



Europe

AAM/UAM Routes and Programmes

Version 3.5.3 – Sample pages



A guide to advanced and urban air mobility projects in European countries

Thank you for downloading these sample pages of the **Europe AAM-UAM Routes and Programmes** report. If you have any queries, please get in touch with us – contact details are below.

Introduction

The **Europe AAM-UAM Routes and Programmes** report is aimed at advanced air mobility/urban air mobility (AAM/UAM) industry OEMs and supply chain partners, transport planners, finance companies, consultants and local authorities who need a detailed understanding of what programmes are underway around the world and the market opportunities that exist within these programmes. It provides a unique guide to competitive industry information, global/regional market size and trend analysis, with a specific focus on routes, route lengths, host cities/regions and eco-system suppliers.

It is based on many months of research by the worldwide editorial team and the sources of each entry are referenced.

While most AAM/UAM market intelligence studies are focused on the value and forecast for eVTOLs and associated industry suppliers, the **Europe AAM-UAM Routes and Programmes** report analyses operational plans and confirmed industry participation broken down into geographical areas.

The European report gives details on plans to develop passenger AAM/UAM services in 27 European countries and 96 cities, with timelines and descriptions along with details on industry participation, broken down into the following areas:

- Cities and routes (with route lengths)
- eVTOL manufacturer partner
- Electric fixed wing platform manufacturer
- AAM/UAM aircraft operators
- AAM/UAM training
- AAM/UAM aircraft operator maintenance and support
- AAM/UAM aircraft charging and power supplies
- Vertiport/airport developer/operator
- Vertiport/airport safety and security
- Airspace integration
- Local authority partner/client
- Others

Information is validated and updated regularly – the sources for all information are outlined in the report.

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Belgium

Country introduction

Germany's Evia Aero airline plans to fly electric aircraft services from Elde in the Netherlands to London, Brussels, Duesseldorf, Hamburg, Frankfurt and Copenhagen, as part of a network of 15 European destinations in place by 2027.

The Belgian cities of Antwerp, Hasselt and Liege are part of the Europe Union's Urban Air Mobility Initiative Cities Community. The Urban-Air-Mobility Initiative Cities Community (UIC2), of the EU's Smart Cities Marketplace, was established in October 2017. According to the programme's website: "UIC2 is a city-centric (and regions) and citizens' needs-driven community that brings the voice of European cities and regions in the emerging sector of urban air mobility. UIC2 fosters collaboration across disciplines and sectors pertinent to UAM with the aim to jointly shape the future of UAM."

The "smart city" initiatives of Germany's Oecher Lab network, which is backed by the Government of Germany's North Rhine-Westphalia region, include several Belgian members.

The network is centred on Aachen, which is working with nearby communities in Belgium and the Netherlands to explore the potential for a UAM network that could include Maastricht (27.2 km), Liege (48 km), Hasselt (70.4 km) and Heerlen (19.2 km).

According to *Future Flight*: "Working with the other cities in the Netherlands and Belgium, Aachen officials are forecasting traffic patterns for both short-haul eVTOL rides and potentially longer intra-regional trips in eSTOL (electric Short Take-Off and Landing) fixed-wing aircraft. They are exploring the potential to use three small airports in the region that are both underutilised and conveniently located."

Meanwhile, in July 2022, ASL Group signed an agreement with Lilium to buy 60 Lilium Jets and cooperate on developing a network of landing sites in the Benelux countries. Under the agreement, ASL Group and Lilium seek to establish a safe and sustainable eVTOL network across Belgium, Netherlands, Luxembourg and Western Germany. In May 2023 Lilium announced that it has signed a contract with ASL Group for the delivery of six Lilium Pioneer Edition Jets as part of this agreement.

Germany's Evia Aero airline plans to fly electric aircraft services from Elde in the Netherlands to London, Brussels, Duesseldorf, Hamburg, Frankfurt and Copenhagen, as part of a network of 15 European destinations in place by 2027. The company has also signed a letter of intent with the UK company Cranfield Aerospace Solutions (CAS) for the delivery of ten Britten Norman Islanders powered by hydrogen fuel cells. The aircraft is aimed at coastal routes in Germany, the Netherlands and Denmark.

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Finland

Country introduction

UAM projects in Finland are being concentrated in two projects/cities: Urban Air Mobility Oulu and the LIFT Future Aerospace Centre, focused on the Helsinki-East aerodrome.

Urban Air Mobility Oulu (UAM Oulu) is the one of the country's strategic initiatives aiming at contributing to the development of UAM in Finland.

According to the project's website: "The ultimate objective of UAM Oulu is to achieve city-wide coverage as a UAM living lab providing a single-entry and one-stop service point for any matters associated with business activities within the City of Oulu U-Space, as well as applications of UAS, particularly in Nordic conditions, and enabling technologies for testing, research and demonstration purposes to develop safe, secure and all-weather resilient UAS technologies and to promote scalable urban air mobility solutions."

The programme is working to develop a vertiport and air mobility testing in the new residential area that will be open for the Housing Fair in Oulu in 2025.

The initiative has been established through the partnership of the City of Oulu, Oulu University of Applied Sciences, the University of Oulu and VTT Technical Research Centre of Finland, in close cooperation with Arctic Drone Labs' Finnish National UAV Ecosystem (FUAVE) and Digital Innovation Hub (ADL DIH).

"Considering social and ecological aspects in technology development and urban planning, UAM Oulu develops a broad vision about the future of urban, suburban, peri-urban/inter-urban and rural areas with a special focus on the Nordic challenges of different industries' domains, including transportation and particularly UAS applications in severe weather conditions. Due to the nature of novel transportation modalities in the cities that use air, UAM Oulu brings a third dimension to the Sustainable Urban Mobility Plan (SUMP) of the City of Oulu, and together with Oulu Innovation Alliance engages the key city stakeholders to match their plans towards big, commonly agreed targets.

"UAM Oulu partners collaborate on disruptive innovation, particularly with relevance to mobility, robotics and autonomous systems, artificial intelligence, cybersecurity and communications. Partners contribute together with local, national and international stakeholders to the development of cutting-edge ICT infrastructure, facilitating the implementation of Smart City Oulu. Members of our team contribute to the development of the 5G Test Network and are involved in the activities of the 6G Flagship. We are a part of the largest Nordic ICT network, Allied ICT Finland."

Meanwhile, the LIFT Future Aerospace Centre started its operations in Finland at the beginning of September 2022, bringing together actors from the private, public and R&D sectors to create new aviation innovations in response to growing demand.

According to a statement on the Government-owned aeronautical research institution VTT's website:

"The partners joining the innovation cluster with the host organisation Redstone AERO Oy include VTT Technical Research Centre of Finland, the South-Eastern Finland University of Applied Sciences (Xamk) and the Finnish Geospatial Research Institute FGI. The cooperation is aimed at strengthening research, development and innovation collaboration (RDI) in future aviation, while supporting the emergence of new business within the field in Finland. Redstone AERO has built a future aerospace research centre at the Helsinki-East Aerodrome, which will provide the facilities for the RDI needs. This will contribute building a strong innovation ecosystem together with relevant partners."

The Helsinki-East Aerodrome area will act as a prototype for efficiently operating a new kind of an aerodrome. "Future air traffic and on-demand transport services will need a much denser airport network than we have today. At LIFT, we are developing a concept that allows airports to be planned, built, licensed and operated more efficiently than before. We call the new model by the name digital airport," said Esa Korjula, Chair of the Board of Redstone AERO, the company operating Helsinki-East Aerodrome.

October 2022 Business Tampere awarded a team from Fintraffic and IBG A2M to support their initiative to research AAM and what it could mean for the citizens of Tampere. The study is a first step for the city to plan and build a U-Space infrastructure.

The Finnish cities of Oulu and Tampere are part of the Europe Union's Urban Air Mobility Initiative Cities Community. The Urban-Air-Mobility Initiative Cities Community (UIC2), of the EU's Smart Cities Marketplace, was established in October 2017. According to the [programme's website](#) "UIC2 is a city-centric (and regions) and citizens' needs-driven community that brings the voice of European cities and regions in the emerging sector of urban air mobility. UIC2 fosters collaboration across disciplines and sectors pertinent to UAM with the aim to jointly shape the future of UAM."

In late April 2023 Nordic research agency Nordregio published a report which identified the most viable regional/commuter electric aircraft routes. See: pub.nordregio.org/wp-2023-5-overview-of-electricity-and-energy-capacity/#129232. For a route map see "Denmark entry"

The primary focus of this project was to assess route viability based on a fully electric airplane with a 19-passenger capacity, flying a maximum distance of 200 km for a duration of one hour.

According to the report:

"Regarding Finland, there are several options due to high power grid adequacy in the country. However, airports placed in Lapland and Sea-Lapland, including Rovaniemi, Kittilä, and Enontekiö, as well as airports in the Ostrobothnia region, including Vaasa, Kauhava and Kauhajoki airports, are relevant to consider as case studies due to high power coverage rates.

Kauhava, Vaasa, and Kauhajoki airports can provide cross-water connections to, e.g., Umeå airport in Sweden. Inland airports such as Kajaani and Kuusamo airport can also be considered to increase the connection of rural areas domestically."

Sources:

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Paris Le Bourget

Timeline

Planned – to be launched within two to five years; funds have been committed and key industry partners identified

Programme description

In May 2024, Embraer, Eve Air Mobility and Groupe ADP (Aéroport de Paris) signed a Memorandum of Understanding (MoU) to “prepare the future of low-carbon aviation in and around the Airport of Paris-Le-Bourget, strengthening Embraer’s operations and its facility at Paris-Le Bourget airport, Europe’s leading business aviation airport.”

“The MoU covers the creation of new capabilities to enhance Embraer’s aircraft maintenance operations, to prepare for the future Energia family, and to support the development of Advanced Air Mobility (AAM) operations with eVTOLs” according to the press release.

“With this collaboration, Paris-Le Bourget consolidates its status as an innovative aeronautical cluster and a pioneering airport in decarbonised aviation.

“As part of this plan, Embraer Services & Support intends to design and then transfer its current facilities to a new maintenance building to optimise its capacity, while aiming for the most advanced standards in low-carbon construction and energy self-sufficiency. The new aircraft maintenance facility is expected to more than double the unit’s capacity.

“For Eve, the company intends to work with Groupe ADP to prepare the necessary environment for eVTOL operations, including service and support activities such as training, maintenance, ground handling services, and facilitate potential demonstration flights for public-private initiatives.

“Finally, Groupe ADP intends to provide its expertise to support future operations of the Energia aircraft family at Paris-Le Bourget, with the study of a hydrogen infrastructure. Embraer’s Energia program was updated last year with two concept aircraft models of 19 and 30 seats, with hybrid-electric and hydrogen-electric propulsion.”

Sources:

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Bavaria, Munich

Timeline:

Planned – to be launched within two to five years; funds have been committed and key industry partners identified

Route(s):

Lilium

Munich – Bayreuth (200km)

Munich – Freiburg (364km)

Munich – Konstanz (187km)

Munich – Munich Airport

Munich – Ulm (120km)

Munich Airport – Ingolstadt (70km)

Munich Airport – Konstanz (187km)

Munich Airport – Munich

Munich Airport – Nuremberg Airport (150km)

Munich Airport – Regensburg (104km)

Munich Airport – Stuttgart Airport (190km)

Programme description

In April 2021 Lilium announced that [Munich Airport and Nuremberg Airport](#) will become hubs for a proposed regional air mobility network in Bavaria. This news follows on Lilium's planned hubs in North Rhine-Westphalia and Florida, with the first passenger flights projected to take place from 2024 onwards. The partnership will offer all-electric connections, with each of which can transport six passengers between different locations across Southern Germany. This was followed by [an announcement in October 2021](#) that Stuttgart Airport is expected to become a hub for regional electric flights with Lilium aircraft. Separately, Lilium has planned western German hubs with [Cologne/Bonn and Düsseldorf airports](#) and a planned network of [14 locations in Florida \(USA\)](#), with the first passenger flights projected to take place from 2024 onwards.

This news follows on from Lilium's planned hubs in North Rhine-Westphalia and Florida, with the first passenger flights projected to take place from 2024 onwards. Charging facilities at Lilium vertiports will be provided by ABB E-mobility. According to an ABB Press release: "The ABB charging points are designed to be capable of fully charging batteries in approximately 30 minutes, and charging up to 80 percent in 15 minutes, enabling the 20-25 flights per aircraft per day planned across Lilium's global vertiport network. The initial range of a 7-Seater Lilium Jet is expected to be 155 miles with an average speed of 175mph."

Sources:

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Rome

Timeline:

Planned – to be launched within two to five years; funds have been committed and key industry partners identified

Route(s):

City centre – Rome Fiumicino (30km)

City centre – Ciampino (16km)

Programme description

At the 2022 World ATM Congress, Leonardo and Aeroporti di Roma (AdR) announced a partnership to equip vertiports with innovative technological solutions. According to Ivan Bassato, Chief Aviation Officer of Aeroporti di Roma (AdR): “AdR is actively working on designing the ground facilities – the so-called vertiports – to facilitate the operational start-up of this type of service in Rome, with a challenging timeline to launch the first commercial operations between Fiumicino Airport and the city of Rome in 2024, maybe on an experimental basis, and to offer the option of flying taxis the very same year. According to the plan, this maiden commercial route would be among the world’s first to take advantage of urban air mobility.”

In October 2022 ADR, Atlantia, UrbanV and Volocopter reported they had successfully completed the first crewed eVTOL test flights in Italian airspace. “These tests were part of a mobility ecosystem setup at Fiumicino’s Leonardo da Vinci International Airport. This is a key milestone toward the envisioned rollout of advanced air mobility (AAM) services in Rome by 2024, with the partners having initiated operations of the first fully functional vertiport in Italy,” says a consortium press release.

In June 2023 Lilium and UrbanV announced their partnership to develop vertiport infrastructure will enable eVTOL networks for Lilium aircraft and customers with an initial focus on Italy and the French Riviera, where UrbanV says it will launch its operations, with potential for further markets in the future. Lilium says that it will benefit from UrbanV’s strong foothold and key airport access in Rome, Venice, Bologna, Nice, Cannes, St. Tropez, and surrounding areas.

Also in June 2023 SITA, an IT provider to the air transport industry, and UrbanV announced the signing a MOU to develop a digital-first passenger experience for UrbanV’s vertiports in Rome due to start operations in 2024.

According to the press release “From UrbanV’s test vertiport at Rome’s Fiumicino Airport, both parties will design, test, and refine a new passenger processing and operating ecosystem to support the first flight between Fiumicino and Rome’s city centre. SITA will deploy its expertise in air transport for the emerging Advanced Air Mobility (AAM) industry, developing new operating standards and a digital-first passenger experience. The partnership will leverage SITA’s portfolio, which includes a wide range of IT solutions for airport management, network connectivity, passenger, flight, and aircraft operations.

“SITA and UrbanV will also closely collaborate to test and validate UrbanV’s concept of operations blueprint in Rome and evaluate potential commercial synergies worldwide for a joint go-to-market in the Advanced and Urban Air Mobility segment.

“UrbanV envisions vertiports being interoperable by multiple eVTOL operators and integrated within the local aviation ecosystem, such as Fiumicino Airport. This is aligned with SITA’s vision of vertiport systems being natural peering and aggregation points with shared components and services to facilitate data exchange, providing cost efficiency and economies of scale for all AAM operators.”

Aeroporti di Roma, Volocopter, UrbanV, and Atlantia conducted the first crewed eVTOL public test flight in Italy on October 6 2022, while presenting the country’s first AAM testing vertiport and hosting an interactive booking process on Volocopter’s VololQ digital platform. The vertiport is developed in compliance with the EASA “Prototype Technical Specifications for the Design of VFR Vertiports for Operation with Manned VTOL-Capable Aircraft Certified in the Enhanced Category” and is located within the regulatory sandbox approved by ENAC. It is designed to host various types of tests for both flight and ground operations (turnaround, battery charging, etc.), with an electric system devised to allow testing of various eVTOL charging technologies (battery swaps, fast charging, etc.).

The infrastructure, occupying an area of about 5,500 square meters, has been sized to ensure compatibility with the main eVTOLs that will be certified in the coming years and consists of: a final approach and takeoff area (FATO) for landing and takeoff operations; a parking area; a covered hangar measuring 20 x 20 x 6 meters; various rooms, including an office, a warehouse, and an area for battery charging.

Proposed Fiumicino vertiport design, according to a joint Press release: “With UrbanV’ Aeroporti di Roma is engaged in designing and managing ground infrastructure for advanced air mobility and is currently developing a network of vertiports for Rome, Venice and the Côte d’Azur and, as the first movers in this nascent sector, also globally.”

Meanwhile, Urban Blue, a company consisting of several airports in Italy (Rome, Venice and Bologna) and one in France (Cote d’Azur) aims to build a network of vertiports in partnerships with eVTOL developer Volocopter and Atlantia, an infrastructure investment holding company. According to a trade Press interview, Aeroporti di Roma is also working closely with the Italian Civil Aviation Authority (ENAC) and ENAV, with the first installation in Rome followed by Nice, Venice and Bologna. Initial services will be connections from the city centre to airports.

See also, [Italy country introduction](#). Walle Mobility has set out a plan to target inter-urban routes within 50 km via eVTOL aircraft. The construction of the first vertiport is planned for 2024 and the launch of Italy’s first eVTOL services will take place in 2025. Potential cities of interest include Milan, Naples, Rome, Turin and Venice.

Partners

eVTOL manufacturer:

Jaunt

Lilium

Manta

Volocopter

Vertiport/airport developer/operator

Aeroporti di Roma
Giancarlo Zema Design Company
SITA

Airspace integration

Leonardo
Airio

Sources:

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Andalusia

Timeline

Planned – to be launched within two to five years; funds have been committed and key industry partners identified

Programme description

In July 2022 Lilium announced it had signed an agreement with Helicity Copter Airlines ("Helicity") to develop an eVTOL network in Andalusia. Under the agreement, Helicity intends to initially purchase five Lilium Jets to provide premium and business charter flights to its customers.

The company said: "Helicity offers helicopter shuttle flights between Ceuta, Algeciras and Málaga as well as private charter flights in southern Spain. With approximately 300,000 passengers transported to date between Ceuta and the Spanish peninsula, Helicity provides a critical transportation service to its customers and the region. The Lilium Jet, with its premium cabin, expected physical range of 250 km and anticipated performance capabilities in various weather conditions, is well suited to meet the transportation needs of the region.

"Lilium is currently conducting Flight Tests with its 5th-generation technology demonstrator at the ATLAS Flight Test Centre in Villacarrillo (Jaen), Spain."

Partners

eVTOL manufacturer

Lilium

AAM/UAM aircraft operator

Helicity

Sources:

www.lilium.com

www.helicity.es

Östersund (Sweden)/Röros (Norway)

Timeline

Ongoing project with several test flights conducted to send blood samples with a delivery drone. Next step is to make a permanent U-Space route between the sites and add additional sites.

Route(s)

Östersund (Sweden) – Röros (Norway)

Programme description

Green Flyway is a test arena for electric aircraft, UAS, ATS and ground support. Located in the middle of Sweden and Norway the area is planned to pioneer new UAM and AAM services and hosts several domestic and international airports. Universities, Research institutions and Aviation industry are involved. In summer 2022 the project engaged IBG A2M to support with airspace and procedure design for the project.

Partners

Airspace integration

LFV
Avinor

Local authority partner/client

Östersund Municipality
Trondheim Municipality
Röros Municipality
Swedavia Airports
Sveg Airport

Others

IBG A2M

Istanbul

Timeline

Planned – *to be launched within two to five years; funds have been committed and key industry partners identified*

Programme description

“The UAM market potential in Istanbul, Turkey and surrounding countries is significant. Istanbul offers one of the most unique opportunities worldwide for eVTOLs due to its distant airports, traffic congestion and vast waterway networks,” said the Avalon/Gozen Press release. “With over 50 million people using ferries or city boats in Istanbul every year, eVTOLs offer a faster, quieter and more sustainable form of travel, helping reduce travellers’ environmental footprint. Istanbul’s ancient and modern city and surrounding attractions such as Cappadocia, Troy, Mount Ida, Antalya, Izmir, Çeşme, Bodrum, Marmaris, and Fethiye present compelling eVTOL use-cases that the working group will explore. These attractions make the country one of the most sought-after tourist and business destinations in the world.”

AirCar, meanwhile, (see Turkey country entry) is investigating the use of its two-passenger eVTOL for services in and around Istanbul.

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