

Q&A_Terms procurement of a Consultant (Consulting team) to support the establishment of a Monitoring System and Enforcement of Penalties for Illegal Waste Disposal and Environmental Pollution in the Municipality of Banovići

A. Legal and Institutional Questions

1. Who will have the authority to impose and enforce penalties based on the data collected through the system — the Municipality of Banovići, the communal company, inspection bodies, or another designated entity?

A: Municipality of Banovići (Service for Housing, Communal Affairs, Environmental Protection and Inspections) - via its competent municipal inspection under the Decision on Communal Order - holds the authority to impose and enforce penalties. The system only supplies evidence/recommendations; communal companies are users, not sanctioning bodies.

2. Will photographs, video recordings, and VOC sensor measurements be considered legally valid evidence in the process of enforcing penalties?

A: Yes, per the ToR. Photos, video, and VOC readings are collected with time/location, stored, and cross-analysed; devices meet EN 14662-1; outputs are used to record violations and initiate penalties in line with legal frameworks. Formal admissibility follows procedure.

3. Should the system be compliant with the Law on Personal Data Protection in BiH and GDPR, given that citizens will be submitting images, locations, and other personal information?

A: Yes. The system will comply with Bosnia and Herzegovina's Law on Personal Data Protection which aligns with General Data Protection Regulation (GDPR).

4. Are there any plans for interoperability with cantonal or federal authorities — for example, environmental inspectorates or ministries?

A: The ToR limits integration to existing municipal/utility web services; it doesn't mandate links to cantonal or federal systems. However, the monitoring system and enforcement of penalties will be in line with existing legislation and jurisdiction of relevant authorities.

5. Who will be the formal owner of the database and all information collected through the application and sensors?

A: Given the system's purpose and governance, the Municipality of Banovići will be the formal owner/controller of the database and all information.

B. Technical Questions

6. Has an analysis been conducted of existing local and cantonal waste management systems or GIS databases to ensure we avoid duplication of functionalities?

A: A separate interoperability study has not been conducted. At the municipal level there is currently no systematic solution, which is why this procurement is initiated.

7. What is the exact scope of functionalities expected for the application and web platform? Is a fully integrated GIS system required, or only a basic visualization of locations?

A: A full, integrated application is required with five core modules. The platform must include: (1) anonymous reporting and citizen communication; (2) sensor data collection and storage with real-time VOC values, live image, status and auto-alerts; (3) an interactive GIS spatial display (layers for reports/sensors/cameras, critical-zone highlighting, keyword search, and info panels showing data source, summary, analysis results, actions and current status); (4) analysis and decision-making (cross-analysis vs thresholds, recommendations, and monthly/semi-annual/annual reports at location and municipal levels, aligned with legal frameworks); and (5) an admin module (roles incl. super-admin, security, configuration).

Development must also cover domain and hosting acquisition, co-design with the Municipality, application development and testing, integration with existing municipal/utility web services where possible, stakeholder presentation, and 12 months of maintenance.

For clarity: the GIS requirement is an integrated, interactive GIS module inside the platform (as specified above). It goes beyond simple point plotting/visualization but does not mandate purchasing or interfacing with an external enterprise-GIS unless proposed during integration.

8. Does the project budget include maintenance of the server infrastructure after the initial 12-month support period?

A: The base contract covers domain and hosting acquisition and 12 months of maintenance after completion. There is no budget foreseen beyond the initial 12 months; any server/hosting renewals or support after that will be procured/financed separately by the Municipality.

9. What is the expected purpose of the VOC sensors in the context of illegal dumpsites, considering that most waste does not emit measurable VOC levels within the proposed range? Would it be possible to consider alternative detection technologies?

A: The VOC sensors are intended as event/anomaly detectors at known hotspots - e.g., spikes from waste burning, fresh organic/chemical deposition, or solvent-rich wastes -

to trigger alerts, corroborate camera footage, and feed the analysis module for actions and reporting (not to quantify all waste types continuously).

The baseline specification requires 12 VOC sensors ($\pm 5\%$ accuracy, 0–10 ppm range, wireless, EN 14662-1 compliant, solar/battery) networked to the platform alongside 12 cameras.

There will be accepted well-justified alternatives or complements if they: (1) meet or exceed the detection objective (early indication of illegal activity), (2) integrate to the same data/alert and GIS modules, and (3) provide documented accuracy, calibration and standards equivalence.

10. Is integration with existing municipal databases or software systems used by JP Eko Sep and JP Komunalno required?

A: The integration is required where technically possible. Where no API exists, there is required a provision of a standard data-exchange (exports) and a documented data model to enable later API linkage. Users from JP Eko Sep and JP Komunalno will be trained on the integrated solution.

11. Should the cameras provide continuous online streaming, or would periodic image capture upon activity detection be sufficient?

A: Continuous 24/7 streaming is not required. The minimum is event-triggered capture (images/short clips) with on-demand live view, so the module shows a live image in real time and alerts admins when activity is detected; devices must transmit real-time data and keep historical records. Bidders may offer continuous streaming if they justify bandwidth/storage and keep all functions intact.

12. Who will determine the locations for sensors and cameras — will this be defined by the Municipality or is it expected from the contractor?

A: Locations are not pre-fixed. The Contractor proposes the siting (based on hotspot analysis and GIS), and the Municipality confirms; both installation and any relocation are coordinated with municipal representatives. The plan with coordinates and justification is to be delivered during installation.

C. Methodological Questions

13. Since the project relies on active citizen participation, is there a defined citizen engagement and motivation strategy beyond the promotional campaign (e.g., rewards, feedback mechanisms)?

A: The ToR builds in two-way feedback, not just promotion. The app must confirm receipt of each report and allow citizens to submit comments/concerns; the GIS view shows actions taken and current status, so users can track their reports end-to-end.

A: A separate rewards/incentives scheme is not mandated. Bidders may propose additional motivation mechanisms within the promotion and awareness plan (e.g., recognition, gamified badges, partner perks) as value-added measures, provided they align with the ToR's campaign scope.

14. Who will act as administrative users of the system — only the Municipality of Banovići, or also JP Eko Sep, JP Komunalno, and SEI experts?

A: Administrative users will include the Municipality of Banovići (holder of the super-admin role) and designated staff of JP Eko Sep and JP Komunalno as admins by dataset within their operational scope.

15. After the project is completed, who will manage and maintain the system — the Municipality's IT department, the communal company, or a third party?

A: During implementation and the first 12 months after completion, the Contractor will provide a maintenance. Thereafter, routine administration and upkeep pass to the Municipality of Banovići (as platform owner), with trained staff of the Municipality and utility companies operating under assigned admin roles; any extended support may be procured separately.

16. Is there a plan for long-term training and capacity building beyond the initial training sessions?

A: The ToR provides initial capacity building only: ≥3 training sessions for municipal and utility staff, plus a written user manual and 12-month post-completion maintenance.

17. Should we develop Standard Operating Procedures (SOPs) for all system users, particularly regarding citizen report processing and decision-making workflows?

A: It is expected the operational workflows to be codified within the user manual and training package - covering intake of citizen reports, verification, assignment, decision-making, escalation to inspectors, evidence handling, and record-keeping. The platform already supports workflow visibility (actions taken and current status) and enforcement use cases; bidders may add concise SOPs/flowcharts as an annex, to be finalized during inception and included in handover.

D. Financial Questions

18. Can you confirm that the total allocated project budget fully covers:

- Procurement and installation of 12 cameras and 12 VOC sensors — or will this be handled under a separate procurement?
- Development of the web platform and mobile application,
- The awareness-raising campaign,

- Training activities, and
- 12 months of system maintenance?

A: This single contract covers all listed components; no separate procurement is planned for the hardware.

19. Is there a reserved budget for ongoing system maintenance after the initial 12-month support period?

A: The contract includes domain and hosting acquisition and 12 months of maintenance after completion. There is no reserved budget for a system maintenance beyond the initial 12 months. Any further maintenance/renewals will be financed or procured separately by the Municipality.