U.S. LEADERSHIP OF WORKFORCE DEVELOPMENT FOR ADVANCED AIR MOBILITY

Information Paper by the AIAA AAM Certification Task Force, February 2025

America's high standards for aviation infrastructure and safe operations are direct results of alignment in mission and training at local and national levels. Maintaining U.S. leadership in aerospace operations during the integration of the advanced air mobility (AAM) system into established air traffic operations requires the preparation and delivery of additional training for multiple stakeholder needs. Providing expert guidance to countries seeking to develop AAM operations is a way for the United States to provide value and exert leadership in the global aviation industry.

The AAM innovation cycle is often displayed as a chart with finite phases of stakeholder input and operational training.[1] Yet an ongoing cycle of interaction, training, and correction[2] is required to address shifts in needs and use cases. The innovation cycle is fairly fluid. A need is discovered or revealed. Entrepreneurs respond to the need proposing visionary solutions. The solutions require buy-in, or advocacy and investment, from prospective stakeholders and clients. Entrepreneurs and technical experts jointly develop standards. Then they test the solutions for accuracy and consistency. Once testing has established consistency and reliability, the solution is put into operations.

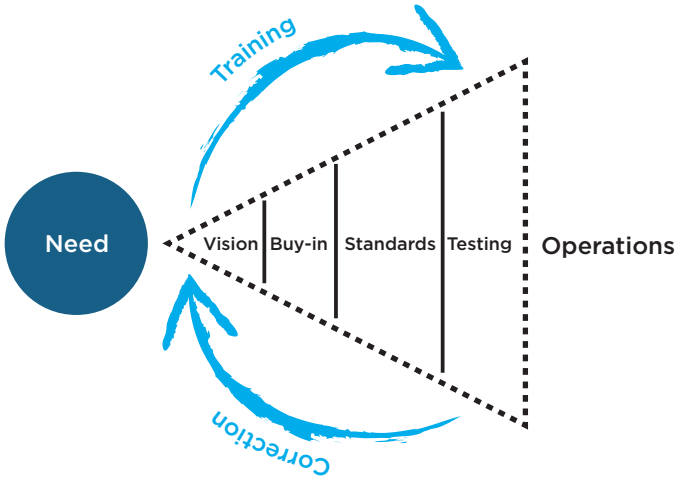

Diagram of the AAM Innovation Cycle

Even when AAM operators are directly accountable to their region, air traffic concerns will take on national and international dimensions. Failing to account for successful scaling of AAM operations in international airspace will ultimately limit growth for the aerospace industry as a whole.

The Federal Aviation Administration and new entrants to the aerospace industry are currently establishing a range of global partnerships.[3] Aligning public and private efforts around value and safety for novel operations will support reliable and consistent domestic and international operations. If the United States is able to train the AAM workforce in the short and mid-term, we will become a trusted long-term partner in development.

AUTHORS:

Nick Lappos (AIAA Certification Task Force Co-Chair), Mike Borfitz (AIAA Certification Task Force Co-Chair), Ashira Beutler-Greene (AIAA Senior Manager, Aeronautics)

For inquiries: Ashira Beutler-Greene (AIAA Senior Manager, Aeronautics), ashirab@aiaa.org.

---

[1] United States Department of Transportation, Federal Aviation Administration, 2023. *Advanced Air Mobility (AAM) Implementation Plan Near-term (Innovate28) Focus with an Eye on the Future of AAM Version 1.0.* https://www.faa.gov/sites/faa.gov/files/AAM-I28-Implementation-Plan.pdf.

[2] United States Government Accountability Office, 2022. *TRANSFORMING AVIATION: Stakeholders Identified Issues to Address for 'Advanced Air Mobility'.* https://www.gao.gov/assets/gao-22-105020.pdf.

[3] United States Department of Transportation, John A. Volpe National Transportation Systems Center, 2024. *Up, Up, and Away: Innovations in Advanced Air Mobility.* https://www.volpe.dot.gov/sites/volpe.dot.gov/files/2024-04/Up%20Up%20and%20Away%20Final%20Report.pdf.