Geneva International Centre for Humanitarian Demining
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Request for Offers

Introduction

The Geneva International Centre for Humanitarian Demining (GICHD) is pleased to invite consortia to submit a quotation for the provision of the description of the goods or the services described below as per requirements set out in this Request for Offers.

Reference number: RFO/2025/BAP/(01)

Project number: 1007

Posting date: 24 July 2025

Deadline for submission of the Request for Quotation form: 21 August 2025, 17:00 Geneva Time.

Country/ies of deployment: Remote-based, with potential engagement in select field contexts and occasional travel to Geneva and Luxembourg.

Currency: The quotation shall be presented in Swiss Francs (CHF)

Language: The quotation shall be submitted in English

Submit to: consultants@gichd.org

Scope of work

The Geneva International Centre for Humanitarian Demining (GICHD) is pleased to invite qualified consortia to submit offers for the design, development, and phased implementation of an innovative digital solution aimed at improving the identification of Explosive Ordnance (EO) in humanitarian contexts. The focus of this project is to deliver a functional, testable prototype that establishes a robust architecture for a full real-world deployment.

The project will deliver a collaborative 3D EO reference database, which will form the foundation for enhanced EO identification in humanitarian contexts. This database will integrate multiple data sources including 3D models, technical metadata, and image inputs through a data fusion approach, allowing users to interact with rich, multi-dimensional profiles of EO items.

This EO reference database will host validated content, including detailed metadata and high-quality 3D models, structured to support searchability, accuracy, and ease of use. This database will also lay the foundation for future innovations, such as using the EO database to help develop other image recognition tools for humanitarian work, improve training materials, and connect with other mine action systems used around the world.

Building on this EO reference database, the GICHD would like to develop an EO identification application, accessible via both desktop and mobile devices. The application will feature Artificial

Intelligence (AI)-assisted image recognition as a core function, allowing users to identify EO items by uploading images, in addition to browsing or manually searching through the reference entries.

The goal is to provide field users with a practical, intuitive tool to support faster, more accurate EO identification in real-world conditions. This will contribute directly to safer operations, improved data management, and long-term digital capacity in the mine action sector.

Given the multifaceted nature of the work, applicants must apply as consortia, combining the necessary expertise across software development, AI, user interface design, and sector-relevant domain knowledge.

Project Scope

The selected consortium will be responsible for designing, developing, and delivering a digital system that helps humanitarian professionals more easily and accurately identify EO in the field. The system will be built in two sequential phases:

Phase 1: Prototype (September–December 2025)

In this initial phase, the consortium is responsible for building a detailed system architecture, creation of a first working version of both the EO reference database and the EO identification application. The goal of this phase is to implement and test essential functions and gather feedback to guide future development.

Expected outputs include:

- A secure, online database with an API-ready architecture that contains a small sample of EO items (more information on data collection can be found below).
- A basic data fusion engine that combines 3D models, images, and metadata to generate unified EO item profiles for search, matching, and display purposes.
- Each EO entry should include detailed technical information (such as name, dimensions, type of fuse, and country of origin, etc.)
- A basic version of a user-friendly app, usable on both computers and mobile phones. This app should include and allow users:
    - Basic login system with defined roles (e.g., admin, contributor, viewer) to control access to sensitive features like uploading, editing, or validating content;
    - Searchable database with filters such as EO type or size;
    - View each entry's photos or 3D model and related technical information;
    - Upload a photo of an unknown item and receive automated suggestions of likely matches, using a built-in AI-powered image recognition feature;
    - Option to submit feedback if the suggested match is not correct or if the item isn't recognised.
- A structured testing process involving feedback from at least one national authority, one humanitarian organisation, and one explosive ordnance expert.
- A report outlining lessons learned and recommendations for improving the system.

Phase 2: Scaling and Roll-out (January–May 2026)

In the second phase, the project will expand the EO reference database and improve the features of the app based on feedback from the prototype phase.

Expected outputs include:

- A larger and more complete database that includes up to 400 different EO items
  - Multilingual support of information visualisation (initially English, French, and Arabic).
  - Enhanced data fusion capabilities enabling more accurate EO recognition by combining metadata, image features, and 3D model characteristics
  - EO reference database access via an API.
  - Enable administrators to review, approve, edit, or remove database entries and user-submitted feedback.
  - AI-based generation of synthetic training data (an optional feature).
- A more advanced version of the app, which will include:
  - A more accurate photo recognition feature that can suggest the correct match with greater confidence score, user validation rate, false positive rate, and time to match;
  - The ability for users to submit new photos, add notes, and flag entries for expert review;
  - Tools to filter content based on geographic regions or languages;
  - An improved design and easier-to-use interface.
- A trial launch in one country in partnership with a humanitarian organisation, including support to monitor usage, fix issues, and improve performance.
- A full set of user guides, training materials, and instructions for managing and maintaining the system after the project ends.

Note: The implementation of Phase 2 is contingent upon the successful completion and approval of Phase 1.

Data Use and Contributions

An essential part of this project will involve collecting 3D models of EO items to populate the reference database. The consortium is expected to support this through scanning of 3D models and metadata structuring tools.

In addition, if any consortium member possesses existing 3D EO models or image datasets, GICHD is open to discussing a separate agreement for their use in the project. Such contributions would be subject to appropriate copyright and licensing discussions and must meet quality and format standards.

In addition to developing the system, the selected consortium will work closely with the GICHD and its expert AI advisor to ensure responsible, ethical, and technically sound integration of artificial intelligence (AI) within the project. Particular attention will be given to issues of data security, AI transparency, and compliance with ethical standards, including alignment with the EU AI Act and other relevant frameworks.

System Development Requirements

While not exhaustive, the following high-level requirements outline key expectations for the design and development of the system. These elements should guide the overall architecture and service delivery throughout the project lifecycle:

- The system must be optimised for reliable performance across a range of environments and user levels, including low-resource field settings. Responsiveness and ease of use are essential.
- The system architecture should be designed to:
    - Easily accommodate future growth in user volume or data inputs;
    - Support the integration of new features or modules (e.g., AI-based EO recognition);
    - Allow for the addition of new language versions with minimal reengineering.
    - Support multiple languages and regional configurations, including localisation of user interfaces, documentation, system updates, and support features.
- While advanced AI features are not required in the first phase, the system should be built in a way that allows future integration of pluggable modules
- The system must adhere to strong security protocols appropriate for humanitarian data systems. Flexibility around data hosting (e.g., local/hybrid storage options) may be required depending on legal or contextual needs.
- The software should be compatible with leading cloud environments and deployment platforms.
- The ability to host on local or country-specific servers is considered a value-added feature.
- The system must be built to ensure ease of maintenance and long-term sustainability including:
    - Clean, well-documented code, bug tracking, resolution mechanisms, and access to developer expertise for handovers or future updates.
    - A system that can be maintained and extended over time, both from a technical and cost-efficiency perspective.
- The development plan must prioritise early-stage usability testing — particularly for the mobile interface — to gather meaningful feedback from field users during the prototype phase.
- Simple but complete documentation (in English) must be provided for both the system architecture and source code, to support smooth transitions between development teams and facilitate future maintenance.

Delivery dates of the services

Phase	Key Milestones	Timeline
Phase 1	Prototype ready and feedback collected	No later than 15 December 2025
Phase 2	Final product delivered and deployed	No later than 15 May 2026

Eligibility Criteria

This opportunity is open to consortia comprised of organisations that, together, bring the following capabilities:

- Eligibility to submit a proposal under this RFO is limited to consortia comprising two or more partner organisations. Applications submitted by individual entities acting alone will be deemed ineligible.
- The lead organisation of the consortium must be legally registered and operating within the European region, specifically in a member state of the European Union (EU) or the European Free Trade Association (EFTA). Additionally, the majority of consortium members must also be legally registered and operating within the EU or EFTA region.
- Each consortium must designate a lead organisation responsible for coordination, reporting, and contractual compliance. A lead organisation must be designated in the proposal, and this lead will bear full legal and financial responsibility for the implementation of the contract, including the performance of all consortium members. Applications from individual entities will not be considered.
- Proven ability to integrate AI-based image recognition into user-facing applications and train AI models.
- Experience developing mobile and desktop applications that can operate offline and in low-resource settings.
- Ability to travel to Switzerland (Geneva) and Luxembourg: up to 5 travellers per trip, with an estimated 2–5 trips to each location, including potential short-notice travel.
- Strong understanding of user experience design for non-technical or field-based users.
- Experience managing collaborative, multilingual databases and supporting validation workflows.
- A demonstrated track record of working with humanitarian or international development partners is highly desirable.

Evaluation Criteria

Proposals will be evaluated against the following:

- Clarity and relevance of the technical approach
- Past experience of the consortium and alignment with project goals
- Qualifications of team members and clarity of roles
- Cost effectiveness and overall value for money
- Commitment to principles of open access, responsible data use, and sustainability

Submission Requirements

Interested consortia should submit the following materials:

- A technical proposal describing the methodology, development process, technologies to be used (clearly explained), and consortium structure specifying the lead organisation.

- A financial proposal in CHF covering fees, travel, and other related costs. A budget narrative must accompany the financial proposal, explaining how each cost was estimated and justifying its relevance to the scope of work.
- CVs and references for key team members.

The consortium shall provide a coherent, organised and clear proposal in response to the request.

Project resources

Name of the lead consortium: ADD NAME

Name of the participating organisations: ADD NAME OF THE ORGANISATIONS

Address: ADD RELEVANT ADDRESSES

Proposals

Consortium: ADD QUALITATIVE NARRATIVE ON HOW TO UNDERTAKE THE WORK OR DELIVER THE SPECIFIED GOODS OR SERVICES

Availability

Consortium: ADD TEXT TO CONFIRM CAPACITY TO DELIVER THE SPECIFIC GOODS AND SERVICES WITHIN THE REQUIRED TIMELINE

Pricing

Phase	Output / Activity	Cost Category	Estimated Units	Rate (CHF)	Total (CHF)
Phase 1 (Prototype) Sept–Dec 2025	System architecture and planning	Professional fees			
	Development of database and basic app	Software development			
	AI integration (initial function)	AI/ML services			
	Testing and user feedback process	Research/facilitation			
	Travel to Geneva and Luxembourg	Travel (transport, lodging)			
	Project coordination and reporting	Management (direct costs)			
	Equipment/licenses	Equipment/software			
	Subtotal phase 1				

Phase 2 (scaling) Jan–May 2026	Database expansion	Data collection and validation			
	App enhancement and multilingual interface	Software development			
	Field rollout in one country	Travel / implementation			
	User training and support tools	Training and materials			
	Final documentation and handover	Documentation			
	Subtotal phase 2				
Total					

Budget Instructions

Bidders may expand or update the budget template as needed, provided the following conditions are met:

- All costs must be based on actual needs and directly linked to specific deliverables or outputs.
- The GICHD does not cover equipment such as laptops with word processing software, and it should be included in the services at no extra cost.
- A clear breakdown of assumptions (e.g., unit rates, number of days/trips, etc.) must be included in a separate budget narrative.
- No costs unrelated to the scope of work may be included (e.g., general administration, office rent, or institutional expenses not directly tied to the project).
- Overhead and indirect costs are not eligible. The budget must exclude any overhead charges that are not directly attributable to the project activities.
- Management and coordination costs are eligible, but only if they are clearly linked to the implementation of project tasks and allocated proportionally under each phase and output.