Interreg Baltic Sea Region

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SMART GREEN MOBILITY
CITYAM

CITYAM empowers responsible urban air mobility

Deliverable of D.3.2 CITYAM: Result transfer of the CITYAM solutions in the 3 Replicator cities

City of Tartu through CITYAM

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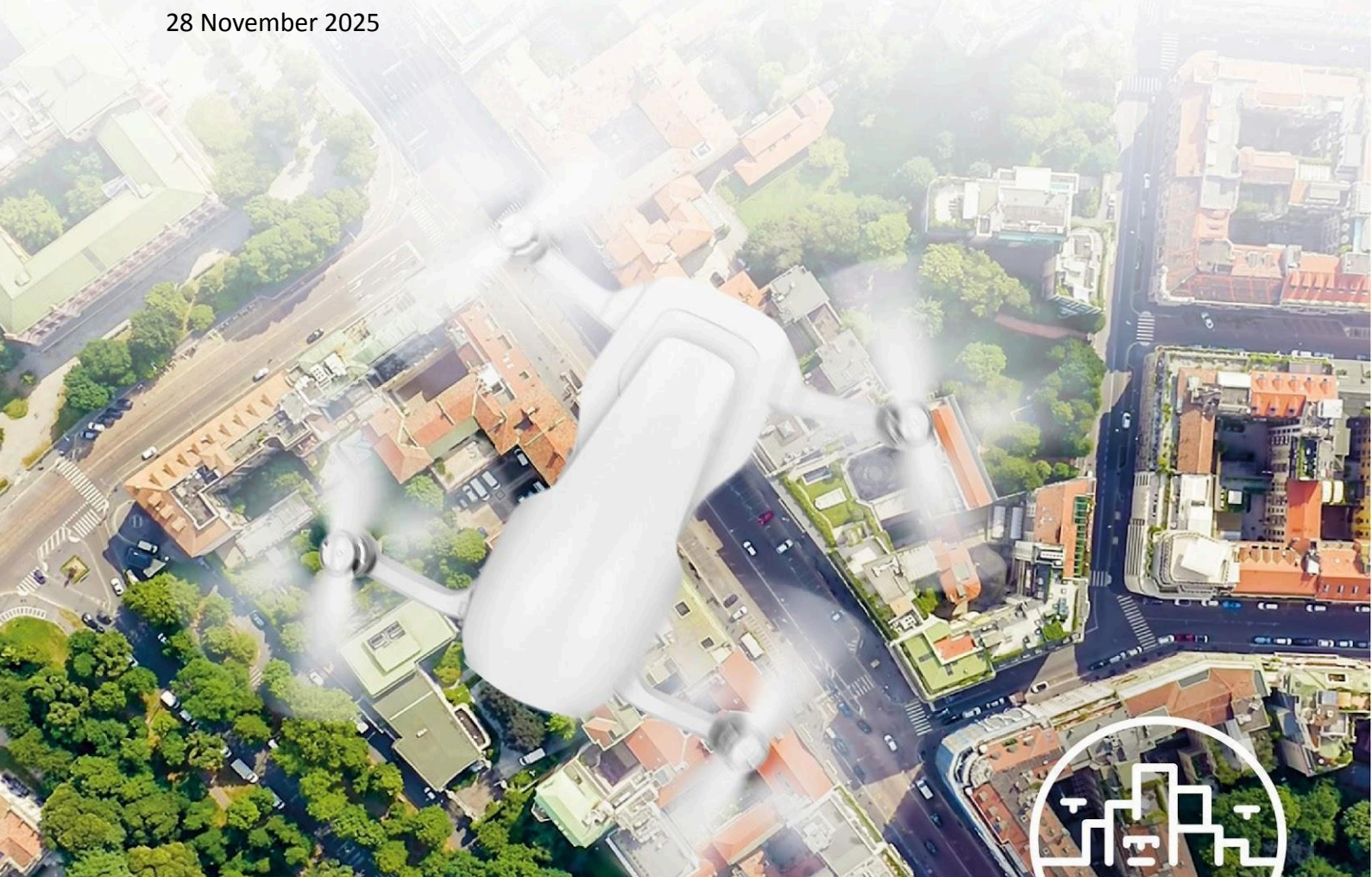

Summary

This deliverable report as part of the third work package of CITYAM aims to present transfer process piloted solutions to the replicator cities.

This deliverable report, as part of transferring the solutions developed as part of the CITYAM project “funded by Interreg Baltic Sea Region”, serves as a comprehensive guide for replicating Urban Air Mobility (UAM) solutions in replicator cities—Riga, Tartu, and Gdansk. The report builds upon two years of knowledge, tools, and methodologies developed and tested by the lead cities Helsinki, Hamburg and Stockholm, with a focus on transitioning these insights into practical applications. The report highlights the roadmap for implementing UAM strategies, addressing the unique challenges and opportunities in each replicator city.

The report gives insight into CITYAM tools, such as the Public Acceptance Toolkit, Landing Site Selection Tool, and UAM Strategy Framework, showcasing their adaptability to diverse urban contexts. These tools provide replicator cities with actionable methodologies for integrating UAM into spatial planning, public engagement, and policy frameworks. Additionally, tailored plans for each city outline use cases, stakeholder engagement strategies, and infrastructure considerations, such as integrating GIS tools for UAM landing site planning with local systems like GeoGdansk and GeoRiga.

Key activities in the replication process include repeating public acceptance surveys to evaluate the progress of public acceptance of UAM, piloting use cases like traffic surveillance and safety audits, and advancing the integration of UAM into city-level strategic documents, such as Sustainable Urban Mobility Plans (SUMPs). Capacity building within municipal administrations ensures that staff and stakeholders are equipped to manage and sustain UAM activities.

While the document focuses on the three CITYAM replicator cities, its guidance and methodologies are broadly applicable to other cities exploring UAM replication. It can therefore also serve as an inspiration for cities outside the CITYAM consortium who are starting with planning, policies and pilots related to drones. By addressing regional regulatory gaps, fostering public-private collaboration, and leveraging lessons learned from pilot cities, this report lays the groundwork for scalable and sustainable UAM solutions. It emphasizes the importance of aligning UAM initiatives with urban development priorities while promoting long-term innovation and cooperation across the Baltic Sea Region and beyond.

Contents

1. Introduction to this report

The first two years of the CITYAM project (2023-2024) have been all about the preparation of the solutions and testing and piloting them in the CITYAM lead cities of Stockholm, Hamburg and Helsinki. These solutions are the drone Landing Site planning Tool, the UAM use cases and landing site infrastructure, the UAM Public Acceptance Toolkit and lastly the UAM Capacity building & policy/strategy development. They are shortly described in chapter 2.

The third and final year of the CITYAM project (2025) was all about the replicator cities and the start of project solution replication in their local context, as well as preparing inspiration for inspiration beyond the project timeline. The aim of activity 3.2, titled "Replication activities in Riga, Tartu and Gdansk", was to further the work done throughout the CITYAM project and at the core of this report is the need to set forth thought-out plans (part of Deliverable 3.1) on what activities and tasks should be carried out by the replicator cities in the last year of the CITYAM project.

Replication and cooperation is at the core of the CITYAM project as it helps to ensure the successful integration of Urban Air Mobility (UAM) across multiple cities and regions. As UAM is a relatively new field, the ability to replicate successful approaches, strategies, and tools developed in one city, or in the case of this project – 3 cities, will provide a valuable roadmap for others. By transferring knowledge and best practices, cities can avoid duplication of effort and accelerate the adoption of sustainable UAM solutions. Cooperation among cities, national authorities, and private sector stakeholders is vital in fostering this knowledge exchange. Through collaborative platforms, workshops, and joint initiatives, we can create a unified approach to UAM integration, ensuring that cities across the region are equipped with the skills, tools, and frameworks to successfully incorporate UAM into their transport systems. This transfer of knowledge not only drives innovation but also strengthens the capacity for long-term sustainable development in UAM.

> *The CITYAM project aims to support and empower cities in facilitating a responsible and acceptable increase in urban air mobility via transnational Baltic Sea Region cooperation, in order to achieve a cleaner and more sustainable transportation system.*

In conclusion, the CITYAM project paved the way for the responsible and sustainable adoption of Urban Air Mobility across the Baltic Sea Region. By leveraging shared knowledge, harmonized regulatory frameworks, and innovative technologies, cities like Riga, Tartu, and Gdansk can effectively integrate UAM solutions into their urban ecosystems. Through collaboration, public engagement, and strategic planning, this initiative not only advances mobility but also strengthens the region's position as a leader in drone innovation. The insights and methodologies outlined in this report serve as a valuable foundation for future UAM development, ensuring long-term impact and scalability beyond the project's timeline.

2. Activities for replication in Riga, Tartu and Gdansk

This chapter gives an overview of replication activities in general.

2.1 Landing Site Planning and Selection Tool

The Collaborative Drone Landing Site Planning and Selection Tool was developed by CITYAM partner Finnish Geospatial Research Institute (FGI). It is designed to support the efficient integration of urban air mobility into city landscapes by facilitating the strategic planning and establishment of drone landing sites. The tool enables stakeholders, such as city planners, drone operators, civil aviation authorities (CAA), and residents, to collaboratively identify and assess suitable locations for drone landings.

GIS tool is available online: https://vm2425.kaj.pouta.csc.fi/ . It is a Spatial Decision Support System (SDSS) in which participants can work together on a shared map workspace each on their own devices. The key features of the CGIS are:

- map user interface,
- workspace manager,
- data manager,
- layer manager,
- map drawing tools,
- analysis tool to run weighted multi-layer analysis for assessing suitability of locations for drone landing sites.

Through comprehensive geospatial data analysis, the tool enhances situational awareness and considers factors such as urban functions, activities, social values, and human factors. Its weighted multi-criteria analysis approach guides local level decision-making, optimizing landing sites for safety, efficiency, and alignment with community needs. This collaborative process promotes effective communication among stakeholders, fostering well-informed and sustainable urban drone operations.

For example, the CGIS platform can be used by multiple people working together to discuss, plan, and decide the locations of drone-in-a-box sites, where drones are recharged and stored.

An evaluation of the Landing Site Planning Tool can be found in Deliverable 2.5 on the evaluation of the CITYAM project on the project website (link here).

2.2 UAM use cases and landing site infrastructure: paperwork exercise

This activity aims to make clear why and how certain urban air mobility (UAM) use cases and landing sites solutions (LSS) are scalable to the partner cities, and beyond those, to cities within the entire Baltic Sea Region. The purpose is to serve as a handbook with guidance and a process description on how to implement a drone operation within a city.

The development of urban air mobility and the use of drones is a fast-developing industry. There are already some ongoing drone operations in European cities such as inspections, mapping, and scanning. As the purpose of CITYAM is to prepare cities for an acceptable and sustainable up-scaling of the use of UAM (urban air mobility), activity has aimed to work through the process of implementing a drone operation in Stockholm, Helsinki, and Hamburg. A lot of focus within the

activity has been on including and discussing UAM with relevant stakeholders to widen the network and prepare for the use of UAM.

The main focus-points are following:

● creating a summary overview of existing city-related drone operations in the pilot cities,

● creating an overview of relevant commercially available technical landing site solutions and their space requirements and costs,

● creating maps of each leading city with an overview of city-owned land or property (suitable for landing site locations) as well as potential landing sites based on technical requirements landing site providers,

● description of the complementary use cases (type of missions and accompanying landing sites) for per pilot city, including an overview of essential stakeholders per use case,

● overview of input needed for permission applications,

● based on commonalities in Stockholm, Helsinki, and Hamburg, an overview of the most feasible and attractive use cases for cities in the entire Baltic Sea Region,

● functional specifications for the procurement of landing site infrastructure and drone operations,

● process description to be used for replication purposes.

Each replicator made a long- and shortlist of relevant local use cases for drone operations to pilot outside the scope of CITYAM (in a follow-up project or during the project via other funding sources). Gdansk and Tartu implemented real pilots during the project.

2.3 UAM Public Acceptance Toolkit

Urban Air Mobility (UAM) is being deployed globally, and its successful integration requires engaging citizens early on. National and international institutions are working to keep pace with the rules and procedures that need to be established amidst these developments. Public embracement is crucial, considering concerns raised by the public. To help gather data and present it for city planning strategies, this toolkit assessing social acceptance of UAM has been developed. This toolkit is for assessing the public acceptance of using commercial and municipal drone services in the city. Social acceptance of UAM gauges the willingness of communities to support the integration of aerial vehicles and accompanying infrastructure into urban transportation systems. The toolkit is meant for the municipalities or other stakeholders to understand the social acceptance of the UAM.

Acceptance includes attitudes toward UAM technologies, considering factors like environmental impact, safety, privacy, visual and noise pollution, trust in technology and authorities, and perceived benefits. The toolkit, adjusted from existing models of social acceptance, evaluates general acceptance of UAM and use-case-specific acceptance of drone services. The toolkit consists of four sections: 1) Survey invitation, 2) Sociodemographics, 3) General acceptance, 4) Use case acceptance. Each section is meant to be translated into the native language where the survey is being disseminated. The questionnaire is meant to be set up in a preferred survey platform by the municipality or the stakeholder who is collecting the data.

The toolkit is available in English and is meant for municipalities or other UAM stakeholders to be translated into their native language for implementation. Additionally it has been translated to Finnish, Swedish, German, Polish, Latvian and Estonian. Instructions are provided to foster the process from translating to survey rollout. The toolkit is modular and can be adjusted to address various circumstances cities might have when piloting their use cases.

The toolkit aims to use gathered data in local planning and design activities related to UAM. The toolkit can be found on the CITYAM website here.

2.4 UAM Capacity building & policy/strategy development

The UAM Strategy Framework consists of a few different elements that aim to help cities integrate UAM in existing city policies. It includes 1) a list of commonly available policy documents such as mobility plans & urban planning strategies, 2) a list relevant public authority stakeholders, and ways to engage with them based on our experiences and 3) a matrix of UAM elements that need to be considered, including the division of responsibilities of city depts., applicable regulations, air traffic management, landing site planning, business models/ownership/investments, physical and digital infrastructure, and public acceptance/engagement etc.

The CITYAM UAM Roadmap is based on the 12 principles of the SUMP (Sustainable Urban Mobility Plan, promoted by the European Commission as a best-practice approach to mobility planning), which in this case includes the perspectives and experiences of the 6 CITYAM partner cities when it comes to urban air mobility integration in their cities.

Roadmap consists of 4 general themes: stakeholder engagement & management, regulation & policy, technology & innovation, and business & drone services development, which the four phases cover in a step-by-step format, to break down this complex undertaking into smaller sections with the ultimate goal of safe, successful UAM integration in cities.

The roadmap development is divided into 4 phases:

- **Phase 1, Preparation & Analysis** - What are our resources? What is our planning context/processes? What are our main problems and opportunities that can be solved/improved upon through UAM integration?
- **Phase 2, Strategy Development** - What are our options for the future? What kind of city do we want (innovative, sustainable, etc.)? How will we determine successful integration?
- **Phase 3, Policy Measures** - What will we do concretely? What policy actions can be taken? What will it take and who will do what?
- **Phase 4, Implementation & Monitoring** - How can we manage this integration process well? How are we doing? What have we learned?

The output is in the format of a step by step planning graphic and a report to help provide more detailed guidance for the replicator cities and beyond. It contains an optional survey developed in Hamburg for public authorities in order for a city to get a picture of whether authorities are using drones, plan to use them, or still need information on drone usage in urban areas. Based on those responses, cities can choose if they would like to host workshops/information sessions to educate and look for solutions together with their public stakeholders on city UAM integration. The goal of

this framework is that cities will have an idea of which authorities/departments they should contact, how they should engage with them, which policies will need to be updated, and what other steps and processes they should consider.

The Roadmap can be found on the CITYAM website here.

2.5 Evaluation of the success of UAM activity in pilot- and replicator cities

To assess the impact of the CITYAM project, four survey questionnaires were prepared as part of Deliverable 1.5 Setting up the evaluation framework and based on the societal embeddedness assessment framework initially developed for the DigiMon project. The framework itself is based on the Technology Readiness Assessment Framework and helps to determine readiness in four dimensions: environment, stakeholder involvement, policy & regulations, and market & resources. The original framework has 74 milestones with 234 questions to assess the societal embeddedness of a technology. After adjusting the framework for the CITYAM project, the four questionnaires cover a total of 217 questions organised under 67 milestones.

The assessment is carried out for all six CITYAM partner cities. The first assessment round took place in Spring 2024 to see the current readiness of the cities in the context of drone adoption. The second assessment round will take place in Autumn 2025 and will allow the partner cities to see how the CITYAM project has impacted drone adoption in their cities.

The four questionnaires prepared for the CITYAM project each covering one specific dimension also function as checklists of activities that cities should carry out to ensure the adoption of drones will take place in a socially responsible manner. These questionnaires can be used by any city interested in supporting urban air mobility and the adoption of drones in urban airspace.

Description of a methodology on how to evaluate the replication work is introduced in D2.5.

3. Replication of the Landing Site Planning and Selection Tool

This chapter presents and outlines each replicator city's plans on replication of the CITYAM Landing site selection tool. The following paragraphs represent the most up-to-date information as of writing this report, however, as with any innovative project, there might be some adjustment to the planned activities, both to the scope as well as the timing.

3.1 Tartu

Replication of landing site selection is based on the experiences of the pilot cities of applying the Landing Site Selection GIS Tool developed within the project. Aim was to apply a step-by-step approach on landing site selection, decision-making and development as part of the city planning activities.

In cooperation with city planners and technical specialists we tested the usability of the landing site tool by evaluating its practical application in identifying suitable launch and landing sites for drones.

At first we defined selection criterias and their weights in cooperation with stakeholders, considering different factors such as geographic constraints, infrastructure limitations and needs, traffic density and other aspects. Selection weights were tailored to the local context, ensuring that the tool aligns with the specific conditions and needs of Tartu City.

In cooperation with the creators of the tool, a training workshop was organized on 15.04.2025 for replication of the GIS Tool. Training was attended by representatives of Tartu City Government, Tartu Science Park, Estonian Aviation Academy and company Sky-Corp Technologies. After the training was gathered feedback from participants and drafted a feedback summary. After the training specialists are able to test and use the tool independently.

When introducing the tool, a fundamental question arose - how to integrate it with existing information systems. The city of Tartu uses the ArcGIS geoinformation platform, which also has various capabilities. The situation is similar in other project cities.

On December 3rd 2025 the CITYAM Roadshow public event was organized. During the roadshow we introduced the GIS-tool and its capabilities to a wider audience. The introduction followed with a practical presentation and a discussion on how to effectively use the tool in city planning activities.

To ensure transparency in communication and enhance the visibility of UAM, we plan to actively communicate with the general public and stakeholder groups through various city channels (including social media). Information about the project, including project outcomes, will be continuously presented in the city web-page on a dedicated project page.

3.2 Riga

During the first part of 2025, the city of Riga prioritized the active development and replication of the Landing Site Selection Tool, and during the second part of the year piloting of the decision making tool took place. Throughout 2024, Riga Technical University in partnership with City of Riga has been developing a GIS platform, collecting and gathering data and working on frameworks to best prepare for the final project year, where, based on data and feedback from the lead cities, we were able to integrate their findings and technical scripts into our platform. This enables us to start piloting the practical application of the Landing site planning tool.

Through this process, tested the usability of the landing site tool by evaluating its practical application in identifying suitable launch and landing sites. We defined clear selection criteria, considering factors such as geographic constraints, infrastructure needs, and urban density. Selection weights were defined, adjusted and workshoped to fit the local context, ensuring that the tool aligns with the specific needs of Riga. To refine the tool, we organized a workshop with the city’s urban and transport planners, testing and gathering insights on its functionality collaboratively. In parallel, we held discussions at the more senior level to explore how best to integrate this tool into the city's existing transport planning frameworks. As part of these conversations, an agreement was reached to have the project results be integrated for viewing on the city’s provided online GIS platform – GEORIGA. Finally, we defined a practical application case that demonstrates the tool’s effectiveness in potential real-world scenarios.

3.3 Gdansk

It was expected that the tool for selecting take-off and landing sites for drones would be of most interest to surveyors and planners working for the municipality in the Departments of Geodesy and Gdansk Development Bureau. Members of these units had already been participants of the local steering committee of the CITYAM project in Gdansk. The committee includes one person from the Gdansk Development Office (urban planners) and five people from the Land Surveying Department who had a chance first to familiarise themselves with the tool's features and then advise the local project leader on the most appropriate way to test and implement it in Gdansk. In the spring of 2025 6 users accounts were created, however the new users encountered problems carrying out actual analysis. An online workshop was organized between the City of Gdansk users and the CITYAM Landing site selection tool creators and the difficulties were addressed.

Another stage of replication was to organise a local training event on the CITYAM Landing site selection tool. Since the local team didn't feel knowledgeable enough to share the knowledge with other municipal representatives and address their questions, they asked the Finnish Geospatial Research Institute (FGI) to carry out a presentation and demo remotely and provided consecutive translation service. On 16th of September 2025 as many as 34 people – employees of 13 departments, units and municipal companies – were trained in the use of the geospatial tool. The presentation and demo were followed by the questions and answers session to gain a full mutual understanding of the tool and local specifics. The local training event resulted in a request to create three more CITYAM GIS tool user accounts.

In turn, representatives of the Gdańsk Geodesy Department presented the modern GeoGdańsk mapping system and its potential in the field of urban air mobility. It was a valid point on the agenda, especially since the key challenge from the beginning was also to bring the tool developed in the project into synergy with the Spatial Information System of Gdansk - GeoGdansk. It is a project in which the city of Gdansk brings together a considerable amount of spatial information. Thanks to GeoGdansk the municipality collects, shares and exchanges spatial information and is up to date.

First, the municipality has been offering an interactive map delivered in web browsers, finally replaced with system, which includes:

- the internal system at https://gis.geogdansk.pl requiring a login

- and the public external service launched for all (without login) at https://geogdansk.pl .

It will gradually be developed with, among other things, some of the tools already available on the internal system.

The GRoT tool (‘Gdańsk Land Report’) has also been developed and improved. It is available from the GeoGdansk application in a web browser. It allows to generate in one file (pdf, docx) a set of information presented in GeoGdańsk for a selected plot of land or area indicated on a map.

The GeoGdansk, based on standardised spatial data, integrates information from departments and units into a single database, supporting internal processes and providing information for residents. The project also presents on the map data that until now was stored in excel, documents or in separate files with different update frequencies.

To sum up, as a part of replication activity, it will be determined how and to what extent the landing site tool can be integrated into GeoGdansk. The land surveyors already tested the tool, assessing its functions as to identifying take-off and landing sites and finally presenting this information within GeoGdańsk. Similarly, as with charging stations and with help of urban planners, the criteria of planning the UAM infrastructure should be listed.

The mapping tool will be of most interest to urban planners and surveyors. The local steering committee includes one person from the Gdansk Development Office (urban planners) and five people from the Land Surveying Department who will first familiarise themselves with the tool's features and then advise the local project leader on the most appropriate way to test and implement it in Gdansk.

The key challenge is to bring the tool developed in the project into synergy with the Spatial Information System of Gdansk - GeoGdansk. It is a project in which the city of Gdansk brings together a considerable amount of spatial information. Thanks to GeoGdansk the municipality collects, shares and exchanges spatial information and is up to date.

4. Replication of UAM use cases and landing site infrastructure

This part of the report presents an overview of the implementation results of replication roadmaps.

4.1 Tartu

When defining the use cases, we developed them based on the experiences of the pilot cities in the project and the needs of the city of Tartu. Use cases have been observed and discussed at the project level, as well as locally in Tartu with various interest groups.

The primary focus in Tartu is on the use of drones in the city's public services with the aim of increasing the efficiency and ease of use of these services for city residents. We see various monitoring activities as the main use cases.

Insights gathered from a survey done in Tartu among city officials and relevant departments was critical in shaping the final shortlist of use cases. This survey helped identify the best potential use cases by highlighting areas of high impact, interest and feasibility within the city. From these results, we defined and prioritized the most viable options that align with the city's needs. Our focus was on ensuring these use cases reflect practical applications that can be realistically implemented within the urban environment. The main use-cases proposed are related to monitoring (construction works of buildings and streets, closing of streets, traffic management, waste management) to enhance work processes and ensure their transparency. Crisis management use-cases (sourcing of visual information, voice notifications) also played an important role.

In Tartu, cooperation is being carried out with the project "Smart Skies" supported by the ERDF Estonia-Latvia programme to conduct drone pilot flights. It was initially agreed that pilot flights in Tartu will be carried out in the second half of 2025 and the „drone in the box“ solution will be piloted in the area of construction monitoring.

Our original idea for pilot flights was mainly inspired by the Hamburg use case and our goal was to carry out pilot flights in BVLOS format. We communicated with the State Data Protection Inspectorate and the Transport Board to obtain the necessary approvals for the flights. Since conducting BVLOS flights with drones is new in Estonia and the authorities had no previous experience, we had to use the help of a law firm. In cooperation with the University of Tartu, the Estonian Aviation Academy and the Estonian Aviation Cluster, a unique mobile positioning-based tool/application for assessing land risks was created. After half a year of intense discussions, it finally became clear that we would still not be able to obtain the necessary approvals within the project timeframe. As a result, we had to develop a new use case for a VLOS pilot.

After the internal discussion and considering the situation (data protection, land risk) we decided to conduct a pilot in VLOS manner and in the field of crisis management. We chose voice notifications as an emergency for use. In order to demonstrate the technological possibilities, we used the drone in the box solution to perform the pilot, but in VLOS mode. The pilot was conducted on 4th of November 2025, in the center of Tartu. Different voice messages and visual warnings were presented to the public. There was also a quick survey on the spot to obtain first feedback from the residents about the pilot.

The topic of drone use cases was also discussed at the drone strategy training held on October 28, 2025, where the city's roles in various aspects of the wider use of drones (city planning, environment, etc.) were discussed.

In cooperation with the private sector representatives we will define next use-cases based on recent experiences and defined needs (health-care, delivery services, infrastructure monitoring etc.) for future piloting.

4.2 Riga

Primarily, we built on the foundational work completed in 2024, utilizing the existing inventory list of potential UAM use-cases and the practical learnings from the Lead Cities and their pilots. The data and insights gathered from a survey conducted in Riga among city officials and relevant departments were critical in shaping the final shortlist. This survey helped identify the best potential use-cases by highlighting areas of high impact, interest, and feasibility within the city. From these results, we carefully defined and prioritized the most viable options that aligned with the city's needs. Our focus was on ensuring these use-cases reflected practical applications that could be realistically implemented within the urban environment.

Although a significant opportunity was laid in the potential partnership with a private sector company interested in piloting a medical material delivery use-case between hospitals, but due to difficulty in the regulatory process, this initiative was paused until more political support was gained. This initiative still has a lot of potential, because it would not only test the technical and logistical capabilities of UAM but also address critical healthcare needs. We still plan on closely collaborating

with national authorities and the Civil Aviation Authority to navigate regulatory challenges and ensure the quick exchange of information.

Furthermore, we actively monitored and engaged with the piloting activities of the parallel 5GForLives project, which focused on 5G-enabled solutions. Although affected by delays in piloting due to procurement processes, initial test flights were held in Q4 of 2025, enabling the rollout of the public survey on this use-case. By aligning our efforts and learning from their outcomes, we aim to enhance the effectiveness and scalability of UAM use-cases, ensuring they are well integrated into the city's future mobility landscape.

4.3 Gdansk

In the summer of 2024 the City of Gdansk clarified potential use cases to be implemented as one of replication activities. The use-cases were shortlisted as a result of following the work of the lead cities and learning about their process of preparation as well as obstacles they came across throughout the project lifetime. The knowledge we gained through peer-learning was shared with the local steering committee and a following consultation with local stakeholders and associated organisations who shared their ideas for the pilot.

Three ideas were selected, with an intention of implementing at least two. The ideas were as follows:

1. Tree stand monitoring - Gdansk Roads and Greenery Authority carries out such activities year-round, with particular intensity during the growing season, and drones could be used in this process.

2. Completion of a safety audit around primary schools regarding the volume of car traffic and the danger this poses to children.

3. In cooperation with police - which is interested in the use of drones for traffic surveillance, securing mass events (major matches and concerts) and possibly as part of exercises for officers preparing for field searches. - It seems that securing mass events is a preferred pilot use case.

Following further consultation with a project leader, joint secretariat and respective beneficiaries of the pilots the municipality decided to proceed with two use-cases as follows:

1. Completion of a safety audit around primary schools regarding the volume of car traffic and the danger this poses to children concluded with a report of spotted situations and data on the volume of traffic.

2. Traffic surveillance, with a special focus of tackling speeding and preventing road races.

As far as the form of implementation is concerned, the municipality abandoned the idea of purchasing a drone and decided to outsource the entire responsibility to an external company that has a fleet of drones and know-how.

Since the spring of 2025 the CITYAM project team in Gdansk worked on procurement of such service and successfully resolved the request for quotation and signed a contract with the provider in

September. The service provider was supposed to support the road safety audits at five primary schools in Gdansk and the local Police in at least 8 locations indicated by the Police. In addition to that the local Police also expected support with preventing illegal street racing. It was decided that a drone operator ready to film would appear three times at a location known as a gathering place for fans of such races.

All the flights were planned as VLOS and the filmed material was to be provided to the municipality and the police. Whilst the videos from primary schools are supposed to be analysed by the service provider, who is required to prepare a report; video materials created at the request of the police are forwarded to the police for their own analysis and possible use as evidence.

As a result of the service the road safety audits were indeed carried out at five primary school locations. In turn, police traffic patrols were accompanied by a drone operator carrying out an assignment and a local member of the CITYAM team. In the case of road racing prevention, the service was limited to two instances and proved sufficient to at least temporarily discourage participants from engaging in such activities. As for police patrol support at critical intersections, the police identified four such locations in Gdańsk, where a total of 11 times (both during the morning and afternoon rush hours) video footage from a drone gave officers a better view of the situation. Although more offences were recorded, due to a lack of manpower, only 107 people were fined. The recorded video material was handed over to the police.

5. Replication of the UAM Public Acceptance Toolkit

This part of the report presents an overview of the replication of the UAM Public Acceptance Toolkit.

5.1 Tartu

In April 2024, we conducted the public acceptance survey (including use-case survey) and the results of this survey were analyzed within WP2 activities. Tartu used in the survey the following use-case description:

„In 2025, the city government plans to start testing the use of drones and artificial intelligence in the daily work of the city government. The first tests will be carried out in the road works oversight, to explore the possibilities and benefits of using drones in the daily work of the city government. During the test flights, the data gathered by filming the road construction status is analysed and its usability will be evaluated in regards to the construction project documentation drawings.“

In October 2025, we organized the next round of questionnaires. In cooperation with the project Smart Skies was organized (05.06.2025) a public event in Tartu where we introduced results from 1st round survey in project cities and Public Acceptance Toolkit.

Repeating the questionnaire enabled us to compare results with those from the previous survey and gain insights into how public opinion on UAM has evolved.

The surveys were conducted via the city official web-page to reach the target audience and achieve the desired sample size. Information about the survey was communicated via different channels

(press-release, city web-page, social-media, mailing-lists etc.) in order to ensure reaching an appropriate audience, including the general public and citizens.

In the first round of the survey (April 2024) we received 153 responses and in the second round (October 2025) 126 responses. So, quite comparable results.

The results of the surveys showed that, in general, the use of drones in public spaces is more acceptable to residents than not. Men and people with higher education were more tolerant. No significant age differences emerged.

The main concern is privacy and proper data management. Residents accept the use of drones for the common good – emergencies, science, surveillance. The active use of drones in residential areas is not acceptable. It is necessary to conduct pilot projects and raise awareness (engagement).

The most significant change between the two surveys was that while in the first round, people were most concerned about data misuse, after privacy, in the second round, privacy and crime were equally worrying. Data misuse bothered people less.

On October 28th 2025 we organized a training session on the Public Acceptance Toolkit for city officials and members of ZeroEst initiative. There were 14 participants in the training from 3 organisations (Tartu City Government- various departments, EAVA, Estonian Aviation Cluster). In the first part of the event we introduced the toolkit and results from surveys to participants and in the second part had a moderated discussion on the tool and its usage in further activities.

After the end of the project, we plan to conduct surveys regularly to understand the dynamics of public opinion and plan communication activities and get input into the city's development documents.

5.2 Riga

In 2025, we conducted the second round of the Public Acceptance Survey, utilizing the updated and streamlined General Survey along with the Use-case Survey. This enabled us to compare the results with those from the Year 2 survey and gain insights into how public opinion on UAM had evolved.

Beyond the project, our aim is to establish a recurring cycle, repeating the survey every few years or more frequently when the city initiates use-case pilot flights. Alternatively, the survey questions could be integrated into the city's annual large-scale general survey.

The survey approach mirrored the process from Year 2, involving careful preparation, the use of the city's survey platform, and leveraging the city’s communication channels to reach the target audience and achieve the desired sample size. The strategy for engagement was reviewed to ensure an objective demographic representation and a balanced understanding of UAM exposure.

To ensure transparency in communication and enhance the visibility of results, we actively communicated with the public and stakeholders through various City channels, including media outlets, social platforms, and internal and external newsletters. This multi-channel approach helped broaden outreach, ensured that information was accessible, and encouraged meaningful public participation throughout the project's progression.

5.3 Gdansk

The first public acceptance survey had been carried out in March 2024 resulting in 2610 filled in questionnaires and an impressive marketing impact for the CITYAM project in Poland. The information on the survey was shared with no less than 100 000 people via Citizen's Card newsletter addressed to residents and via media publicity in local and national media. Since this approach was highly effective, the next public acceptance survey will follow the same approach.

The Research and Analysis Unit of the Municipality of Gdansk and the Gdansk Tourist Organisation, which is responsible for the above-mentioned newsletter, the most effective information channel for reaching residents, will again be involved in the preparation of the interactive survey based on the tools provided by the project. In addition, a press release will be sent out, information will be posted on the City Hall website and on the city's social media channels.

Although the city has not decided to carry out a second round of surveys in the same calendar year, the surveys were still planned. It was decided that it was not worth asking residents for their opinions on hypothetical cases of drone use, but to organise a drone use-case pilot as part of a replication activities in Gdansk and then conduct surveys during or immediately afterwards. As preparation for the pilot, the city will be able to address the views expressed by residents in March 2024 and adapt communications to adequately address their needs and expectations.

Because of the Russian drones invading the Polish territory in September 2025, it was decided that as a second round of survey the general acceptance questionnaire instead of the use case specific one would be circulated. This way a shift in opinions could be assessed.

As a result, the second round of opinion polls began alongside the drone pilot project in September 2025. Between 19 September and 3 October, an interactive questionnaire was made available, and residents and subscribers to the newsletter linked to the resident card were encouraged to participate.

Over 1,600 residents took part, and the final report, including a comparison of the results of the first and second rounds, is ready. Only 5% of respondents declared having participated in both rounds of the survey. It is also worth adding that only 1254 filled the questionnaires in full, and this many questionnaires were analysed.

Despite the size of both samples, the results of the first and second rounds of the study in Gdańsk were not representative, as the demographic structure of the sample does not reflect the structure of the population of Gdańsk. For example, there was an overrepresentation of people aged 30 to 60 and people with higher education in the sample. Therefore, a weighting procedure was carried out for both stages of the study to ensure that the results were representative, and this process will be described in the study summary report.

Some Gdansk residents declare to be UAV pilots themselves, others heard about drones in school or University, or during industry conferences and fairs. Gdansk residents declare a moderate level of knowledge regarding urban air logistics. One in three admits no knowledge on the subject. And the

declarations on the lack of knowledge are slightly more frequent in 2025 (36% in 2025 vs 33% in 2024).

6. Replication of UAM Capacity building & policy/strategy development

6.1 Tartu

Tartu has been working on building the capacity of the organization during the project. In early 2025, we made significant progress in this regard as we started to implement a replication plan. Specialists of the city government from the fields of urban planning, land management, traffic, IT and public relations participated in the capacity building program through various working groups and trainings. In addition, politicians/decision-makers have been involved in the process.

During the period we carried out 3 CITYAM training on testing of the Landing Site Planning and Selection Tool, Public Acceptance Toolkit and UAM Capacity building and policy/strategy development.

On November 20th 2025 was organized a stakeholder roundtable (part of CITYAM Roadshow). The objective of the roundtable was to facilitate discussions on UAM strategies at local and national levels and establish next steps for UAM development in Estonia, based on CITYAM insights. There was an active discussion about the roles of various parties in developing the drone ecosystem in Tartu, and priority activities for the period 2026-2027 were mapped out.

Stakeholders were politicians, municipal officials, transport authorities, academic & research. There were 14 participants at the event from 6 organisations.

On December 3rd 2025 a public event was organised: the CITYAM Roadshow. The aim of the event was to showcase the CITYAM project results to both the public and decision-makers, to facilitate discussions on UAM strategies, raise awareness of drone topics and enhance understanding of UAM opportunities and barriers. The target audience of the event was the general public (citizens), students, tech enthusiasts, business community (logistics, mobility, drones), media, politicians.

We aimed to provide to all parties needed knowledge in order to agree on the organisational level how to proceed (timetable / commitments / investments / responsibilities) with UAM focused activities within the city.

In addition to presentations and discussions, participants were allowed to try out flying an FPV drone on a simulator, and various popular drones were demonstrated and short demo flights were conducted.

During the project a local drone strategy document was drafted which will be a basis for adding drone related activities to city strategic documents – city development plan, city master plan, SUMP.

During the last period of the project we had meetings with companies HexaTech and TrackDeep in order to find ways for the establishment of a drone monitoring system in Tartu. The monitoring system helps to understand better how the airspace in the city is used and is supporting future decisions in regard to UAM. **The result is a UAM strategic plan for the city of Tartu, based on the project outcomes, replication activities and cooperation with local stakeholders.** The plan was

introduced and discussed with different stakeholders during the training on 28.10.2025 and also at the CITYAM roundtable on 20th of November 2025.

Data and experiences gathered from replication activities will be continuously used in local planning and design activities related to UAM.

After the project ends we will together with policy makers and specialists from the city government review and identify existing city planning documents and policies that could benefit from the inclusion of UAM perspectives. This process will involve assessing which documents are due for revision and how UAM considerations (landing site integration, airspace management etc.) can be effectively incorporated. Understanding these timelines will ensure UAM is seamlessly integrated into ongoing and future urban developments.

In the frame of replication of UAM Capacity building & policy activities was initiated under the Estonian Aviation Cluster, a separate workgroup focusing on unmanned aviation. The workgroup members are all the EAC UAS related companies. The aim of the workgroup is to give collective input to for example the ministry and CAA for national UAS related topics & to boost the industry development as a joint effort in Estonia.

6.2 Riga

In 2025, we initiated discussions on capacity building at the city level, focusing on evaluating the necessary specialists and planners and their skills and knowledge to manage and integrate UAM into urban planning. This involved identifying relevant departments and stakeholders, such as the urban and mobility department, city development department, and others, who needed to be trained in UAM technologies, regulations, and infrastructure planning. Additionally, we reviewed and identified existing city planning documents—such as transport plans and urban plans and policies—that could benefit from the inclusion of UAM perspectives. This process involved assessing which documents were due for revision and how UAM considerations, such as landing site integration, airspace management, and safety protocols, could be effectively incorporated. Understanding these timelines ensured that UAM was seamlessly integrated into ongoing and future urban developments.

Guidelines were developed for Riga to support the safe integration of remotely piloted aircraft into the city’s mobility system. They outlined future development scenarios, infrastructure and flight corridor planning, regulatory implementation, and proposals to improve safety, efficiency, and public involvement. This will inform the process beyond the scope of the project, as we aim to maintain these discussions through continued collaboration with city officials, national regulators, and other stakeholders. During the next revision cycle of the city's strategic and long-term planning documents, we plan to integrate UAM into key policies, ensuring that UAM becomes a larger part of the city’s future mobility and infrastructure plans, supporting sustainable and scalable UAM development. Guidelines for the development of UAM were prepared with the involvement of an aviation expert.

Stakeholder engagement

Our main goal for the last project year was to actively engage all key target groups through targeted outreach and in-depth discussions. We hosted two project discussion and dissemination sessions to

foster dialogue on the project's progress, challenges, and potential solutions. These sessions brought together local stakeholders, including urban planners, public authorities, and representatives from various sectors, to ensure a well-rounded exchange of ideas. Additionally, we conducted focused discussions within the City Council's departments, facilitating cross-departmental collaboration on key topics, such as integrating CITYAM project tools into existing urban planning processes. This internal engagement ensured that all relevant departments were aligned with UAM goals and prepared to implement its solutions effectively. Additionally, as part of this process, a Riga city Drone working group was set up, to ensure coordinated cooperation in this sector.

Engagement also extended to national public authorities, as we held focused discussions with the Ministry of Transport and the Civil Aviation Agency to explore how lessons learned from the CITYAM project could best help guide any legislative or strategic plans, amendments, or other national initiatives they were developing.

6.3 Gdansk

It is to be expected that topics related to UAM will continue to be coordinated by the city's electromobility officer, who will oversee this topic in connection with the restructuring as of January 2025 from the Active Mobility Unity of the Public Transport Managing Authority. This person will continue to work closely with the city's representatives on the local steering committee, and especially with the Department of Security and Emergency Management, the Department of Economic Policy and the Department of Land Surveying, Gdansk Roads and Greenery Department and the office of the City of Gdansk.

The persons involved in the implementation of the CITYAM project in the city and at the same time in the subject of mobility will also report on the development of the state of knowledge and the work on the UAM in the city, the Civil Aviation Authority and the Polish Air Navigation Services Agency.

To support this process the local training event was organised on the CITYAM roadmap and the knowledge on the tool was expanded to include knowledge about current regulations concerning unmanned aerial vehicles and drone flight zones operating over Gdańsk. Twenty-six people took part in this event, organised on 17 November 2025, including members of the local steering committee.

The local project coordinator was also invited to participate in the SUMP revision team.

UAM integration into city planning and developing a UAM strategy: UAM is not currently included in the city's strategic documents, but an approach has been developed among mobility and transport practitioners that it will initially be considered as part of logistics rather than mobility.

The key documents at this point at city level are:

- **General Plan of the City of Gdansk**, which will replace the study of land use conditions and directions — a mandatory planning document covering the area of a municipality. This act of local law will be taken into account in the preparation of local development plans and forming the basis for the issuing of development decisions. It is intended to indicate in which parts of the city parks, roads, housing estates or workplaces can be built. The digital document will consist of spatial data

and justification (graphics and text).
The municipality's general plan will compulsorily contain provisions on:

- planning zones (defining the manner of development of individual areas),
- municipal urban planning standards (defining the intensity, height and area of development and the minimum biologically active area).
- The basic urban planning arrangements contained in the general plan will allow for a balanced and harmonious development of the city.

- **Gdansk Development Programs 2030** — The Gdańsk Development Strategy defines the framework of local development for the city and is a key element of its strategic management. It is the basis for the creation and continuous socio-economic development of Gdańsk to improve the quality of life of its inhabitants. The Development Programmes resulting from the Strategy set out the directions of activities that will serve the implementation of the four strategic objectives in the coming years: Green City, Common City, Accessible City and Innovative City.
- **Strategy for Electromobility Development in Gdansk until 2035** — a document supplementing the Gdańsk Development Strategy and the Operational Programme Mobility and Transport with aspects related to electromobility. The strategy was created as a response to the Act on electromobility and alternative fuels and as a result of a competition held by the National Fund for Environmental Protection and Water Management. Among other things, the document cites examples of good practice in the field of sustainable transport, national and Gdansk strategic documents in this area, and outlines the obligations imposed on local authorities in the field of electromobility development. Above all, however, the Strategy contains recommendations for Gdańsk, strategic objectives and a description of related actions. The document gives priority to public transport and active forms of urban travel in order to reduce the number of journeys made by private cars and the overall number of cars in the city. If a trip is to be made by car, it should preferably be made with alternative propulsion and using shared mobility.
- **Sustainable Urban Mobility Plan (SUMP) Gdańsk** — Thanks to sustainable mobility plans, European cities are gradually changing their “transport face”. Such a plan has also been drawn up for Gdańsk. The measures contained in it, planned until 2030, are to stop the trend of the growing role of car transport by improving conditions for pedestrians, public transport passengers and cyclists, as well as a consistent parking policy. Great emphasis is also placed on improving the quality of public spaces.
- **Crisis Management Plan of the City of Gdansk** — update 2024 The Municipal Crisis Management Plan (MPZK) was developed on the basis of the Act of 26 April 2007 on Crisis Management.
  The plan covers all phases of crisis management, i.e. prevention, preparation, response and recovery.
  It is a tool to support the crisis management system to prevent the emergence of a crisis situation or, in the event of its occurrence, to take planned actions that will prevent its development and minimise the effects of the event.

The MPZK provides a quick overview of the responsibilities of the various authorities and monitors the risks identified in the safety net. The list of forces and resources provides the knowledge for action planning and shows potential partners and task contractors with equipment and expertise.

- **Gdansk City Street Standard** — The procedures, model solutions and recommendations indicated in the study will be applied in the preparation of projects for new streets and the reconstruction of existing streets. GSUM is a strategic document, which is an expression of the policy of the City of Gdańsk formulated in the Strategy Gdańsk 2030+, Study of Conditions and Directions of Spatial Development of the City of Gdańsk and the Plan of Sustainable Urban Mobility for Gdańsk 2030+, according to which the highest priority will be given to pedestrians, cyclists and public transport when designing city streets. Streets will have a different character resulting from their vicinity. The document contains guidelines for detailed solutions of road lane development and street design together with examples of model solutions concerning both spatial, functional and aesthetic scope.
- **Landscape Resolution of Gdańsk** — has been in force since 2 April 2018. It aims to strengthen landscape protection and spatial order in the city area. The document sets out the terms and conditions for the siting of: billboards and advertising devices; small architecture objects; fences. The city is divided in the Resolution into 8 historical-functional areas, for which separate specific arrangements apply. Additional protection is afforded to objects and areas entered in the register of historic monuments, as well as objects entered in the municipal register of historic monuments.

It is most likely that UAM will be included in the SUMP update, which is expected in the third quarter of 2026, with an outlook to 2040. This will give the opportunity to use the conclusions in the implementation of the CITYAM project in this document.

A Sustainable Urban Logistics Plan (SULP) has not yet been developed for the city and, given the scope of this challenge, there is a working deduction that this work could be proceeded with provided external funding is obtained, e.g. through the implementation of an EU project. It would then certainly also look at the issue of supplies and services using the potential of the UAM.

In addition, through the presence of representatives of various key municipal departments and units on the local CITYAM steering committee, it can be expected that awareness of the UAM will increase and ultimately be present in urban planning.

At the regional level, UAM is also not present in strategic documents. A Metropolitan SUMP was created in December 2023, but UAM is not included in it. However, the city will share information and provide assistance, in case of future updates to this document.

The overarching strategic document in the city is the aforementioned Development Strategy for Gdańsk and, in line with the current approach, we try not to multiply further strategic documents, especially those with the status of local law, as this is not efficient. However, the city's representatives participating in the work of the CITYAM consortium provide local input into the results so that further approaches to shaping the UAM in the city can be based on them.

January 2025 / D3.1 UAM Replication plan

In the same way that a procedure has been developed for the provision of sites in the road lane for vehicle charging stations, it can be expected that a procedure will be developed for the provision of sites in the road lane, on the roofs of municipal buildings and on publicly accessible non-roadway municipal plots for drone take-off and landing sites.

Additional plans for public engagement

In connection with the planned pilots, communication of both intentions and results is planned through press releases and municipal social media profiles. In addition, it will be possible to use the city's TV studio, where interviews on the topic will be recorded and made available via the gdansk.pl website.

The 2025 edition of the educational picnic, traditionally organised by the Municipal Transport Authority as part of EUROPEAN MOBILITY WEEK, would not have been complete without topics related to urban air mobility. Thanks to the CITYAM project stand, visitors could participate in micro-drone flight demonstrations carried out by the Conradinum school, use a drone flight simulator, take photos in a commemorative photo frame and, perhaps the biggest attraction, pose for a group photo taken from a drone. The stand also featured an expert who advised visitors on legal drone flights and reporting missions in the Drone Tower mobile application, which is mandatory in Poland.

7. General learnings and recommendations from replication activities. Evaluation of success.

7.1 Tartu

Tartu’s replication activities under CITYAM have demonstrated the city’s ability to adapt and integrate Urban Air Mobility (UAM) tools and methodologies into its local context. The city successfully tested and applied the Landing Site Planning and Selection GIS Tool, tailoring selection criteria to local infrastructure, traffic conditions, and geographic constraints. Training sessions with planners, aviation specialists, and technology partners ensured the tool’s usability and created a basis for independent application in future urban planning activities. Public demonstrations, such as the CITYAM Roadshow, further increased transparency and awareness among residents and stakeholders.

In terms of use cases, Tartu focused on practical and high-impact applications of drones for monitoring and crisis management. Although the initial ambition to conduct BVLOS pilot flights was not realized due to regulatory challenges, the city pivoted to VLOS pilots, demonstrating drone-in-the-box solutions for emergency voice notifications. This adaptation provided valuable experience with operational, legal, and public acceptance aspects of drone use, laying the groundwork for broader applications in construction monitoring, traffic management, and crisis response.

Public acceptance activities were another key learning area. Tartu conducted two rounds of surveys and public events, which allowed comparison of changing attitudes toward UAM. Results showed that transparent communication, early engagement, and clear articulation of benefits are crucial for building trust. The Public Acceptance Toolkit provided a structured method to collect insights, while training sessions with city officials and NGOs helped embed social perspectives into strategic planning. The commitment to repeat surveys beyond the project ensures continuity in understanding and managing public opinion.

Capacity building proved to be one of Tartu's strongest outcomes. Cross-departmental training and roundtables facilitated collaboration among planners, traffic experts, IT specialists, and policymakers. The development of a local drone strategy document, aligned with Sustainable Urban Mobility Plan (SUMP) principles, ensures that UAM is integrated into the city's long-term development frameworks. Engagement with national regulators, universities, and private sector actors further strengthened Tartu's role as a pioneer in Estonia's UAM ecosystem.

Evaluation of success:

- **Strengths**: Tartu demonstrated strong stakeholder engagement, adaptability in piloting use cases, systematic public communication, and integration of UAM into strategic documents.

- **Challenges**: Regulatory constraints limited the scope of pilots, particularly for BVLOS operations, highlighting the need for closer cooperation with national authorities.

- **Recommendations**: Continue capacity building and stakeholder collaboration, maintain regular public acceptance surveys, and pursue regulatory dialogue to enable advanced drone operations.

Overall, Tartu's replication activities have built a solid foundation for sustainable UAM development, creating both strategic direction and practical experience that can guide future pilots and policy integration.

The stakeholder engagement programme in Tartu aims to actively engage all key stakeholder groups through targeted outreach and in-depth discussions. General meetings with stakeholders will be organized monthly. Depending on the roadmap topic (GIS tool pilot, drone operations pilot, decision making tool pilot), working groups will be formed, inviting specialists and experts from various city government departments and external organisations. National authorities (Transport Administration, Ministry of Economic Affairs and Communications, Ministry of Climate) will be included in the working groups as needed. Several stakeholders (politicians, city officials from different departments, EAVA, Estonian Aviation Cluster, Tartu Science Park, general public) have already participated in project-related activities before. Therefore, we do not need to do additional stakeholder mapping and can create working groups using existing contact networks.

To ensure the effectiveness of the working groups, it is necessary to include politicians/decision-makers who impact the shaping of UAM policy in the city.

involvement and support of politicians is particularly important in shaping the UAM strategy and action plan in the project.

Beyond the project lifetime, our aim is to repeat the public acceptance survey on a regular basis (at least every third year). Main questions of the survey remain the same in order to ensure comparability of results. Adapted survey will be used when the city initiates new use-case pilot flights.

To ensure transparency in communication and enhance the visibility of UAM, we plan to actively communicate with the general public and stakeholder groups through various city channels (including social media). Information about the project, including project outcomes, will be continuously presented in the city web-page on a dedicated project page.

After the project ends, we will continue to implement the UAM strategy and pilot new use cases. We aim to maintain discussions with city officials, national regulators, and other stakeholders beyond the project to ensure sustainable and scalable UAM development in the City of Tartu.

7.2 Riga

General Learnings from Replication Activities

Riga's participation as a replication city in the CITYAM project has provided valuable insights into the opportunities and challenges of preparing for Urban Air Mobility (UAM). Key learnings include:

- **Value of knowledge transfer:** Close cooperation with leading cities such as Hamburg, Stockholm, and Helsinki proved essential. Their practical experience with BVLOS operations, vertiports, and regulatory sandboxes accelerated Riga's own understanding of UAM integration needs.
- **Importance of legal and procedural clarity:** Replication highlighted the need for simplified and transparent procedures for flight approvals, as current national and EU-level regulations can be complex for local implementation.
- **Stakeholder engagement as a success factor:** Bringing together municipal departments, the Civil Aviation Agency, infrastructure managers, universities, and industry partners has been critical to building a shared vision for UAM.
- **Technological preparedness:** The cooperation with Riga Technical University to develop a GIS-based drone tool demonstrated how local data integration can support safe and efficient planning of UAM operations.
- **Regional perspective:** Cross-border dialogue under CITYAM showed that alignment across Baltic Sea cities strengthens the case for harmonized UAM deployment, avoiding fragmented solutions.

Recommendations

- **Institutionalize UAM in city planning:** UAM considerations should be systematically integrated into Riga's urban mobility strategies, zoning, and infrastructure development plans.
- **Develop local regulatory guidelines:** Complement EU and national legislation with Riga-specific guidelines that clarify responsibilities, risk zones, and coordination procedures.

- **Continue pilot use cases:** Small-scale pilot operations with drones (e.g., in medical deliveries or municipal inspections) will help test procedures and raise public awareness.
- **Strengthen cooperation with academia and industry:** Partnerships for technology development (GIS tools, communication systems, vertiport feasibility) should be deepened to maintain innovation momentum.
- **Promote public communication:** Public acceptance will depend on clear messaging about safety, benefits, and use cases for UAM in the city.

Evaluation of Success

Riga's involvement in the CITYAM project has been successful in several aspects:

- The city now has a comprehensive set of UAM integration guidelines, aligned with EU Regulation 2019/947, national rules and CITYAM 2.4. delivery "Harmonising City Strategies towards Urban Air Mobility ".
- Riga has established internal capacity through project teams and stakeholder networks, ensuring readiness for future steps.
- The GIS drone tool prototype developed with Riga Technical University provides a strong foundation for operational planning.
- Riga contributed to and benefited from the Replication Plan (Deliverable 3.1&3.2.), ensuring that lessons from leading cities are adapted to local context.
- Participation in consortium meetings and international events increased Riga's visibility as an emerging player in UAM planning.

7.3 Gdansk

General Learnings from Replication Activities

The key learning for replication activities is that the knowledge of regulations relevant to drones needs to be refreshed and updated on municipal level, even though the municipality is not in charge of the lower airspace.

When it comes to local training activities it became obvious that municipal employees who are the most interested in CITYAM project tools are the ones who are drone operators themselves in their spare time.

In terms of social acceptance survey, we used mechanisms for reaching respondents that have proven effective in Gdańsk for years. Initially, we planned to conduct the research and analyse the results using our own resources, but it turned out to be a good idea to relieve our official unit and hire a research company to analyse the raw data and compile the results. Thanks to this and the data weighting procedure proposed by the company, the results obtained are representative.

Both rounds of the study show that the greatest social acceptance of the urban air mobility occurs mainly in the context of ensuring the safety of residents.

In that regard the level of acceptance stays roughly the same in 2024 and 2025. But minor changes in attitudes in this regard can be observed in the strength of acceptance for certain types of drone use. Most of them are slightly less acceptable now than 1.5 year ago.

Greatest concerns with drone topics in both rounds of the study include misuse of data (75-78% concerned respondents in 2024 and 2025), privacy breach (74-77%) and national security (63-68%).

In the context of drones Gdansk residents tend to be more „on edge" in 2025. It may be attributed to the psychological aftermath of the Russian drone attacks on Polish territory in September.

The most suitable locations for drone take-offs and landings are industrial areas and the rooftops of commercial or public buildings. On the other hand, there is little or no consent to drones taking off and landing from public transport stops or sidewalks.

Acceptance for drone take-off and landing places slightly changed in 2025. Some sites are now perceived as somewhat more suitable than in 2024 – e.g. residential area (suitable for 15% of respondents in 2024 vs 22% in 2025) or commercial area (44% in 2024 vs 48% in 2025).

On the other hand, other sites are deemed less suitable for drones in 2025 – e.g. roofs of private buildings, pavements, recreational areas or bus stops.

As for the factors for site selection, authorities should pay particular attention to proximity to pedestrian zones and residential areas, cargo content, area safety and the frequency of landings and take-offs.

In 2025 the importance for many factors has risen evidently compared to 2024. For example, area security is important for 84% of respondents in 2025 (vs 77% in 2024). The same goes for e.g. frequency of landings and take-offs (79% in 2025 vs 72% in 2024).

Gdańsk drew the most numerous and valuable conclusions from pilot drone use cases.

Over the course of preparation we realised that realistic deadlines for task completion should be set. The risk of delays stems not only from weather conditions, but also from GPS signal interference caused by electromagnetic waves from the Sun, interference related to military activities and exercises, and potentially from the time needed to obtain flight clearance, if required by the area of operation. Each such situation is analysed based on a risk assessment for the specific location and type of task. Delays may also be related to the time required to obtain flight authorisation, if required by the area of operation. Each such situation is analysed on the basis of a risk assessment for the location and type of task. Tasks performed on the ground, however, are not subject to these factors.

Halfway through the process, it is already clear that the aerial perspective provides a broader view of the area under investigation, while requiring significantly less manpower and financial resources.

Evaluation of success:

- **Strengths**: Gdansk demonstrated effective communication mechanisms and a high return rate of the public acceptance questionnaires.

- **Challenges**: Staff rotation within the project team and planning replication activities within the consortium for the final year of the project made their implementation more challenging than the successive implementation of even a year earlier.

- **Recommendations**: To continue capacity building and stakeholder collaboration, increase communication with wider public and public relations to create legacy for the project and pursue internal dialogue to enable the inclusion of drone-related issues in municipal structures and strategic and planning documents.