

# ICAO DRONE SYMPOSIUM 2023

Unmanned Aircraft Systems Traffic Management (UTM)

Topic 2: Critical elements of AAM requiring global interoperability  
and harmonization

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# AAM ecosystem

Framework of global solutions for AAM to create an integrated system.

Including regulatory, commercial, technical and operational factors.



## Regulatory

Vertiport Design  
Air Traffic Management  
Safety critical issues  
Software and systems



## Technical

Charging infrastructure  
Freight handling  
Maintenance and engineering  
Safety procedures



## Operational

Vertiport operational procedures  
Ground handling  
Security  
Ticketing

# Local & Regional Elements



Planning regulations for vertiports



Pricing and ticketing



Passenger standards and consumer rights



Integrated ticketing



Vertiport manuals



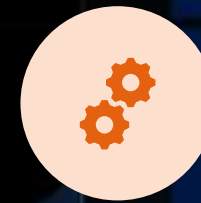
# Globally harmonized frameworks benefits



Global safety standards to provide confidence in the technology and systems



OEM's can make investment decisions knowing that there is minimal technical variation between areas



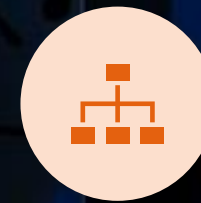
Easier for operators knowing that processes and operations are harmonized



Common engineering and maintenance procedures to ensure fleet management is managed consistently



Consistency in passenger standards



A fragmented system would need multiple operational and regulatory frameworks



# AAM Stakeholders



# 3-5 Years

## States



Create regulatory and commercial frameworks



Public perception and acceptance



Cargo and freight integration



Implementation of planning standards and regulations



Commercial parameters and market intervention



Integration of AAM infrastructure with existing infrastructure and facilities



Airspace and air navigation rules

# 3-5 Years

## Industry



Obtaining certification and manufacturing processes, including supply chains



Operators will emerge and develop commercial models



Route development and vertiport location



The largest market may initially be freight and cargo



# 6-10 Years

## States



AAM will have become more established



Standards will have matured



Possible market intervention to ensure AAM is accessible



AAM improving connectivity in certain markets



Possible replacement (or enhancement) of short-haul regional travel

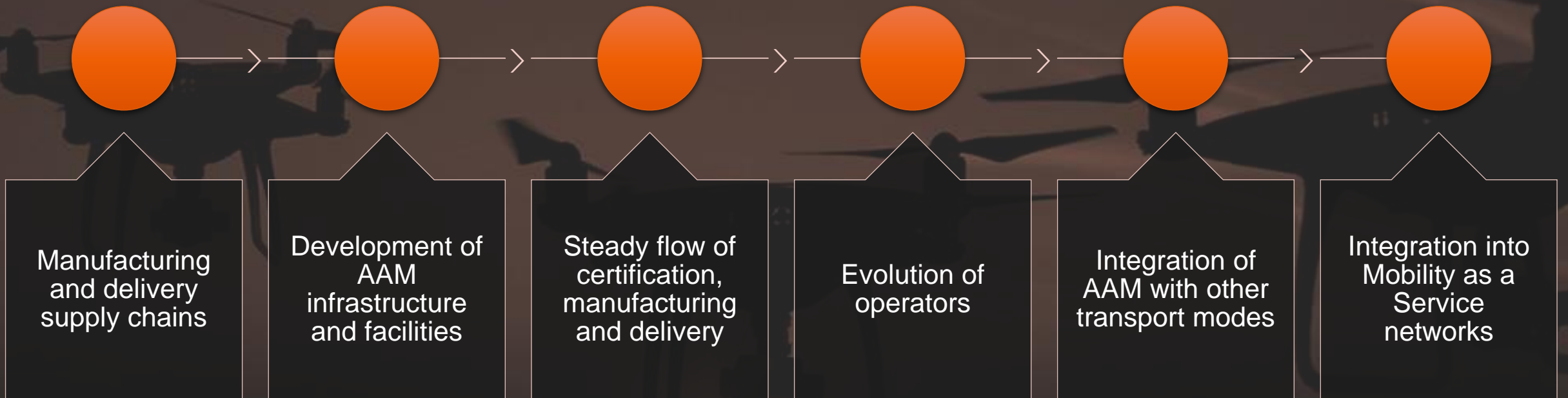


Proving the safety of autonomous flights and public perception



# 6-10 Years

Industry



# Achieving interoperability and harmonization



Regulatory, technical and operational parameters on a global level as the basis of a harmonized framework



Planning, commercial and integration strategies at a local and regional level to adapt to different markets



Collaboration between traditional aviation, transport & planning policy makers with extensive community engagement