

TERMS OF REFERENCE

Procurement of Research Expert Services

Preparation of a Research Paper

"Technological Innovation and AI Readiness in Aquaculture: Armenia in the Context of the Black Sea Basin"

1. Background

The International Center for Agribusiness Research and Education (ICARE) Foundation is implementing the **e-AQUAF (Smart Aqua Farming)** project under the **Interreg NEXT Black Sea Basin Programme 2021–2027**. The project is **exempt from Value Added Tax (VAT)**.

The project aims to promote sustainable and innovative aquaculture through the adoption of smart technologies, digital transformation, environmental monitoring and cross-border cooperation among Black Sea Basin countries.

Within the framework of the Project, ICARE Foundation intends to procure research expert services for the preparation of a comprehensive research paper assessing the current level of technological innovation and Artificial Intelligence (AI) readiness in Armenia's aquaculture sector and positioning Armenia within the broader Black Sea Basin context.

This procurement is open to both **individual experts** and **legal entities**, including consulting companies, and other organizations possessing the required qualifications and experience.

2. Objective of the Assignment

The objective of this assignment is to assess the level of technological innovation and readiness for the adoption of Artificial Intelligence (AI) and digital technologies in Armenia's aquaculture sector, while placing the findings within the broader context of the Black Sea Basin region.

The research will contribute to the project's joint research activities and provide evidence-based recommendations for strengthening innovation, digital transformation, sustainability, and cross-border cooperation in aquaculture.

3. Scope of Services

The selected expert shall:

- Review scientific literature, EU policies, strategic documents, and previous EU-funded projects related to smart aquaculture, AI, digital transformation, and environmental monitoring in the Black Sea Basin.
- Assess the current state of Armenia's aquaculture sector, including technological development, innovation capacity, digitalization, and AI readiness.
- Review international best practices and innovative technological solutions implemented in Black Sea Basin countries and other relevant regions.
- Conduct consultations and interviews with key stakeholders, including public authorities, universities, research institutions, fish producers, technology providers, and sector experts.
- Identify technological gaps, barriers, opportunities, and investment priorities for the adoption of AI-enabled smart aquaculture solutions.
- Compare Armenia's current situation with regional developments and identify opportunities for knowledge transfer and cross-border cooperation.

- Develop practical recommendations for policymakers, research organizations, and industry stakeholders to accelerate the digital transformation of the aquaculture sector.
 - Prepare a comprehensive research paper in English.
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4. Expected Deliverables

The selected expert shall provide:

- Inception Report, including methodology and work plan;
 - Literature review and analysis of previous EU aquaculture projects;
 - Stakeholder consultation summary;
 - Draft research paper for review;
 - Final research paper incorporating comments received from ICARE Foundation and project partners.
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5. Indicative Structure of the Research Paper

The paper shall include, as a minimum:

1. Executive Summary
 2. Introduction
 3. Methodology
 4. Overview of Technological Innovation and AI in Black Sea Basin Aquaculture
 5. Review of Previous EU Aquaculture Projects
 6. Current Status of Armenian Aquaculture
 7. Assessment of AI Readiness
 8. Stakeholder Needs Assessment
 9. Comparative Regional Analysis
 10. Recommendations
 11. Conclusions
 12. References
 13. Annexes (where applicable)
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6. Duration of the Assignment

The assignment shall be completed within **three (3) months** from the date of contract signature.

7. Required Qualifications

Applicants shall possess:

- An advanced university degree in aquaculture, fisheries, environmental sciences, agriculture, engineering, information technologies, artificial intelligence, economics, or a related discipline.
- At least five years of professional experience in research, policy analysis, or analytical studies.
- Proven experience in aquaculture, digital technologies, AI applications, environmental monitoring, or innovation ecosystems.
- Experience in preparing research papers, analytical reports, or scientific publications.
- Excellent analytical, research, and academic writing skills in English.
- Previous experience in EU-funded or international research projects will be considered an advantage.

Where the Applicant is a legal entity, the proposed expert(s) shall collectively satisfy these requirements.

8. Eligibility

This procurement is open to:

- individual consultants;
 - consulting companies;
 - other eligible legal entities.
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9. Submission Requirements

Applicants shall submit:

- Technical Proposal describing the proposed methodology and implementation approach;
 - Financial Proposal using the prescribed Financial Proposal Form;
 - Curriculum Vitae of the proposed expert(s);
 - List of comparable assignments completed during the previous five years;
 - At least two examples of comparable research papers, analytical reports or scientific publications;
 - Declaration on Honour;
 - Company Registration Certificate (for legal entities only).
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10. Reporting Arrangements

The selected expert shall work under the supervision of ICARE Foundation and in close cooperation with the Project partners.

Draft deliverables shall be reviewed by ICARE Foundation before acceptance.

11. Payment Terms

Payments shall be made upon satisfactory completion and acceptance of the deliverables specified in the Contract.

The payment schedule shall be defined in the Contract.

12. Intellectual Property Rights

All reports, studies, analyses, datasets and other materials prepared under this assignment shall become the exclusive property of ICARE Foundation and the Project.

The selected expert shall not publish or distribute any outputs without prior written approval from ICARE Foundation.

13. Confidentiality

The Contractor shall treat all information received during the implementation of the assignment as confidential and shall not disclose such information to third parties without prior written consent from ICARE Foundation.

14. Conflict of Interest

Applicants shall disclose any actual, potential or perceived conflict of interest that could affect the impartial performance of the assignment.

15. Clarifications

Requests for clarification shall be submitted no later than the deadline indicated in the Tender Announcement. Clarifications that may affect the preparation of proposals shall be communicated to all interested applicants.

16. Additional Information

The selected expert will work under the supervision of ICARE Foundation and in close coordination with the project's research partners. The findings of this research will constitute ICARE's contribution to the joint research outputs of the e-AQUAF project and will support the preparation of the project's comprehensive cross-border report and subsequent scientific publications.

ICARE Foundation reserves the right to accept or reject any proposal, in whole or in part, without assigning any reason, in accordance with the procurement rules of the Interreg NEXT Black Sea Basin Programme.