INTAROS

IO/ZN/5/2017

Sopot, December 4th, 2017

CONTRACT AWARDING NOTICE

for

the design and delivery of IAOOS (Ice Atmosphere Arctic Ocean Observing System) autonomous platform for continuous ocean/ice/snow/atmosphere measurements from a drifting ice floe for the Contracting Authority – the Institute of Oceanology, Polish Academy of Sciences in Sopot

Name and address of the Contracting Authority
Institute of Oceanology Polish Academy of Science
ul. Powstancow Warszawy 55
81-712 Sopot, Poland
Fax (48 58) 551 21 30
Email: office@iopan.gda.pl

I. The legal basis

The legal basis for the procedure is art. 30a of the Act of 30 April 2010 on the Principles of Financing Science (Journal of Laws of 2016, item 2045 as amended) and art. 4d, paragraph 1 point 1 of the Act of 29 January 2004, the Public Procurement Law (Journal of Laws of 2017, item 1579, as amended).

II. Description of the subject of contract

1. The subject of the procedure is **the design and delivery of IAOOS (Ice Atmosphere Arctic Ocean Observing System) autonomous platform for continuous ocean/ice/snow/atmosphere measurements from a drifting ice floe for the Contracting Authority – the Institute of Oceanology, Polish Academy of Sciences in Sopot.**
2. CPV code: 38500000-0 (Checking and testing apparatus), 38400000-9 (Instruments for checking physical characteristics), 38412000-6 (Thermometers), 38636100-3 (Lasers), 32531000-4 (Satellite communications equipment).
3. The platform should be adjusted for deployment on drifting sea ice in the Arctic region, designed to remain on top of sea ice floes and to float at the ocean surface.
4. Platform should be equipped with following sensor packages:

A. Atmospheric package:

- Weather mast equipped with temperature sensor and atmospheric pressure sensor capable to work at low temperatures ranges.
- Microlidar: autonomous lidar system with a high efficiency laser diode based system (central wavelength around 800 nm, bandwidth < 0.6 nm and low energy emission around 2 microjules per pulse); diameter emission/reception lens of ~70 mm; emission/reception full FOV of ~650 µrad; detection filter bandwith of ~0.6 nm; overlap range (90%) of around 300 m; detection sampling frequency (at a 15 m vertical resolution before averaging) of 10 MHz; vertical resolution (after on board averaging) of 15 m (0-1 km), 30 m (1-3 km), 60 m (3-15 km) and 120 m (15-25 km); background noise (average and standard deviation) of 25 to 30 km; small sensitivity to water absorption; a low temperature operation capability; optical design based on a bi-axial structure; optical fiber based system, satellite modem (for satellites in polar orbits, e.g. Iridium) for data transmission.
- GPS for positioning.
- Accelerometers implemented in the platform to detect the tilt angles.

B. Ice/snow package:

Ice mass balance instrument equipped with:

- thermistor chain of 5 m, hanging through air, snow, sea ice and ocean,
- comprising solid-state sensors measuring temperature profiles with 2 cm resolution;
- thermistor measurement chain incorporating temperature sensor device with resolution of 0.0625°C and accuracy of ± 0.5°C in an operating range of 85°C down to -10°C;

- heater elements for heating cycle mode (hot-wire anemometry mode/ a needle-probe thermal conductivity mode) to provide a proxy for thermal diffusivity;
- a single-chip microcontroller (e.g. Microchip PIC) and satellite modem (for satellites in polar orbits, e.g. Iridium) for data transmission.

C. Ocean package:

1) Components of the ocean package:
- a surface buoy unit containing a GPS, a processor and the lithium battery which guarantee a supply in energy for 2 years;
- a 800-m long cable attached to the buoy underneath carrying a profiler based on Argo float technology, with inductive NRT data transmission, capable to work in polar environment, equipped with CTD sensors, scanning up and down from surface to 800m depth and up, taking vertical profiles of temperature and salinity once or twice a day (autonomy up to 600 profiles);
- a cable loaded with a 50 kg deadweight at the very end in order to keep the cable as vertical as possible, even during strong sea-ice drift entraining the surface buoy and the 800m-long cable.

2) Sensors specification:
- Ice-tethered profiler based on Argo-float technology, with inductive NRT data transmission, capable to work in polar environment, equipped with conductivity, temperature, pressure and dissolved oxygen sensors;
- CTD system with anti-foul protection, anti-foulant devices, a U-shaped flow path, and a pump delivering 10 ml/sec flow continuously during the profile;
- Temperature sensor initial accuracy of ±0.002°C, stability 0.0002/year;
- Conductivity sensor initial accuracy of ±0.002, stability 0.001/year;
- Pressure sensor initial accuracy of ±2 dbar, stability 0.8/year;
- Optical sensor for measuring the O2-concentration using lifetime-based luminescence quenching principle, measurement range of 0-500 µM, resolution < 1 µM, accuracy < 8 µM or 5 %, response time (with standard foil) <25 sec;
- Inductive data transmission along the cable, inductive cable length 800 m;
- Satellite modem (for satellites in polar orbits, e.g. Iridium) for data transmission and two-way remote control.

D. Power supply and data transmission:
- Satellite modem (for satellites in polar orbits, e.g. Iridium modem and antenna) for data transmission; (if not included separately in any of sensor packages).
- Power supply system.

5. The Contracting Authority hereby states that only the minimum requirements were set out in the detailed technical specification of the system and its individual elements (devices). The Contractors may offer system or devices with the same or better specification in their bids. Shall the description of the subject of the procedure contain any trademarks, patents or other proprietary or exclusive rights, or if the origin of the subject of contract or part thereof was determined - it must be assumed that the Contracting Authority, due to the nature of the subject of contract, provided such description with an indication of the type of the subject of contract and allows bids equivalent in terms their visual appearance, functionality, functional and performance parameters not worse than those given in the description of the subject of contract.
6. Within the declared bid price (net value) the Contractor will provide all elements of the platform must be new, free from defects or damage, not used, free of third-party rights.
7. The Contractor shall execute the subject of the Contract in a way that does not limit full usage of equipment (sensors) installed within the platform.
8. The platform must meet all the functional and technical requirements specified by the Contracting Authority, must be free from defects or damage, not used, free of third-party rights.
9. The Contractor shall perform tests of the platform in presence of the Contracting Authority's representative/employee within the declared bid price (net value).
10. The platform will be deployed on drifting sea ice in the central region of the Arctic Sea.
11. The Contractor shall transport the platform to the place of execution of the Contract, deploy it on ice floe in localization chosen by the Contracting Authority and launch it within the bid price (net value).
12. The execution of the Contract shall take place in two parts:
    a) Part I – building of the platform and tests,

b) Part II – delivery of the platform to its place of destination, deployment of the platform on the ice floe and launch of the platform.

13. The Contractor shall provide the Contracting Authority with complete documentation of the devices and of the platform (including at least one copy of the operating manual) in Polish and/or in English,
14. The price (net value) quoted in the bid shall include all costs associated with the execution of the contract including cost of designing and constructing of the platform, cost of all elements of the platform, cost of documentation, cost of tests, cost of packaging and transport to the place of delivery, cost of insurance during delivery to the place of destination, cost of deployment and launch of the platform, as well as cost of travel of the Contractors representatives/employees connected with deployment and launching of the platform.
15. The Contracting Authority allows the bids to be submitted and settled in the following currencies: PLN or EURO.

III. Deadline of the implementation of the contract and place of delivery of the subject of contract:

1. Deadline for execution of the Contract:
   a) Part I - not later than **May 15th, 2018.**
   b) Part II – not later than **August 30th, 2018.**
2. Place of execution of the contract (place of deployment of the platform): **Delivery to the interior Arctic Ocean (Nansen, Amundsen or Makarov Basin), to the region of the latitude higher than 80°N, covered with multiyear sea ice with thickness allowing for optimal operational time of the platform.**

IV. Conditions for participation in the procedure

1. The Contractors who would like to participate in the contract award procedure must comply with the requirements set out below:
   a) the Contractor must have the knowledge and experience ensuring the execution of the contract – in form of at least one duly designed and executed device corresponding to the subject of contract, i.e. **autonomous platform for continuous measurements of seawater, ice and atmosphere in polar environment, transferring data in real time, with a gross value of at least 300 000 PLN**, within the last three years prior to the deadline for submission of bid, and if the period of running the business is shorter than within this period;
   b) having appropriate technical potential and personnel capable of performing a contract - ensuring the execution of the contract
   c) the economic and financial standing - ensuring the execution of the contract.
2. Assessment of compliance with conditions specified in point 1 will take place on the basis of Contractors statement set out in Bid form, in accordance with the method: meets conditions/ doesn't meet conditions .
3. In case of not meeting conditions of participation in the procedure the Contractor shall be excluded from the procedure and his offer shall be considered rejected.

V. Terms and procedure of payment:

1. The contract is funded from designated subsidy from Horizon 2020 project INTAROS - Integrated Arctic Observation System, awarded under EU call for Blue Growth.
2. The cost of duty and VAT (the tax on goods and services) will be settled and paid by the Contracting Authority, provided that and if it is required pursuant to the relevant custom and tax provisions.
3. The payment for the execution of the Contract will take place on the basis of the invoices delivered to the Institute of Oceanology, Polish Academy of Sciences in Sopot in two parts:
   a) First installment: **90% of remuneration** – after proper execution of the platform and successful completion of tests following the signing the acceptance protocol of the tests by the Contracting Authority without reservations,
   b) Second installment: **10% of remuneration** - after delivery of the platform to the place of destination, deployment of the platform, successful launch and transfer of first data following the signing the final acceptance protocol of the subject of the procedure by the Contracting Authority without reservations.

4. Payment will be transferred from the account of the Contracting Authority to the Contractor's account within 30 days from the date of signing of the respective acceptance protocol without reservations and after receipt of the invoice properly issued by the Contractor.
5. The payment of part of remuneration for purchase of equipment, not higher than 40% of remuneration, can be made on the Contractor's request. The payment will be deduced from the first installment. The payment of part of remuneration for purchase of equipment will be transferred from the account of the Contracting Authority to the Contractor's account within 14 days from the date of receipt of written request and the pro forma invoice properly issued by the Contractor.
6. The Contracting Authority declares that the platform will be placed on ice floe drifting in the central region of the Arctic Sea during its entire life time and will not enter EU customs territory.
7. All essential terms and requirements can be found in the **draft of the agreement (appendix no 2 to the notice)**

VI. Criteria for evaluation of bids

Price – 100%

VII. Place and date and form of submission of bids, information regarding the procedure

1. **The Bid signed by a person authorized to act in the Contractor's name should be submitted** not later than on **December 12th, 2017, 10:00 am** (local time)**:**
   1) in person (by post, courier) to the registered office of the Contracting Authority – room 107,
   2) by fax : (48 58) 551 21 30
   3) by email – azariczna@iopan.gda.pl

   - entitled „The Bid for the **design and delivery of IAOOS autonomous platform for the Institute of Oceanology, Polish Academy of Sciences in Sopot - IO/ZN/5/2017**".
2. The Contractor shall prepared offer accordingly to the Appendix no 1 to the notice – Bid form.
3. **The Contractor should also submit with the bid offer the Technical Description of offered platform and the Technical Specifications (datasheets) of elements of the platform (devices) confirming that the offered system meet the requirements described in Chapter II of the notice.**
4. The Contracting Authority allows submission of bids and other documents in Polish or English.
5. The Contracting Authority does not allow partial bids.
6. The bid must be complete and must include all the elements and take into account all the conditions listed in the notice. The bids which would not include even one element shall be rejected as the bid which failed to comply with the requirements set in the notice.
7. The offers submitted after the deadline set in point 1 will not be taken into consideration.
8. The Contractor shall bear all costs associated with the preparation of the bid.
9. The Contracting Authority may modify the content of the Contract awarding notice any time prior to the deadline for submitting bids. Any modification to the Specification shall be promptly placed on the website where the Contract awarding notice was provided. Each modification of the Specification becomes its integral part and its binding for the Contractor.
10. **A person duly authorized to directly contact the Contractors: Aleksandra Zariczna: azariczna@iopan.gda.pl**
11. The bid validity period is 30 days, which begins with the deadline for submission of bids.
12. In the case of bids submitted in EURO, as well as in case of the necessity to compare the bids in various currencies, the Contracting Authority shall convert the offer price into PLN at the average exchange rate of the currency announced by the National Bank of Poland as of the final day of submitting of the bids.
13. **If the Contractor is an entity with its registered office outside the territory of the Republic of Poland the Contractor shall quote only the net value**. In order to evaluate such an bid offer, the Contracting Authority shall increase the bid price by adding the tax on goods and services (VAT).
14. Promptly after the selection of the best offer the Contracting Authority shall inform the Contractors who submitted offer about of the results of this procedure. The Contracting Authority shall also place the Information about of the results of this procedure on its website.
15. The Contracting Authority reserves the right to cancel the procedure without the selection of the best offer in instances justified.
16. The Contracting Authority shall sign the Contract with the Contractor, whose offer was selected as the best offer, according to the agreement draft set out in Appendix no 2.

17. Before signing the Contract The Contracting Authority may ask the Contractor to submit the relevant abstract from the register or other documents accordingly to which the person signing the Contract is authorized to act in the Contractor's name.
18. After signing the Contract The Contracting Authority will promptly place on its BIP site information regarding the contract awarding procedure giving the name of the entity with whom the Contracting Authority has signed the contract or information about not awarding the contract.

VIII. Appendices:

1. Bid form – Appendix no. 1.
2. Agreement draft – Appendix no. 2.

NOTICE: The English version of the Contract Awarding Notice is only for informational use. In case of discrepancy between the Polish and the English version of the Contract Awarding Notice, the Polish version shall prevail.

NACZELNY INŻYNIER
mgr inż. Kazimierz Groza