

Aerovision

SMARTER AIRPORTS
HAPPIER COMMUNITIES



acoem
CREATING ENVIRONMENTS OF POSSIBILITY



Aerovision: Your gateway to smarter, sustainable airports

Aerovision combines advanced technology with real-time insights to empower airports to tackle environmental challenges. From monitoring flight paths to fostering community trust, Aerovision equips you to operate more responsibly and efficiently.

With Aerovision, airports can:

Monitor environmental impact

Gain actionable data on flight paths, noise levels, and air quality.

Foster community trust

Engage transparently with local residents using interactive tools.

Ensure compliance effortlessly

Stay ahead of regulations with automated reporting and precision tracking.

Optimise operations

Make informed decisions that reduce environmental footprints while enhancing efficiency.

Smarter airports start with smarter solutions

Airports today stand at the crossroads of progress and responsibility. While they connect the world, they face increasing scrutiny to address:

Rising noise pollution

Communities demand quieter skies and sustainable solutions to reduce disturbances.

Sustainability goals

Pressure mounts to align with global carbon-neutral targets and reduce ecological footprints.

Air quality concerns

Stricter environmental regulations require precise monitoring and proactive action.

Community relationships

Airports must build trust through transparency, addressing complaints, and sharing insights effectively.



Innovation that works for you

At the heart of AeroVision is cutting-edge technology, transforming environmental data into actionable intelligence. Here's how it revolutionises airport operations:

Smart insights

- Forecast trends by predicting environmental patterns and potential issues.
- Recommend proactive strategies to efficiently reduce noise and pollution impacts.
- Optimise workflows to streamline operations and achieve sustainability goals.

Transparent community engagement

- Deliver real-time updates on environmental metrics.
- Analyse feedback for quicker resolutions to complaints.
- Educate stakeholders with interactive reports and visuals.

Intelligent dashboards

- Transform data into actionable insights with advanced visualisations.
- Customise views to meet operational and regulatory needs.
- Ensure seamless access across devices—desktop, tablet, and smartphone.

Smart alerts and reporting

- Receive instant alerts for anomalies or regulatory breaches.
- Automate comprehensive reporting for compliance and decision-making.

Seamless deployment

- Flexible cloud-based or on-premise options to fit airport requirements.
- Quick and easy setup with plug-and-play stations and minimal IT support.

Modern and scalable

- OS-independent and accessible on any device—PCs, Macs, tablets, and smartphones.
- Responsive design ensures seamless user experience across all screen types.

Advanced tools for actionable insights

- Flight visualisations with automated anomaly detection.
- Comprehensive noise measurement, complaint management, and multi-criteria reporting.

User-friendly interface

- Intuitive design minimises training needs while offering multi-level analysis.

Cost-effective and flexible

- Affordable SaaS subscription model, including Pay-as-you-go options tailored to airport needs.
- Scalable and maintenance-friendly for long-term operational success.



Tailored solutions for every airport challenge

Aerovision offers a suite of specialised modules designed to address the unique environmental challenges faced by airports. These modules work seamlessly together to enhance operational efficiency, reduce environmental impact, and build trust with local communities.

Flight monitoring module

Smarter flight operations for enhanced efficiency

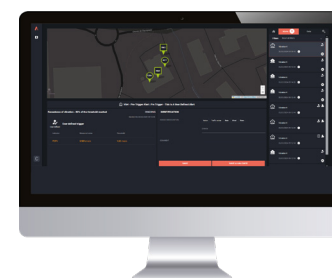
- Gain detailed insights into flight movements and paths with real-time tracking.
- Minimise emissions and noise through precise monitoring for optimised air traffic.
- Analyse flight data to identify opportunities for improvement with custom reporting.
- Examine flight corridors, trajectory flows, and area overflights with flight path analysis.



Noise management module

Minimise noise impact, maximise community trust

- Monitor and measure noise levels with precision using accurate noise detection.
- Identify areas affected by noise and assess mitigation efforts with visual noise maps.
- Ensure alignment with local and international standards through regulatory compliance.



Air quality module*

Cleaner air, safer communities

- Track pollutants like NO_x, CO₂, and particulate matter with comprehensive monitoring.
- Simulate and analyse pollutant dispersion with emission modelling.
- Share air quality metrics with stakeholders for improved trust through data transparency.

*Air quality module is part of our development roadmap and can be tailored based on airport requirements.



Community engagement module

Fostering transparent and positive relationships

- Provide real-time updates on flights, noise, and air quality with interactive dashboards.
- Streamline responses to concerns and improve satisfaction with complaint management.
- Build awareness with tools that engage and inform residents through educational outreach.



El Dorado International Airport

Bogotá, Colombia



El Dorado International Airport, the busiest in Latin America, needed an advanced noise management strategy to meet environmental regulations and reduce community impact. Acoem Aerovision delivered accurate noise assessments and optimised flight procedures, improving operations and sustainability.

Solution

- Modification of the airport’s environmental licence.
- More than 30 noise monitoring points.
- Optimisation of flight procedures, including new airspace structuring and noise restrictions.
- Establishment of a 24/7 aircraft noise monitoring centre (CMAA).

Benefits

- 50% reduction in non-compliance with operational noise restrictions.
- Certification under the Airport Carbon Accreditation (ACA) programme.
- Improved sustainability and transparency in noise management.



Nantes Atlantique Airport

Nantes, France



Nantes Atlantique Airport faces the challenge of balancing operational efficiency with environmental responsibility, with aircraft noise a key concern for nearby residents. To monitor, manage, and reduce noise impact, the airport implemented Acoem’s Aerovision solution. Acoem supports major airports across France, including Lille, Beauvais, Nice–Marseille, Toulouse, and Lyon.

Solution

- Implementation of Aerovision for real-time noise tracking.
- Advanced flight path analysis to optimise noise abatement procedures.
- Transparent data sharing with the public for better community engagement.

Benefits

- Enhanced regulatory compliance and noise reduction strategies.
- Strengthened trust with local communities through open communication.
- Continuous support from Acoem for long-term environmental improvements.



Suvarnabhumi & Chiang Mai Airport

Thailand



As air traffic grows, Airports of Thailand (AOT) needed a scalable noise monitoring solution for Suvarnabhumi (BKK) and Chiang Mai (CNX) airports to ensure compliance and maintain community trust.

Acoem’s advanced technology delivers precise data, structured reporting, and long-term reliability, supporting Thailand’s sustainable aviation growth.

Solution

- Deployment of 19 fixed and two portable noise monitoring terminals at Suvarnabhumi.
- Installation of six monitoring units at Chiang Mai Airport.
- Selection of Acoem for the Runway 3 noise monitoring project at Suvarnabhumi.

Benefits

- Improved compliance with aviation noise regulations.
- Strengthened noise abatement strategies with real-time data.
- Long-term operational excellence and sustainability for AOT.

Netaji Subhas Chandra Bose International Airport

Kolkata, India



Kolkata Airport, one of India’s busiest aviation hubs, needed a reliable noise monitoring system to meet DGCA regulations. Acoem leveraged its expertise and local presence to deliver a comprehensive solution.

Solution

- Deployment of five Noise Monitoring Terminals (NMTs) – four fixed, one mobile.
- Implementation of AeroVision for real-time noise tracking and analysis.
- Integration of a weather station and ADS-B for precise flight monitoring.

Benefits

- Enhanced regulatory compliance with structured noise reporting.
- Improved operational efficiency through data-driven decision-making.
- Strengthened trust with AAI and DGCA, enabling future collaborations.

Acoem:
Your partner in environmental monitoring

At Acoem, we create environments of possibility—helping organisations find the right balance between progress and preservation. Our holistic environmental monitoring solutions empower industries, governments, and communities with accurate data to drive meaningful action for a cleaner, healthier planet.

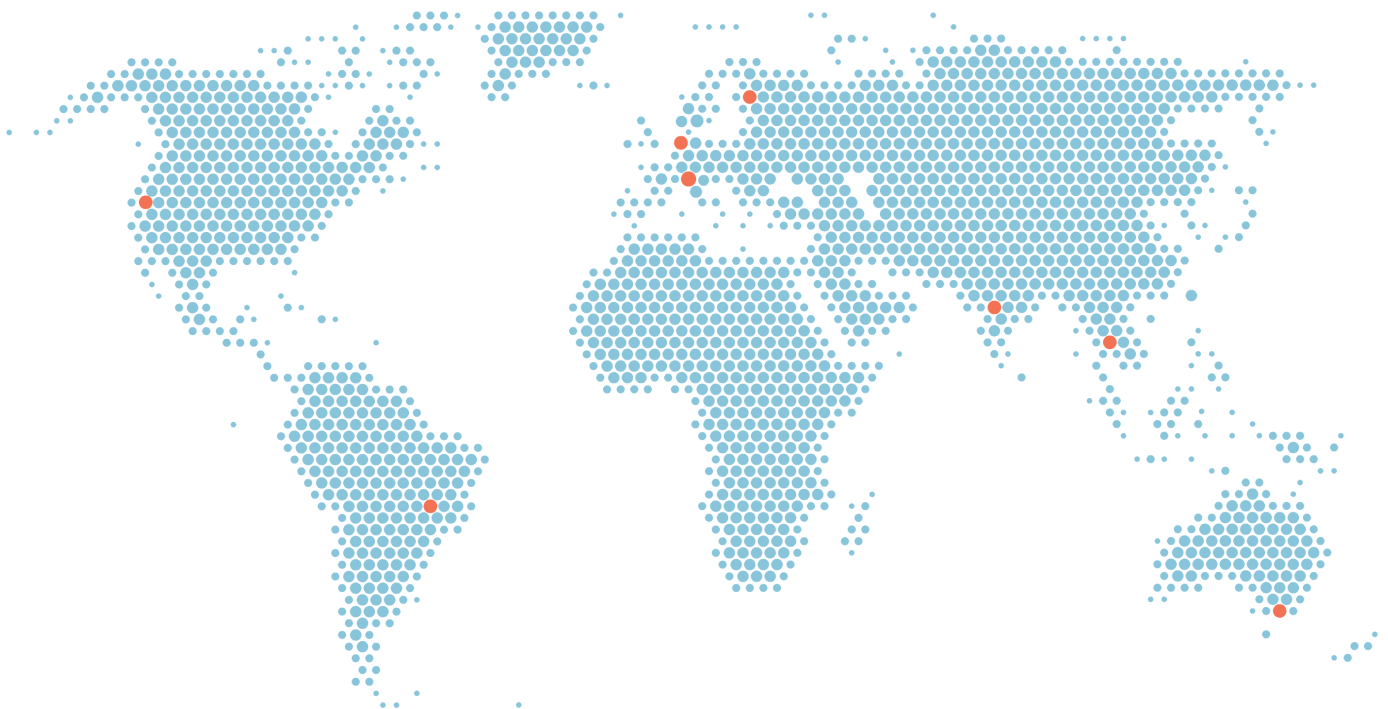
As pioneers in designing, manufacturing, and maintaining integrated monitoring systems, we develop innovative technologies that simplify monitoring processes and enhance accessibility.

With a global presence in 50 countries and dedicated environmental hubs worldwide, Acoem provides localised expertise and cutting-edge solutions to help you make informed decisions that protect people, places, and the planet.



Environmental hubs

- **Australia**
- **Brazil**
- **France**
- **Germany**
- **India**
- **Thailand**
- **USA**
- **UK**



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