



Mobility Reimagined

EVE



**EMBRAER**

## First spin-off from EmbraerX

eVTOL and UATM projects incubated for four years within EmbraerX

## Clear revenue visibility

Largest order pipeline in AAM industry, with customers around the globe in all continents

## NYSE-listed company (EVEX) from May 10, 2022

2022 capital raise of \$377 million from strategic and financial investors

## Leveraging Atech's Knowledge

Eve and Atech, Embraer's Air Traffic Control technology and system integrator company, are partners in Urban ATM software development



# Enabling AAM ecosystem by developing product and solutions that offer scalability and support

## eVTOL Development

Designing, developing and certifying an electric vertical take-off and landing (eVTOL) vehicle

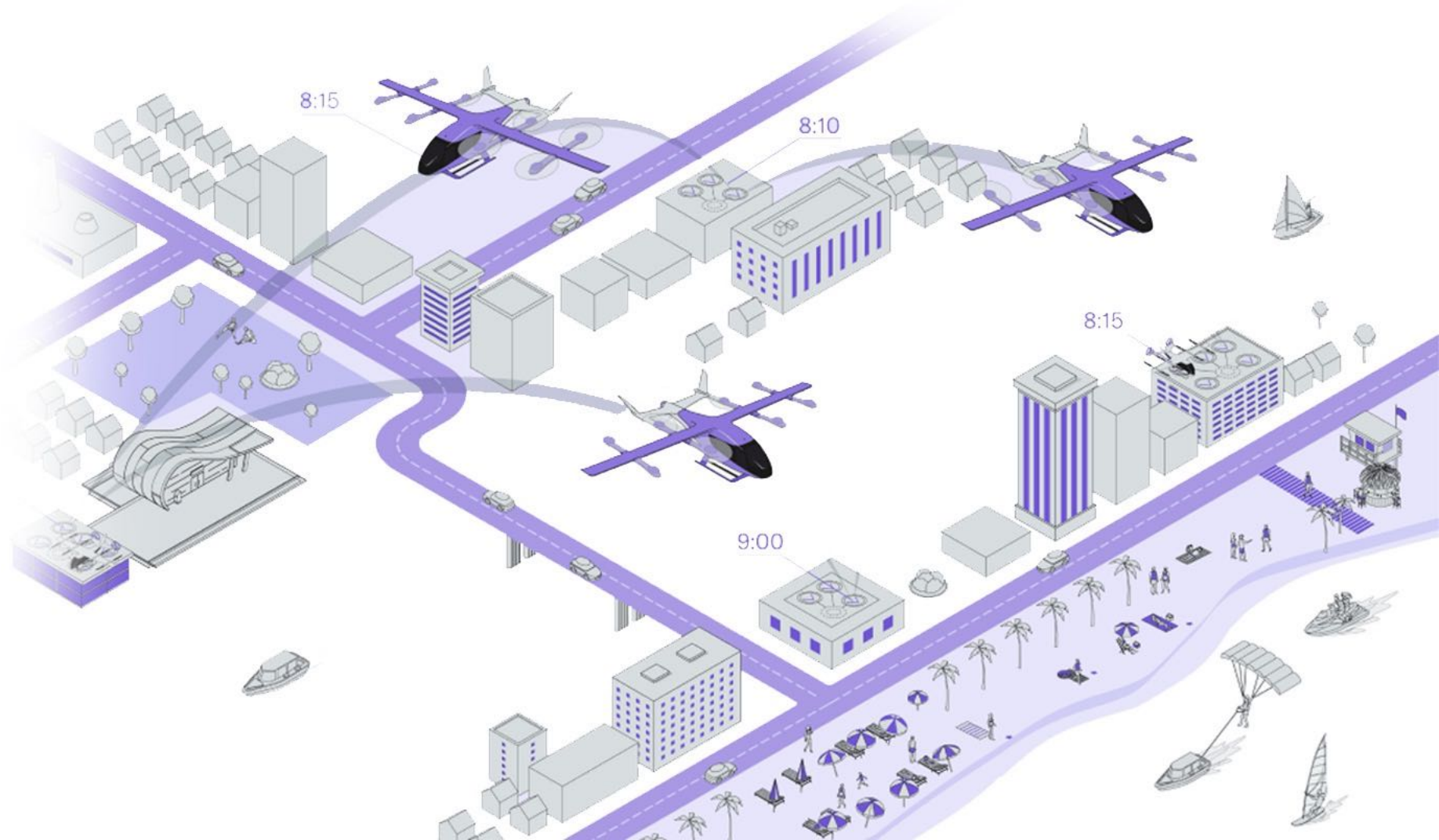
## UAM Services

**Fleet Operations:** Provide UAM capacity on demand through a network of eVTOLs and strategic partners

**Services & Support:** Provide agnostic maintenance, support and training services to Eve and third-party aircraft

## UATM

Developing a next-generation **Urban Air Traffic Management** that provides shared situational awareness and enables equitable airspace access





eVTOL

# Vehicle design optimized for urban mobility

## Flexible capacity

**4** seats at EIS with up to  
**6** in uncrewed configurations

## High utilization rate

Designed for **thousands** flight cycles per year with industry-leading reliability

## 100% Electric Vehicle

**ZERO** local carbon emissions

## Tailored for urban mobility

**100 km** (60 mile) range at EIS  
addresses 99% of UAM missions

## Unmatched cost efficiency

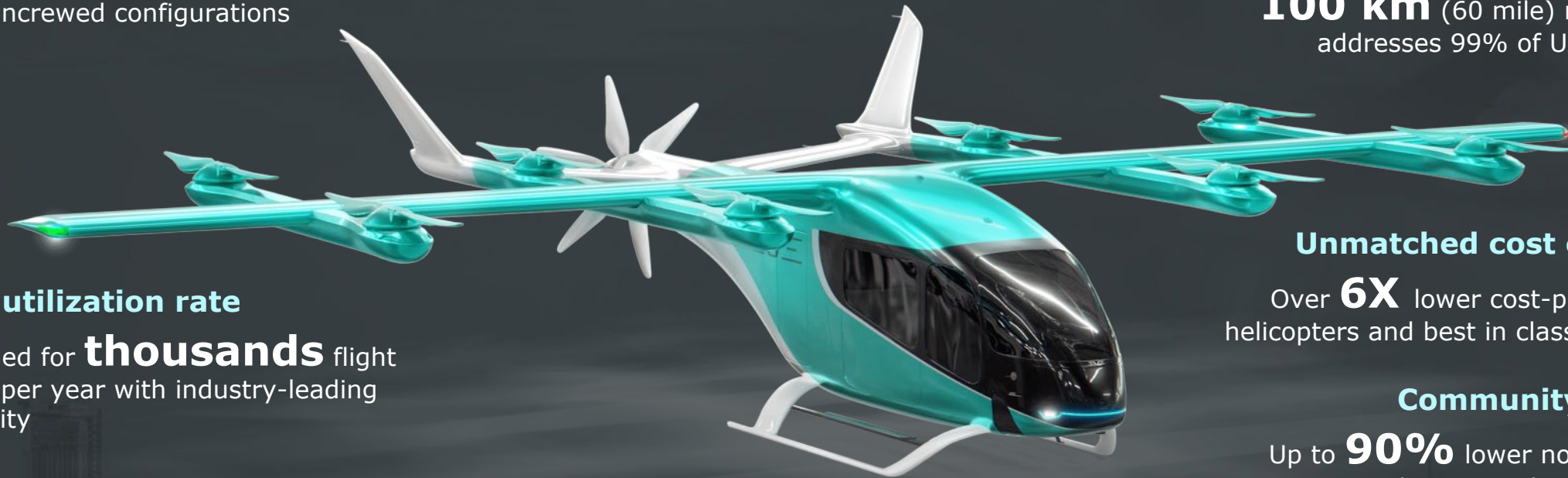
Over **6X** lower cost-per-seat than helicopters and best in class for eVTOLs

## Community-friendly

Up to **90%** lower noise footprint compared to equivalent helicopters

## Lift + Cruise design

Overhead wings with distributed rotors and rear propellers



The Largest and Most Diversified Backlog in the Industry

Letters of Intent for up to

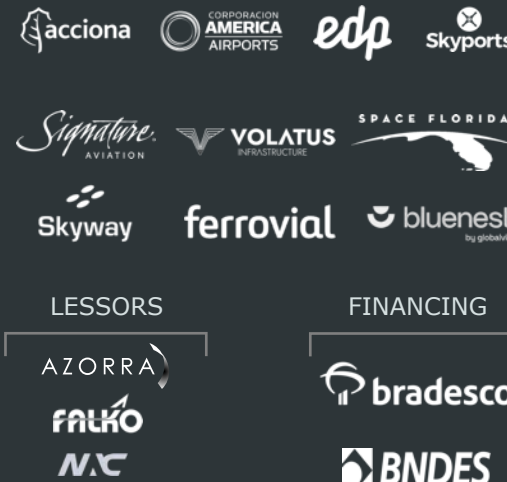
2,850  
eVTOL AIRCRAFT

Strong partnership network

AIRCRAFT OPERATOR & RIDESHARING PLATFORM



INFRASTRUCTURE



TECHNOLOGY



# FIRST EVTOL PRODUCTION LOCATION IN BRAZIL

Located in the City of Taubaté, in the state of São Paulo, Brazil

Reimagines how aircraft will be built driven by innovation and sustainability

Strategic logistical location – highways, railways and proximity to Embraer Campus



# eVTOL BUILDING BLOCKS



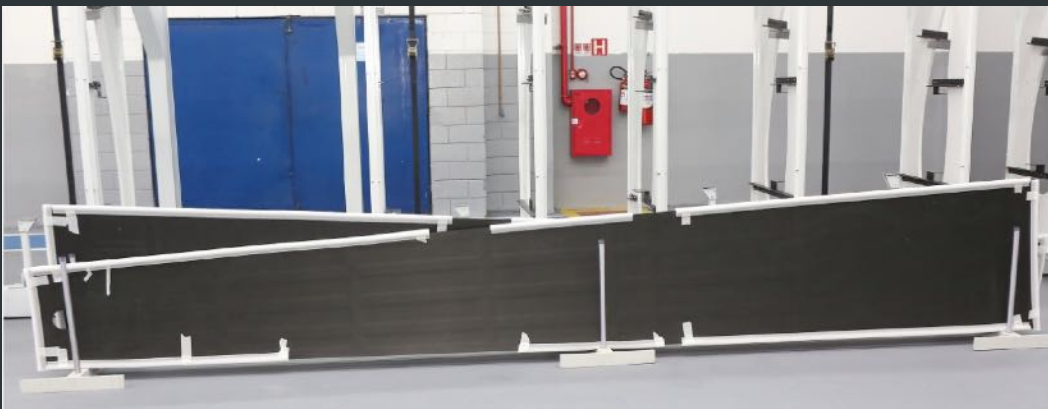
Wind Tunnel Testing



Propeller RIG



Truck-Mounted RIG



1<sup>st</sup> Carbon Fiber Wing Prototype



Flight-Control RIG



Motor RIG



# Eve's Global UAM Ecosystem Initiatives



*For agnostic, integrated and equitable UAM ecosystem*

## Chicago CONOPS & Simulation

Simulating passenger services and operational ecosystem in commuting



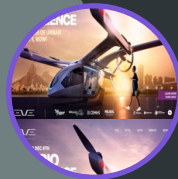
## Miami UAM CONOPS

Understanding Passenger Experiences and eVTOL User Journeys to prepare for UAM implementation



## Rio CONOPS & Simulation

Simulating passenger services and operational ecosystem in airport shuttle



## UK CAA Regulatory Sandbox

Co-created solutions with ANSP to address regulatory barriers to airspace integration



## Japan CONOPS

Understanding ground infrastructure and traffic management systems



## India Pilot Project

Supporting pilot project offering passenger services for commuting in Bengaluru



## Australia UATM CONOPS

Developed and tested UATM CONOPS for airspace integration with Australia's ANSP





AIR TRAFFIC MANAGEMENT IN THE  
**URBAN ENVIRONMENT**

# UAM Operating Environment



Operations will increase in tempo, density & complexity



More flights with short turnaround times and less time for reaction



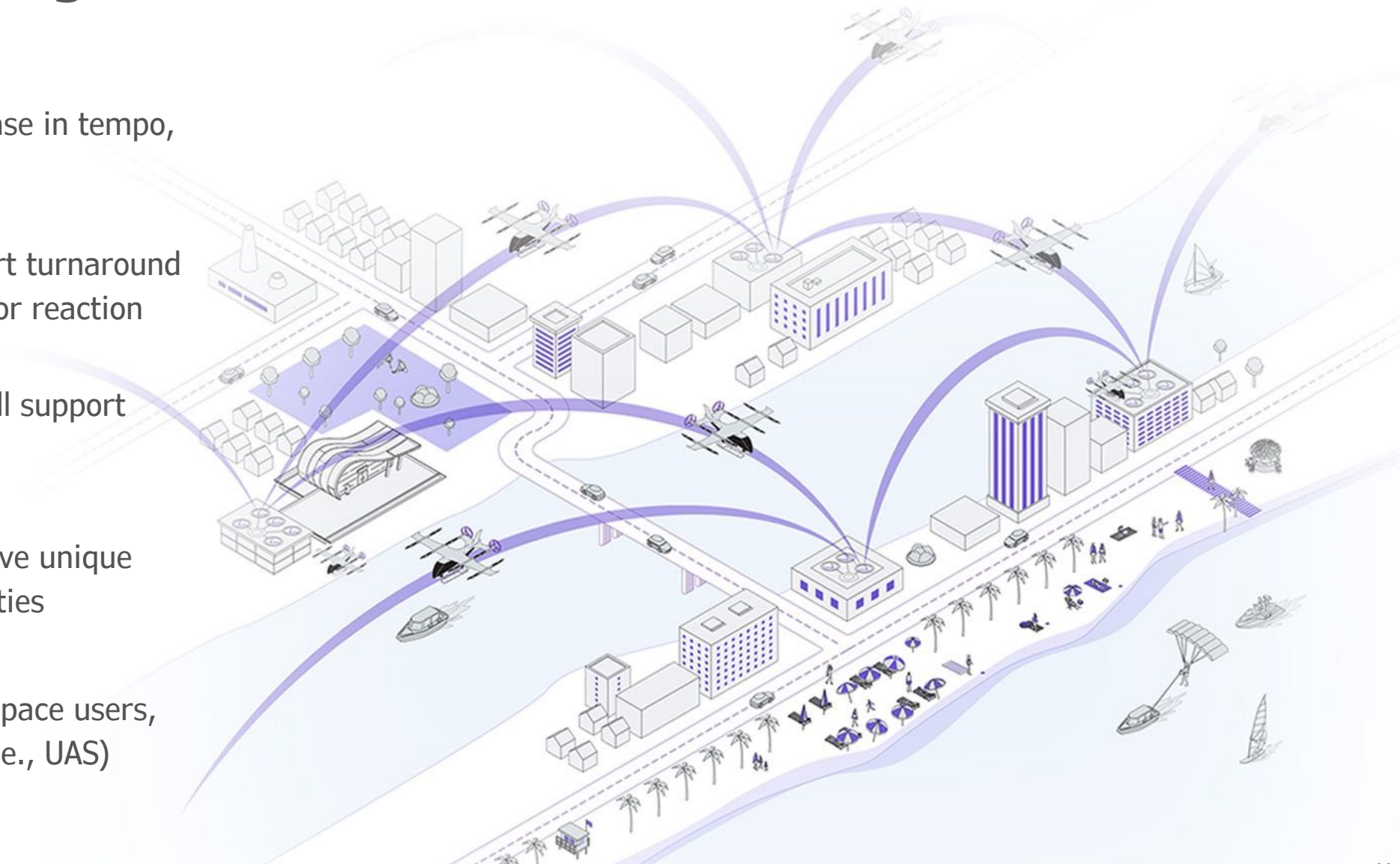
Multiple vertiports will support multiple operators



eVTOL aircraft will have unique performance capabilities



Increase in other airspace users, both UAM & others (i.e., UAS)



# Additional Airspace & ATM Challenges for New Operations

## Controlled Airspace

- Access to controlled airspace not guaranteed
- Clearances by ATC may require holding due to multiple operators and aircraft types seeking access.

## Flights into Airports

- Good locations for UAM business case are complex for airspace access

## Challenges are not just about high-density operations

- Vertiport resource availability
- More systemization to reduce holding
- Reduced reliance on voice communications
- Integration of all airspace users
- Roadmap to autonomy integration

## Lack of Flight Planning Requirements

- Visual flight rules and uncontrolled airspace do not require flight planning
- Limited predictability and coordination of different users in congested airspace.

## Legacy Systems Lack Integration & Automation

- Solutions rely on multiple data sources, manual data entry
- Often isolated from other stakeholders.



Urban Air Traffic Management (UATM) is the collection of systems and services, including:

- ✓ Organizations
- ✓ Airspace structures & procedures
- ✓ Regulations
- ✓ Environment
- ✓ Technologies

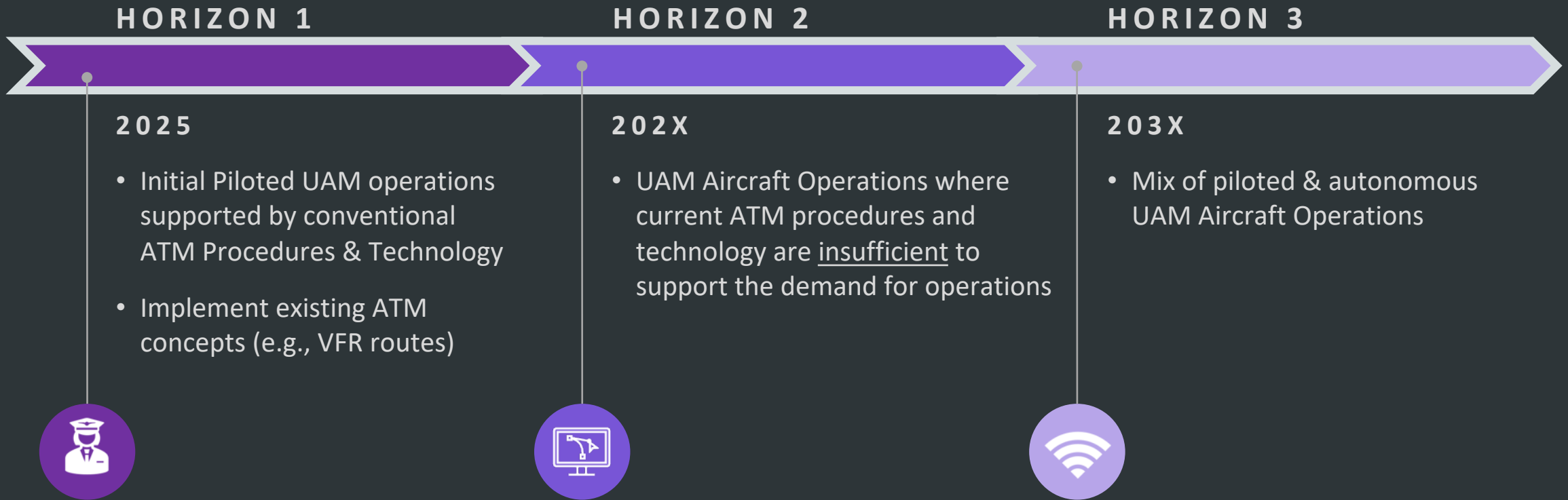
To support the integrated operation of UAM vehicles & other airspace users in low-level airspace to enable the **optimized performance and safety** of UAM operations, driving towards autonomy.

### Optimizing all ICAO Key Performance Areas



# Evolution of UAM Operations

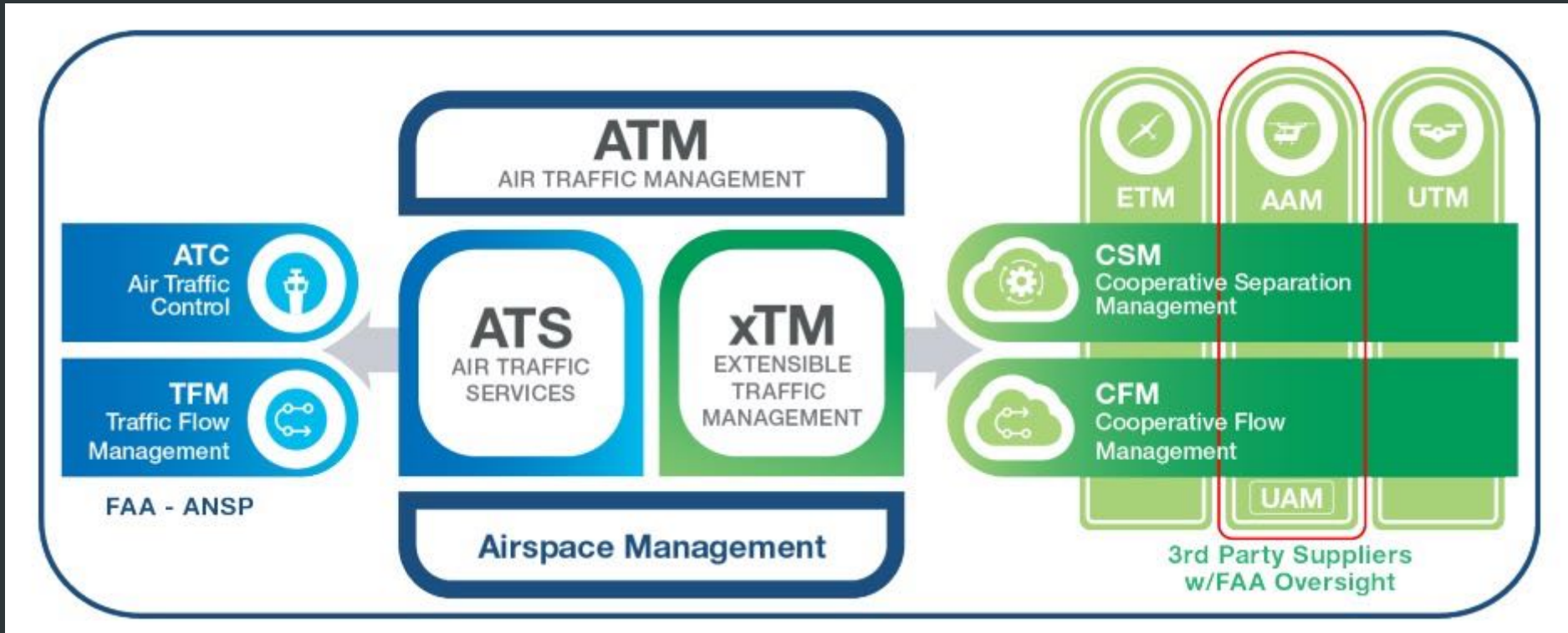
## Development Horizons



However, new Vertiport & Fleet Operator Planning, Information Sharing, Flow Management, and Situation Awareness services needed from day 1 of UAM operations

# FAA UAM CONOPS V2.0

Distinction between the services for UAS and UAM/AAM operations



- Not all services are to 'uncrewed' aircraft
- Revenue from AAM flight likely to be higher than UAS – has implication for service provision
- Differentiates required and value-added services between UAM/AAM and UAS operations  
*Does not mean a service provider cannot serve both*
- Means of Compliance for AAM specific services not defined, but expected to be higher than for UTM
- Challenges of eVTOL integration likely to provide insight for future ATM arrangements for all airspace users

# Urban ATM

*Safe and efficient urban operations*

## Vital Need for Urban Air Traffic Management (Urban ATM)

*Conventional voice-based air traffic control (ATC) cannot scale*

## Integration and scaling of UAM with pilots is first challenge

*Crewed eVTOL operations will have specific traffic management challenges*

## Long term, integration of crewed and uncrewed aircraft

*Need to ensure new and traditional airspace users can share the airspace*

## Stepping stones to ATM 2.0

*UAM traffic management the catalyst for redefining ATM*









Mobility Reimagined