



# New Aviation Ecosystem

## Fact Sheet

### The Future is Here

New aerospace technologies and products (eVTOL, eSTOL, single/remotely piloted aircraft, unmanned aircraft, commercial space vehicles and future supersonic transports) increasingly are capturing the attention of aerospace companies, airlines, tech start-ups and the public. At the same time, new and emerging airspace users, are expanding their operations near/at airports, from airport inspection to parcel delivery to advanced air mobility operations. As the number of new airport and airspace users grows, finding the correct balance between regulation and innovation is paramount. In addition, standards and regulations must keep up with the pace of new technology.

IATA is working to ensure that existing airspace users do not experience any deterioration in safety or operational efficiency while also advocating for the fair allocation of infrastructure costs among these new entrants. At the same time, IATA continues its work in driving standards and industry best practices, including working with ICAO's Advanced Air Mobility Study Group (AAM-SG), the Remotely Piloted Airspace Systems Panel (RPASP) and the UAS Advisory Group. In addition, IATA is involved in several initiatives to develop standards and best practices, including initiatives led by JARUS, EUROCAE and RTCA.

### The Future Aviation Ecosystem

To prepare for the future ecosystem and initiate the dialogue on required industry actions, IATA is developing a roadmap with input from manufacturers and operators. This roadmap will guide different industry activities to ensure seamless operation in the future operational environment, and covers the following key areas:

- Consumer experience
- Regulations, standards & certification
- Airspace structure and airport/vertiport infrastructure and design
- Ground and airport operations
- Workforce

### Mitigation of Safety & Security Threats

With the increasing use of Unmanned Aircraft (UA) for recreational purposes, the number of occurrences of UA usage in an unauthorized manner, or with malicious intent, is on the rise. There is a risk of aircraft accidents and incidents caused by the irresponsible use of an unmanned aircraft, primarily in situations where they are operating near airports and being flown dangerously close to aircraft.

Pursuant to IATA's work with industry stakeholders and ICAO, an industry initiative was endorsed during the ICAO 40<sup>th</sup> Assembly, under which IATA led an expert group of industry partners and states to develop guidance material for the detection and management of unauthorized operation of drones. The guidance material was published by ICAO and is accessible on the [Unmanned Aviation web page](#).



## Increasing Operation into Space

With the increasing number of commercial space operators, operations that intend to flow through controlled airspace to operate at the extreme upper limits or above that airspace are growing. We are also seeing an increase in the number of uncrewed aircraft operating for days and months at and above FL600. There is a need for global guidance to facilitate the management of commercial space/near space operations through controlled airspace. Airspace is a finite resource and as more new entrants commence and expand their operations, access to airspace should remain equitable and fair. Furthermore, there is a need to define global standards around the safety performance requirements for space vehicles and onboard equipage, to negate the necessity of closures of large portions of airspace (without compromising safety). These standards should consider the varying levels of performance and precision for space vehicles when transitioning through controlled airspace.

## Financial Investment in New Infrastructure

With the expected investment in new infrastructure and systems, e.g., vertiports that are co-located with airports, there is a risk of one user group cross-subsidizing another user group. IATA continues its work with ICAO's AEP-ANSEP working group on cost recovery of unmanned aircraft systems (UAS) to ensure that charges associated with any investment in infrastructure for new entrants follow the ICAO guiding principles.