Innovative Urban Wildlife Management with Drones on Stockholm's beaches

CITYAM – Preparing cities for urban air mobility

📌 **Wednesday, 26 November 2025**
⏱ **16:45 – 18:15**

SPEAKERS

Johanna Löfblom, City of Stockholm

Stockholms stad

POLIS
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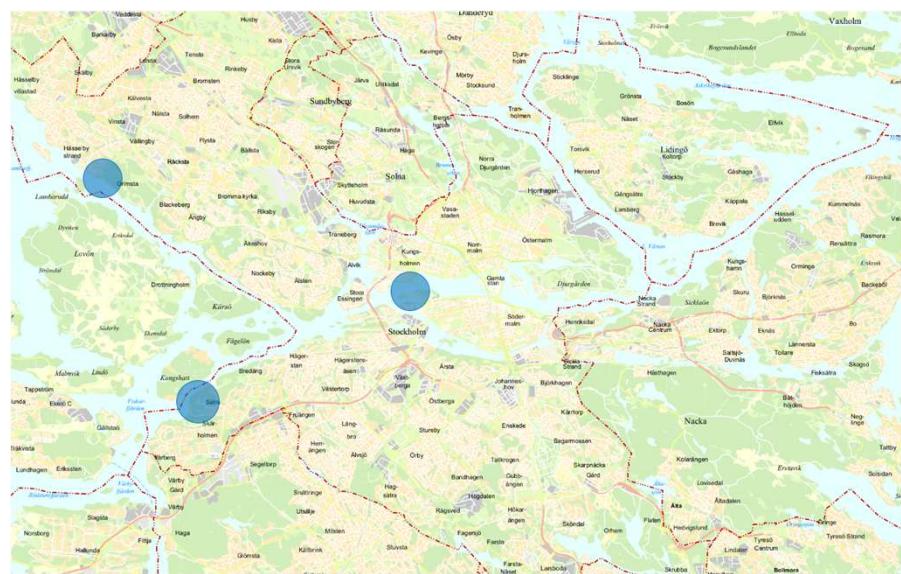Royal Jaarbeurs | Utrecht, Netherlands

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The Stockholm Pilot:

Overview

- **Purpose:** Test AI-enabled drones for herding canada and barnacle geese on 3 public beaches

- **Period:** Conducted during summers 2023, 2024 and 2025

- **Partners:** City of Stockholm (City council, traffic administration, 3 district councils), Kista Science City and Flox Robotics AB.

How it worked

- Operated under VLOS (Visual Lines of Sights) conditions by 6 pilots

- AI equipped drones used species-specifik sounds to herd goose

- AI tracking adapted herding patterns on the goose behavior

- Citizens engaged via QR-coded signage linking to a feedback form for

  questions, concerns, feedback or "Hey, it's goose here now!"

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Key results (from 2024)

- **7,614** geese observed

- **7,225** successfully herded (95% deterrence efficiency)

- **287** citizen interactions recorded via digital feedback (almost only positive interactions)

- Strong public awareness and acceptance of drone operations!

"Fewer geese than last year – back then they were settled on the beach almost around the clock"

"They are in the middle of the beach, on the sand and on the grass"

"Thanks for this service!"

"Appreciate this feature. Great job 🥰"

"Hi! What a great job you're doing. I work as an UX designer, which means that I focus on, among other things, makin information easier to find and understand. That information needs to be made more accessible and visible. It's a bit hidden, if you ask me. "

"There were about 10-20 Canada geese at the north end of Sätra beach, sen quickly"

"Send a drone fast"

"Good that you're trying to tackle the goose problem!"

Lessons learned

- Continous citizen engagement is essential for acceptance

- Automation via dock-based systems could reduce staffing needs

- Reliable 24/7 electricity at beach sites required

- Better signage and communication for citizens

- Explore water quality monitoring for environmental impact

Key takeaways

1. Ethical, species-specific, and publicly accepted approach

2. Demonstrated drone potential as a municipal service

3. Future: automation, continuous citizen engagement, environmental monotoring

4. Helping humans and wildlife coexist