



EUROPEAN UNION WATER INITIATIVE PLUS FOR THE EASTERN PARTNERSHIP

TERMS OF REFERENCE FOR WATER QUALITY AND HYDROMET DATABASE DEVELOPMENT IN ARMENIA

15 June 2020

1. Financing

European Union (ENI/2016/372-403)

2. Procedure

Single tender procedure according to EU PRAG

3. Contracting Authority

International Office for Water (IOW)

4. Nature of contract

Service contract

5. Time period of implementation

5 months after the signature of the contract. Indicative timeframe July 2020 – December 2020

6. Contract amount

Max. amount: 18 000 EUR

7. Background and Objectives

This tender concerns the creation of an information system to be used by **the new “Hydro-meteorology and monitoring center”** (HMMC) of Armenia.

This information system, called “Armenian Water Monitoring Information System” (AWMIS), includes a database and its associated management tools.

A first phase of development of this information system is planned to be financed by the EUWI+EAST project activities in Armenia (project implemented in Armenia with the financial support of the European Union under the Contract number ENI/2016/372-403, in the framework of its activities related to data management (activity 2.3.6). This Activity 2.3.6 managed by IOW concerns the “Development and strengthening of national data management on water related issues & ensure compliance of data with SEIS principles for collection and sharing of data”.

8. Scope of work and deliverables

This tender includes:

- The development of a local MS/Access database management tools including:
 - o Forms for data capture (monitoring point, hydrological data, sample characteristics, analysis, ...) following specifications
 - o Tools for automatic data importation (from automatic stations and from analytical devices)
 - o Tools for specific calculation (case of statistical values and of quality index calculation)
 - o Tools for report production following specifications
 - o Tools for synchronization with a central PostgreSQL database
 - o Management of access management rights following password
- The installation and test of the necessary databases and tools at the level of the main users from the beneficiary staff;
 - o Note 1: The structure of the MS/Access database will be similar to the structure of the central PostgreSQL database. This database structure will be made available to the consultant at the beginning of works.
 - o Note 2: all available datasets will be imported in the central “PostgreSQL” database before the starting of works and an abstract will be made available in MS/Access for the consultant
 - o Note 3: in fine, various users from EMIC and Hydromet will have a local database installed on their computers such as defined in the technical specification document
- The training of the main users and of 2 information system administrators
- The production of User Manual for the final users

After development, implementation and training, the beneficiary will validate all the expected deliverables mentioned in chapter 9 by signing an act of acceptance. This validation will be required before any payment of the consultant by IOW.

Main global requirements for the system

The application will include 2 main modules allocated to each of the main users:

- A module for EMIC
- A module for Hydromet

These 2 modules will be connected to the same central PostgreSQL database and will use the same referential datasets. This central PostgreSQL database will be implemented under PostgreSQL on a Web server managed by Hydromet.

Each module will include:

- Forms for manual data entering
- Tools for automatic data importation (ETL)
- Tools for data processing and reporting
- Tools for data synchronization with central PostgreSQL database

In addition, the following will also have be considered:

- All interfaces and reports generated with the database will be in Armenian
- The application will have to allow the capture of all data specified by EMIC and Hydromet as important and of all complementary fields planned into the database structure.
- The application will be in open source without license and without any notion of property by the developer: the objective is that that EMIC and Hydromet could maintain and develop their application by themselves.
- Some design of forms and report are presented in this technical specification document as draft proposal: **all forms and reports design should be revised and validated with the beneficiary and IOW before development.**
- A login/password to be given when opening the MS/Access application, should allow access to some functionality and limit the access to others depending on their role knowing that various Access databases will be installed at the level of various services
- A process of synchronization will be established in order than all actualization of data done on a local access database automatically update the central database both choosing synchronous or asynchronous update.
- All documentation will be both in Armenian and English

9. Schedule & implementation modality

Summary of the work deliverables and schedule

Deliverables	Languages of deliverable	Due date for the draft report (M = signing of the contract)	Final version
<p>Report about tools and detail outputs agreed with beneficiaries and IOW concerning :</p> <ul style="list-style-type: none">- Forms for data capture (monitoring point, hydrological data, sample characteristics, analysis, ...)- Automatic data importation (from automatic stations and from analytical devices)- Specific calculation (case of statistical values and of quality index calculation)- Report production- Synchronization with a central PostgreSQL database- Access management procedures following password <p>Note: screen copies of all forms and reports generated will be presented with translation in English of all labels used.</p>	Armenian /English	M+1	M+2

User manual, Users training and installation of the databases for test at the level of the main final users	Armenian /English	M+3	M+4
Adaptation and final installation of databases at the level of the mains users	Armenian	M+4	M+6
2 soft copies of a synthetics report (2 pages) summarizing what was done as well as a copy of all deliverable reports (MS/World format),	Armenian /English	M+6	M+6
Soft copy of all software and development application implemented on beneficiary computers with all necessary administrative passwords allowing a revision and maintenance/adaptations of the applications	Armenian	M+6	M+6

In the bid, the prices will contain a detailed breakdown of the cost for all services being provided, starting from the daily rate per expert, number of days per expert until the lot price. Individual figures shall be provided for each deliverable, if any.

Contact details:

The responsible persons at national level:
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The EUWI+ project representative for Result 2 and 3 in Armenia: Mr Vahagn Tonoyan:
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The EUWI+ thematic leader for Data management component:
Mr Paul HAENER International Office for Water p.haener@oieau.fr with support of
Ms Marta Boyko, Data management expert, m.boyko@oieau.fr

PARTICIPATION TO THE TENDER

Interested parties (individual and legal persons) are invited to inquire the full tender dossier containing technical specifications and further information about the tender procedure from Ms Ilke CICEKOGLU, Project Assistant, International Office for Water (IOW) and Mr Paul HAENER, Data management component coordinator, International Office for Water (IOW)
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Deadline for submission of the technical and financial offer is **29 June 2020, 17:00 (CEST)**

All documents for submission should be also send by email to:

- email address: i.cicekoglu@oieau.fr / ma.lepetit@oieau.fr
- email address: p.haener@oieau.fr