

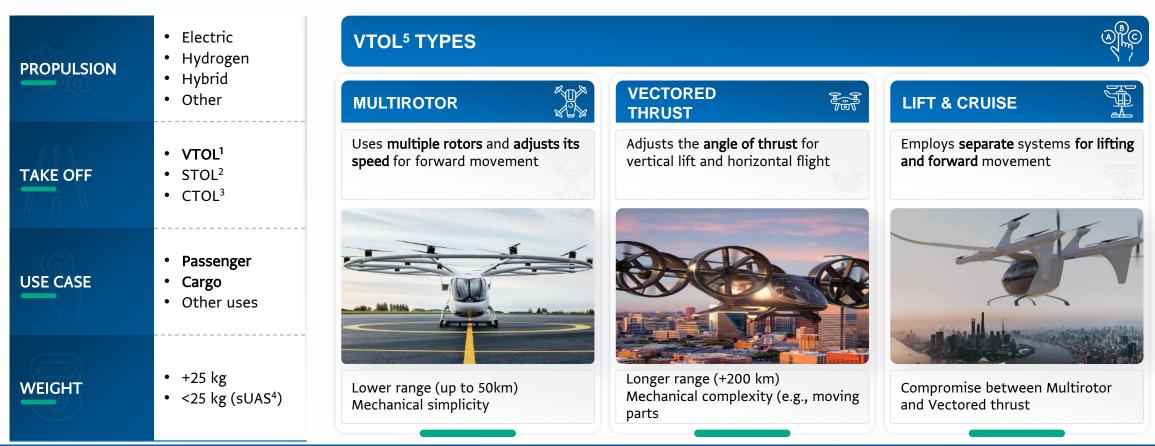
Advanced Air Mobility (AAM) Roadmap
5<sup>th</sup> MID Region Safety Summit

Mohammed Alshebani NOV 2024



AAM encompasses a wide variety of aircraft, yet eVTOLs are the cornerstone of the industry and are expected to play a major role shaping AAM in the coming years

### AAM aircraft types



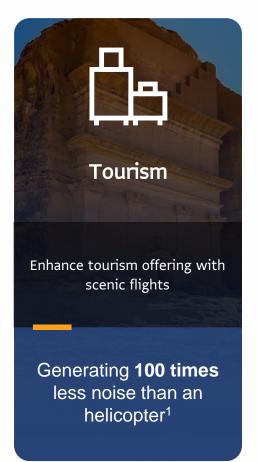
AAM technology is quickly evolving, and new aircraft models are expected in the future with longer range, higher payload and more autonomy enabled by 4IR<sup>6</sup> technologies such as AI<sup>7</sup> and IoT<sup>8</sup>

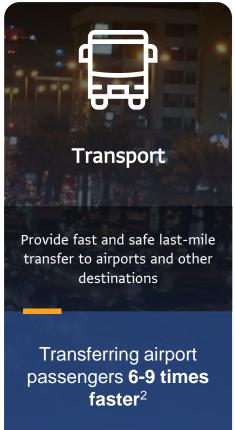


## AAM brings opportunities to several sectors enhancing efficiency, capacity and service level

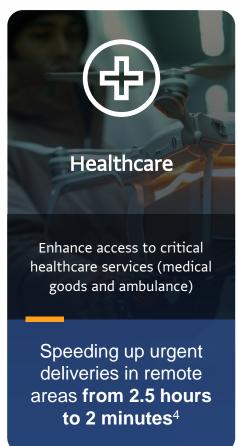
AAM opportunities in other sectors

Selection – not exhaustive















## **AGENDA**



AAM context



**AAM Roadmap ambition** 

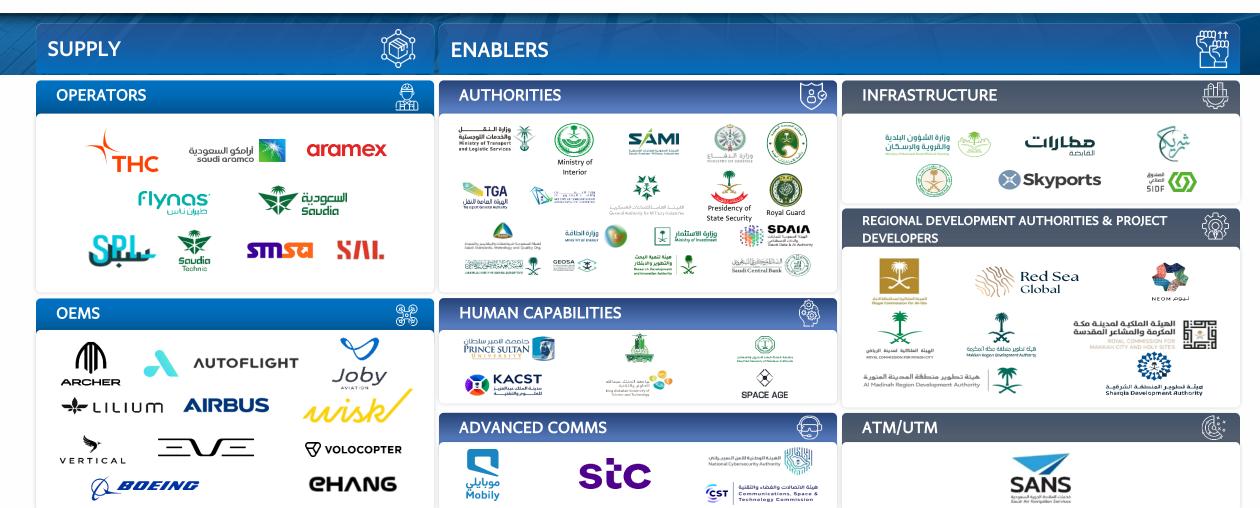
KSA has set an ambitious strategy for AAM, including start of commercial operations in 2025/2026 at six selected locations

١	Ambition	BECOME A GLOBAL AAM LEADER	
1	Start of commercial operations <sup>7,5</sup>	In line with prominent markets, 2025 <sup>1</sup> /2026	
2	Initial deployment	NEOM, Red Sea, Al-Ula, Riyadh, Makkah, and Jeddah	
3	Human capabilities development	Capabilities hub (2028, training local and foreign candidates)	
4	Local assembly/manufacturing	Manufacturing <sup>23</sup> (2030 under Foreign POA and 2032 under Saudi POA <sup>4</sup> )	
5	Type certification	Type certificate <b>issuance</b> <sup>6</sup> (2030)	



This roadmap has been aligned with 50+ stakeholders to gather insights and support

Stakeholder engagement map





## AAM strategy will be realized through an ambitious roadmap, comprising 24 sector-wide initiatives

## AAM Roadmap initiatives







## Initiatives on Organization, Capabilities and Regulations are critical for execution of many other initiatives

#### **INTERDEPENDENCY MATRIX**

#### ... ON THESE INITIATIVES

- 1.1.1 Create a dedicated AAM function inside GACA 1.1.2 Establish AAM coordination group(s) with key sector stakeholders
- 1.1.3 Ensure AAM operators' readiness and alignment of their plans with AAM strategy
- 2.1.1 Make GACA self sufficient in issuance of required aircraft certifications
- 2.2.1 Estimate R&D needs for the AAM sector & develop the action plan
- 2.3.1 Develop an OEM attraction plan for manufacturing localization
- 3.1.1 Define spectrum requirements and secure frequencies for AAM
- 3.1.2 Allocate required frequency spectrum to the aviation sector for AAM operations
- 3.2.1 Develop the low-level airspace concept
- 3.2.2 Develop a network of ATM/CNS and UTM infrastructure
- 3.3.1 Develop a network of ground infrastructure
- 3.3.2 Ensure development of MRO network for sustained AAM operations
- 4.1.1 Make KSA a hub for AAM capabilities development in the region
- 4.1.2 Secure a pipeline of AAM industry professionals in KSA
- 5.1.1 Develop & implement campaigns to increase public awareness of AAM
- 5.1.2 Carry out flight test campaigns & initial commercial operations in selected areas
- 6.1.1 Ensure sufficient investments for AAM sector development
- 6.2.1 Develop a mechanism for favorable OpEx financing to promote AAM sector growth
- 6.2.2 Develop a concept and a mechanism on insurance services for the sector
- 7.1.1 Develop and update ConOps for AAM in KSA at national and regional level
- 7.1.2 Develop comprehensive regulatory framework for AAM sector
- 7.1.3 Define cybersecurity requirements for AAM
- 7.2.1 Adapt and develop data management policies for AAM
- 7.2.2 Ensure development of other non-aviation regulations to enable AAM

# THESE OF DEPENDENCY

I.1.3 Ensure AAM operators' readiness and alignment of their plans with AAM strategy

2.2.1 Estimate R&D needs for the AAM & develop the action plan

2.3.1 Develop an OEM attraction plan for nanufacturing localization 3.1.1 Define spectrum requirements and secure frequencies for AAM

3.1.2 Allocate required frequency spectrum the aviation sector for AAM operations

3.2.1 Develop the low-level airspace concept

3.3.1 Develop a network of infrastructure

4.1.1 Make KSA a hub for AAM capabilities development in the region

Dependent initiative

5.2.1 Develop a mechanism for favorable Cinancing to promote AAM sector growth

.2.2 Develop a concept and a mechanism is urance services for the sector

7.1.1 Develop and update ConOps for AAM in KSA at national and regional level

7.2.2 Ensure development of other aviation regulations to enable AAM



GACA will coordinate implementation efforts with all key stakeholders; each stakeholder will lead and/or support specific initiatives in the AAM Roadmap

Governance for AAM strategy delivery

Selection of stakeholders

#### AAM ROADMAP

STRATEGY ENABLERS



GACA to play the role of roadmap leader and coordinator across key stakeholders and lead implementation across all enablers















# Thank you

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If you have further questions about AAM developments in Saudi Arabia, please scan the QR code below or write to

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