

Abstract

Bridging Expectations and Reality in Advanced Air Mobility: A Data-Driven Market Perspective

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Despite significant technical advances in electric vertical takeoff and landing (eVTOL) aircraft and autonomous flight systems, the Advanced Air Mobility (AAM) sector faces growing uncertainty about its path to real-world deployment. This study provides a market-focused, data-driven analysis aimed at the academic and research community, offering a reality check on how AAM is currently perceived beyond the lab, from investors, media, and the public.

Leveraging trend data from 2019 to 2024, including patent filings, scientific publications, startup investment volumes, and media sentiment, our analysis reveals a widening gap between technical progress and societal acceptance. Patent activity in core AAM domains has plateaued, funding has declined sharply since its 2021 peak, and media sentiment has shifted from enthusiasm to increasing skepticism.

The findings highlight a mismatch between industry narratives and real-world traction, raising important questions for the aviation community. Are current priorities aligned with the market's evolving expectations? Are we over-engineering solutions for under-defined use cases?

This presentation delivers three key contributions: (1) a cross-validated overview of AAM maturity using multiple innovation indicators, (2) a market-informed diagnosis of where expectations diverge from technical feasibility, and (3) forward-looking recommendations from an industry perspective to help engineers and researchers realign focus areas particularly around infrastructure integration, cost viability, and public trust.

By translating market signals into strategic input, this work aims to foster better coordination between research priorities and the realities of commercial adoption in AAM.

Biography

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