北京航空航天大學
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Global AAM Development

Policy and Progress

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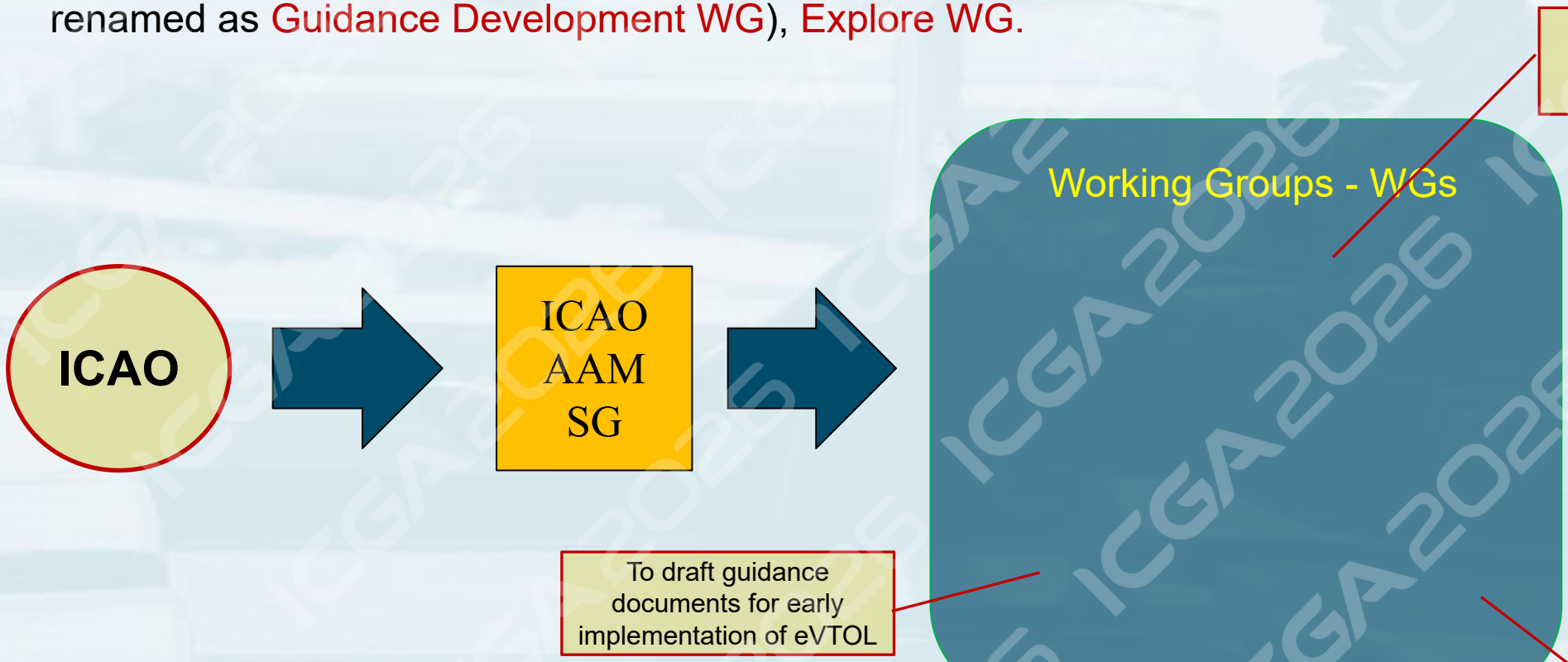
I. ICAO’s AAM-Related Work and Progress

国际民航组织AAM相关工作及进展

1. ICAO AAM Study Group

- In Dec. 2022, The ICAO established the AAM Study Group (AAM SG) to facilitate the development of the AAM ecosystem and advise on AAM-related works to be done by ICAO.
- AAM SG is divided into three Working Groups (WG): AAM Vision WG, Small UAS & UTM WG (later renamed as Guidance Development WG), Explore WG.



SG --- Study Group
WG --- Working Group

2. ICAO AAM SG's Working Progress

Status Update

VISION WG

- New iteration of vision document developed – 40+ Workshops with Expert Groups complete
  - Comment adjudication underway
  - Approximately 60% complete with >700 comments
  - Eduardo & Carmela stepped down as co-Rapporteurs
- 'Global and Holistic Vision of AAM Ecosystem -V0.99' available here
- Final cleanup underway – on plan to release at SG/7

Guidance WG

- UTM Implementation Guidance – SG/5 recommended new outline – Rework to be done by 2Q2026 – working version available here
- Early Implementation Guidance for eVTOL Operations – Interim draft complete – Targeting completion by October 2026 for approval in December – Comments being adjudicated, working version available here

EXPLORE WG

- No Update – WG on hold
- Digital Information & Data Management – Agreed to make DIDM doc a companion to vision doc
- New Flight Rules, Automation & Autonomy, Role of the Human in AAM – Input incorporated into vision doc
- UAS Operations Over the High Seas – WP/10 & SSG-LIPA report provided – solution is likely 1-5+ years away

ICCAIA

3. Global Vision of AAM Ecosystem

Looking Forward 2050。。。

- AAM will be connecting people within or between urban and suburban, regions and remote areas. AAM aircraft will most likely be fully automated, with no pilot on-board。
- AAM aircraft could depart from new and/or updated infrastructure – *vertiports,* which will be strategically located within a city or regional
- Passenger transfers between AAM and different modes of transportation should be seamless. Locating vertiports near transportation infrastructure like bus terminals, railway stations and parking lots will allow people to travel quickly and efficiently. 。
- Large AAM aircraft will be expected to carry loads of cargo between distribution points. UAS and small aircraft might perform routine mid-mile and last-mile.
- AAM will also be widely used for inspection of infrastructure, agriculture, nature conservation, and secured perimeters，search and rescue, disaster recovery services.
- Advanced ATM automation will enhance aviation safety and efficiency to accommodate the much greater number of flights in any given airspace than can be managed today.

3. Global Vision of AAM Ecosystem



3. Global Vision of AAM Ecosystem

- **Identifying which countries are prepared for AAM development**

  — Using AAM ECOSYSTEM READINESS CLUSTERS **(AAM生态系统准备就绪集群)**

From Cluster 0 - Cluster 3

CLUSTER 0：早期

EARLY OPERATION

Operating within the existing regulatory framework; Focusing on testing and verification

CLUSTER 1：兴起

EMERGING AAM OPERATIONS

Traditional regulation is beginning to transition to AAM-based regulation; It is still piloting in a human-centric ATM environment

CLUSTER 2：融合

MIXED COLLABORATIVE OPERATIONS SUPPORTED BY ADVANCED LEVELS OF AUTOMATION

Increasing levels of automation across aircraft, systems, airspace, and infrastructure; Regulatory frameworks mature to address the complexities of

CLUSTER 3：完备

FULLY COLLABORATIVE ADVANCED GLOBAL INTEGRATION

Human roles have transitioned to strategic oversight and supervision as high degrees of automation are implemented; Regulatory frameworks are suitable highly automated and collaborative AAM operations; AAM

4. ICAO AAM Study Group Meeting

- December 8-12 of 2025, the 6th meeting of the ICAO AAM Study Group (ICAO AAM SG/6) was held at ICAO headquarters in Montreal, Canada
- 76 representatives and experts from 17 member countries, including China, and 16 international organizations attended the meeting
- The SG/7 will be hold in Brussels on Nov. 16-20, 2026.



In Brussels

Meeting	Tentative Date
AAM SG/7	16 - 20 November 2026
AAM SG/8	7 - 11 June 2027



5. ICAO AAM Symposium



In September 2024, ICAO hosted its first **AAM Symposium - AAM 2024** in Montreal. The event drew a record-breaking 1,300 participants, including 400 high-level government officials from 75 countries, aviation industry leaders, and innovators.



Coming Soon……

SECOND ADVANCED AIR MOBILITY SYMPOSIUM (AAM 2026)



AAM GLOBAL COOPERATION

II. AAM Global Development

AAM全球发展



1. USA

US
NASA
FAA
DOT

2020
UAM Concept of Operation 1.0

2023
UAM Concept of Operation 2.0

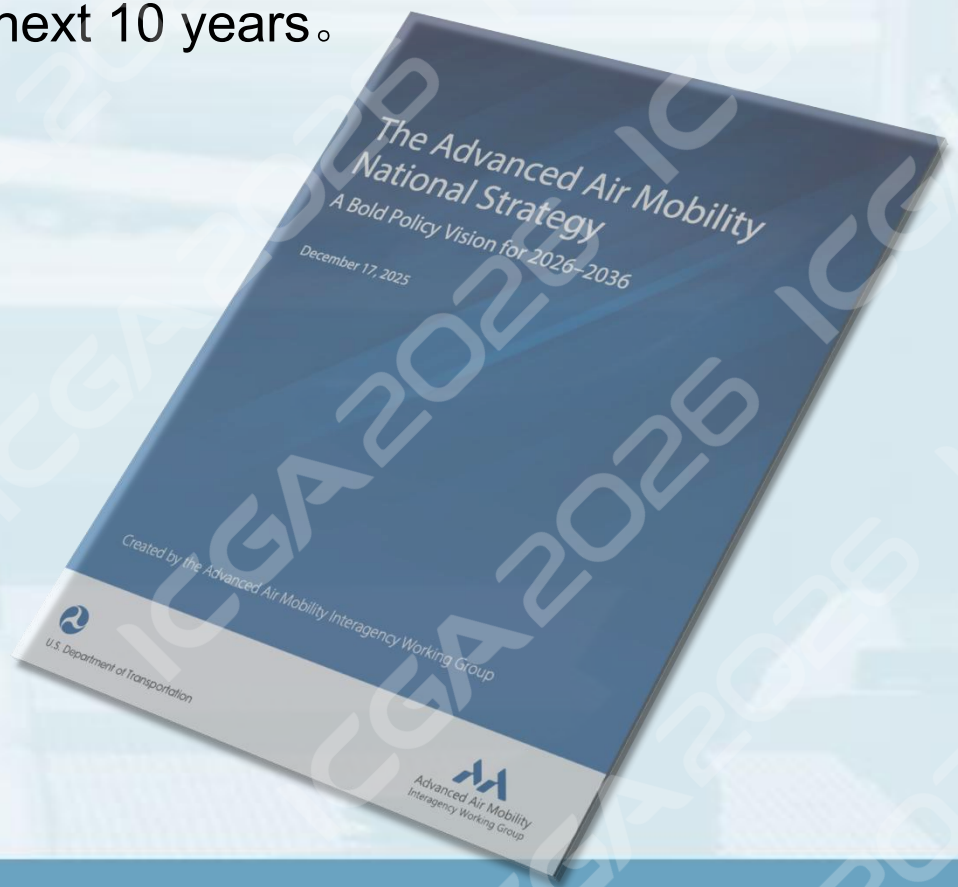
2023
AAM Implementation Plan

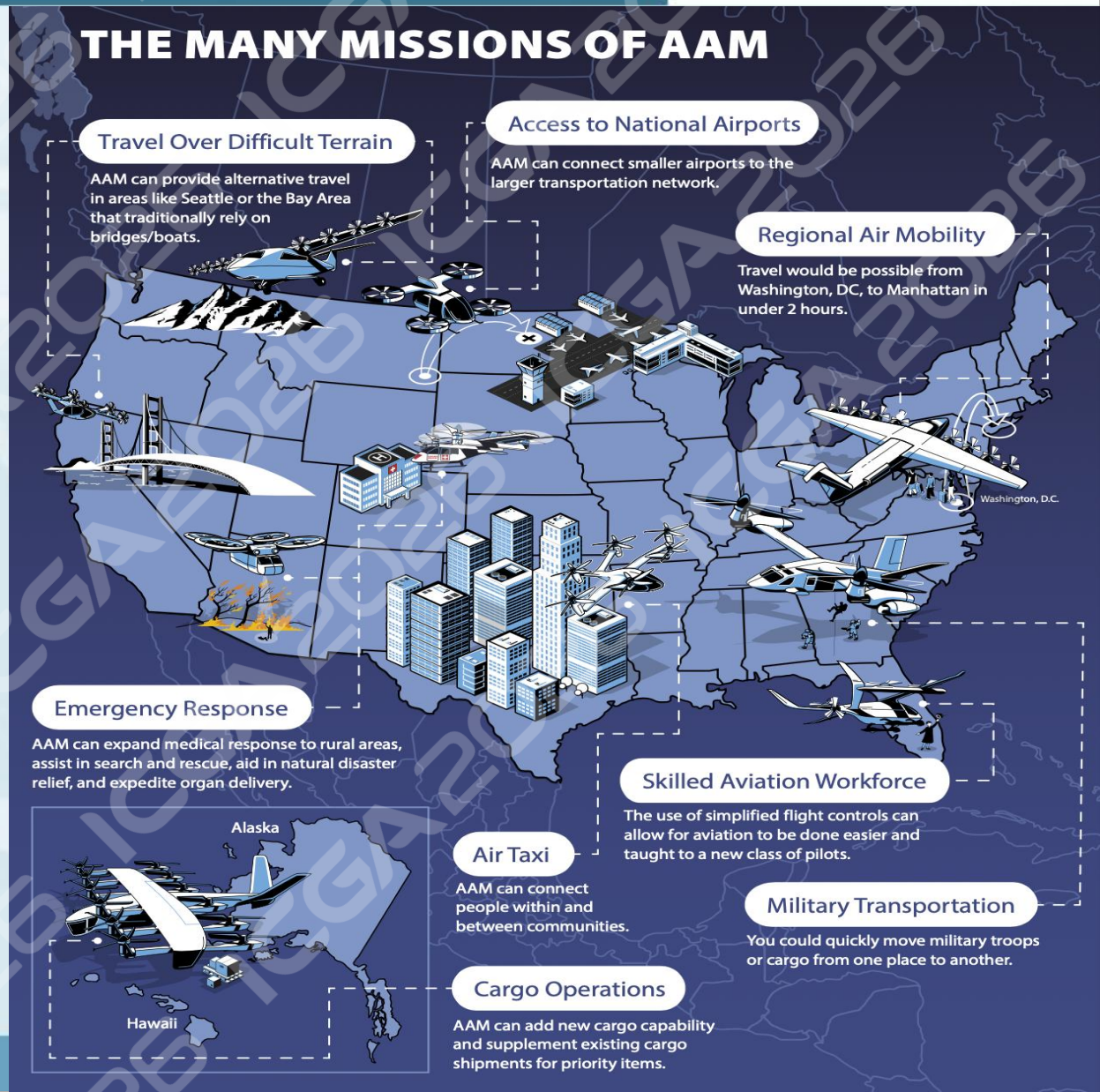
UAM - The most imaginative application scenario for AAM



1. USA

- December of 2025, The U.S. government released the ‘AAM National Strategy (2026-2036)’, outlining development goals and visions for the next 10 years。





1. USA

美国 AAM 政策体系及政策演进（2022–2026）

U.S. Advanced Air Mobility (AAM) Policy Framework and Evolution (2022–2026)



2022 National AAM Strategy



- 由 U.S. DOT 发布
- 提出 AAM 的总体愿景、目标和国家级战略框架
- 确定跨部门协同机制（FAA、NASA等）

明确方向
Set the national vision

2023 AAM Implementation Plan



- 由 U.S. DOT 发布
- 将国家战略转化为可执行的行动计划
- 明确近期（2023–2025）重点任务与时间表

制定行动
Define actions and timeline

2024 Innovate28



- 由 FAA 发布
- 作为 FAA 第一个综合性现代化战略
- 将 AAM 列为未来航空体系转型的核心内容之一（与常规航空一体化推进）

系统性改革
Modernize the aviation system

2024 Powered-Lift SFAR



- 由 FAA 发布（2024年10月）
- 为 eVTOL 等新型航空器建立专用适航规章（基于性能的监管框架）
- 支持创新设计和新型运行概念

建立适航规则
Enable type certification

2025 eIPP



- 由 FAA 发布（2025年6月）
- 在真实运行环境中开展 AAM 整合试点
- 解决运行、空域、基础设施、社区接受度等问题
- 通过公私合作获取数据，为后续规则制定提供依据

运行验证
Demonstrate real-world integration

2026 及以后 面向规模化运行



- 基于试点经验完善规则
- 推动空域整合、基础设施（如 vertiport）建设
- 促进商业化应用（客运、货运、应急、医疗等）
- 实现安全、可持续、规模化的 AAM 运营

规模化商业运行
Enable scaled operations

U.S. Department of Transportation (DOT)
制定国家战略和政策框架（跨部门协调）

战略指导
Strategic guidance

Federal Aviation Administration (FAA)
制定和实施具体法规、标准与运行政策（认证、运行、空域、基础设施等）

协调合作
Coordination

其他联邦机构与利益相关方

- NASA（研发与技术）
- DoD（国防应用与空域）
- 地方政府/行业/社区（基础设施与商业应用）

推动的主要应用场景
Key AAM Use Cases

- 城市空中交通 (UAM) Urban Air Mobility
- 城际低空客运 Intercity Air Mobility (RAM)
- 货运与物流 Cargo & Logistics
- 医疗运输 Medical Transport
- 应急与公共服务 Emergency Management
- 海上及偏远地区运输 Offshore & Remote Operations
- 更高程度的自动化运行 Higher Levels of Autonomy

从战略到实施，从认证到运行 —— 构建安全、创新、可持续的美国 AAM 未来

From Strategy to Operations — Building a Safe, Innovative, and Sustainable AAM Future in the United States

SAFE SKIES
STRONGER COMMUNITIES
BRIGHTER TOMORROW

U.S. Business Models are Refocusing on Essential Missions

Medical and Organ Transport

High value of time
Clearly defined routes

Airport Transfers

Concentrated demand
Expandable hubs

Regional Mobility

supplement to ground transportation
Connect small airports

Civil and Defense Dual use

Procurement verification
Technology iteration

Prioritize frequent, essential, high-value missions with clearly defined routes

2. Europe

欧洲 AAM 政策体系及政策演进（2021–2030+）

European Advanced Air Mobility (AAM) Policy Framework and Evolution (2021–2030+)

统一规则 · 安全创新 · 可持续发展 · 建设欧洲低空交通体系

A Safe, Innovative and Sustainable AAM Ecosystem for Europe

CLEANER SKIES
STRONGER CONNECTED EUROPE

People
Places
New Possibilities

2021 战略启动



- 发布《可持续和智能交通战略》（SSMS）
- 将城市空中交通（UAM）和先进空中交通列为未来交通的重要组成
- 提出到 2030 年实现大规模示范运行的愿景

明确愿景
Set the vision

2022 研究与规划



- SESAR 3 启动，开展 U-space、AAM 空域运行概念研究
- 发布《European Drones Strategy 2.0》
- EASA 启动 eVTOL 专项认证工作（SC-VTOL）

奠定技术与运行基础
Build the foundation

2023 监管框架出台



- 发布 eVTOL 专用适航标准 SC-VTOL
- 发布《Vertiport Design Guidelines》（第一版）
- 启动 AAM 运行风险评估方法（ARA）

建立适航与基础设施规则
Establish regulatory framework

2024 试点与示范



- 多个欧盟资助项目进入飞行测试阶段（如 U-ELCOME、AirTaxi、RESPOND、AURORA）
- EASA 发布《Vertiport Design Guidelines》（第二版）
- 欧盟推进 U-space 法规在成员国落地

从研究走向实践
From research to demonstration

2025 法规完善与市场准备



- 完善 AAM 运行规则（包括运营人要求、风险评估、持续适航）
- 欧盟出台《U-space》实施细则，支持低空空域数字化管理
- 多个国家启动商业化试点（如德国、法国、荷兰、意大利，西班牙）

为商业运行做好准备
Prepare for commercial rollout

2026–2027 初步商业运行



- U-space 全面实施，低空数字化空域管理逐步覆盖欧洲
- 重点城市开展 eVTOL 空中出租车、医疗运输、机场接驳等商业试点
- 建立跨境运行协调机制，推动统一标准

实现有限商业运行
Enable initial commercial services

2028–2030 规模化发展



- AAM 在主要城市群交现规模化商业运行
- U-space 2.0 / 更高等级自动化空域管理
- 与高铁、机场等多式联运深度融合
- 欧盟评估 2030 目标达成情况并规划下一阶段

构建欧洲AAM网络
Build the European AAM network

2030 及以后 成熟与拓展



- AAM 成为欧洲综合交通体系的重要组成部分
- 实现更广泛的跨境运行
- 拓展至乡村、岛屿、偏远地区等应用场景
- 支持欧盟绿色转型与气候中和目标（2050）

融入社会并持续创新
Integrate and grow

核心政策体系 Key Policy Framework

- **European Commission 欧盟委员会**
  制定总体战略与政策
  Funding & policy direction
- **EASA 欧洲航空安全局**
  制定适航标准与运行规则
  Certification & operational rules
- **EUROCONTROL 欧洲空中航行安全组织**
  空域管理与运行协调
  Airspace management & operational coordination
- **SESAR 联合机构**
  技术研发与验证
  Research & innovation
- **EUSPA 欧盟航天计划署**
  卫星导航与数据服务
  GNSS & data services
- **成员国与地方政府**
  Member States & Local Authorities
  实施法规、基础设施建设与示范项目
  Implementation, infrastructure & local deployment

主要法规与文件（示例） Key Regulations and Documents (Examples)

- A European Strategy for Sustainable and Smart Mobility (2020)
- EASA Special Condition for VTOL Aircraft (SC-VTOL)
- EASA Vertiport Design Guidelines (v1.0 / v2.0)
- U-space Regulation (EU) 2021/664, 2021/665, 2021/666
- European Drones Strategy 2.0 (2022)

重点项目（示例） Key Projects (Examples)

- U-ELCOME – U-space for safe, efficient UAM
- AirTaxi – Urban air taxi operations
- RESPOND – Demonstrating U-space for UAM
- AURORA – Integrated ATM for higher airspace operations
- CORUS-XUAM – U-space solutions for UAM
- 多个国家级试点（德国，法国，荷兰，意大利，西班牙等）

典型应用场景 Key Use Cases

- 城市空中交通 Urban Air Mobility
- 机场接驳 Airport Transfer
- 医疗救援 Medical Transport
- 区域与乡村交通 Regional & Rural Mobility
- 物流运输 Cargo & Logistics
- 应急与公共服务 Emergency & Public Services
- 旅游与观光 Tourism & Sightseeing
- 基础设施巡检 Infrastructure Inspection

可持续发展目标 Sustainability Goals

- 2050 气候中和 Climate Neutrality
- 绿色低碳航空 Greener Aviation
- 更可达的出行 More Accessible Mobility
- 互联的欧洲 A More Connected Europe



Advanced Air Mobility
for a People-Centric, Sustainable and United Europe

2. Europe

Europe is extending AAM regulation across the aircraft lifecycle

Aircraft

SC-VTOL
（Special Condition for VTOL）

Personnel

AAM Pilots and training

Operations

AAM Operating rules / SERA
（Standardised European Rules of the Air）

Facilities

Vertiport

Airspace

ATM / U-space

Continuing airworthiness

AAM Maintenance and Personnel competence

3. UK



英国先进空中交通（AAM）发展进展

UK Advanced Air Mobility (AAM) Development Progress

创新引领　试点先行　构建可持续的城市与区域空中交通

From Innovation to Integration – A Cleaner, Quieter, More Connected UK

主要发展里程碑 Key Milestones

2021
- 发布《Future of Flight》（未来飞行）战略
- 设立 Future Flight Challenge（£1.25亿）
- 启动 AAM 概念研究

2022
- CAA 发布 AAM 战略路线图（CAP 2903）
- 成立 UKRI Future Flight Challenge 项目
- 多个 eVTOL 和无人机试验项目启动

2023
- 发布《UK AAM Implementation Plan》
- 确定三大优先领域：安全、环境、社会可接受性
- 启动 Future Flight Integration Hub

2024
- CAA 发布 eVTOL 监管框架（CAP 3130）
- 首个 eVTOL 试点运行（Skyports – Isle of Wight）
- 政府公布 AAM 基础设施与监管路线图

2025
- 扩大试点范围（医疗、货运、区域连接等）
- 完成多个 vertiport 选址研究
- 推出 UK AAM Regulatory Sandbox
- 行业加速商业化准备

2026–2030
- 逐步实现商业运行（城市、区域、医疗、货运）
- 推动全国 vertiport 网络建设
- 与欧洲及全球标准接轨
- 2030 年前形成可规模化、可持续的 AAM 生态系统

2030+
更清洁
更互联
更繁荣的英国

政策与战略 Policy & Strategy



- 《Future of Flight》战略：支持创新航空技术，推动绿色、低噪声、互联的未来航空体系
- 《UK AAM Implementation Plan》：明确发展路径、试点计划和监管框架
- 《UK Drone Strategy》：统筹有人与无人航空发展
- 政府通过 Future Flight Challenge（£1.25亿）支持研发和示范
- 致力于 2050 净零排放目标

监管与标准 Regulation & Standards

Civil Aviation Authority

Safe Skies for a Changing World

- CAA 负责 AAM 监管与安全标准制定
- CAP 3130：eVTOL 认证和运行监管框架（2024）
- 采用“基于性能”的监管方法
- 探索新型运行方式（如远程驾驶、自动化、无人机与有人机协同）
- 与 EASA、ICAO 等国际机构协调，推动全球标准一致

“Enabling innovation while maintaining the highest safety standards.”
— Civil Aviation Authority

重点项目与试点 Key Projects & Trials



Skyports – Isle of Wight
- 英国首个 eVTOL 商业试点（2024）
- 连接南安普敦与怀特岛
- 验证运营、基础设施和社会接受度



NHS Air Ambulance Trials
- eVTOL 医疗救援试点
- 提升偏远地区医疗可及性
- 与 NHS 合作评估运行模式



Vertiport Development
- 伦敦、考文垂、贝尔法斯特等地开展 vertiport 选址与设计研究
- 探索与机场、交通枢纽的融合
- 推动标准化建设

产业与创新 Industry & Innovation

VERTICAL	英国领先的 eVTOL 整机制造商（VX4）
Joby	在英国开展试飞与商业合作
LILIUM	在英国设立工程与测试基地
SKYPORTS	专注于 AAM 基础设施与运营
Spirit AeroSystems	英国重要的航空结构制造商

众多初创企业与高校推动追推进
电池、推进、航空电子、空域管理等关键技术

基础设施与空域 Infrastructure & Airspace



- 计划在主要城市和区域交通枢纽建设 vertiport 网络
- 探索与机场、地面交通的无缝衔接
- 通过数字化空管（UTM/ATM）支持低空运行
- 与 NATS（英国空中航行服务公司）合作开展低空空域管理研究
- 利用 UK Digital Sky 和 Future Airspace Strategy 提升空域灵活性和容量

主要应用场景 Key Use Cases

- 城市空中交通 Urban Air Mobility (UAM)
- 区域连接 Regional Connectivity
- 医疗救援 Medical Transport
- 物流与货运 Cargo & Logistics
- 环境监测与应急 Environmental Monitoring & Emergency Response
- 旅游与城市观光 Tourism & Sightseeing

预期效益 Expected Benefits

- 减少碳排放 Lower Emissions
- 降低噪声 Quieter Cities
- 提升区域互联 Better Connectivity
- 促进经济增长 Economic Growth
- 创造高技能就业 High-Value Jobs



3. UK

The UK is working on regulatory tasks with its 2028 delivery goal

2028

Goal: establish the regulatory basis for initial commercial passenger eVTOL operations

eVTOL Delivery Model

- Airworthiness and continuing airworthiness
- Pilot licensing
- Flight operations
- Airspace integration
- Takeoff and landing infrastructure

4. Japan

AAM Development in Japan

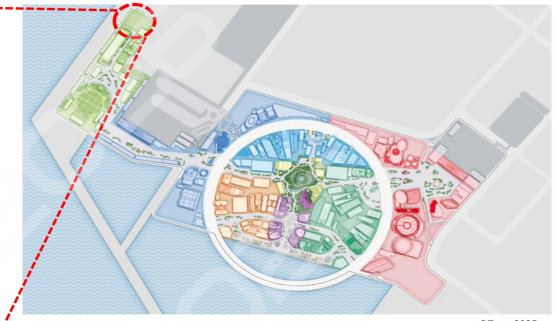


EXPO Vertiport





Provided by Expo 2025 Osaka, Kansai, Japan Association.
JCAB reconstructed these documents published by Expo 2025 Osaka, Kansai, Japan Association.



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Facility Overview	
Area	7,944.39㎡
Facility	Apron, Landing area, Aircraft stand (parking space) , Hangar, Airport lounge/Office building etc.
Equipment	Entrance/Exit gate, Meteorological instrument, Aircraft Battery Charger etc.

2018	2022–2024	2025	2027–2028	2030s
Public–private council	Rules and certification	Osaka–Kansai Expo	Regional commercial operations	Expansion and automation
METI / MLIT establish a joint council	Airworthiness, flight rules and pilot training	eVTOL demonstrations and public engagement	Expand passenger services through regional experience	Broader networks and greater automation

Japan’s approach: government leadership + Expo demonstrations + phased rulemaking + regional deployment

5. United Arab Emirates

阿联酋正在推进 eVTOL 应用场景落地

UAE Accelerates eVTOL Deployment for Real-World Applications

以创新交通，连接更美好的城市、社区与未来

Innovative Mobility for a More Connected and Sustainable UAE



主要应用场景 Key Use Cases

城市空中交通 Urban Air Mobility (UAM)

机场—市区、核心城区快速出行
Airport–City & Intra-City Air Taxi

缩短出行时间
Reduce travel time by up to 70%

机场接驳 Airport Transfer

迪拜国际机场等与市区/重点区域接驳
Transfer between DXB and key destinations

更高效的出行体验
Faster and more convenient travel

旅游观光 Tourism & Sightseeing

棕榈岛、迪拜海岸线、地标景点空中游览
Aerial tours over Palm Jumeirah, coastline and landmarks

全新视角领略阿联酋
A new perspective to experience the UAE

医疗救援 Medical Transport

紧急医疗运输、器官转运、远程地区救援
Emergency medical transport, organ delivery and remote area rescue

挽救生命，提高响应速度
Save lives with faster response

物流运输 Cargo & Logistics

高价值、时效性货物运输（如海上平台、偏远地区）
Time-critical and high-value cargo (e.g. offshore, remote areas)

支持多元经济发展
Support diversified economic growth

特殊活动与重大事件 Special Events

服务世博会、体育赛事、大型活动
Serve Expo, sports events and major gatherings

提升城市运营能力
Enhance urban operational capability

重点项目与进展 Key Projects & Progress

迪拜空中出租车试点 Duban Air Taxi Pilot

迪拜已与 Joby Aviation 合作推进空中出租车商业化运营，计划 2026 年率先启动服务。
Dubai is partnering with Joby Aviation to launch air taxi services, with commercial operations targeted for 2026.

Joby

阿布扎比 eVTOL 试点 Abu Dhabi eVTOL Trials

阿布扎比与 Archer 合作，开展 eVTOL 试点运行和基础设施建设。
Abu Dhabi is working with Archer on eVTOL trials and vertiport infrastructure.

ARCHER

Vertiport 网络建设 Vertiport Network

迪拜和阿布扎比正在规划多处 vertiport，覆盖机场、核心城区、旅游景点和主要交通枢纽。
Multiple vertiports are being planned across Dubai and Abu Dhabi, connecting airports, city centers, tourist sites and key transport hubs.

政策与战略支持 Policy & Strategic Support

UAE Government 阿联酋政府

- 将 AAM 纳入国家交通战略
  Supports AAM in national transport strategy
- 推动监管创新和试点项目
  Facilitates regulatory innovation and pilot programs
- 建设先进空中交通生态系统
  Builds a comprehensive AAM ecosystem

TDRA TELECOMMUNICATIONS AND DIGITAL GOVERNMENT REGULATORY AUTHORITY

- 制定 eVTOL 运行监管框架
  Develops regulatory framework for eVTOL operations
- 推进空域管理与数字化基础设施
  Advances airspace management and digital infrastructure
- 支持试点运行和商业化落地
  Supports trials and commercial deployment

DUBAI RTA ROADS & TRANSPORT AUTHORITY

- 规划 vertiport 网络和地面设施
  Plans vertiport network and ground infrastructure
- 推动城市空中交通示范项目
  Supports UAM demonstration projects
- 与全球企业合作引入创新解决方案
  Partners with global players to bring innovative solutions



从天空，看见一个更紧密、更可持续的阿联酋

A More Connected and Sustainable UAE — From the Skies

绿色低碳 Greener Transport | 以人为本 People-Centric | 互联互通 Better Connectivity | 创新驱动 Innovation-Led | 经济增长 Economic Growth

UAE TOMORROW TAKES FLIGHT

5. United Arab Emirates

The UAE is incorporating eVTOL into airport operating

AIP

Al Bateen Airport has published supplementary information for eVTOL operations

Rules now address AAM operational details

- TLOF and apron use
- VFR arrival and departure procedures
- Charging and ground support
- Aeronautical information publication
- Integration with existing airport operations

Inclusion in an AIP signals the transition from concepts to actual aviation operations.

6. China：Low-Altitude Economy （LAE）

— An Integrated Air-to-Ground Framework

China → Low-Altitude Economy → From Air to Ground — A broader concept

- General Aviation
  - Traditional GA → Based traditional GA aircrafts
  - New GA → Based drones, eVTOL, flying cars (AAM)



China's General Aviation

— *Traditional GA lags, new GA advances*

Core low-altitude industries

General Aviation

- Traditional GA — Based traditional fixed-wing GA aircraft, helicopters and recreational aircraft
- New GA — Based drones, eVTOL aircraft, flying cars - AAM

- China's Traditional GA lags behind Western countries.

	China	US
GA aircraft	5,000+	210,000+
GA airports	500+	14,000+
GA flight hours	1 million+	25 million+

CAAC has issued the type certificate (TC), standard airworthiness certificate (AC), production certificate (PC) and operator certificate (OC) to EHang's EH216-S passenger eVTOL, making it the world's first eVTOL to obtain all four approvals.

- China's new GA is developing in step with European and American countries, even at the forefront in airworthiness

- By end-2025: 38,872 certified drone operators (+48.6%, annual growth), 3.287 million registered drones (+51%) and 45.30 million annual flight hours (+69.9%).
- In 2024, seven Chinese eVTOL companies ranked among the world's leading eVTOL firms.



LAE Development Framework

Low-Altitude Economy Development Framework

— EIPSE

发展要素（Element）

发展基础（Infrastructure）

发展路径（Path）

发展形态（Shape）

发展效应（Effect）

Not only AAM, China is Building a Comprehensive LAE

Industrial policy + airspace reform + access to use cases + local implementation

7. The Four Policy Testing Areas are Verifying Four Different Paths

1	US	航空体系驱动 Aviation System Driving	Certification + NAS Integration
2	Europe	监管先行 Regulation Preparing First	Rulebook + Social Acceptance
3	China	政策与场景驱动 Policy & Scenario Driving	Low-altitude Economy + Autonomy
4	Middle East	应用部署与市场驱动 Application Market Driving	Infrastructure + Early Operations



III. Future Trends

未来发展趋势

1. AAM Extends Beyond Urban Air Taxis

Urban

Airport transfers / urban routes

UAM

Regional

Intercity passenger services
Rural Air Mobility

RAM

Specialized

Emergency medical services / public safety

EMS

Logistics

High-value, time-sensitive cargo

Cargo

Core elements: new aircraft + digital ATM + new infrastructure + new operating models

2. From Certification to Operation

The industry is crossing Hurdle 1 / Hurdle2

Hurdle 1

2015—2020

Technology Verification

Rapid emergence of designs
Can it fly?

Hurdle 2

2020—2025

Airworthiness and Regulations

TC / PC / OC
Can it comply?

Hurdle 3

2025—2030

Operations at Scale

Routes, flights and reliability
Can it sustain operations?

Evaluation Milestones:

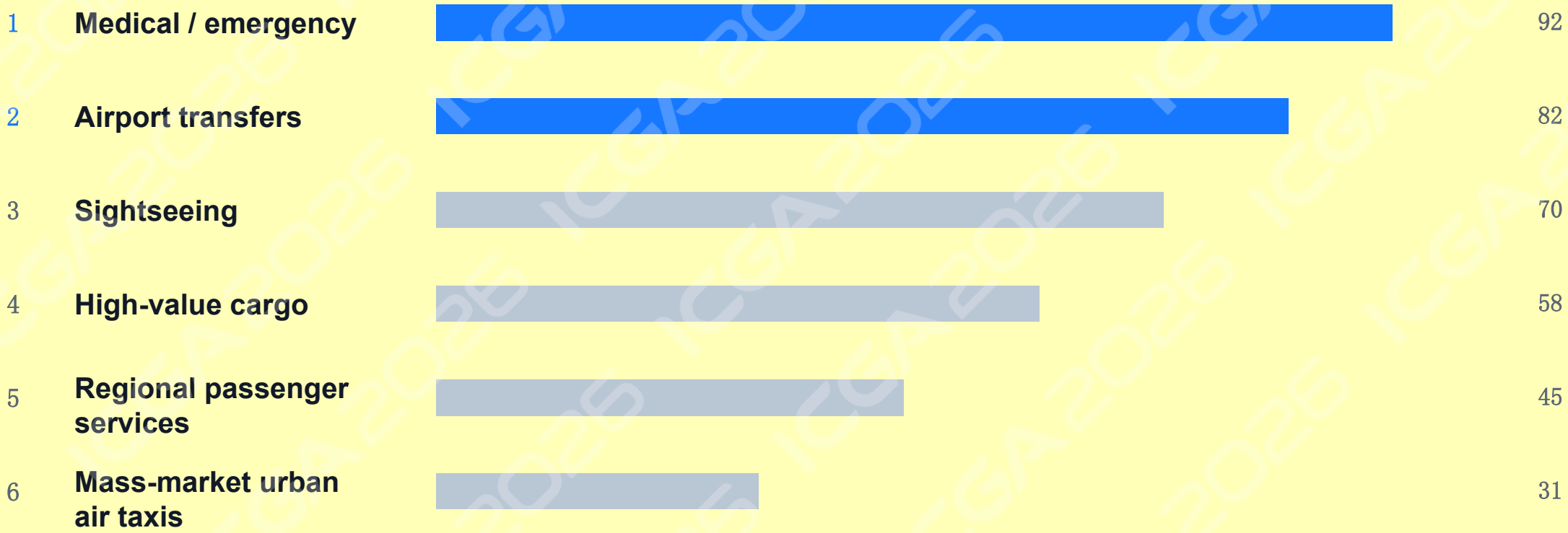
Prototype testing → Certification → Revenue flights, daily utilization and unit cost

3. AAM Competition is Shifting from Aircraft to Complete Systems

01	02	03	04	05	06
Aircraft	**Certification**	**Infrastructure**	**Airspace**	**Operations**	**Customers**
Safety, performance and production	TC/PC/AC/OC	Vertiports and energy facilities	ATM / UTM / U-space	Staff, maintenance and dispatch	Demand and willingness to pay

Every link is essential to a commercially viable system

4. Commercialization Priorities May Follow Value Density not Imagination



Illustrative priorities based on essential demand, route clarity and ability to pay

Not a market-size forecast

5. Investment Status of Leading Global eVTOL Companies



Lilium



AutoFlight/峰飞



Aerofugia/沃飞



Xiaopeng/小鹏飞车



Ehang/亿航



Joby



ARCHER



BETA



VERTICAL



ELROY AIR



wisk

6. Global Leading eVTOL Companies and Their Performance in the Capital Market

Performance of eVTOL listed companies in the US Stock Market (2026.10.27)



Ranking of the global leading eVTOL companies

OEM (stock ticker)		ARI	Funding ($M)	Use Case	Vehicle Type	Propulsion	Operation	Vehicles	First Flight	EIS	Cert Regulator	Country
Ehang (NASDAQ: EH)	↔	8.45	262.0	Tourism,EMS,Firefighting,Air Taxi	Multicopter/ Lift + Cruise	Electric	Autonomous	EH216-S/F / VT-35	2018 / 2025	2025 / -	CAAC	China
Volocopter (Wafeng Diamond)	↔	8.10	Corporate backed	Air Taxi, Tourism, EMS,Cargo	Multicopter/ Multicopter/ Lift + Cruise	Electric	Piloted	VoloCity / VoloUrban / VoloRegion	2021 / 2026 / 2023	2027 / 2028 / 2030	EASA	Germany / China
Volant Aerotech	↑	8.05	701.0	Air Taxi, EMS, Tourism	Lift + Cruise	Electric	Piloted	VE25-100 SKYLAR	2023	2026	CAAC	China
Joby Aviation (NYSE: JOBY)	↔	8.00	5,181.4	Air Taxi, MIL	Vectored Thrust	Electric	Piloted	S4	2018	-	FAA	USA
Beta Technologies (NYSE: BETA)	↔	7.95	2,952.7	Cargo, MIL, Regional, Air Taxi	Conventional/Lift + Cruise	Electric	Piloted	CX300/ A250	2020 / 2022	2026 / 2027	FAA	USA
AutoFlight	↔	7.85	640.0	Cargo, Air Taxi	Lift + Cruise	Electric	Piloted	V2000EM Prosperity	2022	2026	CAAC	China
Archer (NYSE: ACHR)	↔	7.80	2,864.2	Air Taxi	Vectored Thrust	Electric	Piloted	Midnight	2023	-	FAA	USA
Eve Air Mobility (NYSE: EVEX)	↔	7.80	1,002.6	Air Taxi	Lift + Cruise	Electric	Piloted	Eve	2025	2028	ANAC	Brazil
Wisk (Boeing)	↔	7.55	Corporate backed	Air Taxi	Vectored Thrust	Electric	Autonomous	Generation 6	2025	-	FAA	USA
Aerofugia	↔	7.50	238.4	Air Taxi, Cargo, Tourism	Vectored Thrust	Electric	Piloted	AE2	2023	2026	CAAC	China
Robinson	↔	7.45	Corporate backed	EMS, Cargo	Helicopter	H2 Fuel Cell/Electric	Piloted	-/	25/2027	2029/-	FAA	USA
SkyDrive	↑	7.35	315.9	Air Taxi, Tourism, EMS	Multicopter	Electric	Piloted	S	28		JCAB	Japan
Vertical Aerospace (NYSE: EVTL)	↑	7.20	626.2	Air Taxi, EMS, MIL	Vectored Thrust	Electric	Piloted				CAA	UK
TCab Tech	↑	7.00	142.6	Air Taxi,Tourism	Vectored Thrust	Electric	Piloted				CAAC	China
ZEROG	↔	6.80	176.3	Tourism, EMS, SAR, Air Taxi	Multicopter/ Vectored Thrust	Electric	Autonomous/Pilo			028	CAAC	China
Electra	↔	6.55	249.0	Regional, Cargo, MIL	Augmented Lift	Hybrid	Piloted				FAA	USA
Ascendance	↔	6.20	56.5	Regional, Cargo	Lift + Cruise	Hybrid	Piloted				EASA	France
REGENT	↔	6.05	90.0	Regional, MIL	Augmented Lift	Electric	Piloted			26	US Coast Guard	USA
Heart Aerospace	↔	5.90	189.7	Regional	Conventional	Electric/Hybrid	Piloted			029	FAA	USA
Honda Motor Company	↑	5.75	Corporate backed	Air Taxi	Lift + Cruise	Hybrid	Piloted			2030	FAA	Japan
Vertaxi	↔	5.45	69.2	Tourism, Air Taxi, EMS, Cargo	Lift + Cruise	Electric	Auton			2027	CAAC	China
ERC System	↔	5.45	Undisclosed	EMS	Lift + Cruise	Hybrid	Pilo			2031	EASA	Germany
Vaeridion	↔	5.25	19.1	Regional	Conventional	Electric	Pi			2030	EASA	Germany
Supernal	↔	4.40	Corporate backed	Air Taxi, Cargo	Vectored Thrust	Electric	Piloted			-	FAA	USA

Chinese Companies

- 亿航 Ehang
- 峰飞 AutoFlight
- 沃飞 Aerofugia
- 零重力 ZeroG
- 时的 Tcab Tech
- 御风未来 Vertaxi
- 万丰钻石 Wanfeng Diamond

May 2026 Release

7. 2026–2030: Five Shifts Will Determine Industry Survivors

01	**Certification → Operations**	Commercial flights become the metric
02	**Demonstrations → Revenue**	Customers pay regularly
03	**Individual Sites → Networks**	Connected landing sites and routes
04	**Piloted → Highly Automated**	Lower labor costs, stricter system requirements
05	**Aircraft → Transport Systems**	Coordination sets the pace of expansion

The Ultimate Competition Goes Beyond Individual Aircraft

It is about scalable advanced air transport systems based efficient utilization of low-altitude resources

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Safe

Acceptable risk

Sustained

Reliable daily operations

Replicable

Across cities and regions

Economical

Affordable for users
Profitable for operators

Aircraft → Certification → Infrastructure → Airspace → Operation

Thanks

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