AGREEMENT No. ___/2017 (draft)

concluded on, 2017 in Sopot, Poland

between:

Institute of Oceanology, Polish Academy of Sciences in Sopot, ul. Powstancow Warszawy 55, 81-712 Sopot, NIP (tax identification number) 5851004839, hereinafter referred to as the CONTRACTING AUTHORITY, represented by:

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as follows:

§ 1

- The basis for the conclusion of this agreement is procedure No. IO/ZN/5/2017 under 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).
- 2. The contract is funded from designated subsidy from Horizon 2020 project INTAROS Integrated Arctic Observation System, awarded under EU call for Blue Growth.

§ 2

- 2. The platform shall 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.
- 3. The Appendix no 1 to the Agreement contains the required elements of the platform.
- 4. 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.
- 5. 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.
- 6. 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.
- 7. The Contractor shall perform tests of the platform in presence of the Contracting Authority's representative/employee within the declared bid price (net value).
- 8. The platform will be deployed on drifting sea ice in the central region of the Arctic Sea.
- 9. 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).
- 10. 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.
- 11. 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.
- 12. The Contractor ensures that the Executive Agency for Small and Medium-sized Enterprises (EASME), the European Court of Auditors (ECA) and the European Anti-Fraud Office (OLAF) have the right to carry out checks, reviews, audits and investigations on the Contractor concerning the financing of the agreement.
- 13. The Contractor ensures that the Executive Agency for Small and Medium-sized Enterprises (EASME) Agency has the right to make an evaluation of the impact of the action INTAROS concerning to this agreement.

§ 3

The execution of the subject of the agreement referred to in § 2 will take place not later than:
a) Part I - May 15th, 2018.

b) Part II – August 30th, 2018.

- 2. The place of execution of the agreement (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.
- 3. The Contractor will inform the Contracting Authority about the date of planned tests at least two weeks in advance.
- 4. Due to the fact that the atmospheric conditions have to be taken into consideration during the delivery as well as during selection of the exact place of deployment of the platform, the Contractor should consult with the Contracting Authority all terms of delivery (in particular the exact place and date of delivery) prior the delivery.

§4

- 2. The costs of customs duties and VAT(the tax on goods and services) will be settled and paid by the Contracting Authority, provided that the Contractor is an entity with its registered office outside the territory of the Republic of Poland and if it is required pursuant to the relevant tax and customs provisions.
- 3. 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.
- 4. The amount referred to in section 1 includes all costs associated with the execution of the agreement, 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.
- 5. The Parties agreed that the payment for the execution of the agreement 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.
- 7. The Contractor is entitled to statutory interest for the delay in payment.
- 8. 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.

§ 5

- 1. For installed elements of the platform (equipment) the Contractor will provide warranty not shorter than offered by the producer. The Contractor shall present the Contracting Authority with warranties of devices elements of the system.
- 2. The Contractor shall install devices in a way that will not void the producers warranty of the devices.
- 3. The Contractor shall be liable to the Contracting Authority for any physical and legal defects of the delivered platform as well as its elements (equipment) (particularly involving any non-compliance with the description of the Subject of the agreement), as well as damage suffered during transport.
- 4. In the case of non-compliance of platform or its elements (equipment), in particular in the case of lack of required and offered technical performance or functionality, and in the case of delivery of damaged platform and/or equipment, the Contracting Authority may refuse to accept it. In such a situation the Contracting Authority shall inform the Contractor by mail, by fax or electronic mail, on the observations of the Contracting Authority as to the irregularities sending a protocol and call the Contractor to remedy the defects within the specified time or to provide defect-free platform and/or equipment.
- 5. Irregularities indicated by the Contracting Authority and referred to in the sections 4 above shall be removed by the Contractor at its own expense, in the manner specified by the Contracting Authority, not later than 30 days from the date, on which the irregularities were claimed, subject to longer period for removal of defects upon agreement with the Contracting Authority.

- 6. Shall the Contractor fail to respond to the notice of the irregularities within 7 days of its receipt, it will be tantamount to recognition of the complaint and Contractor's commitment to immediately remove the irregularities.
- 7. If the irregularities cannot be removed, the Contractor shall deliver the defect-free platform or/and equipment within 30 days of filing the complaint for the remuneration provided for hereto.

§ 6

- 1. The Contractor shall pay to the Contracting Authority stipulated penalties in the amount of:
 - a) 0.2% of the net value of the agreement for each day of default in execution of the subject of the agreement beyond the deadline set in §3 section 1 of the agreement;
 - b) 0.2% of the net value of the agreement for each day of default in removal of defects found during the acceptance of the object hereof;
 - c) 10% of the net value of remuneration for non-performance by the Contractor of the whole agreement or the improper performance of the agreement, other than that referred to in section 1 points a) and b);
 - d) 20% of the net value of the remuneration for the withdrawal by the Contractor or by the Contracting Authority from the agreement for reasons attributable to the Contractor.
- 2. The Contracting Authority reserves the right to claim compensation in excess of the above penalties under the general rules of the Polish Civil Code.
- 3. The Contracting Authority shall be entitled to deduct stipulated penalties from the remuneration payable to the Contractor.
- 4. If deduction of stipulated penalties from the remuneration payable to the Contractor is not possible, the penalties and/or other dues arisen from the agreement shall be paid not later than within 7 days from the date of receiving by the Contractor request for payment.

§ 7

- 1. In the event of a substantial change in circumstances resulting in a situation, where the execution of the agreement is no longer in the public interest, which could not have been foreseen at the time of the conclusion of this Agreement, the Contracting Authority may cancel the agreement within 30 days of becoming aware of those circumstances. In such a case the Contractor may only claim the remuneration for the actually executed part of the agreement.
- 2. In case of non-performance of the whole agreement or the improper performance of the agreement by the Contractor, the Contracting Authority has the right to withdraw from the agreement after a prior ineffectual formal notice to the Contractor to fulfil the obligations in accordance to the agreement within set deadline within 30 days after expiry of the deadline.

§ 8

- 1. Any changes or additions to this agreement shall be in writing under pain of nullity.
- 2. The Contracting Authority anticipates possibility of changes in the Contract, especially in occurrence of following circumstances:
 - a) changes will be advantageous to the Contracting Authority in terms of Agreement realisation, especially they will advance date of delivery of the object of the Agreement, lower the cost incurred by the Contracting Authority of execution, maintenance or usage of the object of the agreement or increase its usefulness;
 - b) changes in the deadline for completion of the agreement in the case where it is impossible for the Contractor to meet the deadline for execution of the agreement for reasons beyond the control of the Contractor;
 - c) in the event of force majeure, such as occurrence of a random event caused by external factors, which could not have been predicted with certainty, in particular, a direct threat to life or health of people or risk of significant damage;
 - d) changes to the agreement are necessary due to the changes in the relevant legislation;
 - e) changes to the agreement are necessary due to actions taken by the administrative bodies or institutions authorized to issue decisions or other commanding or supervisory acts related to the delivery of the object of agreement.

§ 9

The Contractor may not assign claims arising from this agreement to a third party without the written consent of the Contracting Authority.

§ 10

Any disputes arising in connection with the execution of this agreement shall be settled by negotiation and in the case of failure to reach an agreement, disputes shall be settled in court by the court having jurisdiction over the Contracting Authority's registered office.

§ 11

- 1. The Parties agree that Polish law shall apply to the execution of this Agreement.
- 2. In matters not covered by the provisions of this Agreement the Polish Civil Code shall apply.

§ 12

- 1. The agreement was drawn up in three counterparts, 2 copies for the Contracting Authority and one copy for the Contractor.
- 2. In the case of the preparation and signing of the English version of the agreement, the Polish version is the basis for the interpretation of the agreement.

THE CONTRACTING AUTHORITY

THE CONTRACTOR

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Appendices to the Agreement:

- Appendix No. 1 Required elements of the platform
- Appendix No. 2 the Bid form
- Appendix No. 3 the Technical Description of offered platform

Appendix No. 4 – the Technical Specifications of offered devices (elements of the platform)

REQUIRED ELEMENTS OF THE PLATFORM

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 μ rad; 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 μ M, resolution < 1 μ M, accuracy < 8 μ M 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 twoway 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.