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Baltic Sea Region



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SMART GREEN MOBILITY

CITYAM

Request for Proposal (RFP)

Request for Proposal for drone-as-a-service in Stockholm City.



Introduction

The purpose of this Request For Proposal (RFP) is to procure a service from experienced drone operators providing a remotely operated drone-in-a-box solution to deliver aerial inspection data for City of Stockholm and thereby also supporting the CITYAM project. City of Stockholm and Kista Science City intend to perform a pilot study with drones in operation in the autumn of 2024. In general, safety and societal acceptance is seen as key enablers and are reflected in this RFP.

Objectives of City of Stockholm

City of Stockholm is seeking innovative ways to optimize and improve city management, and utilizing contemporaneous aerial imagery has been evaluated as a way to improve:

- Traffic flow management
- Parking optimization
- Environmental zones monitoring
- Waste management and planning of cleaning and snow removal.
- Permit compliance and city planning project documentation.

Furthermore, the introduction of a municipality hosted drone service enables learning and citizen engagement, fostering the uptake of innovative aerial mobility in a responsible manner.

Objectives of CITYAM

CITYAM is an initiative to promote responsible and acceptable increase in urban air mobility (UAM) through transnational cooperation in the Baltic Sea region, aimed at cleaner and more sustainable transportation systems, and to;

- Enhance the knowledge of public officials regarding urban air mobility.
- Provide tools for designing airspace based on existing regulations and future tasks.
- Develop and adapt urban planning methods in relation to landing sites and airspace planning.
- Offer components and tools for a UAM strategy.
- Scale up city-owned drone operations as part of a multimodal transport system.
- Measure citizen acceptance of UAM.

More info about CITYAM can be found [here](#) and [here](#).



Definitions of wordings in this document;

SHALL, expresses a mandatory requirement and is seen as “Mission essential”

SHOULD, expresses a recommendation, and is considered as “High priority”

MAY does not express a requirement, but is seen as added value, and is considered as “Nice to have”

Scope of Work

The scope of work is to provide, install and operate a drone-in-a-box solution that enables drone-as-a-service for City of Stockholm during autumn of 2024, preferably starting in September/October.

In average two flights per weekday shall be performed during the projects operational phase, which should be 30 week days. If the flights cannot be conducted due to weather, external circumstances or force majeure, the operational phase will be extended with the same amount of time delayed.

The solution shall be installed at a city-provided location, where internet connection and power are available.

The installation and flights shall be performed in the ES R113 restriction area in Stockholm City, pending coordination with authorities, or in Farsta in and/or outside of the CTR, where a temporary restriction area could be set up by the drone operator.

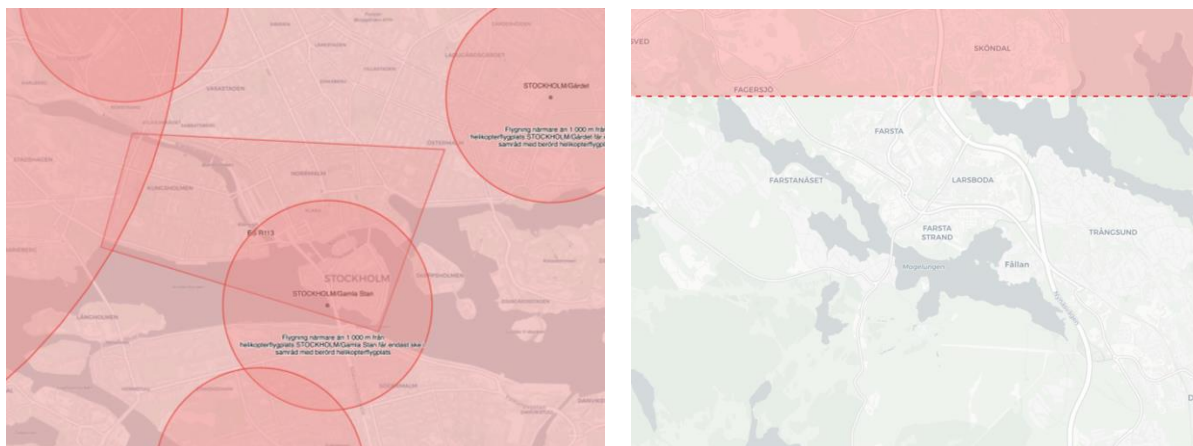


Figure 1 - Possible flight areas, ES R113 (left), and Farsta (right)

Coordination activities for the flight permit with regards to regional and national airspace authorities will be supported by the CITYAM project, and coordination activities have already been performed with the relevant Swedish airspace authorities (LFV, Transportstyrelsen, Bromma ATC and Regional Helicopter Airport management).

Data management and post-processing of the imagery will be handled by the customer, subject to approval of the authorities (Lantmäteriet, Sjöfartsverket and Länsstyrelsen), and subject to GDPR conformance. The method of delivery of the imagery data will be decided in dialogue with the operator. The imagery data should be provided within 4 hours after the flight.

The mission flown shall be conducted during daytime.

The scanned area size per flight shall be minimum 3km² with a resolution that should be 10 cm per pixel.

The operator should provide the following data of flights:

The tenderer demonstrates the ability to provide the following data to be acquired during the demonstration flights as part of the CITYAM project.

Pilot-related data:

- Total number of flights planned
- Total number of flights completed
- Drone take-off place and drone landing place (coordinates)
- Type of drone used for pilot (Technical characteristics such as fixed-wing, weight)

Flight-related data:

- Cumulative time in the air
- Cumulative distances
- Cumulative number of technical failures, maintenance needs, delays or cancellations of flights
- Type and number of reported incidents
- Average flight times
- Description of weather conditions during flights
- Max. altitude (measured from ground level) reached during flights
- Max. speed reached during flights

Actual pilot performance:

- Average costs of flight per hour

Aerial surveillance - specific data:

- Total scanned area

The pilot project will be implemented as a service pilot with a maximum total price of €60,000 (VAT 0%), including staff, permissions, applications, equipment, operations, taxes, insurance, travel costs, accommodation etc.

Vendor / Service provider Qualifications

The operator SHALL be a registered drone operator.

The operator SHALL provide a drone-in-a-box solution.

The operator SHALL provide a drone that enables urban drone operation according to the SORA methodology in the air and ground risk classes for the two assigned locations.



The operator SHALL provide safety case for the two assigned locations.

The operator SHALL have evidence of existing documentation to support experience.

The operator SHALL have all insurance, flight permits and all regulatory compliance (including but not limited to environmental permit, frequency permits, GDPR) to fulfil the Scope of Work.

The operator SHOULD have previous experience with SORA BVLOS operations at SAIL II and existing documentation to support this, or similar documented experience.

The operator SHOULD have understanding of urban airspace management.

The operator MAY have conducted noise measurement on the drone system.

Information Requested

The following information is requested from the industry part;

1. Description of the proposed drone-in-a-box solution.
2. Technical specifications of the drone.
3. Image data (type and format, resolution and FOV (field of view))
4. Safety features and compliance with regulatory requirements.
5. Documented experience with urban airspace integration.
6. Schedule for starting city operations.
7. Case studies or references from previous implementations.
8. Compliance with data provision
9. Quotation for;
 - a. Initial installation and project execution of the scope of work
 - b. Continued monthly operational cost during 2025 as an option

Liability

Kista Science City and City of Stockholm cannot be held responsible for actions and/or events pertaining to the execution of the services related to this RFP. Insurance, flight permits and regulatory compliance is the sole responsibility of the supplier.

Procedure

The industry participant submits a proposal to Kista Science City Point Of Contact (POC) found at the end of this document, in where the answers to this RFP is prepared and presented, and supporting documents with motivations for qualifications are shared.

Submission deadline: June 14th, 2024

Contact details for queries to this RFP can be sent to Kista Science City POC.



Evaluation Criteria

Criterion	Point range
Feasibility and documented experience	0 - 5
Novelty and innovativeness	0 - 5
Data provision	0 - 1

POC

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