

## **PART A: INFORMATION FOR TENDERER**

|  |  |
|--|--|
| Name and address of the Contracting Authority: | <b>DOO "MECOnet", Podgorica – Kralja Nikole br. 301, Podgorica</b>                       |
| Project name:                                  | <b>Artificial intelligence platform to prevent Climate change natural hazArds – ARCA</b> |
| Project number:                                | <b>IPA-ADRION00107</b>   |
| Title of the tender:                           | <b>LIDAR drone recording services</b>  |
| Reference number:                              | <b>IPA-ADRION00107 -ARCA / MCN/PP7</b>   |

### **THIS DOCUMENT CONTAINS THE FOLLOWING PARTS:**

|   |    |
|---|----|
| INSTRUCTIONS TO TENDERERS   | 2  |
| 1. INFORMATION ON SUBMISSION OF THE TENDERS                                 | 2  |
| 2. TECHNICAL INFORMATION  | 3  |
| 3. FINANCIAL INFORMATION  | 3  |
| 4. ADDITIONAL INFORMATION   | 3  |
| SERVICES REQUIRED   | 5  |
| 1. PROJECT SUMMARY  | 5  |
| 2. DESCRIPTION OF ASSIGNMENT  | 5  |
| 3. REQUESTED SERVICES AND DELIVERABLES                                      | 6  |
| 4. LOCATION AND DURATION  | 8  |
| 5. REPORTING  | 8  |
| FORMAT OF THE CONTRACT BETWEEN THE CONTRACTOR AND THE CONTRACTING AUTHORITY | 9  |
| ADMINISTRATIVE COMPLIANCE GRID  | 12 |
| EVALUATION GRID – GLOBAL PRICE CONTRACT                                     | 13 |

# INSTRUCTIONS TO TENDERERS

## 1. INFORMATION ON SUBMISSION OF THE TENDERS

### Subject of the contract:

The subject of this tender is:

- **Implementation of services** as indicated in the technical information in the part “Services required” of this document.

### Participation:

Participation in this tender procedure is open only to the invited tenderers.

Natural or legal persons are not entitled to participate in this tender procedure or be awarded a contract if they are any of the situations mentioned in Sections 2.4. (EU restrictive measures), 2.6.10.1. (exclusion criteria) or 2.6.10.1.1. (rejection from a procedure) of the Practical Guide<sup>1</sup>. Should they do so, their tender will be considered unsuitable or irregular respectively.

### Deadline for submission of the tenders:

The deadline for submission of tenders is **May 15<sup>th</sup>, 2026. at 15:00 hours** (local time, Montenegro). Any tender received after this deadline will be automatically rejected.

### Content of the tender:

The tender will be submitted in **1 original (scanned)**.

The tenderers will submit their tenders in English using the:

- **Standard tender submission form and technical offer available in the Part B of the tender dossier AND**
- **Financial offer available in the Part C of this tender dossier.**

### Address and meanings for submission of the tenders:

- Subject of the e-mail: **LIDAR drone recording services - IPA-ADRION00107 -ARCA / MCN/PP7**
- The tender will be submitted by e-mail on the following address:  
[meconet.me@gmail.com](mailto:meconet.me@gmail.com)

The tenderers are reminded that in order to be eligible the tenders need to be received by the Contracting Authority by the deadline indicated above.

## 2. TECHNICAL INFORMATION

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<sup>1</sup> Procurement and Grants for European Union external actions-A Practical Guide, <https://ec.europa.eu/europeaid/frag/>

The tenderers are required to provide services as indicated in chapter "Required services" of this document.

### 3. FINANCIAL INFORMATION

The financial offer must be presented in EURO using the template available in the Part C of this tender dossier.

This is a global price contract. Maximum budget available for this contract is **5.000 EUR (NETO, VAT excluded)**. Maximum budget refers to the maximum amount available for implementation of described services.

Payments under this contract will be made in the currency of the tender - EUR.

### 4. ADDITIONAL INFORMATION

If tenderers have to request additional information during the procedure, they may submit questions in writing to the following address up to **May 12<sup>th</sup>, 2026 at 15:00 hours** (local time, Montenegro), specifying the reference number and the title of the tender:

Anka Ralević  
DOO »MECOnet« Podgorica  
E-mail: [meconet.me@gmail.com](mailto:meconet.me@gmail.com)

The Contracting Authority has no obligation to provide clarification after this date. Last date for the Contracting Authority to issue clarification is **May 13<sup>th</sup>, 2026 by 15:00 hours**.

#### **Selection criteria**

The following selection criteria will be applied to the tenderers. In the case of tenders submitted by a consortium, these selection criteria will be applied to the consortium as a whole.

#### **1) Technical capacity of tenderer.**

The reference period which will be taken into account will be the last three years preceding the submission deadline.

- the tenderer has provided services under at least one (1) contract in fields related to this contract which was implemented at any moment during the following period:  
7/5/2023 - 7/5/2026

The quality of each technical offer will be evaluated in accordance with the award criteria and the weighting detailed in the evaluation grid, which is included in Part A of this tender dossier. No other award criteria will be used.

Upon completion of the technical evaluation, the envelopes containing the financial offers for tenders that were not eliminated during the technical evaluation will be opened (i.e. those with an average score of 75 points or more). Tenders exceeding the maximum budget available for the contract are unacceptable and will be eliminated.

**The award criteria:** best price-quality ratio, established by weighing technical quality against price on an 80/20 basis.

The unsuccessful/successful tenderers will be informed of the results of the evaluation procedure in writing. The estimated time of response to the tenderers is 3 days from the deadline for submission of tenders.

## SERVICES REQUIRED

### 1. PROJECT SUMMARY

The primary objective of the project **ARTificial intelligence platform to prevent Climate change natural hazArds (ARCA)** is to create a transnationally applicable platform through pilot initiatives in wooded areas, employing cutting-edge technologies to combat the risks posed by climate change-induced natural hazards. The project relies on advanced algorithms based on Machine Learning (ML) and diverse networks made of Internet of Things (IoT) sensors. These technological components work collaboratively to model specific forests and proactively mitigate the impact of natural hazards such as windstorms, drought, and wildfires. The **digital platform** comprises wireless sensor networks (WSNs), video cameras, **drones**, and LiDAR remote sensing, all contributing to a comprehensive forest modeling approach. A key action of the proposal is "to promote and encourage the development of transnationally designed innovations (technical and non-technical innovation, including services) through pilot and joint actions contributing to facing societal and environmental challenges like energy efficiency or climate change", through effective monitoring of forest sites located in the eligible areas.

By effectively monitoring eligible forest sites, the ARCA infrastructure aims to achieve, among others, the following goals: 1. Developing AI and machine learning algorithms for continuous monitoring of forest ecosystems and the formulation of climate adaptation scenarios. 2. Implementing a Decision Support System (DSS) for preventing natural hazards, enhancing resilience, and monitoring air quality.

In relation to these project goals, this particular procurement aims to realize the **execution of 5 flights via unmanned aerial vehicle (drone)**, which would directly serve to support the establishment of the described digital platform.

The **drone** recordings are directed to support aerial image and video acquisition in forest areas, to enable dedicated flight campaigns for testing and validating the project infrastructure, and to provide visual data inputs used in AI-based processing, analysis and demonstration of natural hazard monitoring solutions. The drone enhances the ARCA sensor network/digital platform by adding a mobile aerial layer that complements fixed sensors, supports testing and validation of the monitoring infrastructure, and contributes image and video data to shared AI-driven analysis of natural hazards.. The recordings will directly contribute to the operational deployment of the ARCA monitoring infrastructure and digital platform, by secure the collection of data needed to effectively establish the cross-border monitoring network, in collaboration with other project partners.

## 2. DESCRIPTION OF ASSIGNMENT

Results to be achieved by the Contractor:

- Conduct 5 flights with LiDAR-equipped drone(s) over the territory of National Park of Lovćen
- Deliver retrieved data in format suitable for further analysis, as defined in the service description.

## 3. REQUESTED SERVICES AND DELIVERABLES

The tenderers are required to provide services as indicated below. In the tenderer's technical offer, the tenderers will indicate more details on the deliveries, referring back to the table below.

| <b>Service 1</b> |  |
|------------------|--|
| Title            | <b>LIDAR drone recording services</b>  |
| Description      | <p><b>Service description</b></p> <p>The Contractor shall <b>perform 5 LiDAR drone data acquisition flights</b> over the territory of National Park Lovćen in order to collect high-resolution georeferenced LiDAR data.</p> <p><b>Scope of work</b></p> <p>The Contractor shall:</p> <p><b>1. Plan and execute LiDAR drone flights</b></p> <ul style="list-style-type: none"> <li>• Perform a minimum of <b>5 drone flight missions</b>, or as required to cover the target area</li> <li>• Cover a total area of approximately <b>10 km<sup>2</sup></b> (minimum acceptable coverage: 8 km<sup>2</sup>), defined by the Contracting Authority</li> <li>• Ensure proper flight planning to achieve required overlap and coverage</li> </ul> <p><b>2. Acquire LiDAR data</b></p> <ul style="list-style-type: none"> <li>• Use a <b>LiDAR-equipped UAV system</b> suitable for high-resolution vegetation and terrain mapping ( e.g., DJI Zenmuse L1, L2, or equivalent).</li> <li>• Ensure the following minimum technical parameters: <ul style="list-style-type: none"> <li>o Point density: <b>≥ 100 points/m<sup>2</sup></b></li> <li>o Vertical accuracy: <b>≤ 10 cm RMSE</b></li> <li>o Horizontal accuracy: <b>≤ 20 cm</b></li> <li>o Flight overlap: <b>≥ 50%</b></li> <li>o Scan angle: <b>≤ 30°</b></li> </ul> </li> <li>• Perform <b>GNSS-supported georeferencing (RTK or PPK)</b></li> </ul> <p><b>3. Perform basic LiDAR data processing</b></p> <ul style="list-style-type: none"> <li>• Process trajectory and georeferencing data</li> <li>• Generate a <b>georeferenced LiDAR point cloud</b></li> <li>• Perform <b>basic classification</b> of the point cloud (ground, vegetation, other)</li> </ul> |

- Apply basic noise filtering

#### 4. Deliver LiDAR datasets

The Contractor shall deliver:

- **Unclassified (raw) LiDAR point cloud** (.las / .laz)
- **Classified LiDAR point cloud** (.las / .laz)
- **Digital Elevation Model (DEM)** – GeoTIFF
- **Digital Surface Model (DSM)** – GeoTIFF

As well as:

- Canopy Height Model (CHM) derived from DSM and DEM (GeoTIFF, 0.5–1 m resolution)
- Classified point cloud according to ASPRS standard, including ground and vegetation subclasses (e.g. low, medium, high vegetation)
- Basic vegetation metrics derived from LiDAR data, including canopy cover (%) and point density per grid cell

All datasets must:

- Be georeferenced in **UTM Zone 34N (WGS84 / EPSG:32634)**
- Have spatial resolution of **0.5 m – 1 m** (for raster products)

#### 5. Provide raw and supporting data

The Contractor shall also deliver:

- GNSS/IMU trajectory data
- Flight logs and mission data
- All necessary files required to enable independent reprocessing of the dataset

All data must be delivered:

- All data shall be delivered without encryption, proprietary restrictions, or licensing limitations that would prevent full independent use, processing, or redistribution by the Contracting Authority.

All data shall be delivered in a structured folder hierarchy separating raw data, processed data, and metadata

#### 6. Provide metadata

The Contractor shall provide a metadata file including:

- Acquisition date and time
- Sensor and LiDAR system specifications
- Flight parameters (altitude, speed, overlap, scan angle)
- Coordinate system and projection
- Point density and accuracy metrics

|                     |   |
|---------------------|---|
|                     | <ul style="list-style-type: none"> <li>• Description of processing steps</li> </ul> <p><b>Quality Assurance</b></p> <p>If the required technical parameters (point density, accuracy, coverage) are not achieved, the Contractor shall repeat the data acquisition at no additional cost.</p> <p>The produced data will be transferred and delivered to the Contracting Authority.</p> <p>Data must be produced in English.</p> <p><b>Timeline</b></p> <ul style="list-style-type: none"> <li>• Field data acquisition: <b>within 1 week</b></li> <li>• Data delivery: <b>within 2 weeks after acquisition</b></li> </ul> |
| Required time frame | 16 <sup>th</sup> May – 30 <sup>th</sup> June  |

**NOTE:**

- All of the above mentioned documents and report should be written in English and developed in compliance with publicity and visibility requirements of Interreg ADRION Programme.

**4. LOCATION AND DURATION**

Operational base for the project will be in Cetinje and Podgorica municipalities.

The intended start date is 16th of May 2026. and the period of implementation of the contract will be from the contract signature by both parties until 30th of June 2026.

**5. REPORTING**

Content, language, format and number of reports:

The contractor will submit the following reports in English in one original:

- **Final deliverable** as described in description of Service 1 (par. 3 of the Instructions) including: raw and classified LiDAR point clouds (.las/.laz), DEM and DSM (GeoTIFF), a CHM (0.5–1 m resolution), ASPRS-compliant classified data (including ground and vegetation subclasses), and vegetation metrics (canopy cover and point density), all georeferenced in UTM Zone 34N (WGS84 / EPSG:32634), together with GNSS/IMU data, flight logs, and all files necessary for independent reprocessing and other specifications described in Service description, in an open, unrestricted, and well-structured format with complete metadata, within 1 week for acquisition and 2 weeks for delivery, with mandatory re-acquisition at no additional cost if quality standards are not met.

Submission and approval of reports

The report referred to above will be submitted in hard and electronic copy to the Contracting Authority. The Contracting Authority is responsible for approving the reports.

# FORMAT OF THE CONTRACT BETWEEN THE CONTRACTOR AND THE CONTRACTING AUTHORITY

**PROJECT TITLE: ARTificial intelligence platform to prevent Climate change natural  
hazArds - ARCA**

**PROJECT No. IPA-ADRION00107**

**CONTRACT TITLE: LIDAR drone recording services**

**REF No: IPA-ADRION00107 -ARCA / MCN/PP7**

**Concluded between:**

**DOO "MECOnet"**

Podgorica, Kralja Nikole br. 301

(Contracting Authority)

AND

**Title**

**Address of the contractor**

**Reg.no.**

(Contractor)

## **Article 1: Subject of the contract**

The subject of the contract are the services as indicated in the contractor's offer - "Part B: Documents to be completed by the tenderer".

## **Article 2: Contract value**

This contract, established in Euro is a Global price contract.

The maximum total contract value for implementation of services indicated in the Article 1 is 5.000 EUR NETO.

## **Article 3: Contracting documents**

This documents which form the part of this contract are (by the order of precedence):

- Contract agreement
- Contractor's technical offer as provided in the tendering phase - "Part B: Documents to be completed by tenderer Technical offer"
- Contractor's financial offer as provided in the tendering phase "Part C: Documents to be completed by tenderer Financial offer"
- Declaration on honour

## **Article 4: General provisions**

The Contractor must comply with publicity and visibility requirements of Interreg ADRION Programme. For more information Contractor is advised to visit official website of the Programme: <https://www.adrioninterreg.eu/>

#### **Article 5: Deliveries and payments**

The Contractor will deliver without reservation the services indicated in the contractor's offer "Part B: Documents to be completed by tenderer". The deliveries will be implemented within the indicated dates.

The Contracting Authority will pay to the contractor the services in the amount indicated in the Article 2 of this contract document. The payments will be issued by the following time schedule.

| <b>Month/Year</b> |                        | <b>EUR</b>                          |
|-------------------|------------------------|-------------------------------------|
| <b>May 2025</b>   | <b>Initial payment</b> | <b>50% of financial offer</b>       |
| <b>June 2025</b>  | <b>Final payment</b>   | 50% of financial offer              |
|                   | <b>Total</b>           | < max 100 % of the contract value > |

The Contractor will provide Contracting Authority with the reports on execution of the Services as indicated in point 5 of chapter Services required within Single tender\_A\_Documents for information.

The Final payment will commence after the delivery and confirmation of the final deliverable by the Contractor.

#### **Article 6: Duration of the contract**

The duration of the contract is from contract signature by both parties until the 30<sup>th</sup> of June 2025.

#### **Article 7: Cancellation of the contract**

The contract can be suspended by the Contractor due to one of the following reasons:

- Contracting Authority not fulfilling payment and other obligations

The contract can be terminated by the Contracting Authority due to one of the following reasons:

- The Contractor is in serious breach of the contract, failing to meet contractual obligations
- The Contractor is bankrupted or being wound up, is having its affairs administrated by courts, has entered into arrangements with creditors, has suspended business activities, is the subject of proceedings concerning those matters, or is in any analogous situations arising from a similar situation provided for in national legislation or regulations

#### **Article 8: Resolving of disputes**

Any disputes arising out of or relating to this Contract which cannot be settled otherwise shall be referred to the exclusive jurisdiction of court in Podgorica in accordance with the legislation of the state of the Contracting Authority.

#### **Article 9: Other specific conditions applying to the contract**

Done in English in two originals, one original for the contracting authority and one original for the contractor.

**For the Contractor**

Name:

Title:

Signature:

Date:

**For the Contracting Authority**

Name:

Title:

Signature:

Date:

## ADMINISTRATIVE COMPLIANCE GRID

|                          |                                       |                    |  |
|--------------------------|---------------------------------------|--------------------|--|
| <b>Project acronym :</b> | <b>ARCA</b>                           | <b>Project no:</b> | <b>IPA-ADRION00107</b>                 |
| <b>Contract title :</b>  | <b>LIDAR drone recording services</b> | <b>REF No:</b>     | <b>IPA-ADRION00107 -ARCA / MCN/PP7</b> |

| Tender envelope number | Tenderer's name | Within deadline?<br>(Y/N) | Eligible nationality?<br>(Y/N) | Tender submission form duly completed?<br>(Y/N) | Language as required ?<br>(Y/N) | Documentation complete?<br>(Y/N) | Other administrative requirements of the tender dossier?<br>(Yes/No/Not applicable) | Overall decision?<br>(Accept / Reject) |
|------------------------|-----------------|---------------------------|--------------------------------|---|---------------------------------|----------------------------------|---|--|
| 1                      |                 |                           |                                |   |                                 |                                  |   |  |
| 2                      |                 |                           |                                |   |                                 |                                  |   |  |
| 3                      |                 |                           |                                |   |                                 |                                  |   |  |

## EVALUATION GRID – GLOBAL PRICE CONTRACT

|                          |                                |                    |                                 |
|--------------------------|--------------------------------|--------------------|---------------------------------|
| <b>Project acronym :</b> | ARCA                           | <b>Project no:</b> | IPA-ADRION00107                 |
| <b>Contract title :</b>  | LIDAR drone recording services | <b>REF No:</b>     | IPA-ADRION00107 -ARCA / MCN/PP7 |

| <b>Name of tenderer:</b>   | <b>Maximum</b> | <b>Score</b> |
|----------------------------|----------------|--------------|
| Rational                   | 20             |              |
| Strategy                   | 80             |              |
| <b>Overall total score</b> | <b>100</b>     |              |

|                   |  |
|-------------------|--|
| <b>Strengths</b>  |  |
| <b>Weaknesses</b> |  |

NB: Only tenders with average scores of at least 75 points qualify for the financial evaluation