#### Virginia Innovation Support

Virginia Innovation Partnership Authority

State legal authority

Virginia Innovation Partnership Corp.

Designated Not-for-Profit VIPA Operating Entity

Entrepreneurial Ecosystems Division

Mission

Support and connection for entrepreneurial ecosystems and stakeholders around Virginia, including startup incubators and accelerators Commercialization Division

Mission

Grant funding in support of tech-based research, development and commercialization to drive economic growth in Virginia **Investment Division** 

Mission

Seed and early-stage funding for Virginia-based companies with high potential for rapid growth and significant economic returns Strategic Initiatives

Mission

Leadership for strategic initiatives that explore and shape programs designed to attract and grow innovation and new industries

Strategic Initiatives Current Portfolio











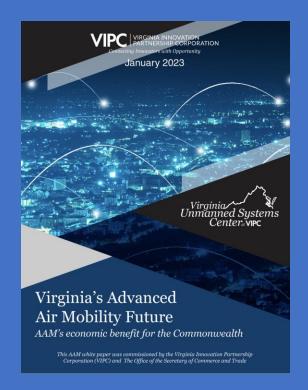




# Advanced Air Mobility in Virginia

AUVSI Hampton Roads Conference Newport News, Va. Sept. 27, 2023 Tracy Tynan, Director Virginia Unmanned Systems Center at VIPC

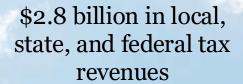




VIPC report forecasts
\$16 billion Advanced
Air Mobility industry to
transform
transportation in
Virginia









17,000 full-time aerospace industry and other jobs to all regions of the Commonwealth



By 2045, about 7.7 million passengers per year, or over 21,000 passengers per day



## AAM Industry News: Getting Ready for Takeoff











Wisk Aero Secures \$450 Million from The Boeing Company



# **AAM Reality Index**

OEM (stock ticker)		ARI	Funding (\$M)	Use Case	Vehicle Type	Propulsion	Operation	Vehicle	First Flight	EIS	Country
Joby Aviation (NYSE: JOBY)	$\leftrightarrow$	8.7	\$2,251.3	Air Taxi	Vectored Thrust	Electric	Piloted	*	2018	2025	USA
Beta Technologies	1	8.6	\$796.0*	Cargo, Regional, Air Taxi	Conventional / Lift + Cruise	Electric	Piloted	CX300 / Alia-250	2020 / 2022	2025 / -	USA
Volocopter	$\leftrightarrow$	8.6	\$761.0*	Air Taxi	Multicopter / Lift + Cruise	Electric	Piloted	VoloCity / VoloRegion	2021 / 2022	2024 / 2026	Germany
Archer (NYSE: ACHR)	↔	8.1	\$1,096.3	Air Taxi	Vectored Thrust	Electric	Piloted	Midnight	2023	2025	USA
Ehang (NASDAQ: EH)	$\leftrightarrow$	8.1	\$160.4	Tourism, EMS, Firefighting	Multicopter/Lift + Cruise	Electric	Autonomous	EH216-S / VT-30	2018 / 2021	2023 / -	China
Wisk (Boeing)	t	7.8	Corporate backed	Air Taxi	Vectored Thrust	Electric	Autonomous	Generation 6		-	USA
Elroy Air	$\leftrightarrow$	7.4	\$50.0	Cargo	Lift + Cruise	Hybrid	Autonomous	Chaparral C1	2023	2024	USA
AutoFlight	↔	7.2	\$200.0	Air Taxi	Lift + Cruise	Electric	Piloted	Prosperity I	2022	2026	China
Eve Holding (NYSE: EVEX)	$\leftrightarrow$	7.2	\$377.4	Air Taxi	Lift + Cruise	Electric	Piloted	Eve	2024	2026	Brazil
Pipistrel (Textron)	$\leftrightarrow$	7.2	Corporate backed	Cargo	Lift + Cruise	Hybrid	Autonomous	Nuuva V300	2024	2025	USA
Aerofugia	1	7.1	\$38.0	Tourism, Cargo, EMS	Vectored Thrust	Electric	Piloted	AE200	2023	2028	China
Vertical Aerospace (NYSE: EVTL)	1	7.0	\$347.8	Air Taxi, Cargo, EMS	Vectored Thrust	Electric	Piloted	VX4	2023	2027	UK
Lilium (NASDAQ: LILM)	$\leftrightarrow$	6.8	\$1,342.3	Regional, Cargo, Biz Av	Vectored Thrust	Electric	Piloted	Jet	2024	2026	German
Airbus	$\leftrightarrow$	6.5	Corporate backed	EMS, Tourism, Air Taxi	Lift + Cruise	Electric	Piloted	CityAirbus NextGen	2024	•	France
Supernal	$\leftrightarrow$	6.5	Corporate backed	Air Taxi	Vectored Thrust	Electric	Piloted	S-A1	2024	2028	South Korea
Alaka'i Technologies	$\leftrightarrow$	6.2	\$60.0	Air Taxi,Cargo,EMS	Multicopter	H2 Fuel Cell	Piloted	Skai	2022	2024	USA
Ascendance Flight Technologies	1	6.2	\$71.3	Regional, Cargo	Lift + Cruise	Hybrid	Piloted	Atea	2024	2027	France
Overair	↔	6.2	\$170.0	Air Taxi	Vectored Thrust	Electric	Piloted	Butterfly	2023	2027	USA
REGENT	$\leftrightarrow$	6.2	\$50.0*	Regional	Augmented Lift	Electric	Piloted	Viceroy	2024	2025	USA
Eviation	$\leftrightarrow$	6.1	\$200.0	Regional, Cargo, Biz Av	Conventional	Electric	Piloted	Alice	2022	2027	USA
eAviation (Textron)	$\leftrightarrow$	5.9	Corporate backed	EMS, Air Taxi, Cargo	Vectored Thrust	Electric	Piloted	Nexus	2024	2030	USA
SkyDrive	↔	5.9	126.6	Air Taxi, Tourism, EMS	Multicopter	Electric	Piloted	SKYDRIVE	2024	2026	Japan
Dufour Aerospace	1	5.8	\$11.0*	EMS, Regional	Vectored Thrust	Hybrid	Piloted	Aero3		-	Switzerl
Honda Motor Company	$\leftrightarrow$	5.5	Corporate backed	Air Taxi	Lift + Cruise	Hybrid	Piloted	) <del>-</del>	2023	2030	Japan
Electra	$\leftrightarrow$	5.2	\$134.0	Regional, Cargo	Augmented Lift	Hybrid	Piloted	EL-2 Goldfinch	2023	2028	USA
Heart Aerospace	<b>↔</b>	5.1	\$85.0	Regional	Conventional	Electric/Hybrid	Piloted	ES-30	2026	2028	Sweden
Jaunt Air Mobility	$\leftrightarrow$	4.4	\$3.1	Air Taxi,Cargo	Lift + Cruise	Electric	Piloted	Journey	2024	2027	USA
Volkswagen	↔	3.6	Corporate backed	Air Taxi	Lift + Cruise	Electric	Autonomous	V.MO	2023	-	German

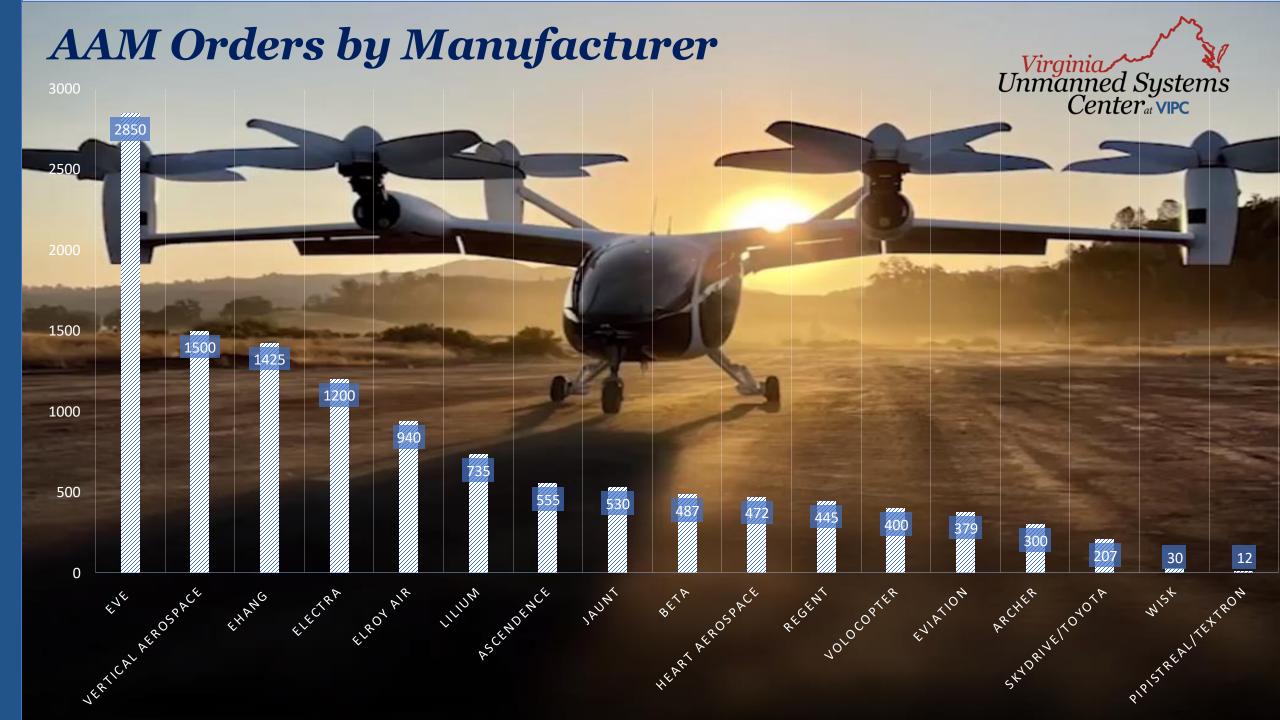
August 2023 Release

# AAM Getting Ready for Takeoff

Joby Aviation	\$2,251.3 million from \$2,151.4 (public offering with SK Telecom dated June 30, 2023)
Archer	\$1,096.3 million from \$856.3 (capital raise with Stellantis and PIPE investors dated August 14, 2023)
Ehang	\$160.4 million from \$142.0 (private placement with Lee Soo Man, founder of K-pop and SM Entertainment, dated July 14, 2023)
Wisk	Corporate backed from \$775.0 (100% owned by Boeing)
Aerofugia	\$38.0 million from Corporate backed (capital raise from China Control Fund, Yuanhe Origin, Honghua Airlines and Sky Sky dated June 29, 2023)
Lilium	\$1,342.3 million from \$1,156.9 (public offering and capital raise with PIPE investors and Tencent dated July 31, 2023)
Ascendance Flight Technologies	\$71.3 million from \$34.5 (Series A and funding from the French Strategic Plan "France 2030" dated June 19, 2023)

Source: AAM Reality Index





## Virginia AAM Economic Development Growth





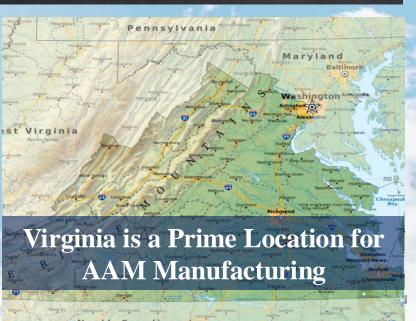




**Full-Scale Demonstrator Aircraft** 









#### **Upcoming Efforts to Support Virginia AAM Industry**

- FAA designates nation's first Vertiport at Blackstone's Perkinson Airport. DOAV establishing licensing criteria for public use Vertiport. Effort led by NAVOS researching AAM vehicle operations.
- AAM Multistate Collaborative effort engages with key state aviation officials. List of approx. 15 states. Target date is early November for meeting to be held in Northern VA. Resulted from conversations at Xponential, especially with Ohio.
- ➤ Kick-off of a "Community Integration" effort to foster understanding of AAM primarily to local government and economic developers. Will use GA airports as facilitators. (VML Conference)
- Stafford-Warrenton-Winchester AAM Enablement Area
- > VIPC and DOAV continue partnership with Virginia AAM Alliance to build AAM framework

#### Virginia AAM Public Data Infrastructure

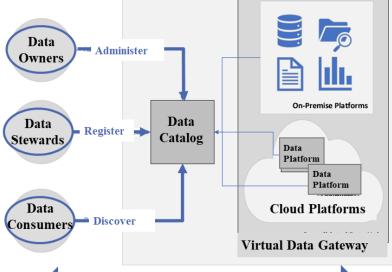
Any Organization



Any Sensor

#### Data Governance

- User Roles
- Data Sharing Agreements
- Identity/Permissioning
- Policy Enforcement



Common Data Fabric



IoT/Edge Device Cybersecurity









Users, Analytics & Applications

#### Stafford-Warrenton-Winchester AAM Enablement Area



Minimum Viable Infrastructure System Design Document

**AAM Service Enablement Area** 

Prepared by ATA, LLC



Version 2.0 6 July 2023

Prepared for the Virginia Innovation Partnership Corporation (VIPC) By:

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Scott Drew, Director, Aviation Products, 804-814-8148, sdrew@ata-llc.com

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This	docu	ment	con	tains	

	Tier	Example Sensors	Cost Profile	Example Coverage Area Type(s)
	Tier 1	Procedural deconfliction +	Inexpensive	Low Density Rural
١		<ul> <li>RemoteID</li> </ul>	<\$5,000 / sq mi	sUAS operations at low weight /
		ADS-B		altitudes / Part 107
		<ul> <li>Weather</li> </ul>		Procedurally deconflicted AAM at
		<ul> <li>GNSS RTK beacons</li> </ul>		higher altitudes
	Tier 2	Tier 1+	Mid-Cost	Low Density Rural Cargo
		<ul> <li>Audio</li> </ul>	\$10,000 -	Suburban Metro sUAS package delivery
		<ul> <li>Optical</li> </ul>	\$25,000 / sq mi	Group 2 long distance / Group 3 UAS
		RF / RDF		conducting survey activities
	Tier 3	Tier 2+	Higher Cost	Major Urban Area, Airports
		<ul> <li>Radar/LIDAR</li> </ul>	> \$50,000 / sq mi	UAM Vehicle Vertiport Areas
				sUAS package delivery at high weight



Washington