

The Global AAM/UAM Market Map



The global vertiport market map and forecast 2024-2028

Extracts



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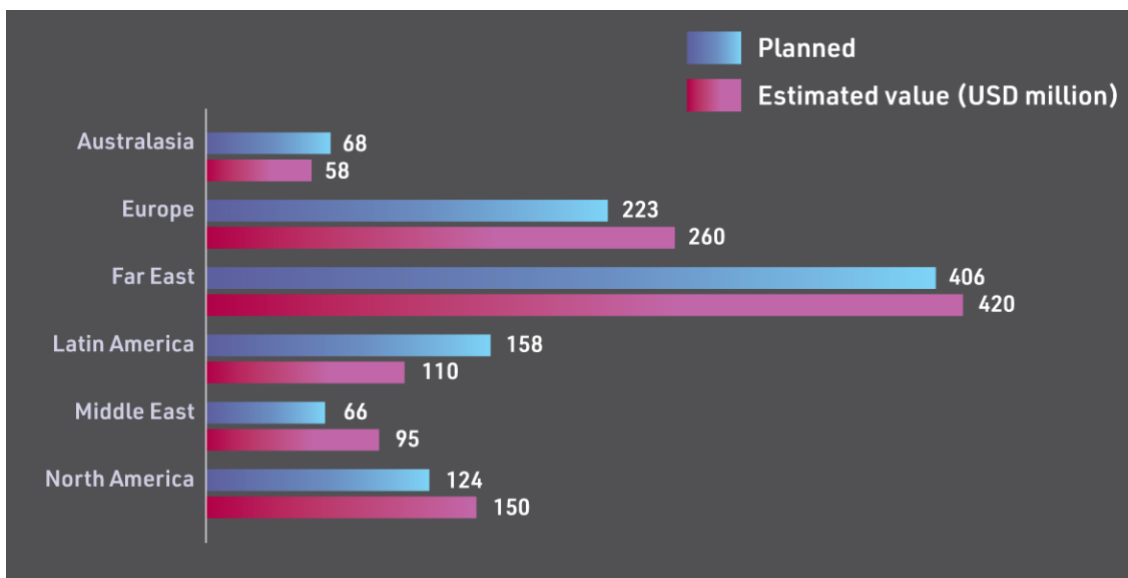
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- The vertiport market in the Far East is dominated by China, where there are now 182 vertiport projects planned or estimated for development in the next three years. Most vertiports in this region will be built on greenfield sites. The market is also dominated by two huge vertiport programmes: in Guangdong Province alone the local authority plans to establish 100 vertiports across the city by 2027, while Air Chateau's August 2024 agreement with Regional Airports Company Limited (RACL) project aims to establish up to 100 hybrid vertiports across 1,200 islands in the Maldives. Vertiport development costs are estimated to be below those of Europe and North America, with many initial developments catering for tourist and sightseeing flights.
- The Latin American market is dominated by Brazil. In November 2023 Miccaelis and Me Green have signed non-binding letters of intent for 100 vertiports across the country.
- Vertiport expenditure, per site, is relatively higher in Middle East than in other parts of the world as the developments planned are more extensive and complex than elsewhere, with several major hubs planned which include multiple landing and take-off areas. However, while this geographic sector is notable for the speed with which early adopters will develop a wide range of vertiports, there is then likely to be a lull following the initial launch of AAM operations in the Gulf, as states in north Africa and other parts of the regions develop the regulations to allow for scalable AAM operations.
- There are now 100 vertiports either actively planned or inferred for development from eVTOL operator route network announcements in the USA. Most recently, there has been a flurry of competing AAM networks announced in the San Francisco Bay area; whether the facilities they plan to build will be for general use, or particular to their own networks, is not yet clear.

Table seven: The forecast value of the global vertiport market 2024-2028 broken down into regions



1.2.2 High level market forecasts

There is a wide disparity between market forecasters on the total market value for the global vertiport sector by 2030/2034 – with estimates ranging from USD10 billion to USD36 billion over the next ten years and compound annual growth rates (CAGR) of between 45% and 62%.

Most of these reports suggest North America will be the largest and fastest-growing vertiport geographic sector – all of them ignoring China’s multi-billion dollar “low altitude economy” as a key catalyst to growth in this sector.

Table eight: High level forecasts of the global vertiport market

Forecaster	Timescale of forecast	CAGR	Value
GM Insights	2023-2032	45.0% +	USD10 billion
MarketsandMarkets	2023-2030	62.1%	USD10.7 billion
SNS Insider	2022-2030	61.4%	USD11.05 billion
Prophecy Market Insights	2024-2034	59.0%	USD36.76 billion
ASD Reports ^[1]	2023-2033	20.29%	USD623.6 million

The vertiports market was valued at USD 400 million in 2023 and is anticipated to grow at a CAGR of over 40% between 2024 and 2032, according to [GM Insights](#) and will reach USD10 billion by 2032. There's a growing trend of private investors and venture capital firms pouring money into vertiport development.

“Based on the location, the vertiports market is segmented into ground-based, rooftop/elevated, and floating,” according to GM Insights. “The rooftop/elevated segment represents the fastest growing segment, with a CAGR of over 45% between 2024 and 2032. Rooftop and elevated vertiports are increasingly being integrated into existing urban infrastructure, such as commercial buildings, parking garages, and high-rise structures. This strategic approach maximizes the use of available space in densely populated cities and minimizes the need for new land development... Based on solution, the market is segmented into landing pads, terminal gates, ground support equipment, charging stations, ground control stations, and others. The landing pads segment dominated the market in 2023 and is expected to reach over USD4 billion by 2032...”

“The vertiports market is experiencing unprecedented growth in North America and is expected to reach USD 3.5 billion by 2032. North America is poised to become a leader in the market, driven by rapid urbanization and advancements in urban air mobility (UAM). In the U.S., the demand for vertiports is escalating, particularly in urban centers with high population densities and significant commuter traffic. Cities are increasingly seeking solutions to reduce road congestion and enhance connectivity through air mobility.”

[1] This market report covers the overall global UAM (Urban Air Mobility) infrastructure market and the value figure represents the annual spend.

1.2.3 How many vertiports will a large city need?

According to McKinsey¹

“For large, densely populated cities, there could be roughly 85 to 100 takeoff and landing pads... Building this infrastructure network would cost approximately USD35 million to USD45 million, with annual operating costs of around USD110 million to USD130 million per year.

“In medium-size, less densely populated cities, there would be around 38 to 65 takeoff and landing pads, including the following: vertihubs at one major airport and one or two city locations; five to ten vertibases to handle workplace commutes and retail districts; three to five vertipads near suburban commute stations. Building this infrastructure network would cost between USD15 million and USD20 million, and annual operating costs would range from USD35 million to USD50 million per year

The Demand and Capacity Optimisation for U-space programme (DACUS project) has estimated how many take-off and landing areas (TOLAs) might be needed in Europe over the next ten to 15 years for drones and passenger carrying vehicles².

“As a test case we applied the calculation to the population that is living in the metropolitan area of Toulouse (about 1.2 million people). In total a number of roughly 350 – 450 stationary TOLAs can be expected there.” This suggests that an average of one TOLA for each 3,000 residents in European urban areas, based on the Toulouse case, might be needed by 2036. The report also looked at TOLA requirements for Madrid and Frankfurt.

Table nine: Estimates of vertiport requirements per population density

TOLA Type	Toulouse ¹		Frankfurt ²		Madrid ³	
	Low	High	Low	High	Low	High
Vertispaces	22	45	12	25	109	218
Heliports	41	67	23	37	201	327
Transport UAV Hubs	243	243	134	134	1177	1177
Surveillance UAV Hubs	43	94	24	52	210	457
– Police Departments	7	23	4	11	35	112
– Fire Departments	36	71	20	39	175	345
Total amount of TOLAs	349	449	193	248	1697	2179

¹ Toulouse Metropolitan area: 1,200,000 people

² Frankfurt City area: 750,000 people

³ Madrid Metropolitan area 6,600,000 people

¹ There are three potential archetypes for urban-air-mobility infrastructure

² www.unmannedairspace.info/urban-air-mobility/europe-will-need-one-vertiport-drone-landing-site-per-3000-urban-residents-by-2036-dacus-report

Idar Oberstein	1E	1U	In June 2023 ADAC Luftrettung (ADAC) and Volocopter entered a collaboration partnership to customise eVTOLs for rescue services. Two milestone agreements were signed at the Paris Air Show: one to purchase two VoloCity aircraft, and another with the intention of securing 150 additional units of Volocopter's eVTOLs as part of this collaboration.	
Mönchengladbach Paderborn	2E	2A	In December 2022 Mönchengladbach Airport (MGL) announced that funding has been approved for the next research project, SkyTRACKplus, an airport air traffic management system for crewed, drone and uncrewed air vehicle operators. The airport is set to become a hub for eVTOL trial operations.	

Greece

	4E	4U	<p>In May 2024 news website Capital GR reported that Libra Group, through its subsidiary company Aria Hotels, planned to build and operate four vertiports in Greece, which will support eVTOL aircraft.</p> <p>"The plan is to place them in strategic points, such as Athens, southern mainland Greece and the Cyclades, in order to strengthen regional connectivity and promote ecotourism. It is the first construction of its kind and is part of an investment of EUR 50 million, to promote eVTOLs and strengthen the sustainable economy in Greece," said the news source. Aria Hotels has leased 10 BETA ALIA eVTOL aircraft through an agreement with LCI, a Libra Group subsidiary and leading aircraft lessor.</p> <p>"The new vertiports will include charging stations for electric aircraft and waiting areas for visitors, without requiring a large area and with a lower environmental impact compared to traditional aircraft infrastructure,"</p>	
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Italy

Rome Venice Bologna	3E	3A	UrbanV, 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.	UrbanV
Florence	1E	1A	In a January 2023 announcement of its long term development plan, Florence Peretola airport has included provisions for a vertiport. According to the Italian <i>Dronezone</i> news service: "As reported in this article on Firenze Today , the declaration of the managing director of Toscana Aeroporti, Roberto Naldi , was: "The master plan includes a vertiport for civilian drones, with vertical take-off and electric motors".	

Ras Al Khaimah	4D	3U, 1A	<p>In May 2024 Ras Al Khaimah Transport Authority (RAKTA) and Ras Al Khaimah Tourism Development Authority (RAKTDA) signed a Memorandum of Understanding (MoU) with Skyports Infrastructure to pioneer sustainable tourism through electric air mobility. The MoU will see Skyports develop a network of vertiports to connect key attractions across Ras Al Khaimah.</p> <p>Under the agreement RAKTA, RAKTDA and Skyports will collaboratively design, develop, and operate Ras Al Khaimah's first electric vertical take-off and landing (eVTOL) air taxi ecosystem, with commercial operations set to commence by 2027.</p> <p>"This innovative project will seamlessly integrate Skyports' vertiport infrastructure with RAKTA's existing transport network, providing fast and convenient zero-emission transport to Ras Al Khaimah's most popular areas and attractions, including Al Marjan Island, Al Hamra and Jebel Jais, the UAE's highest peak," said a Skyports press release. "Tourists and residents visiting these iconic sites will experience substantial time savings from the service. For example, travelling from Al Marjan Island to Jebel Jais takes approximately 70 minutes by car. The launch of air taxi services will cut the journey time to less than 20 minutes."</p>	Skyports
	1D	1U	<p>In March 2023, vertiport manufacturer VPorts had announced the signing of a Memorandum of Understanding (MOU) with Ras Al Khaimah (RAK) Airport to build and operate a first vertiport in RAK.</p> <p>The RAK vertiport, which will be established on a 10,000-square-metre site, will be designed for all types of eVTOL aircraft.</p> <p>By 2030, VPorts plans to extend its vertiport network to all major industrial areas across the UAE. The network will focus on locations that optimize multimodal transportation connectivity, including Ras Al-Khaimah, Dubai South, Jebel Ali, Abu Dhabi and Sharjah.</p>	VPorts
Sharjah			<p>By 2030, VPorts plans to extend its vertiport network to all major industrial areas across the UAE. The network will focus on locations that optimize multimodal transportation connectivity, including Ras Al-Khaimah, Dubai South, Jebel Ali, Abu Dhabi and Sharjah.</p>	

Battle Creek, Michigan	1E	1A	In August 2023 Battle Creek Unlimited (BCU) a private, non-profit corporation which serves as the economic development arm for the City of Battle Creek and manages the Fort Custer Industrial Park announced that it has secured a USD7 million appropriation in the 2024 state budget to support the development of an advanced air mobility park at the Battle Creek Executive Airport (BTL). BCU says it will market the facility as a site for drone manufacture, operations, maintenance & repair, and drone training, as well as for urban air mobility.	
Bellefonte Airport, Pennsylvania	1D	1A	At the start of 2023 Volatus Infrastructure reported that it has signed an agreement with Bellefonte Airport located in Pennsylvania to build a public use FAA-compliant eVTOL vertiport with up to eight landing pads including a charging station at each pad. Bellefonte Airport it says, will start with the vertiport and a single landing pad with a charging station that has the ability to scale up to eight landing pads with charging stations as the need for additional space grows.	Volatus
Boston, Massachusetts			In December 2021 EVE Air Mobility and Republic Airways Holdings Inc, announced a Memorandum of Understanding and Letter of Intent to purchase up to 200 of EVE's eVTOLs. The strategic relationship will focus on developing a deployment network throughout the Central and East Coast markets of the United States, with an initial focus on the Boston, New York and Washington DC markets.	
Chicago, Illinois	1D	1A	eVertiSKY and Volatus Infrastructure & Energy Solutions (VI&E Solutions) in June 2024 reported they are progressing their efforts as part of the Chicago UAM Living Labs initiative, which began January 2024, establishing Chicago's first UAM vertiport. In the third quarter of 2024, the project will transition into the next stage with Federal, State, and Local engagement. "This strategic partnership also incorporates VI&E Solutions' multimodal EV charging solutions into eVertiSKY's CityAPI Dashboard which provides a transparent, real-time view of Vertiport ground assets, including the specifications of Volatus EV units, and accessible to operators via the NASA UTM, ensuring seamless coordination and management of both air and ground operations," said the companies in a press release.	Volatus

1.4.16 Skyports Infrastructure

skyports.net/news

The UK's Skyports Infrastructure designs, builds and operates take-off and landing infrastructure for air taxis, and partners with eVTOL vehicle manufacturers. In April 2024 the company announced ACS Group had made a substantial equity investment in Skyports, to become the largest investor in the company. ACS Group in 2023 generated revenue of USD 39 billion. In addition to the new capital invested by ACS, existing shareholder, Paris-based airport operator, Groupe ADP will invest additional capital in Skyports' Series C funding round. Groupe ADP and Skyports first partnered during Skyports' Series A funding round in 2019. The company has previously secured investment from companies across the aviation and infrastructure space, including Irelandia Aviation, Kanematsu, and Deutsche Bahn Digital Ventures. Skyports Infrastructure's strategic partners include Archer, Beta, Joby Aviation, Vertical Aerospace and Volocopter.

The company has also partnered with Unified Aviation to leverage Unified Aviation's Modular Environmentally Sustainable Helipads (MESH) advanced landing platforms and Skyports' expertise in vertiport development, planning, regulation, and operations. The agreement enables Skyports to deploy take-off and landing infrastructure where and when needed, using prefabricated, modular, fast-build technology with integrated power, solar charging, lighting, safety, drainage, and fire suppression features. The MESH system is in place at Unified Aviation's Dubai South location, which will double as an operations staff training facility. The technology will then be rolled out globally with Skyports' vertiport product, with various use cases, including ground, elevated and floating options.

Skyports owns and operates one of only two commercial heliports in London. The heliport, located in Canary Wharf, serves as a node in the London vertiport network and is an active testbed for new technology solutions.

Skyports' principal vertiports include facilities such as passenger terminal, charging infrastructure, and MRO, and will be situated at major hubs such as airports, shopping malls, and metro stations, or where otherwise required. These sites and the wider network will be augmented by peripheral landing sites in suburban, lower throughput or short-term demand locations, for which Skyports would deploy the MESH system.

In August 2024 Skyports Infrastructure and Wagner Corporation, an Australian property, infrastructure, and sustainable development company, partnered to explore vertiport development opportunities in the state of Queensland, Australia. The partnership will explore vertiport development opportunities in strategic locations around Brisbane and the wider Queensland area. At the Wagner Corporation-owned Toowoomba Wellcamp Airport (WTB), Skyports and Wagner Corporation will conduct feasibility studies to assess the potential for developing a vertiport testbed and future permanent infrastructure.

In July 2024 Skyports Infrastructure Lillium and SEA Milan Airports (SEA), the operator of Milan's airports, announced the signing of a Memorandum of Understanding (MoU) laying the groundwork for the development of a passenger electric vertical take-off and landing (eVTOL) network in the Lombardy region in the north of Italy. With the signing of the MoU, the parties will collaborate to launch a vertiport network with operators of the Lillium Jet as soon as 2027. The first