

UAM Checklist for Cities

This checklist is a resource for city officials, urban planners, and stakeholders, designed to guide the seamless integration of Urban Air Mobility (UAM) into urban environments. It outlines a structured pathway and provides detailed milestones for each project phase, from infrastructure development to service scalability, without overlooking any necessary considerations.

By identifying key areas of focus, the document ensures thorough preparation for UAM adoption. Emphasizing strategic planning, stakeholder collaboration, and adaptive project management, it aims to streamline the planning and execution process. This guide supports cities in overcoming the complexities of UAM integration, enhancing urban mobility and sustainability effectively.





Milestone 1: Preliminary Planning and Analysis

Initiates with a feasibility study, stakeholder identification, and public sentiment analysis. This phase assesses project viability, identifies UAM benefits and challenges, secures stakeholder agreement, and gauges community support. Completion confirms the UAM project's readiness for further planning.

1.Initiate Comprehensive Feasibility Study

Assess UAM viability, potential benefits, and challenges.

2.Stakeholder Identification and Engagement

Engage government, industry, community leaders, and potential partners.

3.Conduct Public Sentiment Analysis

Presentations are tools that can be used as lectures, reports, and more.



Milestone 2: Environmental and Regulatory Framework

Conducts an environmental impact assessment and develops UAM-specific policies. This milestone ensures the UAM project complies with environmental and regulatory standards, setting a path for responsible infrastructure development and protocol establishment.

4.Perform Environmental Impact Assessment

Evaluate sustainability and environmental implications of UAM implementation.

5.Integrate City API for Seamless UAM Operations

Develop digital infrastructure for traffic management, data sharing, and city-wide UAM coordination.

6.Conduct Financial Planning and Economic Analysis

Analyze costs, forecast revenues, and assess the economic impact on local communities.



Milestone 3: Infrastructure and Urban Integration

Involves selecting vertiport locations and planning UAM corridors. The goal is to create a network of vertiports that fit within the urban environment and meet environmental standards, preparing for detailed design and construction.

7.Ensure Regulatory Compliance and Policy Formulation

Navigate regulatory landscape, secure necessary approvals, and develop UAMspecific regulations.

8.UAM Corridors and Airspace Management

Plan and designate UAM corridors, manage airspace integration, and optimize for safety and efficiency.

9.Strategize Location Selection for Vertiports

Assess sites based on strategic importance, accessibility, and land use considerations.

10.Define and Develop UAM Service Offerings

Establish service portfolios including cargo delivery, passenger transport, and emergency services.



Milestone 4: Technology **Deployment and** Operational Readiness

Transitions to operational readiness through technology deployment and operational protocol development. Incorporates City API and safety standards to prepare for living labs and pilot projects, proving the UAM system's operational readiness.

11.Design and Construct UAM Infrastructure

Develop vertiport architecture, energy solutions, and build with sustainable practices.

12.Adopt and Implement Safety and Security Standards

Ensure the highest safety protocols and security measures are in place.

13.Deploy Advanced Technology and Data Management Solutions

Utilize AI, IoT, and other technologies for enhanced traffic and fleet management.

14.Form Strategic Partnerships and Collaborations

Establish relationships with operators, service providers, tech companies, and other stakeholders.

15.Launch Living Labs for Realworld Testing

Pilot transition models to test commuter, cargo, and emergency services in urban environments.

16.Develop a Commercialization Strategy

Identify target markets, service models, and business opportunities.



Milestone 5: Service **Development and** Community Engagement

Develops UAM services and conducts community outreach. This stage designs services based on community and market needs and establishes strategic partnerships for market entry, ensuring the project is ready for market introduction and supported by the community.

17.Establish Operational Protocols and Guidelines

Outline comprehensive operational, safety, and security guidelines.

18.Implement Community Outreach Programs

Engage and educate local communities, fostering support and participation.

19.Initiate Operational Launch with Pilot Services

Start UAM services based on pilot project outcomes and scalability assessments.

20.Explore and Establish Vertiport Ownership Models

Determine the best ownership and management models for vertiport operations.

21.Service Diversification Based on Market Demand

Expand UAM services to new areas based on feasibility and user demand.



Milestone 6: Launch, Performance Monitoring, and Expansion

Marks the operational launch of UAM services, focusing on performance monitoring and feedback for service improvement. Establishes an expansion framework based on data and market analysis, indicating the UAM system's operational status and readiness for growth.

22.Monitor Performance and Implement Feedback Mechanisms

Track operational metrics, incorporate user feedback, and optimize services.

23.Plan for Service Expansion and Infrastructure Scalability

Evaluate pilot successes, plan for additional routes, services, and vertiport expansions.

24.Incorporate Innovation and New Technologies

Stay updated with advancements for continuous improvement of UAM operations.

25.Develop Workforce Training and Skills Development Programs

Programs

Prepare for future UAM needs with targeted training and education initiatives.

26.Perform Ongoing Market and Demand Analysis

Continuously research market trends to adapt and refine UAM services.



27.Ensure Community and Stakeholder Involvement in Expansion Plans

Involve local communities and stakeholders in planning for UAM growth and scalability.

28.Leverage Data Analytics for Strategic Decision-Making

Use data insights for operational improvements, route optimization, and service enhancements.

29.Emphasize Sustainability in All Phases of UAM Activation

Integrate eco-friendly technologies and practices in vertiport construction, vehicle operations, and infrastructure development



Milestone 7: Scalability and Future Growth

Emphasizes long-term scalability and growth, using operational insights for service expansion and enhancement. Explores vertiport ownership models and adapts to regulatory changes, aiming for continuous improvement and market alignment.

30.Engage in Continuous Policy and Regulatory Dialogue

Maintain active communication with regulatory bodies for policy updates and advocacy.

31.Facilitate Technological Partnerships for UAM Advancements

Collaborate with tech firms and research institutions for innovative solutions.

32.Adopt a Flexible Approach to Adapt to Emerging UAM Trends

Stay agile to incorporate new trends, technologies, and regulatory changes in the UAM sector.

33.Cultivate a Safety-First Culture Amongst All Participants

Prioritize safety in all aspects of UAM operations, training, and community engagement.