 21, 2017 on amending some legislative acts (published in the Official Gazette of the Republic of Moldova no. 364-370, article 624 and article 7, item b, 2017 year).

The MERP supports efforts to develop the capacity of the National Agency for Quality Assurance in Education and Research (ANACEC), the administrative authority responsible for the state policy implementation and contribution to the development of education focused on the best international standards in education and research.

In this context, the MoECR intends to hire an Individual consultant to elaborate Terms of reference for development of a web based information system for external evaluation of the general education that will be integrated in the web page of the National Agency for Quality Assurance in Education and interconnected with other relevant informational systems.

## **3. OBJECTIVE OF THE CONSULTANCY**

The Objective of the proposed assignment is to prepare the Terms of Reference for developing a management information system for an assessment and external evaluation of general education institutions in Moldova.

#### 4. SPECIFIC TASKS

During the system development ANACEC team shall assist the consultant and provide needed support.

The individual consultant should:

- analyze the ANACEC activities in the area of general education;
- understand the main responsibilities and requirements on external evaluation in the general education;
- determine the needs on using information systems at the ANACEC level, especially of the General Education Evaluation Department;
- Prepare the Terms of Reference for the development of a management information system on assessment and inspection activities in general education, according to international standards. The Terms of Reference should also include the technical requirements to the management information system which shall contain at least the following:
  - Requirements on web (General requirements; User interface requirements; Requirements for back office functionality; Content management system requirements; Functional requirements; Architecture requirements.
  - Technical solution requirements (System Technical Parameters, User Management and Access, Database Requirements, Performance Requirements).
  - Full system requirements (System security; Information resource protection; System reliability; Testing and acceptance of works; Introduction of modifications or additions).

The terms of reference should be elaborated so that the management information system to be able to:

- be integrate in the ANACEC's information system, including on the ANACEC's web page,
- be integrated in the Education Management Information System (EMIS), developed by the MoECR, so that the developed system will be able to extract/retrieve from EMIS and to use/display the following data per institution (for a period of at least 5 years):
  - ✓ *Number of pupils and their distribution by classes;*
  - ✓ *Number of teachers, their qualifications and their age;*
  - ✓ *Pupil's school performance (average grade for baccalaureate, gymnasium graduation and final grades in primary education);*
  - ✓ *Pupil's advancement rate.*
- communicate with other relevant informational system such as Automated Data Processing System (SAPD);
- provide online information on the assessment activity and the performance indicators specified in the **methodology for external evaluation** (*provided in Annex 1*) in the general education institution, involving at least financial, material and human resources;
- allow online monitoring of the daily situation in the education system as well as in each rayon, city, school. This information will allow to generate reports and identify the solutions for any identified vulnerabilities as well as intervene in improving the indicators mentioned by the information system;
- facilitate the reporting and monitoring activities for evaluation in the general education in entities providing educational services in the general education.

**Terms of Reference** for the development of a web based information system for external evaluation in the general education, which must cover at least the following aspects:

- ✓ The vision / expectations of the system from a business point of view.
- ✓ Assumptions, constraints and risks related to the implementation of the System;
- ✓ Scope of the system;

- ✓ Identification of the actors, description of the users' roles and responsibilities of each of the actors and workflow;
- ✓ Description of business processes, Unified Modeling Language (UML) diagrams, description of business rules (constraints) applicable to the data and/or, the functions and/or, state and events;
- ✓ Sample forms/templates used (if applicable);
- ✓ Functional requirements of the system;
- ✓ Non-functional requirements, including:
  - System Architecture;
  - The number of users, the number of concurrently connected users;
  - Database sizing;
  - Usability;
  - Scalability;
  - Audit trails (tracking and tracing of changes made to the data stored in the system);
  - Security requirements;

## 5. EXPECTED OUTPUTS AND REPORTING REQUIREMENTS

The Consultant will submit to the National Agency for Quality Assurance in Education and Research one initial report, one progress report and the final report in electronic and hard-copy versions. All the reports shall be approved by the Chairman of the National Agency for Quality Assurance in Education and Research.

All the above-mentioned approved reports will be submitted, also, to MERP team in order to make payments.

Reports	Deliverables	Submission Deadline
Initial report	Initial report with planned activities and time schedule	One week from the contract signing date
Progress report	First draft of Terms of References for development of a web based information system for external evaluation in the general education	10 weeks from the contract signing date
Final report	Final version of Terms of References, taking into consideration all the comments and recommendations to be incorporated, if such, from the ANACEC and General Education Evaluation Department	12 weeks from the contract signing date

## 6. QUALIFICATION REQUIREMENTS AND BASIS FOR EVALUATION:

### (i) General experience (max 30 points):

- Graduate of accredited study programs;
- At least Bachelor's Degree in the area of information technologies, computer sciences, engineering or telecommunications or related;
- At least **5 years** of experience in IT business analysis, software designing and developing;

### (ii) Specific experience: (max 60 points):

- In-depth knowledge of database development;
- Experience in integrating database in/with web platforms.
- Proven knowledge of ICT/e-Governance policies and regulatory framework of the Republic of Moldova, such as MCloud, MConnect, MSign, MPass, MLog;
- Excellent understanding of system designing process and proficiency in UML (Unified Modelling Language) and BPMN (Business Process Model and Notation);
- At least 5 years of experience in formulating technical specification for software and hardware solutions for public authorities/institutions;
- Previous experience of working with international organizations and/or government institutions, NGOs;
- Excellent understanding of web technologies;
- Understanding of Cloud Computing principles and related architectural applications development approaches.
- Proven track record of similar assignments (min. 5 years)
- Previous experience in similar projects would be an asset.

**(iii) Transfer of knowledge and language: (max 10 points):**

- Ability to work in a team and ability to transfer knowledge;
- Demonstrate strong interpersonal skills and good written and oral communication skills
- Romanian, knowledge of English would be an asset.

## **7. TIMEFRAME**

This consultancy is expected to begin in **February 2019** and be completed by the end of **May 2019**.

## **8. INSTITUTIONAL ARRANGEMENTS**

The consultant will work under the direct supervision of ANACEC and all the works will be coordinated with the ANACEC.

ANACEC will provide the Consultant with all Project documents deemed necessary for assignment accomplishment.