SERVICE CONTRACT TERMS OF REFERENCE (TOR) FOR EUROPEAN

UNION EXTERNAL ACTIONS

No. ENI CBC MED- CEEBA MAIA TAQA INNOV\_EG

financed from the ENI CBC MED-CEEBA Maia Taqa

 A\_A.2.2\_0195\_Maia Taqa Project

**Tender Identification name: -** CEEBA MAIA TAQA INNOV\_EG

## SUBJECT OF THE CONTRACT

The subject of this tender is to deliver a group of service packages for selected innovation vouchers of MAIA-TAQA project, and to implement some or all the initiatives identified in this ToR.

By submitting a tender, tenderers fully and unreservedly accept the special and general conditions governing the contract as the sole basis of this tendering procedure, whatever their own conditions of sale may be, which they hereby waive. Tenderers are expected to examine carefully and comply with all instructions, forms, contract provisions and specifications contained in this tender dossier. Failure to submit a tender containing all the required information and documentation within the deadline specified will lead to the rejection of the tender. No account can be taken of any remarks in the tender relating to the tender dossier; remarks may result in the immediate rejection of the tender without further evaluation.

These instructions set out the rules for the submission, selection and implementation of contracts financed under this call for tenders, in conformity with the practical guide (available on the internet at: <http://ec.europa.eu/europeaid/prag/document.do>).

## DEADLINE AND PROCEDURE FOR SUBMISSION OF THE TENDERS

The deadline for submission of tenders is **10th of May 2023**. Any tender received after this deadline will be automatically rejected.

If no tenders have been received by the deadline or the tenders received are not compliant with the Selection Criteria (Section 6), the deadline could be exceptionally extended.

The content of the tenders shall address the requirements described in section 6 Selection Criteria. The tenderers may submit their tenders by e-mail clearly indicating:

* *Title of the tender*
* *Reference code of the tender*
* *Name and address of the tenderer*
* *And containing*
* *Technical file*
* *Financial offer file (must be separate document to technical document)*
* *Any other relevant documents as needed.*

The tender submission form and any supporting documentation may be provided as attachment to the applying e- mail

To INFO@CEEBA.ORG and COO@CEEBA.ORG

Tenders must be submitted using the double envelope system, i.e., in an outer parcel or envelope containing two separate, sealed envelopes, one bearing the words ‘Envelope A — Technical offer’ and the other ‘Envelope B — Financial offer’. All parts of the tender other than the financial offer must be submitted in Envelope A (i.e., including the Tender submission form, statements of exclusivity and availability of the key experts and declarations).

## TECHNICAL INFORMATION

The tenderers are required to provide services as indicated below.

### Background information

Despite the fact that in the Southern Mediterranean countries there is a growing need for Resource Efficiency (RE) services (consulting, engineering and operations) to deal with the pressure on the environment, the RE supply persists at low levels. This is essentially due to the lack of a proper innovation process that would be able to identify the needs, structure the creative solutions and commercialize them. Mobilizing new Areas of Investments and Together Aiming to increase Quality of life for All (MAIA-TAQA) Project will deal with these issues by setting up demonstrators in 3 Mediterranean pilot areas where innovative services will be applied: they will be related to micro-grids, photovoltaics, energy storage, solar thermal technologies and water sanitation and purification. Partners will develop solutions for each identified barrier: capacity building programme (for lack of skills); innovation desk (for lack of information); guidelines (for lack of regulation); voucher (for lack of finance) and targeted B2B events (for lack of specific matchmaking). The main final beneficiaries are SMEs (especially from environment/utility/building sector) that can have a set of supporting instruments to overcome the existing barriers and reduce the risks to innovation. The project is being implemented in 6 Mediterranean countries: Greece, Egypt, Italy, Jordan, Lebanon, and Spain.

More information about the project can be found here: <https://www.enicbcmed.eu/projects/maia-taqa>

Although participating regions of the MAIA-TAQA project are heterogeneous in terms of innovation, they do share a common challenge: to develop and to define in details a group of new services, with strong innovative character, in the field of sustainability (energy, water, resources) for the SMEs from the MED countries. For this reason, MAIA-TAQA will design, launch and test different innovation services in the MAIA-TAQA pilot regions that will further be capitalized under innovation one-stop-shops (IOSS), designed and implanted as stable initiatives to endure beyond the project in those countries.

Among these services, an innovation voucher system is being tested, under the form of incentives (subcontracts), that will support the purchase of innovation services by local SMEs in each country, to introduce innovation in the field of resource efficiency. The selected SMEs won’t receive direct money, but an in-kind contribution from the MAIA-TAQA project in the form of personalized innovation and knowledge services.

With a total amount of 180.000 € available (60.000 € per each territory), and a threshold for the service of 20.000 €, it is estimated to cover the innovation needs of a minimum of 9 SMEs in the 3 MED countries, through MAIA-TAQA partners innovation service by subcontracts.

This call is in line with the objectives of the project, as the capacity of the SMEs to identify the innovation needs within the MED countries, reducing technical, business and commercial barriers.

This call is, therefore, the launch of a structured process which guarantees the following steps:

1. Launch of the vouchers open call
2. Submission of proposals from the SMEs
3. Selection of SMEs (min 3 per pilot country)
4. Formulation of a complete innovation request to innovation providers by the MAIA-TAQA regional partners in collaboration with each SME and according to the needs included in the call application request.
5. Preparation of the tender for innovation services by the MAIA-TAQA regional partners in collaboration with each SME
6. Submission of offers from the service providers (i.e., research entities, universities, private companies, etc.)
7. Providers’ selection, subcontracting and contract signature among the MAIA-TAQA regional partners and the providers selected.

### Background documentation

The following documents provide important supporting and background information about the ToR

* [Call for application: 3 SMEs to receive Innovation Vouchers for support in resource efficiency services](https://ceeba.org/6238-2/)
* [MAIA-TAQA Innovation Voucher Call for application Regulations](https://ceeba.org/wp-content/uploads/2022/09/MAIA-TAQA-Vouchers-Call-v11.Egypt_.docx)
* [MAIA-TAQA Innovation Voucher application Form](https://ceeba.org/wp-content/uploads/2022/09/Annex-01_Application-Form_v3.0.1.docx)

### Objective of the assignment

The call for application resulted in selection of three proposals as follows:

* “High Power Density Converter Based on GAN MOSFET Devices”, submitted by AWB-Electronics, Alexandria, Egypt.
* “Sustain Egypt’s Energy program”, submitted by EJADA for consultation and training, Alexandria, Egypt.
* “Water desalination / purification by using solar thermal technology”, submitted by Mesalla Engineering Works (MES), Alexandria, Egypt.

The objective of the assignment is to offer support for the three above selected proposals through different services packages that meets their innovation. The type of services covered through the MAIA-TAQA voucher call are:

1. **Technical services**:
	1. Technology watch
	2. Innovation Reports and Technology Scouting
	3. Renting of testing facilities
	4. Technical support
	5. Support for university-business technology transfer and intellectual property services
	6. Analysis of the most relevant scientific production and capabilities of university teams
	7. Efficient research mapping
	8. Technology missions with international R&D&I centers
2. **Business consultancy:**
	1. Establishment of the company
	2. Specialized advice (legal, sales, IP, innovation, accreditation, etc.):
	3. Support of internationalization of R&D&I initiatives
	4. Financing and funding search
3. **Technical and business training and capacity building:**
	1. Innovation courses
	2. Online or face-to-face promotion events
	3. Debate tables/ Innovation forums / Sectorial committees
4. **Funding calls management**
	1. Technical justification and monitoring
	2. Financial justification and monitoring
	3. Legal aspects (grant agreements, contract signature, etc.).

The service packages that were specified by selected proposals are as follows:

1. Service Package (3)
Consultancy services in renewable energy systems manufacturing and prototyping.
2. Service Package (5)
Consultancy services in marketing and investment to maximize applicant presence in the sustainable energy market.
3. Service Package (7)
Consultancy services for solar water purification project design and manufacturing.
4. Service Package (8)
Organizing study tour and site visit for parabolic concentrated solar power plant manufacturer(s) in the EU.
5. Service Package (9)
Feasibility study for the financial model of solar water purification concept.

### Description of the assignment

**Note:
Service providers that wish to submit proposals can submit proposals for one or several service packages.**

**Accommodation and travel costs are at the expense of the expert;**

### AWB-Electronics company

AWB-Electronics company is working in designing and fabrication of PCBs in power electronic applications with flexibility to support customized application. The company product applications are:

* Energy converters: DC-DC converter, DC-AC converters for different application such as UPS, Variable speed drives and battery chargers using IGBT/MOSFET.
* Switched Mode Power supply: Wide selection of specification subject to input and output specification.
* Signal Conditioning boards: Voltage and current sensors require signal conditioning and isolation.
* Digital signal processing boards: fabrication of customized design modules.

The innovative character of AWB-Electronics company is seeking support to produce prototype which is based on GAN devices that can operate at RF witching frequency. It’s an upgrade for an earlier developed project based on SIC 10KW -NPC GCI (Grid Connected Inverter) operating 50KHz. The modular design based in GAN converter aims to be applicable in parallel converter for high power application based on small footprint 10KW modules that can be utilized in different applications stated before.

**AWB- Electronics will receive services package 3.**

#### Service Package (3) Consultancy services in renewable energy systems manufacturing and prototyping.

**Deliverables**

This service package includes consultancy services for manufacturing and prototyping of the high-power density converter. All tasks will be done in a participatory manner with the MAIA-TAQA team and AWB-ELECTRONICS to achieve best results. The consultancy team should consist of two technical experts to achieve the following expected tasks:

* Vendor will design blueprints and technical specifications of the high-power density converter developed by AWB-ELECTRONICS according the relevant standards.
* Vendor will offer technical assistance in design and primary analyses of the proposed topology.
* Vendor will review and approve the layout against EMI or interference issues during the design phase.
* Vendor will be offering technical assistance in electrical and mechanical design of the final rack.
* Vendor will utilize the IEC standard in final assessment of the prototype and will issue a certificate by the end of testing stage.
* Two main experts that will be assigned for the project should be available during the period of implementation as per this ToR.
* Vendor will develop final report that includes all technical assistance that was provided, report must be approved by MAIA-TAQA and AWB-ELECTRONICS teams.

The two main experts should have the following minimum qualifications:

**Senior Expert**

* Masters’ degree in electrical engineering, PHD would be desirable
* Minimum 15 years of experience in design and fabrication of high-power density converter, or relevant fields.
* Proficiency in English language is a must, Arabic language proficiency is an asset.
* Expected level of effort for senior expert is 10 working days during the period of implementation.

**Technical Expert**

* Bachelor degree in electrical engineering, Masters’ degree would be desirable
* Minimum 10 years of experience in thermal analysis, or relevant fields.
* Proficiency in English language is a must, Arabic language proficiency is an asset.
* Expected level of effort for senior expert is 15 working days during the period of implementation.

**EJADA**

EJADA is a consulting firm that provides consultancy and training to companies and institutions, EJADA helps clients reach their energy optimization and sustainability goals through:

* Strategic planning based on sustainability goals and standard.
* Designing smart and innovative governance systems.
* Qualifies clients to shift towards comprehensive business, responsible investment and circular economy.
* Changes management systems to total quality management methodologies, green management techniques and, working procedures based on international standards.
* Supporting clients in taking care of occupational health and safety, protecting the environment, rationalizing the consumption of resources and energy, and finding renewable resources for them.
* Supporting clients in publishing social responsibility and sustainability reports as disclosure tools.
* This is done in various sectors of industries, services, and endowment projects, to ensure responsible and sustainable societies within a framework of innovation and social responsibility.

The innovative character of EJADA is targeting establishing “Sustain Egypt's Energy” program that will motivate the business community to move towards renewable energy and energy rationalization trend by supporting customers to apply international standards and systems to rationalize energy consumption, encourage them to find alternative and renewable energy sources, help them to share their experience, and discuss their sustainable energy applications with each other, to raise knowledge and innovation in sustainable energy track.

**Ejada will receive services package 5.**

#### Service Package (5)Consultancy services in marketing and investment to maximize applicant presence in the sustainable energy market.

Ejada wishes to expand their business in sustainable energy consultancy inside Egypt based on opportunities emerging of launch of “Sustain Egypt's energy” mobile application and the enhanced team technical experience that will be done through the MAIA-TAQA innovation voucher. The vendor will be required to develop marketing and investment consultancy to maximize Ejada presence in the sustainable energy market.

**Deliverables:**

The vendor will work in a participatory manner with the MAIA-TAQA and Ejada teams to achieve best results. The selected vendor will achieve the following expected tasks:

* Inception report that includes full technical, and SWOT analysis of Ejada current and future business model based on their plans to kick-off “Sustain Egypt's energy” program. In addition to full analysis of current financial model, sources of revenues, expenses, analysis of profits ..etc.
* Business and marketing strategy Report to maximize Ejada presence in the sustainable energy-needed market in Egypt. The report should include:
	+ A calendar of promotion and commercialization activities up to December 2024 to be implemented and funded by Ejada.
	+ Quarterly action plans agreed with Ejada, comprising detailed information of the activities, evaluation of the impacts and proposals on improving. Detailing the activities done directly by the expert and the activities done by Ejada.
* Suggested funding and investment Plan Report for the mobile application, and finance and funding for “Sustain Egypt’s Energy” program. The report should include a list of all suggested funding channels with detailed description of actions required to attract this investment.

### Mesalla Engineering Service (MES)

Mesalla Engineering Service (MES) is a manufacture company. Established mainly to produce the solar water heaters for thermosyphon and forced system.

The company is located in Bourg El Arab Road, Alexandria. It is a family business owned by the founder is one of the experts in this field in Egypt and was honored to the founder and chairman of SEDA (solar energy development association) for more than 7 years. SEDA was playing an important role in the civil society to increase the awareness and to build up the capacity building for many persons whom are leading the market right now.

The world is suffering from the shortage of water resources in many countries which affect the life of the people.

Using the traditional system of reverse osmosis for water disclinations needs permanent source of electricity to operate, so the cost is still not affordable.

The innovative character of MES is employing thermal solar technology especially concentrated solar power to heat the water till it reaches steam, then condensate it to separate all contamination and produce drinking water.

This innovation can be used for both Irrigation or drinking water. In a further stage this technology can also produce electricity from the steam by using steam turbine.

**MES will receive services packages 7, 8, and 9.**

#### Service Package (7)Consultation services for solar water purification project design and manufacturing.

MES is requesting consultancy services of senior solar water purification expert to support their above activities. The vendor will work in a participatory manner with the MAIA-TAQA and MES teams to achieve best results. The selected vendor will achieve the following expected tasks:

* Provide data about the chemical, physical specification of the existing underground water in suggested location in Egypt north coast.
* Support in selection of the project location based on the climate sun irradiation and wind.
* Suggest suitable type of solar energy technology to be used in application.
* Support MES team in designing the pilot project prototype.
* Support MES team in designing the system schematic diagram and detect component specification.
* Prepare the shop drawing for all manufactured item.
* Prepare the single line diagram and the pipe line diagram.
* Specify the required supplied material for fabrication and suggested suppliers.
* Support MES team in preparing the soft simulation for the system.
* Supervise the technical local manufacture material.
* Check the location of the site physically and revise the implementation procedure.
* Supervise the system installation and commissioning.
* Follow up the result and analyze emerging data.
* Prepare the final technical report.
* Prepare the final recommendation and support in preparing accreditation report.
* The senior consultant expected level of effort is maximum of 20 working days including 15 days remotely and 5 days in Egypt to support selection of location and choice of material used for prototype.
* The consultant will bear flight and accommodation costs in Egypt and should be included in financial proposal.

**Qualifications**

To achieve the above tasks the consultant should have the following qualifications:

* Masters’ degree in mechanical engineering, civil engineering, chemical engineering or any relevant field, PhD is an asset.
* Minimum 15 years of experience in design and fabrication of solar water purification, with proven track record of similar assignments.
* Proficiency in English language is a must, Arabic language proficiency is an asset.

**Deliverables**

* Inception report that includes:
	+ Analysis of the project location and detect the climate sun irradiation and wind.
	+ Analysis of the chemical, physical specification of the existing underground water in suggested location in Egypt north coast.
	+ Suggested suitable type of solar energy technology to be used in application.
	+ Determine the required supplied material for fabrication and suggested suppliers.
* Final technical report which includes:
	+ Shop drawing for all manufactured item.
	+ Single line diagram and the pipe line diagram.
	+ Detailed recommendations provided to MES team in preparing the soft simulation for the system.
	+ Detailed recommendations provided to MES team on local manufacture material.
	+ Detailed recommendations provided to MES team on system installation and commissioning.
	+ Follow up the result and Analise the data.
	+ Final recommendation and accreditation report.

#### Service Package (8)Organizing study tour and site visit for parabolic concentrated solar power plant manufacturer(s) in the EU.

This service package is targeting organizing study tour and site visit for parabolic concentrated solar power plant manufacturer (s) in EU.

The purpose of the study tour is enhancing the technical capabilities of MES staff. The required service package consists of the following:

* Vendor will organize site visit to concentrated solar power plant (s) to monitor operation and maintenance systems in reality.
* Vendor will prepare training on production methods and quality systems at concentrated solar power plants.
* Vendor will bear flight tickets for two of MES staff and include them in their financial proposal.
* Vendor will organize accommodation for 4-5 business days to cover the site visits and on-site trainings, for two of MES staff and include them in their financial proposal.
* Vendor will organize transportation needed for the site visits and on-site trainings for two of MES staff and include them in their financial proposal.

#### Service Package (9)Feasibility study for the financial model of solar water purification concept.

MES is requesting consultancy services to support their activities in utilizing concentrated solar power system for water purification. The vendor will work in a participatory manner with the MAIA-TAQA and MES teams to develop feasibility study for the financial model of solar water purification concept. The selected vendor will achieve the following expected tasks:

**Deliverables:**

* Inception report that includes full technical, and SWOT analysis of MES current and future business model based on their plans to introduce mass production of the concentrated solar power systems for water purification. In addition to full analysis of current financial model, sources of revenues, expenses, analysis of profits ..etc.
* Feasibility study report which will include:
	+ Review financial cost for the prototype and pilot project.
	+ Review the financial aspects for the mass production of the concentrated solar power systems for water purification.
	+ Feasibility study for the mass production of the thermal unit.
	+ Credit worthiness report and the bankability recommendation letter.
	+ Business and marketing strategy to maximize MES presence in the water purification market in Egypt, which includes:
		- A calendar of promotion and commercialization activities up to December 2024 to be implemented and funded by MES.
		- Quarterly action plans agreed with MES, comprising detailed information of the activities, evaluation of the impacts and proposals on improving. Detailing the activities done directly by the expert and the activities done by MES.

# Format and presentation:

The design and layout of any final documents must be well-structured, visually appealing and comprehensible.

Reports and factsheets will be provided in English with a layout following the project and ENI Programme visual identity requirements, edited and ready to print.

The same information will be provided in an editable format where content can be easily replaced with the translations in other languages, while keeping the layout.

In undertaking the tasks, the experts must comply with the latest Communication and Visibility Manual for EU External Actions concerning acknowledgement of EU financing of the project. See <https://ec.europa.eu/europeaid/communication-and-visibility-manual-eu-external-actions_en>

# Methodology and timeline

The tenderer will present a methodological proposal, which will contain the stages of work to carry out this mission, as well as a schedule of tasks (with timing of the elements to be delivered and the planned meetings and work sessions).

If deemed relevant, the **contracting authority may request to arrange follow-up calls with the contractor** to get updates on the development of the different results.

# Human Resources

The proposal will introduce the expert and/or team dedicated to this assignment, indicating their contribution and position with respect to the assignment, as well as a CV of each participant, specifying the most relevant experiences for this assignment.

## PERIOD OF IMPLEMENTATION OF THE TASKS

The intended start date is **15 April 2023** and the **period of implementation of the contract** will be until the end of **July 2023**.

## FINANCIAL INFORMATION

The **maximum** available value for the contract is **60,000 EUR (20.000 EUR per company) for all the service packages combined (all taxes included).**

 The financial offer must be **broken-down into deliverables and main actions** to be directly implemented by the contractor. **Payments will be linked to those values and to the actual delivery of each of the items**.

**The** **grand total must be presented with all charges and taxes included**.

## SELECTION CRITERIA

The procurement procedure is a public open tender.

**Immediate availability to start implementation directly after contract signature in May 2023 is required.**

**Excellent reporting skills in English are necessary**. This will be assessed by a track record in assignments with English as reporting language. In the eventuality that the final deliverables do not meet the quality standards, these will be need to undergo a proofreading process by a professional company at the expense of the contractor.

The tenderer must submit a proposal of no more than 5 pages, which will respond to the needs of the MAIA-TAQA project expressed in this document. The proposal must be clear in:

* Understanding the objectives and needs of this assignment.
* Presenting a list of past assignments related to promotion and commercialization of similar assignments preferably with examples and/or referee contact people (who could be contacted for references).
* Proposing a clear methodology and timeline to carry out the assignment. In this regard, the correct adaptation to the context and objectives of the MAIA-TAQA project will be a key element for evaluating the proposal.
* Additional and differential value provided in the proposal and the deliverables.

The candidates will prove their competences in the above-mentioned fields by attaching their CV, examples of previous research or studies developed by them, in addition to any other relevant documents.

Evaluation of the proposals:

* + 35% for methodology and calendar on how to carry out the assignment (to be evaluated by panel)
	+ 20% experience in similar assignments of the main expert. References of concluded assignments of at least 1 month duration in the past 3 years (to be rated according to 1 reference: 5%; 2 references: 10%; 3 references: 15%; more than 3 references: 20%)
	+ 20% for the additional and differential value provided in the proposal (e.g., additional in-person actions to support the strategy (within the proposed financial offer); proposal on how to measure success of the strategy; proposal on how to start having impact within the shortest delays) (to be evaluated by panel)
	+ 25% Price. The most economically advantageous offer will get 25 points. The financial offer to be evaluated will be the offer all taxes included. The rest will get points based on the formula:

Lowest offer X 25 points

 = points

 Offer to be evaluated

Offers exceeding the maximum available budget or offers abnormally low will be rejected. It will be considered abnormally low an offer 30% below the available.

The evaluation will be done independently by a panel of at least 3 representatives of the MAIA-TAQA project partners. And the final results will be an average of the ratings given by the panel. In the event of a tie, preference will be given to the most economically advantageous offer.

Consultations to the references given for previous assignments may be done to confirm CV and English proficiency.

The successful and unsuccessful tenderers will be informed of the results of the evaluation procedure in writing by email.

## DELIVERIES AND PAYMENTS

The contractor will deliver without reservation the services indicated in the contractor’s offer. The deliveries will be implemented within the indicated dates.

The contracting authority will pay the contractor following the approval of the documents to be delivered and/or actions carried out.

In the event of a delay as per the contract schedule for which the contractor is solely responsible, the contracting authority may deduct an amount for Liquidated Damages at a rate of one percent (1%) per week of delay, subject to a maximum of ten percent (10%) of the Initial Contract Price.