

Terms of Reference

and Instruction to Tenderers

Consultancy services for development of IT tool in DRR
to enhance data interoperability between municipalities

Reference number: COVALEX – TD02

I. Background

The Network of Associations of Local Authorities of South East Europe (NALAS), within the European Union-funded project Community of Valued Experts in Hydrometeorological and Technological Multi-Hazards (COVALEX), requests proposals from interested consultants for development of an Information Technology (IT) tool for disaster risk reduction (DRR) to enhance data interoperability between municipalities.

The COVALEX aims to strengthen cooperation and risk management in the face of hydrometeorological events and hydrometeorological multi-hazard events with goal to bridge the gap between first responders (practitioners), civil protection authorities, municipalities and scientific institutions and to foster their collaboration through integrated and coordinated approaches to mitigate vulnerabilities.

The project is implemented by NALAS in consortium with University of A Coruna (Lead partner), CIMA Foundation, Italian Red Cross, Greek General Secretariat for Civil Protection and Disaster Competence Network Austria. The project implementation period is from January 2023 to December 2024.

NALAS, which brings together 13 local government associations (LGAs) that represent roughly 7000 local authorities in the region of South-East Europe (SEE), is working on supporting LGAs and its members in becoming more resilient. NALAS serves as a hub for knowledge sharing, experiences, and providing training for local government authorities. Our geographical coverage includes areas affected by climate change impacts, and local governments are always on the frontline of action. Their preparedness in assessing vulnerability and implementing climate adaptation measures is highly needed.

The current landscape of municipal disaster management processes is often hampered by fragmented data systems, lack of interoperability between tools, and limited collaboration across different municipal departments and external partners. This results in misunderstandings, inefficiencies, delays in response times, ambiguous responsibilities, and suboptimal decision-making during critical events.

Diverse sources of data from real-time sensor and GIS systems, such as exposure and vulnerability mapping, satellite and drone imagery, and emergency response plans, are typically siloed. This makes it difficult to generate comprehensive situational awareness and actionable insights.

To address these challenges, a collaborative IT tool is essential. Such a tool would not only consolidate various data source but would also ensures data interoperability, enabling real-time data sharing, visualization, and analysis across different stakeholders. This tool would facilitate coordination between municipal departments, external partners, and the public, as well as support intermunicipal and cross-border cooperation, providing a shared platform that supports informed decision-making, enhances situational awareness, and improves the overall efficiency of disaster management efforts.

It is argued that developing the new tool should serve the purpose of disaster mitigation. The underlying assumption is that a solid data management process in mitigation will create the necessary preconditions for effectively addressing all the other phases of the disaster risk management cycle – preparedness, response and recovery.

Therefore, NALAS invites consultants with relevant experience and expertise to submit proposals for consultancy services for development of an Information Technology (IT) tool for disaster risk reduction (DRR) to enhance data interoperability between municipalities. This includes teams of experts for IT tool development (Lot 1) and companies for supporting IT tool development and quality control (Lot 2).

II. Objectives

The objective of this assignment is to develop a web-based, open-source, versatile, and user-friendly IT based tool designed for municipal use.

Primary Objectives:

1. **Consolidate disaster-related information:** Gather and organize a wide range of existing disaster-related documents and datasets into a standardized format, specifying their source and domain.
2. **Address data gaps:** Compensate for missing data by patching gaps and updating information from global open-source data systems.
3. **Provide comprehensive risk assessments:** Integrate GIS mapping, risk assessment tools, Joint Research Center (JRC) tools, and satellite remote sensing data to offer comprehensive risk assessments.
4. **Ensure interoperability:** Support common Internet Relay Chat (IRC) protocols and interoperability standards to facilitate integration with other municipal systems and external data sources.
5. **Facilitate risk and crisis communication:** Enable effective risk and two-way crisis communication, including crowdsourcing, false information monitoring, and intervention.
6. **Support decision-making:** Provide visualized data, risk scenarios, and actionable insights to support sound decision-making processes.

Secondary Objectives:

1. **Focus on local and cross-border areas:** Support both EU and non-EU municipalities and communities in the SEE region in their disaster risk management (DRM) efforts.

2. **Improve ownership, trust, and cooperation:** Combine local and national data with other available datasets and open sources (e.g. EU and global geospatial and meteorological data such as CORINE) to enhance ownership, trust, and cooperation.
3. **Build the stakeholder ecosystem:** Foster collaboration and engagement among EU, national, regional, and local stakeholders.
4. **Stimulate data exchange:** Facilitate future coordinated efforts and data exchange actions to ensure easy and secure data sharing among stakeholders.
5. **Create added value:** Ensure that all stakeholders benefit from collaborations and data exchange.

III. Functional requirements

General Requirements

- **Multi-hazard Risk Assessment:** The tool should be capable of assessing risks from various hazards, including their interactions, with a focus on mitigating hydrometeorological hazards at the local level.
- **Data Interoperability:** The tool should support the integration of data from diverse sources, including real-time sensor data, GIS systems, satellite imagery, and emergency response plans.
- **User Roles and Permissions:** The tool should have a web portal with various user roles, such as administrative roles, user roles for local governments, and a viewer role for citizens
- **Data Uploading and Management:** Local governments should be able to upload and manage various types of data, including files, documents, and maps.
- **Data Visualization and Analysis:** The tool should provide functionalities for visualizing and analyzing integrated data to support decision-making.
- **Public Engagement:** The tool should provide a means for citizens to access and understand information about the situation and vulnerability of their area through open data, including textual files, PDFs, interactive maps, and satellite data.

Specific Functional Requirements

- **Data Conversion and Formatting:** The tool should be able to convert and format data from municipal plans and documents into a standardized, machine-readable format for further visualization and integration.
- **Plan Overlap Visualization:** The tool should be able to display overlapping plans —such as urban plans, preparedness plans, and risk plans—on an operational map for a municipality or cross-border region. This will (e.g., urban plan, preparedness plan, risk plan) on a map to demonstrate the importance of data interoperability for creating a big picture in the events.
- **Cross-Border Operational Map:** The tool should provide a common, cross-border operational map that integrates municipal open and shared data relevant to decision-making processes.
- **Mobile Crowdsourcing:** The tool should have a mobile application for gathering crowdsourced data during emergency events, including text files and pictures with geolocation.
- **Crowdsourcing Data Visualization:** The tool should be able to display crowdsourced data as a separate layer on the operational map.

Relying on Artificial Intelligence

If assessed feasible, the IT tool could be/should be Artificial Intelligence (AI) based. The initial assumption is that by using AI (e.g. machine learning, large language models) the tool could significantly enhance data interoperability and the overall municipal disaster management by automating processes, and improving data collection, patching, standardization and formatting from global public datasets. Furthermore, it could foster collaboration across sectors by accelerating the analytical work and ultimately decision-making.

IV. Non-Functional Requirements

Performance

- **Response Time:** The tool should respond quickly to user interactions and data requests, especially during critical situations.
- **Scalability:** The tool should be able to handle increasing workloads and data volumes as the municipality and data sources grow.
- **Reliability:** The tool should be highly reliable and avoid downtime, particularly during emergencies.

Usability

- **User Friendliness:** The interface should be intuitive and easy to use for both technical and non-technical users.
- **Accessibility:** The tool should comply with accessibility standards (including the current WCAG) to ensure usability for individuals with disabilities.
- **Language Support:** The tool should support multiple languages to accommodate diverse user populations.

Security

- **Data Privacy:** The tool should protect sensitive data from unauthorized access, modification, or disclosure.
- **Data Integrity:** The tool should ensure the accuracy and consistency of data.
- **Cybersecurity:** The tool should implement robust security measures to protect against cyber threats.

Maintainability

- **Modularity:** The tool should be designed in a modular way to facilitate updates, maintenance, and future enhancements.
- **Documentation:** Comprehensive documentation should be provided for developers, administrators, and end-users.
- **Extensibility:** The tool should be extensible to accommodate new features and functionalities.

Reliability and Availability

- **Uptime:** The tool should have a high uptime to ensure availability during critical situations.
- **Disaster Recovery:** The tool should have a disaster recovery plan to minimize downtime in case of failures or disruptions.

Interoperability

- **Integration:** The tool should seamlessly integrate with existing municipal systems and external data sources.
- **Standards Compliance:** The tool should adhere to relevant industry standards and protocols.

Performance

- **Load Balancing:** The tool should be able to distribute workloads across multiple servers to improve performance and scalability.
- **Caching:** The tool should utilize caching mechanisms to reduce response times and improve performance.

V. Technical specifications of the IT tool

- **Platform and accessibility**
 - **Web-based and open source:** Accessible via common web browsers without installation or specific hardware requirements.
 - **Lightweight:** Optimized for use in areas with poor internet connectivity.
 - **Responsive Design:** Compatible with various devices (desktop, tablet, phone).
 - **Multilingual:** Supports multiple languages to accommodate all municipalities in Southeast Europe. Main language should be English; however, the tool should provide additional languages to be added and the tool to be localized accordingly.
 - **Intuitive Dashboard:** Provides a user-friendly interface for visualizing data (text, documents, maps, tables, charts).
 - **Accessibility Features:** Includes features for users with disabilities (e.g., colour contrast, screen reader, keyboard navigation).
- **Data integration and interoperability**
 - **Data Collection and Standardization:** Collects data and standardizes its format, including metadata, domains, sources, standards, and integration processes.
 - **Data Patching:** Updates and patches data from open and global datasets to address data gaps.
 - **Interoperability:** Adheres to interoperability standards and the IRC protocol framework for seamless communication and data sharing.
 - **GIS and JRC Integration:** Integrates GIS and JRC tools for mapping, remote sensing, and visualizing spatial and satellite data related to risks, vulnerabilities, impacts, and resources on interactive maps. It should also enable the overlay of various datasets from different municipalities on the same map.
 - **Real-Time Monitoring:** Enables real-time monitoring and early warning systems.
- **Crowdsourcing and citizen engagement**
 - **Real-time Grassroot Data Collection:** Allows citizens to report updates and warnings on local conditions (e.g. observations, concerns and needs), in order to provide municipalities with a ground-level overview of the ongoing situation.
 - **Information Monitoring:** Monitors the spread of reliable information and provides accurate, verified updates by municipality if false information is detected.

- **Feedback System:** Includes an integrated feedback system for user input and suggestions.
- **Support and Maintenance**
 - **Technical Documentation:** Provides technical documentation and user manuals for tool operation, maintenance and integration with other systems.
 - **Training Programs:** Designs training programs and materials tailored to different end-users (within municipalities and citizens).
 - **Tool Maintenance:** Ensures the tool's functionality through regular updates.
- **Optional: Artificial Intelligence (AI) integration**
 - **Machine Learning:** Utilizes machine learning algorithms for tasks such as data standardization, analysis, and risk scenario modeling, with potential applications for forecasting, pattern detection, risk prediction, and generating actionable insights and recommendations.
 - **Large Language Models:** Employs large language models for generating reports (e.g., daily risk assessments and situational updates) and summarizing extensive amounts of input into comprehensible formats for decision-makers.
 - **AI Transparency:** Ensures transparency in AI processes to maintain trust and ethical decision-making.

VI. Deliverables

Primary Deliverables

- **Functional IT Tool:** A fully functional tool that meets, or exceeds, all business (as specified in the objectives), functional, non-functional, and technical requirements. The tool is an open-source, web-based application that supports data collection, conversion, standardization, risk assessment, GIS mapping, and integration with various data sources, including risk calculators, JRC tools, and satellite mapping sources.
- **Data Integration Plan:** A comprehensive plan outlining data sources, standards, and integration processes for the tool.
- **Interoperability Framework:** An interoperability and IRC protocol framework to ensure seamless communication and data sharing.
- **Pilot Test Reports:** Reports from at least two municipalities (including two for risk mitigation and two in a cross-border area) detailing findings, recommendations, and documentation for future policy papers and standards.
- **Training Programs:** Tailored training programs and materials for different user groups within the municipality.
- **Technical Documentation:** User manuals and technical documentation for tool operation and maintenance.
- **Support and Maintenance Plan:** A plan to ensure ongoing tool functionality and updates.

Secondary Deliverables (Optional)

- **Risk Assessment Methodologies:** Developed or adapted risk assessment methodologies specific to the target region or application.

- **Data Quality Standards:** Established data quality standards and guidelines for data collection, storage, and use.
- **Best Practices:** Documentation of best practices for using the tool and integrating it into existing municipal workflows.
- **Case Studies:** Case studies demonstrating the tool's effectiveness in real-world scenarios.
- **Policy Recommendations:** Recommendations for policies or regulations related to disaster risk management based on tool findings.

VII. Monitoring, evaluating and learning

The Quality control processes will ensure that the design, planning, and execution of all project activities are moving towards the objectives outlined in the contract of the development of the IT tool. This will be achieved through a comprehensive quality assessment as a key monitoring activity that focuses on the processes involved in implementing the project, beginning at the project's inception and continuing through its design, planning, execution, and final reporting.

In addition, there could be an option in the tool for the users to give feedback, either the same survey, or just a question about overall satisfaction, or leave a comment.

For ensuring that the IT tool will reach its objectives and supports the municipalities with integrated data management and improved capacities for disaster risk management the following monitoring indicators will be measured:

- **About the tool:**
 - User-friendliness

How easy is it to find and launch the tool?
How easy is the navigation throughout the dashboard?
How intuitive is its interface?
Should there be a tutorial for new users?
Overall, is the tool user-friendly?
 - Accessibility

Does the tool follow the current Web Content Accessibility Guidelines (WCAG)?
Is the tool accessible in different local languages? Satisfaction
Is the tool efficient for completing the wanted tasks? Is it flexible with different functionalities?
 - Overall satisfaction.

Is the tool efficient for completing the wanted tasks?
Is it flexible with different functionalities?
What is the overall satisfaction?
- **About information produced by the tool:**
 - Understanding of the dashboard

Is it visually clear?
Is the information displayed about rescue plans (statistics, maps, charts...) understandable?
 - Access to open data

Percentage of municipalities with enough data (geographical, demographics, vulnerability and criticality, etc.).

Is the data up to date?

Is it transparent with, e.g., the sources and uncertainty of the data?

- **The application of the tool:**

Number of connections to the tool.

Number of crowdsourcing inputs.

Interoperability assessment methods (Interoperability maturity models...).

Required time for risk assessment calculations and risk scenario visualization.

Quantity and quality of data standardized, patched and/or updated from global datasets.

- **About the outcomes:**

- Scenario-based exercises, trainings, and science to civil protection workshops

Number (or percentage) of activities done with the tool.

Required time to set up and use the tool during them.

- Dialogue and cooperation among scientific members, technical specialists, policymakers, first responders, and local communities

Number of stakeholders attending the abovementioned activities.

Percentage of those who participate in the discussions with the tool.

Equality and inclusiveness of the discussions between the types of stakeholders (e.g. speaking time repartition, minorities and community-level actors engaging).

Is the tool apt for cross-platform utilization?

How easy is it to share information with other users? And to translate the information to decision-makers?

Percentage of information and knowledge disseminated through the Knowledge Network online platform thanks to the tool.

- Decision-making

Number of decisions made thanks to the use of the tool.

Number of agreements reached and their nature (e.g. informal, legally-binding, etc.).

Number of new governance strategies.

Future policy papers and recommendations from NALAS.

VIII. Scope of work

8.1. Assignment duration: the system should be installed, available on the web, and piloting completed **no later than December 16, 2024**.

8.2. The assignment is divided into 2 Lots: **Lot 1 IT tool development** and **Lot 2 Support to IT tool development and quality control**.

8.3. Steering structure: A liaison group or steering committee will be formed consisting of personnel from the Client and from the selected Consultants. The liaison group will meet at regular intervals to discuss assignment progress, piloting progress and further requirements.

8.4. Activities: The following activities are identified to be carried out

Activity 0: Preparatory activities

The Consultants (Lot 1 and Lot 2) will submit inception reports, within one week after the start of the implementation, summarizing initial findings, progress in collecting data, any difficulties encountered or expected. The Consultants (Lot 1 and Lot 2) will participate in the preparatory talks with the NALAS staff and COVALEX project partners for clarification of background and target groups, discussion of expectations, roles, tasks and deliverables, and coordination regarding time planning.

Deliverables: Inception reports Lot 1 and Lot 2, each with a maximum of 10 pages. Operational plan with a clear division of tasks and roles for the Consultants, including monitoring and quality assurance.

Activity 1: IT Tool Specifications and Approval

The Lot 1 Consultants, supported by the Lot 2 Consultant, will propose a detailed IT tool model and ICT specifications for implementing that model. Both the conceptual model and the system specifications will be open for negotiations until approved by the Client.

Deliverable: Approved IT tool model and specifications.

Activity 2: IT Tool Development

Based on the approved specifications, the Lot 1 Consultants will proceed to develop the IT tool solution to support the proposed model. Regular coordination and consultations will be carried out with the Lot 2 Consultant to tailor the tool to the specific context and needs of local governments in DRR. Lot 2 Consultant will develop approach for monitoring and quality assurance, with management tools for ensuring that the IT tool will reach its objectives and supports the municipalities with integrated data management and improved capacities for disaster risk management

Deliverables: Developed draft IT tool. Approved monitoring and quality assurance approach and tools.

Activity 3: IT Tool Testing on Pilot Data

The Consultants will obtain appropriate information from at least two Pilot Municipalities (identified by the Client) according to the prepared questionnaires and run the IT Tool using different scenarios. The Lot 1 Consultants will prepare technical part, while the Lot 2 Consultant prepare thematic part of the questionnaires. The Consultants (Lot 1 and Lot 2) will propose the approach, jointly coordinate the process of testing and piloting the Tool, and prepare respective reports with recommendations for improvements.

Deliverable: Report from piloting the IT tool with lessons learnt and recommendations for improvement.

Activity 4: IT Tool Acceptance

The Consultants (Lot 1 and Lot 2) will present the tool using the Pilot Municipal data (on one or two events) and seek approval of the tool.

Deliverable: Accepted IT tool.

Activity 5: IT Tool Installation and User/Training materials

Once approved, the Lot 1 Consultants will hand over the IT Tool. The Lot 2 Consultant will confirm the quality of the installed IT Tool. All source code shall be provided, and ownership will be transferred to the Client. The Lot 1 Consultants will develop user and training materials, with DRM thematic contributions from the Lot 2 Consultant. The Lot 1 Consultants will also prepare business plan scenarios for the operation and maintenance of the tool, including a financial estimation of associated annual costs.

Deliverables: Installed IT tool available on the web, user and training materials, and operation and maintenance plan.

Activity 6: Final Report with all related outputs

The Consultants (Lot 1 and Lot 2) shall submit Final Reports, along with all related outputs to the Client for review and approval. The Final Reports must include observations on any problems or risks encountered, as well as recommendations for improvements, additional activities, and risk mitigation actions.

Deliverables: Final Reports Lot 1 and Lot 2, each with a maximum of 15 pages, excluding annexes.

The Consultants (Lot 1 and Lot 2) must provide the human resources necessary for the implementation, test and pilot. The testing and piloting should include at least 2 local governments from the NALAS member associations. In order to finalise the tool a consultative process should be performed with the pilot Local Governments.

8.5. Warranty: The IT tool will remain under warranty and maintenance for at least 1 year. Any defects, including, but not limited to, functional, security, performance and visual flaws are to be fixed and deployed free of charge to all pilots and users.

IX. Instructions to Tenderers

9.1. Preparation of Proposal

9.1.1. The following format and sequence should be followed in order to provide consistency in Consultants' responses and to ensure each proposal receives full and fair consideration. All pages should be consecutively numbered.

9.1.2. Technical Offer:

- Cover Page, showing consultant's name, address and contact information.
- Tenderer's Declaration (Annex 1).
- Up to one page Letter of Introduction, signed by an authorized signatory.
- Table of Contents, including page numbers.
- Detailed description of understanding of assignment.
- A document for registered activity as evidence that the company (Lot 2) is registered as a legal entity for performing the activity related to the subject of the Services or evidence that

belongs to appropriate professional association in accordance with the regulations of the country where the company is registered.

- Legal Entity File (Lot 1 and Lot 2) (Annex 2).
- Current state of the Company, not older than 1 year (Lot 2).
- Duly authorised signature: an official document (statutes, power of attorney, notary statement, etc.) proving that the person who signs on behalf of the company is duly authorised to do so (Lot 2).
- Documents confirming the financial capability of the company (Lot 2).
- A completed financial identification form (Lot 1 and Lot 2) (Annex 3) to indicate the bank account into which payments should be made if the tender is successful.
- Understanding of IT Tool Requirements: Response to Client requirements as set in Chapters 3, 4, 5 and 6 of this document. A more detailed description of requested functionalities and deliverables is required as envisaged by the bidders for Lot 1.
- Understanding of Monitoring and Quality Control Requirements: Response to Client requirements as set in Chapters 3, 4, 5 and 7 of this document. A more detailed description of requested approach and deliverables is required as envisaged by the bidders for Lot 2.
- Recommended approach/methodology on how to realise the assignment (explanation of working steps in carrying out the activities mentioned above, including a section on interlinking the development of Lot 1 and Lot 2).
- Recommended approach with regard to project management, coordination of activities and communication (including potential meetings and media to use).
- Proposed operational plan (time line, milestones, meetings etc.).

9.1.3. Capacity Guarantee:

- Presentation of the Consultants (Lot 1 and Lot 2) and their suitability for the assignment including information such as:
 - Relevant experience of the Consultant in developing information systems for local governments.
 - Specialization of the Consultant, with specific reference to relevant experience in the DRR of hydrometeorological hazards at a local level.
 - Description of the team and provision of detailed CVs of the experts proposed to execute the assignment.
 - Proposed working days per activity and staff positions.
- A consultant Reference List (Lot 1 and Lot 2) (with references' names and contact details) with at least 3 similar tasks conducted.
- For Consortia (group offer) of Consultants (Lot 1), partnership document (signed by all partners) that clearly states the Team Leader and the roles and responsibilities of all consortia's parties.
- The expert's current employment status with the Company or in case of proposing external expert a pre-contract document specifying availability of the proposed expert (Lot 2).
- Declaration on honour on exclusion criteria and selection criteria (Lot 1 and Lot 2) (Annex 4).
- Signed Statement of Exclusivity and Availability (Annex 5) for each proposed expert.

9.1.4. Financial Offer:

- The Financial Offer should include the total budget for executing of the task (Lot 1 and Lot 2). The budget must provide a detailed breakdown of all activities, including the fee for each activity and staff positions.
- The Financial Offer for Lot 1 shall include a separate offer for each expert of the team.
- Additionally, the Lot 1 Team Leader should include financial offer for annual web hosting for the tool.
- Prices should be stated in EUR (gross amount). Any additional expenditures, such as VAT or other taxes, should be presented separately, if applicable.

9.1.5. Minimum Organisation and Consultancy Requirements:

For the realisation of the assignment under **Lot 1 IT Tool Development, a team (consortium) with group offer of three experts is required**. For realisation of the assignment under **Lot 2 Support to IT Tool Development and Quality Control, one expert proposed by a company is required**.

The applicant/s has/have to consider the following requirements with regard to proposed expert/s and his/her/their profiles.

LOT 1 – IT tool development

a) Senior ICT Specialist and Lot 1 Team Leader

Academic Qualification:

- A Master's degree or equivalent in Computer Science, Information Systems, Programming or related, with a proven experience in the field of ICT and ICT systems development and business analysis.
- A proven experience in project management is desired.

Experience:

- At least fifteen (15) years of relevant professional experience; Strong software development background (at least three projects) with emphasis on designing and establishing a relational database and web-based tools or systems.
- Experience in data interoperability, including integrating diverse data sources such as GIS, data exchange, and data relay and service integration.
- Proven track record of successful projects in DRM will be considered as an asset.
- 5 years working experience in European and South-East European countries, preferable in the project countries.
- Experience in working with at least 5 regional and/or international development organizations.

Competencies:

- Excellent research and analytical skills.
- Expertise in web-based software development frameworks and proficiency in programming languages.
- Strong knowledge in database management systems and spatial data.
- DevOps, System administration and Software Architecture knowledge is desired.

- Familiarity with DRM methodologies (e.g., Joint Research Center (JRC), risk calculators, scenario planning) will be an asset.
- Sound organizational, coordination and communication skills.
- Excellent presentation and facilitation skills.
- Excellent writing skills including technical reports, general reports.
- Excellent command on both written and spoken English.

b) Senior ICT Expert and Business Analyst

Academic Qualification:

- A Master's degree or equivalent in Computer Science, Information Systems, Programming or related, with a proven experience in the field of ICT and ICT systems development and business analysis.
- A proven experience in localized ICT systems development or project management is desired.

Experience:

- At least fifteen (15) years of relevant professional experience; Strong software development background (at least three projects) with emphasis on designing and establishing a relational database and web-based tools or systems.
- Experience in data interoperability, including integrating diverse data sources such as GIS or data exchange, and data relay and service integration.
- Proficiency in machine learning and large language models, with a focus on automating data standardization and analysis processes will be considered as an asset.
- Proficiency and proven experience in business analysis in local and EU projects.

Competencies:

- Expertise in web-based software development frameworks and proficiency in programming languages.
- Expertise in database development and database administration certification will be desired.
- Strong knowledge in database management systems and spatial data.
- Project management, be able to work with deadlines and available resources and appropriate project management tools.
- Communication, be able to translate technical information to non-technical stakeholders.
- Collaborative, be able to work with local stakeholders from different countries.
- Strong writing skills including technical reports, general reports.
- Excellent command on both written and spoken English.

c) ICT Expert

Academic Qualification:

- A Bachelor's degree or equivalent in Computer Science, Information Systems, Programming or related, with a proven experience in the field of ICT and ICT systems development.
- An advanced certification in databases administration/architecture or cybersecurity is desired.

Experience:

- At least ten (10) years of relevant professional experience; Strong software development background (at least three projects) with emphasis on designing and establishing a relational and web-based tools or systems.
- Experience in data interoperability, including integrating diverse data sources such as GIS, data exchange, and data relay and service integration.
- Proficiency in machine learning and large language models, with a focus on automating data standardization and analysis processes will be considered as an asset.

Competencies:

- Expertise in web-based software development frameworks and proficiency in programming languages.
- Strong knowledge in database management systems and spatial data.
- Business analysis, coordination with teams and be able to work with deadlines and available resources.
- Communication, be able to translate technical information to non-technical stakeholders.
- Collaborative, be able to work with local stakeholders from different countries.
- Excellent command on both written and spoken English.

LOT 2 - Support to IT tool development and quality control

a) Consulting Company

- At least 5 (five) years of experience in the DRM at the local level and experience in developing information systems for local stakeholders.
- The solid experience of the Company in the field of DRM.
- The Company has prepared/ executed at least 3 similar assignments.
- Experience in developing information systems for local level stakeholders will be considered as an asset.
- The Company has the necessary financial capacities, presented in the Company's annual financial report for 2023.

b) Senior Disaster Risk Management Specialist

Academic Qualification:

- Master's degree or equivalent in disaster risk management (DRM), management studies, public administration.
- Specific training/additional education relevant for the DRM will be considered as an asset.

Experience:

- At least 10 (ten) years of professional experience managing projects in the area of disaster risk management and development of the public sector services (local and national level).
- At least 8 (eight) years of regional experience in DRM, experience in European and South-East European countries, preferable in the project countries.
- Experience in writing analytical documents and reports, case studies, good practices. At least 3 studies prepared in DRM.
- Experience in working with at least 5 regional and/or international development organizations.

- Experience in working with local governments and/or local government associations in the countries of SEE region in the area of DRM. At least 3 initiatives implemented with the local governments from SEE.

Competencies:

- Excellent research and analytical skills.
- Proven qualifications with monitoring and evaluation of complex projects related to disaster risk management.
- Familiarity with DRM methodologies (e.g., Joint Research Center (JRC), risk calculators, scenario planning).
- Sound organizational, coordination and communication skills.
- Excellent presentation and facilitation skills.
- Excellent writing skills including technical reports, general reports.
- Excellent command on both written and spoken English.

NALAS strives to assure equitable representation of women and minorities in all its activities.

9.2. Submission of Proposals

To be considered, proposals must be received in electronic form not later than **20 September 2024 (Friday), 16:00 (CET)** at info@nalas.eu, with **Subject: Consultancy services for development of IT tool in DRR (Ref. no. COVALEX – TD02 for Lot 1 or Lot 2)**.

The proposal must clearly specify the Lot for which the offer is being submitted.

9.3. Enquiries

This ToR can be downloaded from the NALAS website at www.nalas.eu.

For any questions about the content of this ToR, please contact NALAS Project Manager, Mr. Miodrag Kolić at kolic@nalas.eu.

9.4. Evaluation Criteria and Scoring

Evaluation of proposals will be undertaken by NALAS Evaluation Committee. The proposals will be evaluated based on the following criteria:

- 40% Consultant's Profile: Consultant's expertise and experience for fulfilling the tasks under this ToR.
- 30% Technical Offer: proposed approach/methodology, solutions, work plan;
- 30% Financial Offer.

a) The Consultants' Capacities will be evaluated using the following criteria:

- Proposed Experts (CVs), Lot 1: Senior ICT Specialist and Lot 1 Team Leader (15 points), Senior ICT Expert and Business Analyst (15 points), and ICT Expert (10 points).
- Specialization of the Company with specific reference to relevant experience to this ToR, Lot 2 (16 points).
- Proposed Expert (CV), Lot 2 (24 points).

b) The Technical proposal will be evaluated using the following criteria:

- Adequacy of the proposed IT Tool solution (Lot 1) and Monitoring and Quality Assurance (Lot 2) in response to requirements set in this ToR (15 points).
 - Recommended approach/methodology (Lot 1 and Lot 2) (10 points).
 - Recommended approach with regard to project management, coordination of activities and communication and proposed operational plan (Lot 1 and Lot 2) (5 points).
- c) The financial offers will be evaluated on the following manner: the score allocated to the lowest offer will be 30 points, and to any other offers $(X/Y) \times 30$ points, where "X" is the price of the lowest offer and "Y" is the price of any other offer.

9.5. Available maximum budget

The available maximum budget for this call is up to 19,800.00 EUR in total (all taxes included), with the allocation being up to 13,900.00 EUR for Lot 1 and up to 5,900.00 EUR for Lot 2.

9.6. Negotiations

The Client reserves the right to negotiate specific terms of the contract with the short-listed Consultants prior to the final award of the contract. The Client intends to negotiate a contract with the Consultants, which secure the highest, overall weighted score for Lot 1 and Lot 2 as a result of the evaluation. Should it not be possible to finalize an agreement with those Consultants, negotiations will be terminated and the next highest rated Consultant will be invited. The Client also reserves the right to negotiate specific terms of the contract with the Consultants as the contract progresses.

9.7. Contract:

- The Consultants appointed for the assignments will be required to enter into a contract with the Client.
- Separate contracts will be signed: individual contracts with each of the three experts from the selected team for Lot 1, and one contract with the selected company for Lot 2.
- The contracts between the Client and selected Consultants will be signed under the Macedonian Laws.

9.8. General:

- The successful Consultants must submit the original application along with all annexes to the Client before the signing of the contract.
- All documents, including submitted proposals become the property of the Client. However, only the submissions by the successful Consultants will be used.
- No equipment is to be purchased on behalf of the Client as part of this service contract.
- Offers, all correspondence and documents related to the tender exchanged by the tenderer and the contracting authority must be written in English. Supporting documents and printed literature furnished by the tenderer may be in another language, provided they are accompanied by a translation into the language of the procedure. For the purposes of interpreting the tender, the language of the procedure has precedence.