



TENDER BOOK

On awarding through tender of the supply contract/contracts: CPV code 38113000-0 - sonars, CPV code 34933000-6 – navigation equipment and CVP code 38260000-5 – geophysical instruments with magnetometer, for the project: “Submarine Archaeological Heritage of the western Black Sea Shelf - HERAS”, application number: 2(4i)-3.1-26 - MIS-ETC-Code 578

References:

- **Project title:** “Submarine Archaeological Heritage of the western Black Sea Shelf - HERAS”, application number: 2(4i)-3.1-26, MIS-ETC-Code 578

N.I.R.D. GeoEcoMar is currently implementing, the project “Submarine Archaeological Heritage of the western Black Sea Shelf - HERAS”, application number: 2(4i)-3.1-26, MIS-ETC-Code 578, financed through Romania – Bulgaria Cross Border Cooperation Programme 2007 – 2013.

The overall objective of this programme is to strengthen cooperation in the border area of the two neighbouring countries, through joint activities leading to interconnect territories and to promotion of a coherent, correlated and sustainable socio-economic development of the border area.

The specific objectives of the project are:

- Investigating and promoting common submarine archaeological heritage (RO-BG).
- Stimulating cross-border cooperation between research institutes, museums, NGOs in order to create a joint team of excellence in submarine archaeology.
- Support the development of adventure tourism plans in submarine geoarchaeology.

- **Source of financing:** European Regional Development Fund – ERDF for Romania – Bulgaria Cross Border Cooperation Programme 2007 – 2013 – grant agreement no. 64727/09.08.2013 signed by Ministry of Regional Development and Public Administration –(MDRAP) as Management Authority and by the Beneficiary – N.I.R.D. GeoEcoMar as Lead Partner (signed on 23. 08. 2013). The implementation period of activities related to the Project is 18 months.

- Applicable legislation:

- Government Emergency Ordinance no.34/2006 on the award of public procurement contracts, works concession contracts and services concession contracts, with its subsequent amendments and completions;
- Government Decision no. 925/2006 on the approval of the application norms of the Government Emergency Ordinance no. 34/2006 regarding the award of public procurement contracts, public works concession contracts and services concession contracts, with its subsequent amendments and completions;

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Investim în viitorul tău!

Programul de Cooperare Transfrontalieră Romania-Bulgaria 2007-2013 este cofinanțat de Uniunea Europeană prin Fondul European de Dezvoltare Regională

Titlul proiectului:
SUBMARINE Archaeological Heritage of the western Black Sea Shelf - HERAS ", numar aplicatie : 2(4i)-3.1-26 ; MIS-ETC-Code 578,
Editorul materialului: INCD GeoEcoMar
Data publicării: 06-11-2013

Conținutul acestui material nu reprezintă în mod necesar poziția oficială a Uniunii Europene.

- Order no.314/2010 of President of National Authority for Regulating and Monitoring Public Procurement on the implementation of the certificate for participation to tender with independent offer;
- Order no.302/2011 of President of National Authority for Regulating and Monitoring Public Procurement on the approval of the templates for Minutes of meetings for opening the tenders and the Procedure's Report, related to the award procedures of public procurement contracts, public works concession contracts and service concession contracts;
- Order no.509/2011 of President of National Authority for Regulating and Monitoring Public Procurement on formulation of qualification and selection criteria.
- Any other regulations governing public procurement.

The acquisition is necessary for:

- Ensuring the implementation of project activities for the purpose of identifying and assessing submarine archaeological objects, wrecks with historical value, mapping the areas specific to this artifacts from the romanian-bulgarian cross border zone.
- Assessment of specific and ambient submarine habitat where these artifacts with historical value are found within the coastal area and the western continental shelf of the Black Sea.

- **Applied procedure:** call for tenders, acquisition divided by lots as following:

Lot 1: Sonars - CPV code 38113000-0 (very high-resolution portable side - Scan Sonar)

Lot 2: Equipment for navigation - CPV code 34933000-6 (submersible system made by gyrocompass (a unit able to provide information regarding the real orientation of the system, the so called heading) and a unit able to provide information on the relative motion to the three axes of the system ("pitch", "roll" and "heave" motions), also called - MRU - Motion Reference Unit)

Lot 3: Magnetometer geophysical instruments - CPV code 38260000-5 (Magnetometric acquisition system for terrestrial and marine geophysical investigations)

- Estimated total value: 126.250 Euro, excluding VAT

Estimated value per lots:

Lot 1: Sonars - CPV code 38113000-0 (very high-resolution portable side - Scan Sonar)

Estimated value: 42.000.00 Euro, excluding VAT (budgetary line V.7 „Very high-resolution portable side-Scan Sonar)



Lot 2: Equipment for navigation - CPV code 34933000-6 (submersible system made by gyrocompass (a unit able to provide information regarding the real orientation of the system, the so called heading) and a unit able to provide information on the relative motion to the three axes of the system (“pitch”, “roll” and “heave” motions), also called - MRU - Motion Reference Unit)

Estimated value: 48.600 Euro, excluding TVA (budgetary line V.8: „Underwater gyrocompass and motion reference unit-MRU”)

Lot 3: Magnetometer geophysical instruments - CPV code 38260000-5 (Magnetometric acquisition system for terrestrial and marine geophysical investigations)

Estimated value: 35.650 Euro, excluding TVA. (budgetary line V.12: „Magnetometric acquisition system for terrestrial and marine geophysical investigations”)

General information

Economic operator has the obligation to elaborate the bid in accordance with the specification of this Tender book and with the data sheet published on SEAP.

The economic operator shall cover all costs associated with the preparation and submission of its bid, also of the accompanying documents and the contracting authority is not responsible or liable for these costs.

The bid elaborated by the economic operator must include: technical proposal and financial proposal.

Qualification documents, technical proposal and financial proposal shall be submitted in three envelopes, marked accordingly.

The bid will be written in Romanian or English. Each page of the bid shall be numbered by hand, signed and stamped by the legal representative of the tenderer.

The bid shall be accompanied by a covering letter.

The bid must be accompanied by a written power of attorney by which the bid signatory is authorized to employ the economic operator in the procedure for the award of public procurement contract

Economic operator must seal the original and one set of copies in separate envelopes, duly marking the envelopes with “ORIGINAL” and “COPY”. The envelopes shall be placed in an outer envelope, opaque and properly sealed.

The inner envelopes shall be marked with the name and the address of economic operator, in order to enable the return of qualification documents, without being opened, in the event that the expression of interest is declared late.

The outer envelopes must be marked with the address of contracting authority and with the inscription “**NOT TO BE OPENED BEFORE THE DATE, TIME**”.

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If the outer envelope is not marked in accordance with the preceding paragraph, the contracting authority does not assume any responsibility for misplacement of the documents.

The forms: no.1, no.2 and no.5 shall be presented on the outside of the envelope / package containing the bid.

Technical proposal

The technical proposal shall be elaborated as to comply with the specifications provided in the Tender book.

The technical proposal shall be elaborated so that the evaluation process and the information included in it to enable easy correspondence with the technical specifications from the Tender book.

The technical proposal must demonstrate the tenderer's commitment to supply the products and to perform the related services, if applicable, in accordance with all the specifications listed in the Tender book.

In case the bid does not meet all the requirements stipulated within the Tender book and the data sheet, the evaluation commission has the right to reject it.

Financial proposal

The financial proposal shall be drawn up according to the bid form.

Financial proposal shall be presented in EURO, all prices being type CIP, in accordance with INCOTERMS 2008.

Tenderer shall elaborate the financial proposal so that it provides all information requested on price, as well as any other financial and commercial conditions related to the subject of public procurement contract which it considers to be mentioned.

Financial proposal will be made according to the model presented within the award documentation.

The bid price is firm and shall be expressed in EURO, Vat excluded.

Exchange rate used: infoeuro from the month of issuing the invoice.

The tenderer shall indicate the conditions under which VAT is deductible for the beneficiary.

The tenderer shall include in the financial proposal all costs associated with production, transport, commissioning of equipment and staff training, as appropriate, in accordance with the requirements set up within the Tender book.

In case the bid does not comply the requirements stipulated within the Tender book and the data sheet, the evaluation commission has the right to reject it.

The following forms shall be filled:

Form no.3 – Bid form

- Annex no.1 – Summary of prices for the products
- Annex no.2 – Delivery schedule
- Annex no.3 – Execution schedule, if applicable



Other information

Several economic operators have the right to associate in order to submit a common bid, without having the obligation to formally certify their association.

The association agreement will mention that all the associates take their collective and solidary responsibility for the performance of the contract, that the leader of the association is authorized to undertake and receive instructions in the name of all associates and is liable for itself and in the name of the association for the performance of the contract.

Also, the association agreement will stipulate that all the associates in the association have the obligation to remain in the association for the whole duration of the contract.

In case the common bid will be declared winning, the association shall be certified and presented to the contracting authority before the date of signing the contract.

In case the bid is submitted by an association, each tenderer (including the leader) will submit form no. 4 "General information" and form no. 7 "Statement regarding the quality of participant to the procedure.

The winning tenderer shall conclude the supply contract in accordance with Form no. 15 "Supply contract template".

The economic and financial capacity of the tenderer can be sustained also by another person in order to perform a contract.

In case the tenderer proves its economic and financial situation invoking also the support granted by another person, then it has the obligation to prove the support it benefits from by presenting a firm commitment of that person, through which that person confirm providing to the tenderer the invoked financial resources.

In case a group of economic operators submits a common bid, the economic and financial situation is proved by considering the resources of all members of the group.

The grant of the advance payment of 10% of the value of the supply contract is made only based on a letter of guarantee issued by a bank for the return of an advance payment.

In case there are offers on the first place that have the same value, the tiebreak shall be made by the Contracting Authority that will ask for a new offer in a sealed envelope

Delivery term: 60 days from the date of signing by the parties of the supply contract.

Delivery place: Romania, Bucharest, 23-25 Dimitrie Onciul Street, district 2

TECHNICAL CHARACTERISTICS

LOT 1: Sonars - CPV code 38113000-0 (very high-resolution portable side - Scan Sonar)

The side scan sonar will be used in research cruises in order to discover sea-bottom objects, as archaeological remains. The system has to be a turnkey solution, fully functional.

No	Denomination	Components/ Unit	General characteristics	Technical characteristics
1	Very high-resolution portable side-Scan Sonar - CVP code 38113000-0	1 piece	Portable very high resolution side scan sonar	<ul style="list-style-type: none"> - dual frequency: accepted intervals 400-500 kHz and 800-1000 kHz - sensors for depth, pitch and roll - operating depth minimum 200 m - range scanning capabilities: minimum 150m at low frequency, minimum 50m at high frequency - operating power: 220V and 12 V (or with power inverter, delivered with the system) - navigation input NMEA 0183 - depressor - deck electronics with water splash resistant connectors

ACCESSORIES				
2	Rugged laptop	1 piece	Rugged and water splash resistant laptop with OS	Rugged and water splash resistant laptop with OS with interfaces for navigation and data acquisition
3	Software	1 piece	Data acquisition software must be able to allow recording in formats 100% compatible with Chesapeake SonarWiz package	Data acquisition software with data integration, control and corrections for depth, pitch and roll; integration of cable counter data for layback corrections
4	Towing cable and cable counter	meters	- minimum 100m of electromechanical cable and cable counter	Minimum 100 m of kevlar reinforced towing cable with underwater and deck connectors, cable counter
5	Operating manual	1 piece	Full description of operation and maintenance procedures	Description of sea works, navigation input, operation; electronic version

TECHNICAL CHARACTERISTICS

LOT 2: Equipment for navigation - CPV code 34933000-6 (submersible system made by gyrocompass (a unit able to provide information regarding the real orientation of the system, the so called heading) and a unit able to provide information on the relative motion to the three axes of the system (“pitch”, “roll” and “heave” motions), also called - MRU - Motion Reference Unit)

The system must have a unit able to provide heading and another unit able to provide information regarding the motion on the three axes, so called “Motion Reference Unit – MRU” (pitch, roll and heave). The system will be used to provide the necessary corrections for the multibeam echosounding system ELAC SEABEM 1050D. According with these specifications, the combined system for heading and MRU has to be 100% fully compatible with the specific requirements for the above mentioned echosounding system.

The system must be at least partly submersible, i.e. the MRU unit, that will be installed in between the pair of multibeam transducers (pole mounted). The heading information will be provided by a dual-GPS system, which can be used for the positioning of the side scan sonar (LOT 1).

No	Denomination	Compo nents/ Units	General characteristics	Technical characteristics
1.	System “heading unit” dual-GPS type	1 piece.	dual-GPS system able to provide heading to the ELAC SEABEAM 1050D multibeam echosounding system and navigation data for Side Scan Sonar (LOT 1).	<ul style="list-style-type: none"> - Receiver type: GNSS L1/L2 RTK - accepted signals: GPS, GLONASS and Galileo (at least as upgrade option) - GPS sensitivity : at least 140 dBm - SBAS capable, 3 canale - Refresh rate: ≥ 10 Hz - Horizontal accuracy (better than): RTK 20 mm (95%) RMS; SBAS 0.25m and autonomous (without SA) 1.3m - HEADING $< 0.09^\circ$ RMS (for 1 m separation of GPS antennas) - Cold start $< 50s$ - Warm start $< 25s$

				<ul style="list-style-type: none"> - Heading fix < 10s - Operating temperature -25° - + 60° C -operating humidity 95% noncondensing - data output NMEA 0183 (VTG, GLL, GGA, TSIP)
2.	Motion Reference Unit – MRU	1 piece.	MRU – Motion Reference Unit will be used to provide pitch data, roll and heave for the multibeam echosounding system ELAC SEABEAM 1050D	<ul style="list-style-type: none"> - dynamic accuracy (as, or better) : HEAVE – 5cm (for movements of 0-20s periods) ROLL and PITCH 0.05° - bandwidth 0.05 - >=30 Hz - Digital data output rate:>=150 Hz - Domain for roll and pitch +/- 55°, +/- 8m for heave -submersibil min. 10m - navigation input NMEA 0183 - Data output NMEA 0183, data stream accepted by the ELAC SEABEAM 1050D, software Hydrostar Online, configurable - Data interface RS232 and RS422/485 - Shock resistance >= 25g at peak (40 ms ½ sinus) -Vibration resistance 25mm min at 10-300 Hz -MTBF in 45000 hours
3	Operating manuals	1 piece	Full description of operation and maintenance procedures for the two units (heading unit and MRU)	Description of sea works, navigation input, operation; electronic version
4	Technical assistance		Technical assistance to integrate the systems with ELAC SEABEAM 1050D echosounder	Detailed description and drawings for installation, email and phone/video assistance

TECHNICAL CHARACTERISTICS

LOT 3: Magnetometer geophysical instruments – CPV code 38260000-5

(Magnetometric acquisition system for terrestrial and marine geophysical investigations)

- Components of the system :

- Marine magnetometer sensors (2 pieces)
- Power supply (1 piece)
- Transverse horizontal magnetometer frame (1 piece)
- Tow cable (1 piece)
- Depth sensor (2 pieces)
- Echo sounder altimeter (1 piece)
- Data logging software (1 piece)
- Data processing software (1 piece)

• **MAGNETOMETER SENSORS**

High speed cesium vapor magnetometers with a minimum frequency of 10 Hz (20 Hz selectable) and a sensitivity of 0.004 nT/rt-Hz RMS.

• **POWER SUPPLY**

Power supply provided along with sensors, also the electronics that enable the automatic/real time magnetic data transfer to the PC.

• **TRANSVERSE HORIZONTAL MAGNETOMETER FRAME**

Provides a structure to combine two magnetometer sensors into a transverse horizontal array for dual sensors, gradiometer operations.

• **TOW CABLE**

100 m long, made to resist at high pressures.

• **DEPTH SENSOR**

Measures till 250 psi.

• **ECHO SOUNDER ALTIMETER**

Echo-sounder altimeter, with sub-meter accuracy and 50 meter range.

• **DATA LOGGING SOFTWARE**

The logging software must have the following characteristics:

- to run on Windows XP, 7, 8.0, or 8.1 OS
- to include a planning module (design of survey profiles and grid)

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- to have real time navigation module (NMEA 0183 GPS data input), including survey line follower display

- **DATA PROCESSING SOFTWARE**

Data processing software must have the following characteristics:

- able to produce quasi-analytic signal data sets and maps from transverse magnetic gradient data
- inversion computing to estimate the burial depth of sea-bottom objects
- output of processed data as contour lines

Elaborated,
Technical coordinator
Jeni BUJINI