Airbus Innovation Days 2019

Bringing the Urban Air Mobility Market to Life

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Urban migration & megacities are on the rise

By 2030, 5 billion people will live in cities.
It takes 2 hours from São Paulo airport to city centre by ground versus 10 minutes by helicopter
The third dimension gives a new perspective on urban mobility
The case of Japan: rural areas can also benefit from urban air mobility.

Through aerial solutions, rural areas could have better access to emergency and disaster relief services.
Techno-economic evolutions will shift urban air mobility from a premium to mass-market solution

**Techno**
- All-electric and distributed propulsion
- Advanced flight management system
- Self-piloted
- Fully automated Air Traffic Management

**Economic**
- On-demand or scheduled
- Shared or individual
- High utilization
- Large scale production
- Low direct operation cost

![Diagram showing flight hours, Techno-economic evolutions, Next gen vehicles and biz models, Integration w/ smart cities, Improved systems, safety & reliability (autonomy), Tankered affordability & environmental impact (next gen. electrical), Business model innovation, Legacy platforms, new biz, Today, Mid 2030’s.](attachment:image.png)
Creating the market is about the entire value chain

<table>
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<tr>
<th>Urban Aircraft</th>
<th>Support &amp; Service</th>
<th>Flight Operations</th>
<th>Air Traffic Management</th>
<th>Ground Infrastructure</th>
<th>Passenger Solution</th>
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<tr>
<td>Design, Development and Production</td>
<td>Maintenance, Repair, Overhaul, Spare parts</td>
<td>Operation of the Urban VTOL</td>
<td>Develop and operate ATM solution for Urban VTOL</td>
<td>Installation and maintenance of VTOL pads</td>
<td>Booking application for flight trips</td>
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Proposed Special Condition for small-category VTOL aircraft

Introductory note

The following Special Condition has been classified as an important Special Condition and as such shall be subject to public consultation, in accordance with EASA Management Board decision 12/2007 dated 11 September 2007, Article 3 (2.) of which states:

"2. Deviations from the applicable airworthiness codes, environmental protection certification specifications and/or acceptable means of compliance with Part 21, as well as important special conditions and equivalent safety findings, shall be submitted to the panel of experts and be subject to a public consultation of at least 3 weeks, except if they have been previously agreed and published in the Official Publication of the Agency. The final decision shall be published in the Official Publication of the Agency."
Airbus has a comprehensive portfolio of existing capabilities

**Airbus Urban Mobility**

- City mobility planning and simulation
- UAM infrastructure catalogue and solutions

**Airbus existing vehicles (Helicopters)**

- The civil range
  - Single
  - Light twin
  - Twin medium
  - Medium heavy

**Airbus future vehicles (eVTOLs)**

- Voom B2C platform or full operation

- Airbus existing vehicles (Helicopters)
We are developing mobility simulation capabilities for cities to provide infrastructure guidance.
Airbus unmanned traffic management (UTM) is architecting our future airspace.
Voom is providing urban air mobility today
Travelers connect to the Voom platform via an app.
Partnerships and alliances help acquire customers

A B2C urban air mobility service

Hotels
- Hilton
- FASANO

Ground services
- GOCIL

Airlines
- Delta
- Azul
- American Airlines
- Airfrance

B2B customers
- Google
- Palantir
- Wework

Uber
- movida
- lyft
We are transforming the learnings of two tech demonstrators into a market-ready vehicle

Vahana

April 2019: Third Full Transition Flight
We are transforming the learnings of two tech demonstrators into a market-ready vehicle.

CityAirbus

April 2019: First “hop”
We are transforming the learnings of two tech demonstrators into a market-ready vehicle

Pop.Up

A concept vehicle to explore multimodality in urban settings
An integrated approach is required to bring UAM to life

A strong market need

Technology

- Distributed electrical propulsion
  - New structural concept
  - Advanced avionics / autonomy, ATM

Manageable projects

An ecosystem approach engaging with partners and authorities early on
Let’s go vertical