International Centre for Advanced Mediterranean Agronomic Studies – CIHEAM Bari
Postal Address: Via Ceglie, 9 - 70010, Valenzano – Bari (Italy)
Email: gareappalti@iamb.it and mladen@iamb.it garofalo@iamb.it

Date: 21/05/2026

Subject: Request for Quotation No. 1/2026 – Supply of agrometeorological monitoring systems and Decision Support System (DSS) within the framework of the project "Replenishing the sMall wAter cyclE towards a more resilieNt Agriculture" (acronym: MAENA), Project No. A_T_2.3_0285 – CUP: C63C25000970007.

Short description of the project: The MAENA project (Replenishing the sMall wAter cyclE towards a more resilieNt Agriculture), co-funded by the Interreg NEXT MED Programme 2021–2027, aims to promote access to water, the sustainable management of water resources in agriculture and to strengthen farmers' ability to adapt to adverse climatic conditions through the restoration of the small water cycle in Mediterranean farming contexts.

The CIHEAM Bari announces a call for tenders for the supply of hardware and software systems for agrometeorological monitoring and irrigation management, integrated into a Decision Support System (DSS), within the framework of the project entitled "*Replenishing the sMall wAter cyclE towards a more resilieNt Agriculture*", with the acronym MAENA and Project ID A_T_2.3_0285, which aims to test and demonstrate a sensors-based DSS irrigation management approach at the CIHEAM Bari experimental agricultural fields in Valenzano (BA, Italy).

Scope of the contract / Terms of Reference (ToR) / Technical specifications

See Annex III.

Financial Terms – Submission of Offers

Applicants/companies are requested to submit:

- Duly completed and signed Annex I – Declaration on Honour;
- Duly completed and signed Annex II – Financial Offer Form;
- Duly completed and signed Technical Offer.

Request for Clarifications

Requests for clarifications shall be submitted via email to: gareappalti@iamb.it and mladen@iamb.it garofalo@iamb.it

Deadline for submitting clarification requests: 15/06/2026, at 12:00.

Submission of Offers

Offers shall be submitted via email to gareappalti@iamb.it and mladen@iamb.it garofalo@iamb.it

The email subject line must clearly state: *"MAENA – Supply of DSS and agrometeorological monitoring systems"*.

Submission deadline: 21/06/2026, at 12:00 (Italy Local Time).

Late submissions will not be considered.

Maximum Budget

Eur 30.000,00 €

Evaluation of Offers

The evaluation of offers shall be carried out in two stages:

1. Compliance check against the minimum technical requirements (pass/fail);
2. Evaluation of financial offers.

The award criterion is the lowest price offer, among those offers deemed technically compliant.

Annexes

- Annex I – Declaration on Honour;
- Annex II – Financial Offer Form;
- Annex III – Terms of Reference / Technical Specifications.

Disclaimer

This call is issued within the framework of the MAENA project, funded by the Interreg NEXT MED Programme 2021–2027.

ANNEX I – Declaration on Honour

I, the undersigned, acting as legal representative of the company / organisation …… (or as an independent professional), hereby declare under my sole responsibility that:

1. The tenderer meets the participation requirements of the procedure and that no grounds for exclusion apply;
2. The tenderer has not been convicted of professional misconduct and is up to date with its tax and social security obligations, in accordance with applicable legislation;
3. The tenderer is not in a situation of conflict of interest in relation to the subject matter of this contract;
4. All information included in the offer is true, complete and accurate;
5. The tenderer accepts the terms and conditions of the Request for Quotation and undertakes to provide the services accordingly.

Date: ……

Name of Candidate/Company: ……

Legal Representative: ……

Signature & Stamp: ……

ANNEX II – Financial Offer Form

Global price: EUR **……..**

Note: The price shall not include VAT / indirect taxes. Only the price without VAT / indirect taxes will be taken into consideration for the financial evaluation. The amount of VAT / indirect tax, if applicable, must be indicated separately.

Tenderers must provide a detailed price breakdown in their offer, distinguishing at least:

- Hardware supply (agrometeorological station, IoT units for soil monitoring, IoT unit for crop protection monitoring, IoT unit for irrigation control, auxiliary materials and accessories);
- DSS software platform licence and configuration;
- Field installation of the full sensor network;
- Annual routine maintenance of installed hardware;
- Training of technical staff;
- Technical support for the DSS platform.

Date: ……

Name of Candidate / Company: ……

Legal Representative: ……

Signature & Stamp: ……

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MAENA

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ANNEX III – Terms of Reference / Technical Specifications

1. Background and Objectives

Within the MAENA project, CIHEAM Bari is responsible for establishing a demonstration farm at its experimental agricultural fields in Valenzano (BA, Italy), where a sensors-based DSS irrigation management approach will be tested and demonstrated.

The DSS system to be supplied under this contract shall be fully deployed at the CIHEAM Bari demonstration site in Valenzano (BA), comprising both the hardware sensor network (weather station, soil sensors, irrigation control units) and the DSS software platform. The system will serve as the primary research and demonstration site for the project.

The DSS shall support the following operational functions:

- real-time monitoring of key microclimatic and soil variables;
- soil water balance calculation and crop water requirement estimation, based on internationally recognised standards (e.g., FAO);
- daily irrigation scheduling support;
- field operations, recording, and management.

2. Technical Specifications

2.1 Software component – DSS Platform

The DSS platform shall be accessible in cloud mode via Web application and mobile app (iOS / Android) and shall include at least the following functional modules:

Module	Minimum required functionalities
AGROMETEOROLOGY	Integration, visualisation and processing of data from: on-farm agrometeorological station; public and forecast weather services; soil sensors and proximal sensing devices. Calculation of agro-climatic and agro-phenological indices for the crops of interest.
FARM MANAGEMENT	Management of farm and plot registries. Field logbook (or farm notebook). Document management with the ability to attach photos, notes and field data.
IRRIGATION	Soil water balance calculation based on international standards (e.g., FAO), as a function of soil, vegetation and phenological characteristics of the crops, calibratable on the basis of soil sensor measurements. Daily irrigation scheduling, with support for controlled deficit irrigation management. Automatic or manual recording of irrigation events.

Module	Minimum required functionalities
MAPS/GIS	WebGIS tools for mapping and georeferencing of plots and farm points, with support for kml/kmz formats. Optional integration of satellite data for the calculation of vegetation indicators (e.g. NDVI) and water stress indices.

Additional software requirements:

- the platform shall support multi-user access with role-based permissions;
- satellite data integration for vegetation and water stress indicators shall be configurable as an optional layer.

2.2 Hardware component – Field sensor network

The supply shall include the following hardware systems for agrometeorological monitoring and irrigation control:

System	Minimum required specifications
Complete agrometeorological station	Complete agrometeorological station including base unit with 2G/4G modem (or NB-IoT) and integrated antenna; sensors for solar radiation, wind speed and direction, air temperature and humidity, rainfall, leaf wetness; cloud service; wireless receiver for field sensor network; solar panel, battery and mounting accessories; SIM card and GPRS data traffic included.
IoT units for soil monitoring (× 3)	Wireless IoT units for soil data acquisition, each equipped with: at least 3 sensors for measurement of soil moisture and temperature at different depths (FDR technology); lithium battery; installation pole.
IoT unit for crop protection monitoring (× 1)	Wireless IoT unit for crop protection monitoring, equipped with: leaf wetness sensor (upper and lower surface); air temperature and humidity sensor at canopy level; lithium battery; installation pole.
IoT unit for irrigation control (× 1)	Remote irrigation control unit with at least 4 channels, compatible with low-voltage DC bistable solenoid valves, connectable to the weather station for power supply and data transmission.
Auxiliary materials and accessories	Spare batteries, cabling, solenoid valves and hydraulic fittings required for full system installation and operation.

Offers may propose alternative sensor configurations of equivalent technical quality. Any deviation from the specifications above must be clearly justified in the technical offer.

2.3 Technical support services

The supply shall include the following services:

- field installation of the full sensor network (weather station, soil units, irrigation control unit);
- annual routine maintenance of installed hardware, including replacement of components covered by warranty;
- DSS platform configuration: data integration, creation and setup of farm, plots and user accounts;
- training of technical staff: field demonstrations and classroom sessions on system functionalities;
- technical support for the DSS platform: user configuration and remote assistance.

3. Contract Duration

Hardware is to be supplied on a permanent ownership basis (purchase). The software licence and support services shall cover a minimum period of 3 years, consistent with the duration of the MAENA project.

4. Minimum technical Requirements

Candidates must possess:

- proven experience in the supply and installation of agrometeorological monitoring systems and IoT sensor networks for agriculture;
- proven experience in the development, deployment and customer support of cloud-based DSS platforms for irrigation management, based on internationally recognised soil water balance standards (e.g., FAO);
- capacity to provide on-site installation, configuration, training and technical support in Italy.

Compliance with the above minimum technical requirements shall be assessed on a pass/fail basis and substantiated through the submitted documents (e.g., company profile, references, CVs of technical staff).

Offers that do not meet the minimum technical requirements shall be rejected.

Duration of the offers: the offer will be valid for 60 days.