

Forthcoming Future: Low-Altitude Economy (LAE)

Explore Emerging Opportunities in the New Growth Engine in China

The “**Low-Altitude Economy (LAE)**” is a comprehensive economic form, driven by various low-altitude flight activities involving both manned and unmanned aerial vehicles, which in turn stimulate and promote the integrated development of related industries.



The emerging future growth driver in China

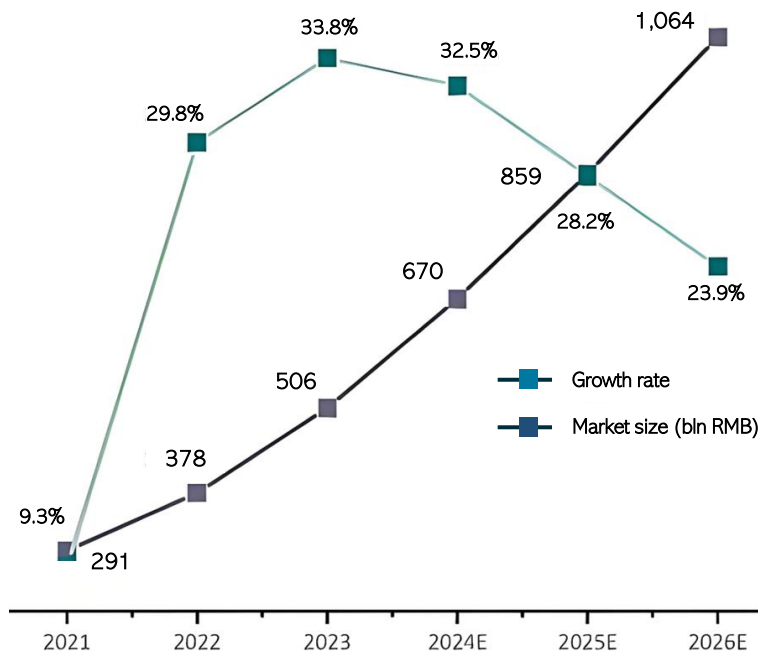
The Low-Altitude economy is burgeoning and will become a new engine for future development of China: *in Feb. 2024, an electric vertical take-off and landing (eVTOL) aircraft completed its inaugural intercity electric air taxi demo flight in Guangdong Province, significantly reducing the highway travel time between Shenzhen and Zhuhai from 2 hours to merely 20 minutes*



FORTHCOMING FUTURE: LOW-ALTITUDE ECONOMY Market Development and Industry Value Chain

"Low altitude" usually refers to the airspace within 1,000 meters of the vertical distance from the ground (according to different regional characteristics and actual needs can be extended to 3,000m)

Market Size and Growth of Low-Altitude Economy in China

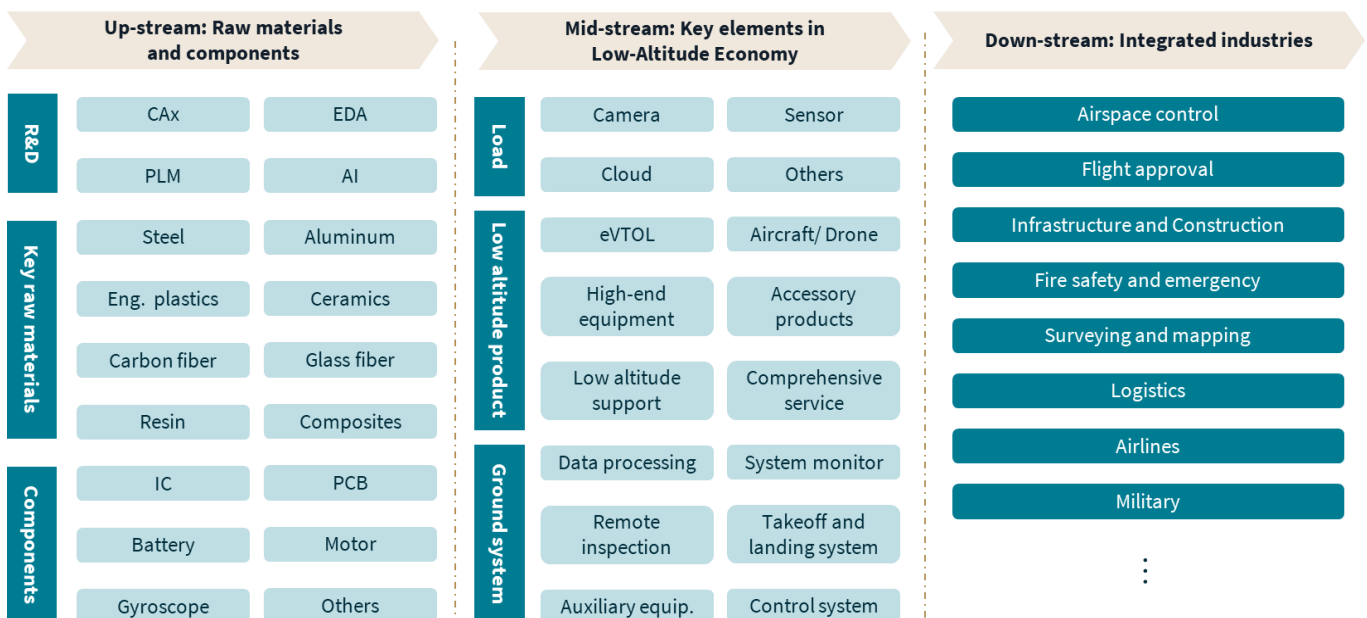


- Chinese LAE market size has kept growing by over 20% annual growth since 2021 and amounted to 506 bln RMB (65 bln EUR) in 2023.
- According to the estimates from the Civil Aviation Administration of China (CAAC), the market size of China's Low-Altitude Economy is expected to reach 3.5 trn CNY (450 bln EUR) by 2035

Source: CCID, EAC research

Overview Industry Value Chain of Low-Altitude Economy

Diversified and wide involvement of numerous industries in the upstream (raw materials and components), mid-stream (key elements) and down-stream integrated business and fields in LAE

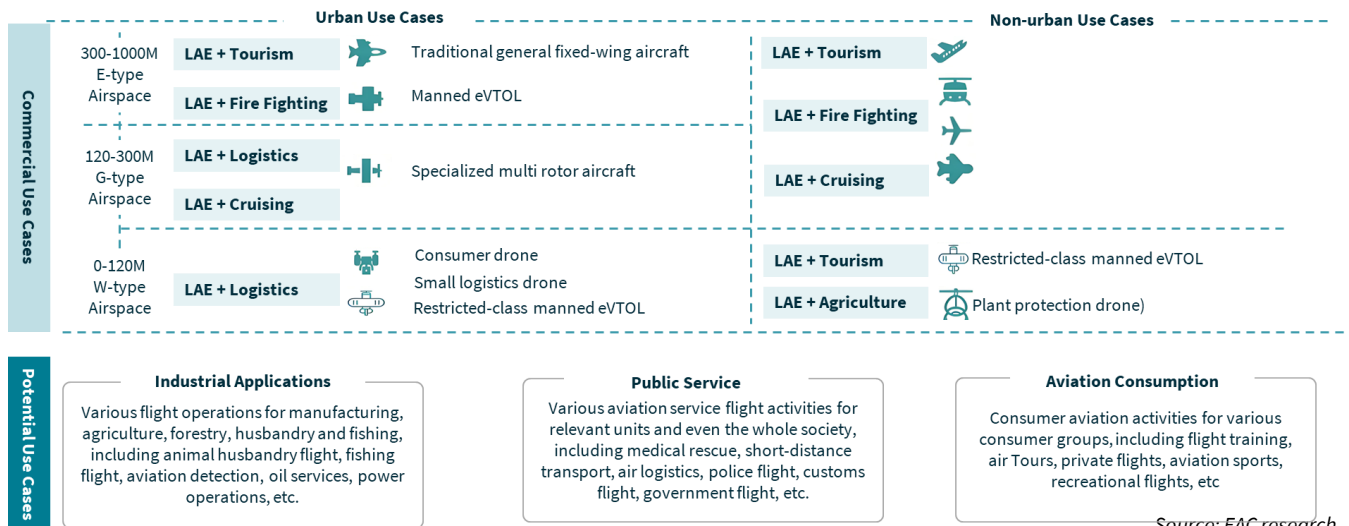




FORTHCOMING FUTURE: LOW-ALTITUDE ECONOMY Applications, Use Cases and Macro Guidelines

Applications and Use Cases in Low-Altitude Economy (selected)

Quite a few use cases are emerging in urban/ non-urban, industrial, public service and aviation consumption applications in the Low-Altitude Economy



Latest Government Policies and Initiatives

A series of signals have signified the direction of future policies and LAE has the potential to become a new growth engine in the future, similar to the mobile internet, intelligent logistics, and new energy vehicle industries:

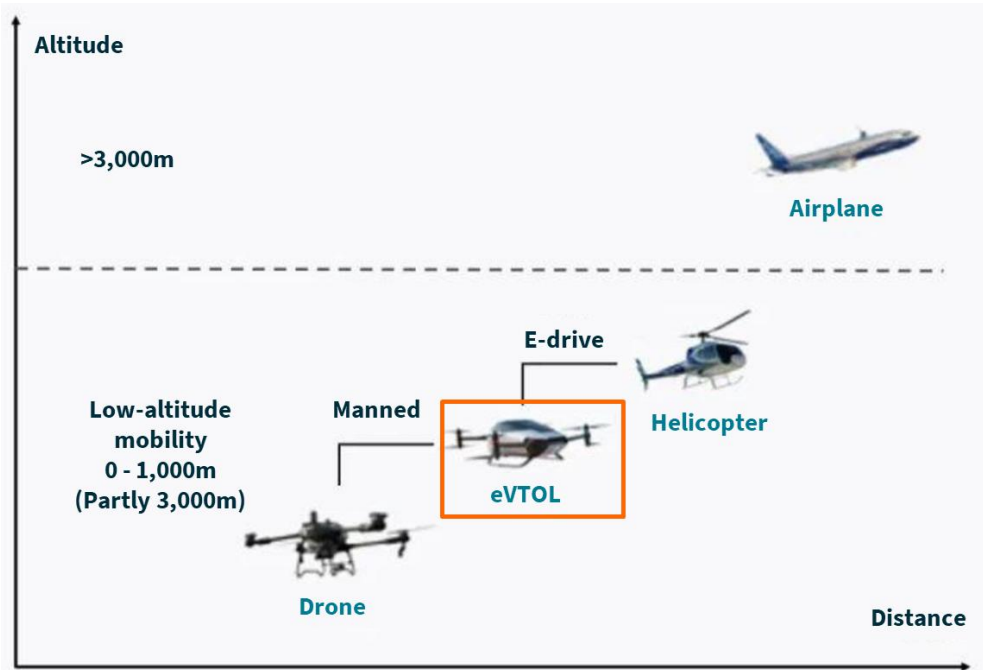
- ◆ **January 2025:** relevant departments of Chinese government announced their intention to promote reforms in aviation and low-altitude economy as part of their goals for 2025. These reforms encompass air traffic management systems and airspace management, both of which are pivotal for better regulation and achieving sustainable development in the industry.
- ◆ **December 2024:** National Development and Reform Commission (NDRC) announced establishment of a specialized department for low-altitude economic development. This department will be responsible for formulating and implementing development strategies and medium- to long-term plans for the industry
- ◆ **November 2024:** at press conference of the Zhuhai Airshow, Chinese Air Force announced that the Air Force and civil aviation departments will support the low altitude initiatives in 5 provinces incl. Sichuan, Hainan, Hunan, Anhui and Jiangxi, as well as the pilot of unmanned aerial vehicle urban flight in Shenzhen
- ◆ **August 2024:** Shenzhen government unveiled "*High-Quality Development Plan for Low-Altitude Takeoff & Landing Facilities in Shenzhen (2024-2025)*", proposing that by 2025, proportion of open unmanned aerial vehicle (UAV) airspace to exceed 75%, and Shenzhen to carry out pilot projects
- ◆ **March 2024:** Chinese government stated that it will actively build-up new growth engines such as biomanufacturing, commercial aerospace, and **low-altitude economy** - first time that "Low-altitude Economy" has been included in the central government's working report



FORTHCOMING FUTURE: LOW-ALTITUDE ECONOMY

eVTOL is developing fast and expected to be the mainstream

Aircraft Types in Different Altitudes



- In addition to traditional fixed-wing aircraft, helicopters and drones, Electric Vertical Take-off and Landing (eVTOL) has attracted global attentions in recent years
- Due to its green flight, vertical take-off and landing, low noise and other characteristics, there are quite extensive downstream use cases for eVTOL.
- eVTOL is expected to be the main aircraft for low altitude use cases

Source: EAC research

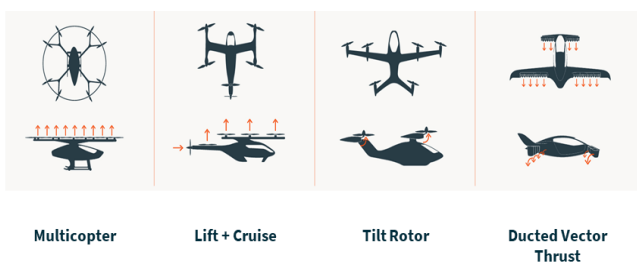
eVTOL Archetypes and Key Modules

eVTOL (electric Vertical Takeoff and Landing) aircraft archetypes include multicopters, tiltrotors, vectored thrust, and lift + cruise. Key modules are propulsion systems, particularly electric motors and batteries, driving efficiency and innovation.

EVTOL OVERVIEW

Definition: Electric Vertical Take-Off and Landing (EVTOL) is a kind of aircraft capable of taking off, hovering, and landing vertically by using electric propulsion systems

Main archetypes of eVTOL aircrafts

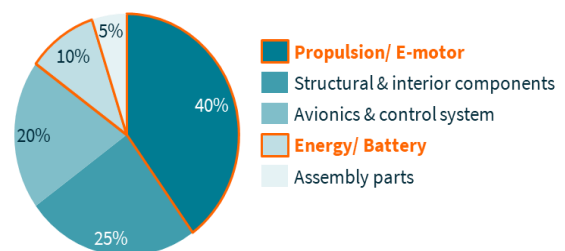


Source: EAC research

KEY MODULES & VALUE SHARE IN EVTOL SYSTEM

eVTOL is mainly composed of **propulsion system** (E-motor), **structural components**, **avionics system**, **power system** (battery) and **assembly parts**

Value share in eVTOL system, by modules

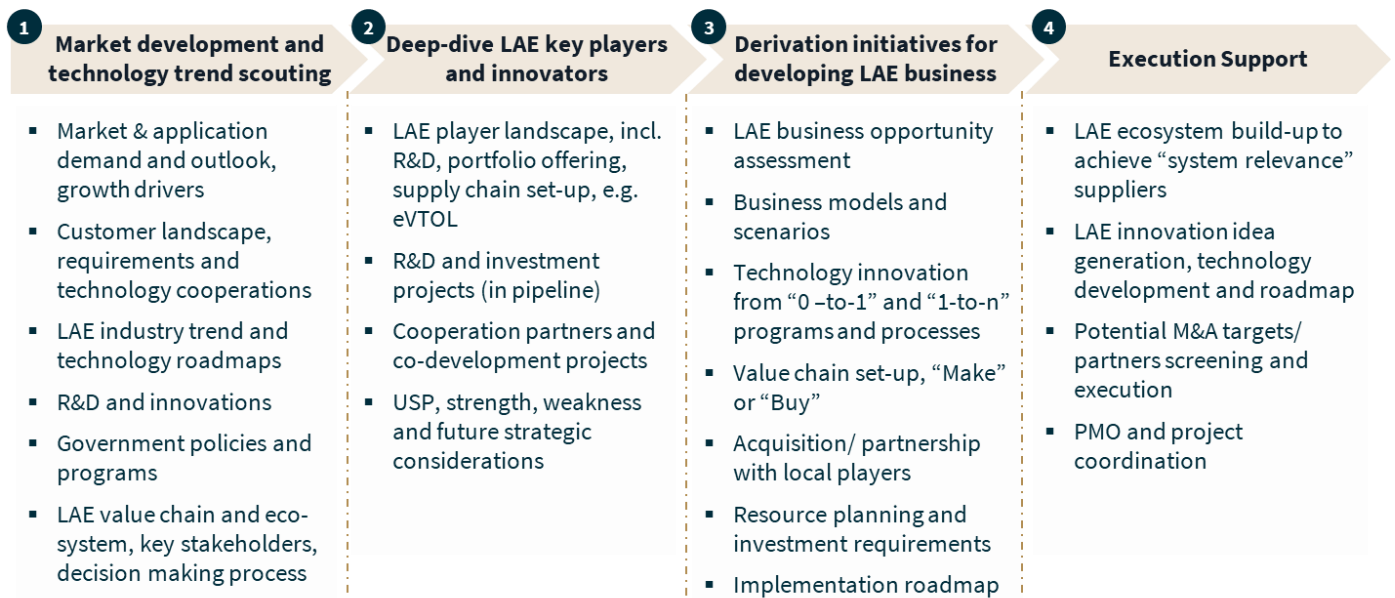




FORTHCOMING FUTURE: LOW-ALTITUDE ECONOMY

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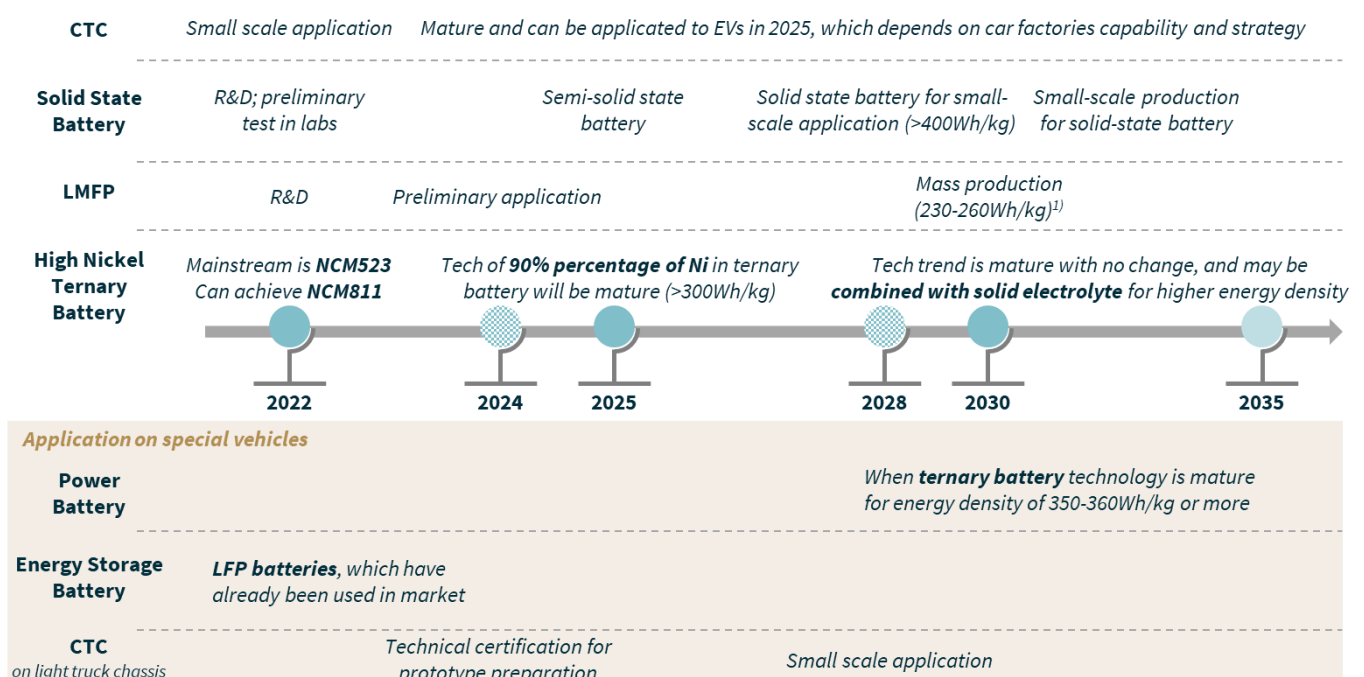
EAC Helps You to Explore LAE New Markets and Opportunities



EAC Case Study: Battery Innovation Scouting Special Vehicles

BATTERY TECHNOLOGY ROADMAP AND TIMELINE FOR SPECIAL VEHICLES

Overall battery technologies will continue to develop rapidly in the next 10 years; tech applications on special vehicles still need time for better tech performance and special vehicle market development



1) Extreme energy density, estimated by experts

Application timeline of battery technologies depends on special vehicle electrification progress



FORTHCOMING FUTURE: LOW-ALTITUDE ECONOMY

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Contact our experts directly to discuss goals and ideas

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