



URBAN

AIR MOBILITY EXPO

2023

Efficient, Safe & Green Urban Mobility

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PRAGATI MAIDAN, NEW DELHI, INDIA



A focus Event at



25th



25th International Engineering and Technology Fair



URBAN AIR MOBILITY (UAM) EXPO 2022

With the number of on-road passenger vehicles increasing every year, traffic congestion problems are also growing. Especially at certain peak hours, the increasing amount of traffic on the roads significantly increased the commuter's time taken to travel by roads.

The existing road systems in most countries cannot handle the peak-hour loads without forcing the commuters to wait in line. This is not only wasting the time of citizens, but also challenging the governments. Additionally, growing on-road passenger vehicle volumes, which burn fossil fuels, are also polluting the environment considerably. With traffic congestion and urban road mobility posing a great challenge, governments and technology companies have started to look at UAM as a viable option for passenger and cargo transport.

As the UAM is a safe and efficient air transportation system where the passenger-carrying air taxis are operating above populated areas, there may be significant time savings. Moreover, air taxis used for the UAM are mostly electric powered or fuel-cell powered. Hence, they help in reducing atmospheric pollution. In this regard, many companies are investing significantly in this industry, which is expected to boost the technological advancements in the market in the long run, after the UAM systems enter the commercial usage phase.



ULTIMATE SOLUTION TO URBAN PROBLEMS: ELIMINATING TRAFFIC CONGESTION, CAR ACCIDENTS AND POLLUTION



DRIVER: GROWING DEMAND FOR ALTERNATIVE MODE OF TRANSPORTATION IN URBAN MOBILITY

According to the United Nations, 68% of the world population will live in cities by the year 2050, an increment of 13% to the current scenario. This means expensive living, more pollution and more traffic. Today, an Indian living in a metropolitan city spends an average of 1.5 hours more on daily commute than a person living in any other Asian city according to Boston Consulting Group, which results in a loss of US \$22 billion to Indian cities every year. And the traffic will continue to increase because of increasing population density and sale of more vehicles as people's purchasing power is increasing. So, to curb the problem of traffic, people around the globe are working on new transportation systems and Urban Air Mobility (UAM) is one of them.



MARKET OVERVIEW

The COVID-19 pandemic has had an unprecedented impact on all industries on a global scale. The aviation sector has been severely affected by the pandemic, and since most of the major players of the Urban Air Mobility (UAM) sector are directly or indirectly related to the aviation sector, the pandemic has had a ripple effect on the UAM sector. Prior to the outbreak, the UAM sector, which is still in its formative stages, was witnessing a healthy growth with around USD 1 billion being invested during the first few months of 2020, most notably the USD 590 million invested by Toyota into Joby Aviation and EHang's IPO valuation amounting to USD 650 million. Moreover, the FAA is currently engaged with manufacturers of more than 15 eVTOL aircraft. Uber Air, EHang, Volocopter, Joby, and Lilium are all planning to launch commercial passenger operations within the next three to five years.

The urban air mobility market is projected to grow to USD 17,269.71 million by 2035, registering a CAGR of 17.81% during the forecast period (2021 - 2035).

INDIA @ 100

- Population – 1.63 Bn, 17% of global population yet only 2.4% of global surface area.
- A transformation from India living in her villages to over 50% population in urban centres.
- Traditional mobility platforms on “terrafirma” would be grossly insufficient, “Star Trek” would no more be science fiction but a reality.
- In the recent decade, the aviation industry has touched yet another hallmark with the development of electric air mobility. Yesterday's dreams of electric powered taxis and flying cars/ personal air vehicles (PAVs) are turning into reality with Urban Air Mobility (UAM) projects. Hundreds of innovators across the globe are developing ways to move people and goods aboard newer, cleaner and smarter air vehicles.
- Urban Air Mobility especially for intra city travel would become truly mass transit, underpinned by the transition to electric craft. Compared to the traditional helicopter, an e-VTOL craft is 10 times less expensive, 4 times quieter, 2 times safer, 15 times more reliable and metrics that clearly point to the acceptance of these vehicles. They address sustainability with regard to the overall environmental footprint (e.g., energy demand; local emissions and global greenhouse gas emissions); and sustainability with regard to noise and visual pollution, including those aspects dealing with perception, monitoring and mitigation in urban environments.

OPPORTUNITY

The key purpose of urban air mobility is to facilitate intracity transportation to reduce the strain on existing urban mobility solutions. Currently, with the limited availability of high-powered, lightweight lithium-ion batteries and the infrastructure required for the setting up of charging points for these batteries, most autonomous aircraft manufacturers are in the research & development phase, leaving only a handful of players to deploy their autonomous aircraft for intracity transportation.

Lilium (Germany) has developed the Lilium Jet, an electric vertical take-off and landing jet with a cruising speed of 300 km/h and a range of 300 km. The company plans to deploy this jet for intracity transportation initially, and for intercity transportation in the near future. Other aircraft players such as Pipistrel, Bell, Hyundai Motors, Volocopter, and EHang are also planning to develop autonomous aircraft for intracity transportation. Passenger drones post their social acceptance, are likely to be used for intercity air transportation by 2030.

A man wearing a white hard hat and a yellow safety vest is standing in a lush green tea plantation. He is holding a laptop and looking at it, while a large drone is flying in the sky above him, spraying water over the tea bushes. Another smaller drone is visible in the distance. The background shows rolling hills and a clear blue sky with some clouds.

The urban air mobility market is projected to grow from USD 2.6 billion in 2020 to USD 9.1 billion by 2030, at a CAGR of 13.5% from 2020 to 2030

UAM IN INDIA

While the need for Urban Air Mobility (UAM) has always existed in India, recent lifestyle changes due to COVID-19 has further underlined its need.

For India, the opportunity of UAM lies in business, pilgrimage and leisure travel, mega events, organ transfers, air ambulances and last-mile delivery. India is the third largest aviation market in the world with its passenger traffic standing at 341.05 million as of 2019. This just goes on to show the demand in domestic travel which UAM can cater to as well.

Lastly, people have started prioritizing safety and hygiene due to COVID-19. There will be apprehension in spending hours on the road as people now want to reduce the risk of exposure and unnecessary touchpoints.

Unmanned Aerial Vehicles(UAV) can play more major roles in Military, Agriculture, Railways, search & Rescue, research etc. Factors such as Growing demand for alternative mode of transportation in urban mobility, Need for efficient mode of logistics & last-mile delivery, and Smart city initiatives are driving the growth of the market.



EXHIBITORS PROFILE

- Infrastructure
- Charging Stations
- Vertiports
- Traffic Management
- Platforms
- Air taxis
- Air Shuttles
- Air Metro
- Air Ambulance
- Drone Navigation Systems
- Personal Aerial Vehicle
- Cargo Aerial Vehicle
- Unmanned Aerial Vehicle (UAV)
- Drones
- VTOL - Vertical take-off and landing Systems
- Multi Rotor Frames, Chassis
- Propellers / Wings
- Gears
- GPS
- Transmitters
- Motors
- Speed Controllers
- Flight Controllers
- Batteries
- Sensors
- Thermal imaging & Control Systems
- 3D
- Components, Wires, CCTV, Camera
- Software
- Services
- Institutes, Labs, Research Organizations

WHO WILL YOU MEET?

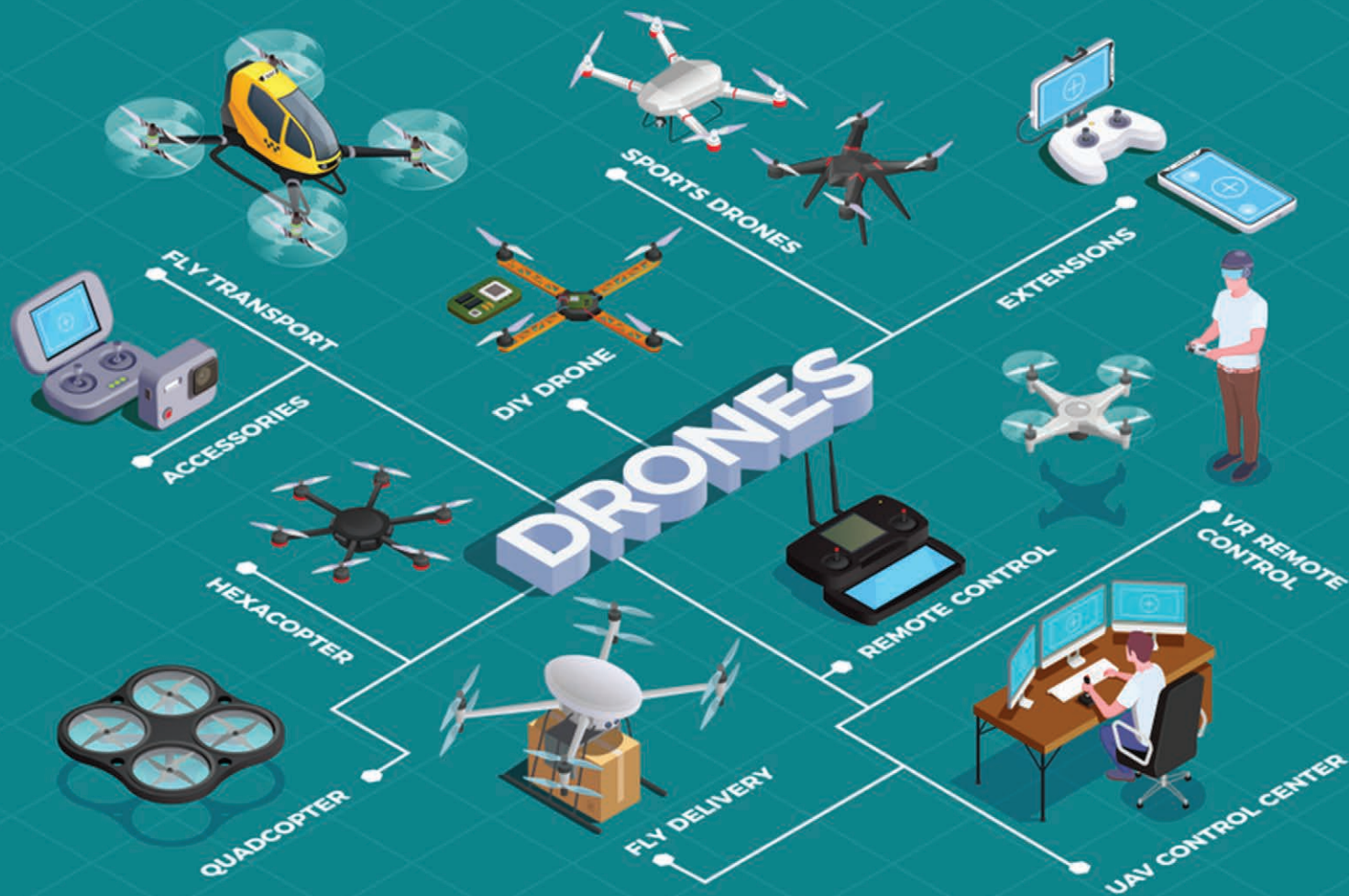
- CEO / COO / CTO
- Managing Director
- Director
- Aviation Advisor
- Systems Engineer
- Head of Buying
- Group Manager
- Commercial Director
- Purchasing Director
- Director of Investment
- Transportation Manager
- R&D Portfolio Manager
- Aerospace Engineer
- Technology Director

VISITORS PROFILE

- Defense
- PSUs
- Railways
- Commercial Users
- Personal Users
- Exporters
- UAV Manufacturers
- UAV Component Manufacturers
- Agricultural Departments
- Shipping Companies
- IT Companies
- Software
- Hospitals & Medical
- Urban Development Bodies
- Travel & Tourism
- Municipal Corporations
- Forest & Wildlife Departments
- Disaster Management
- Factories
- Logistic Companies
- E-Tailers
- Mining
- Infrastructure
- Services
- Educational Institutes

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ABOUT CII

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering Industry, Government and civil society, through advisory and consultative processes.

CII is a non-government, not-for-profit, industry-led and industry-managed organization, with around 9000 members from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 300,000 enterprises from 286 national and regional sectoral industry bodies.

For more than 125 years, CII has been engaged in shaping India's development journey and works proactively on transforming Indian Industry's engagement in national development. CII charts change by working closely with Government on policy issues, interfacing with thought leaders, and enhancing efficiency, competitiveness and business opportunities for industry through a range of specialized services and strategic global linkages. It also provides a platform for consensus-building and networking on key issues.

Extending its agenda beyond business, CII assists industry to identify and execute corporate citizenship programmes. Partnerships with civil society organizations carry forward corporate initiatives for integrated and inclusive development across diverse domains including affirmative action, livelihoods, diversity management, skill development, empowerment of women, and sustainable development, to name a few.

As India completes 75 years of Independence in 2022, it must position itself for global leadership with a long-term vision for India@100 in 2047. The role played by Indian industry will be central to the country's progress and success as a nation. CII, with the Theme for 2022-23 as Beyond India@75: Competitiveness, Growth, Sustainability, Internationalisation has prioritized 7 action points under these 4 sub-themes that will catalyze the journey of the country towards the vision of India@100.

With 62 offices, including 10 Centres of Excellence, in India, and 8 overseas offices in Australia, Egypt, Germany, Indonesia, Singapore, UAE, UK, and USA, as well as institutional partnerships with 350 counterpart organizations in 133 countries, CII serves as a reference point for Indian industry and the international business community.

Confederation of Indian Industry

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