

**INVITATION TO TENDER FOR
PREPARATION OF A GUIDANCE DOCUMENT
FOR
NATIONAL WATER INFORMATION SYSTEMS
DEVELOPMENT IN MED COUNTRIES
Ref: GUIDANCE_MEDWISE2009**

TERMS OF REFERENCE

Version: 2009-01-14

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1 BACKGROUND INFORMATION

1.1 Introduction

In Athens in November 2006, Euro-Mediterranean Water Directors expressed their interest in a regional water-related information system facilitating access to data. On the EU side, the Water Information System for Europe (WISE) was launched in March 2007 with the objective of having a fully operational system in place for 2010.

The Euro-Mediterranean Information System on know-how in the Water Sector (EMWIS) is an initiative and tool for exchanging information and knowledge in the water sector between and within the Euro-Mediterranean Partnership countries (27 EU Member States plus Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Palestine, Syria, Tunisia and Turkey). EMWIS was launched by the Euromed Water Directors at their conference of Naples in December 1997 on the basis of the decisions taken by the Euromed Ministers in charge of Water in Marseilles in November 1996. Further, a European Economic Interest Group EMWIS Technical Unit was created in 1998 by French, Italian and Spanish operators mandated by their governments to implement the activities defined annually by the EMWIS Steering Committee. EMWIS today has 16 active Euromed members: Algeria, Cyprus, France, Egypt, Greece, Israel, Italy, Jordan, Lebanon, Malta, Morocco, Portugal, Spain, Tunisia, Turkey, and the Palestinian Authority.

In Rome in November 2005, Euro-Mediterranean Water Directors asked EMWIS to study “with interested countries, the objectives and the feasibility of building up within EMWIS a regional water observation mechanism to monitor the indicators towards the achievements of the Millennium Development Goals related to water and sanitation (MDG 7) in the Mediterranean, as well as the implementation of the water related section of the Mediterranean Strategy of Sustainable Development, based on the information provided by the National Water Information Systems (NWIS), whenever they exist.”

A first phase carried out in 2006 and validated by the Euro-Med Water Directors in November 2006, identified two main priority levels of action: the need of reinforcing the capacities of the Mediterranean countries and building a framework cooperation and dialogue between the regional and national organisations.

On the EU side, the development of WISE is led by the European Commission with the support of the European Environment Agency (EEA). Thus, the EEA will play a crucial role in this project, in particular as regards the technical aspects of the interface. EMWIS, with its knowledge of the Mediterranean and its network of National Focal points will bring the necessary expertise to combine the Mediterranean specificities with the requirement of water-related information systems.

EMWIS Technical Unit is managing a project funded by the DG Env of the European Commission, entitled “Towards a Mediterranean Water Information Mechanism compatible with the Water Information System for Europe (WISE)”.

The objective of this project is to prepare a Mediterranean information mechanism on water which is compatible with the Water Information System for Europe –WISE- and that will support the Med Joint Process between the EU Water Initiative and the Water Framework Directive. This mechanism will streamline the access to quality data related to water in the Mediterranean Partners Country (MPC).

Terms of reference

By establishing an information system open to all Mediterranean partners but based on EU practice, partner countries characterised by developing economies or by economies in transition will be helped with greater information access. This will facilitate the establishment and implementation of policies compatible with the principles of sustainable development promoted by the EU.

These terms of references are related to the work package 3 of this project aiming at defining guidance and standard for NWIS in Med countries.

The water authorities of the MPC have shown a great interest in developing National Water Information Systems to improve integrated water resources management in their countries (cf feasibility studies carried out by EMWIS on national systems and regional observatory mechanism). The technical guidelines that will be produced by the project will help these countries to build systems compatible with the EU system WISE. Adopting these guidelines has a clear added value for the Med Neighbourhood countries of the EU that will benefit from the experience of EU countries for both data and water management.

1.2 Contracting Authority

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1.3 Relevant background information

Relevant information on EMWIS can be found at: www.emwis.net.

Information on the feasibility study related to the Mediterranean water observatory mechanism and status in Med countries: www.semide.net/medwip

Water themes and data in WISE: <http://www.eea.europa.eu/themes/water/welcome-to-water-information-system-for-europe-wise>

WISE technical development library: http://eea.eionet.europa.eu/Public/irc/eionet-circle/eionet-telematics/library?l=/technical_developments&vm=detailed&sb=Title

The consultant will also be informed of the activities related to setting up a metadata catalogue currently under way in the framework of the same project (work-package 2).

2 CONTRACT OBJECTIVES & EXPECTED RESULTS

2.1 Objective

The objective is to prepare **technical guidelines** to ensure the interoperability between WISE, the NWIS developed by the MPC and the Med water information mechanism. These technical recommendations will be based on existing EU standards and guidelines (INSPIRE directive, WFD guidance documents, WISE architecture and SEIS principles).

2.2 Results to be achieved by the Consultant

The work to be carried out by the Consultant must result in:

- ☞ Comparison between WISE and emerging Med WIS
- ☞ Definition geographical references for MPC

- ☞ Technical guidelines for interoperability with WISE

3 SCOPE OF THE WORK

3.1 Specific activities

Three tasks are proposed:

Task 1 Review and adaptation of existing EU guidance documents

The main existing documents adopted by the EU will be reviewed in order to highlight interoperability principles in terms of reference datasets, data structure and services. The main sets of documents to be considered are:

- WFD guidance documents,
- WISE technical rules,
- INSPIRE directive and related guidance documents

These principles will be compared to the ones used in the MPC on the basis of EMWIS studies on NWIS and the Med water observatory mechanism (national reports will be provided). For data sets, priority will be given to issues of interest for MPC. Thus the EU interoperability principles will be ranked according to the MPC priorities.

On this basis, and taking into account the current status of development in the MPC, technical interoperability principles will be proposed.

Task 2 Adoption of common geographical references and structures

Geographical reference rules necessary to localise the datasets will be defined taking into account the management units used by MPC (administrative or hydrological) and for WISE. In order to get a first set of operational geographical references a mix approach will be considered based on both administrative and river basins or aquifer. In agreement with the consultant, the EMWIS Technical Unit could carry-out a survey on MPC practices.

Task 3 Drafting technical guidelines

These guidelines will propose a two levels approach to reflect the current status of WISE development. Indeed, the technical specifications of the foreseen distributed architecture of WISE are not yet fully defined. The first level of guidance will include detailed technical principles already used in WISE while the second level will provide more general principles about the evolution of the technical architecture towards a shared information system.

It will also identify the potential generic components or tools (open source software) that could be of interest for the Mediterranean information mechanism development.

3.2 Project management

3.2.1 *Responsible body*

EMWIS Technical Unit

3.2.2 *Management structure*

The consultant will be in permanent contact with the responsible body.

3.2.3 *Facilities to be provided by the Contracting Authority and/or other parties*

The Contracting Authority will provide the Consultant with all available documentation related to existing applications running on EMWIS web sites or under development (metadata management). In addition a dedicated server will be available for prototyping and test.

4 LOGISTICS AND TIMING

4.1 Location

The operational base for the contract will be the EMWIS Technical Unit in Sophia Antipolis, France. The consultant can work remotely from its own location. Travels to other location must be approved by the Contracting Authority.

4.2 Commencement date & Period of execution

The intended commencement date is March 2009 and the period of execution of the contract will be maximum 6 months from this date.

4.3 Budget

The maximum budget available to carry out this contract is 12 000 EUR (including all taxes, but excluding travels and daily allowance).

4.4 Meetings and site visits

No physical meetings planned, virtual meetings using video conferencing facilities could be set-up, when necessary.

The amount and duration of site visits will have to be estimated by the Consultant.

5 REPORTS

5.1 Interim progress reports

Progress Reports (not exceeding 5 pages) will be submitted to the EMWIS Technical Unit every month with an overview of progress activities and potential problems encountered (if any). Progress reports can be submitted in English or French.

5.2 Intermediate technical reports

Two intermediate technical reports are planned:

Terms of reference

- Comparison between WISE and emerging Med WIS, to be provided 2 months after contract signature
- Definition geographical references for MPC, to be provided 4 months after contract signature

5.3 Final Report

The final report must be the technical guidelines for interoperability. It should be provided in English.

6 SPECIAL REQUIREMENTS

The Contracting Authority may elaborate further the present ToRs in consultation with the Consultant team if so deemed necessary during the initial briefing meeting.

7 GLOSSARY

Term	Definition
E.C.	European Commission
E.U.	European Union
EEIG	European Economic Interest Group
EMWIS	Euro-Mediterranean Information System on the know-how in the Water Sector
I.T.	Information Technologies (computing, networking, telephony, etc.)
IFP	International Focal Point
MPC	The 12 Mediterranean Partner Countries of the Barcelona process
NFP	EMWIS National Focal Point
NWIS	National Water Information System
SEMIDE	Système Euro-Méditerranéen d'Information sur les savoir-faire dans le Domaine de l'Eau (<i>in French</i>)
T.U.	EMWIS Technical Unit (in Sophia Antipolis, France)
ToRs	Terms of Reference
U.T.	Unité Technique du SEMIDE (<i>à Sophia Antipolis, France</i>)
XML	eXtensible Markup Language: emerging standard for the new generation of the WWW