aicadium

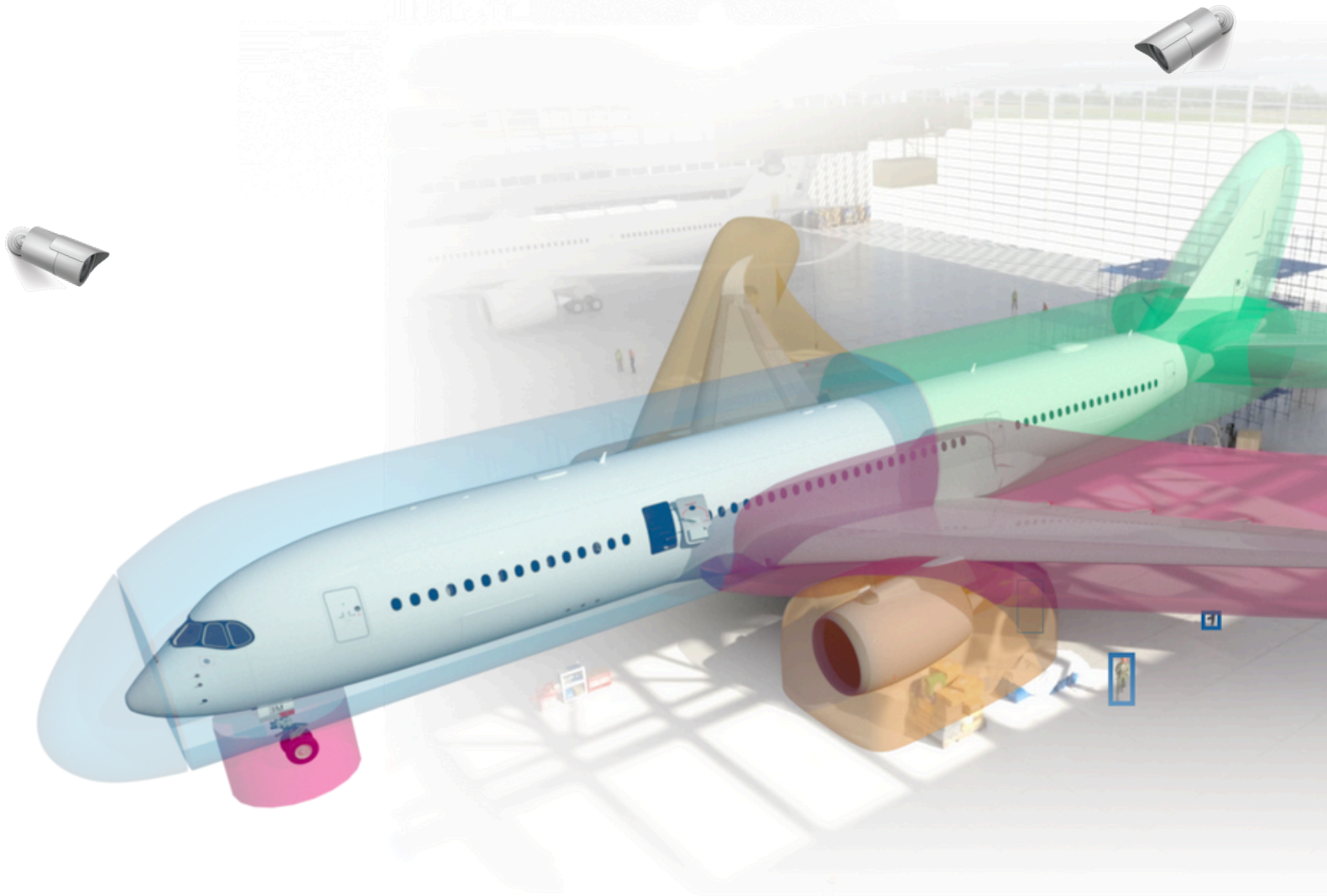## **Unlock** new levels of efficiency with your new ally — **AI**

Operational excellence starts here—our AI-powered video analytics provide you with insight to help reduce costs, ensure adherence to work plans, and improve turnaround times.

The problems ≫

MRO operations are at a breaking point—costly, complex, and more demanding by the day. The industry faces a perfect storm, that includes:

≫ Skilled labour shortage

Veteran technicians are retiring, and fewer young workers are entering the field, leaving critical gaps in expertise.

≫ Soaring demand

Airbus and Boeing are set to deliver over **40,000 new jets in the next two decades,** so maintenance needs are about to skyrocket.

≫ Rising costs

Intricate repairs, upgrades, and quality checks require a large, highly skilled workforce, which drives up costs and strains already stretched resources.

MRO leaders must rethink productivity, streamline operations, and maximise every resource to stay ahead. The future of aviation depends on it.

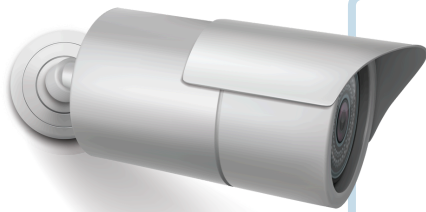The commercial aviation industry will require nearly

2.4 million

new personnel in the next 20 years.

The solution ≫

Transforming hangar operations with AI-powered insights

Aicadium View™ for Productivity leverages existing camera infrastructure to deliver real-time workforce utilisation and operational transparency for MRO hangars. By transforming passive camera feeds into actionable intelligence, Aicadium View helps supervisors make data-driven decisions to reduce aircraft ground time and maximise workforce productivity.

Camera feeds stream into our AI engine, where advanced computer vision models analyse workforce distribution and utilisation. The system tracks key productivity KPIs across defined work zones, helping:

- Enhance day-to-day operations for hangar managers
- Achieve continuous improvements and workforce optimisation for business users
- View and drive strategic insights for company-wide impact
- Monitor activities surrounding aircraft work zones through non-invasive computer vision technology

aicadium view™

Aicadium View is an AI-driven computer vision solution designed for aviation MRO. It utilises state-of-the-art AI models to analyse images and video streams from existing camera systems, helping streamline operations.

Key features and capabilities

Revitalise mission-critical aspects of MRO operations to capitalise on the projected market growth to 100 billion USD by 2027. Our features and capabilities can elevate operational efficiency and maintain compliance.

100 billion USD by »

The global MRO (Maintenance, Repair, and Overhaul) market is projected to reach

2024   2025   2026   **2027**

Real-time, multi-zone activity monitoring

Non-invasive, real-time activity monitoring across defined zones in 3D workspaces—both on the ground and at heights—via an automated AI pipeline that detects and tracks objects of interest, ensuring timely and accurate initiation of activity monitoring.

Email alerts

Real-time monitoring delivers actionable alerts, enabling operations to make informed, data-driven decision for any deviations.

Workforce utilisation insights

Historical data uncovers patterns in resource usage, helping operations and scheduling teams identify optimisation opportunities.

For dynamic environments

Work zones are established in relation to the plane parked in the hangar.

Object localization

Localisation across various camera angles to minimise inaccuracies from overlapping views.

Flexible deployment

On-premise
Local deployment on dedicated services

Cloud-based
Hosted solution with web-accessible monitoring dashboards

Hybrid model
AI processing on-premise with cloud-based analytics and reporting

Security compliance
Ensures data protection, access control, encryption, audit logging, and regulatory adherence

Modular Product

Configurable to hangars, aircraft types and work zones, and existing IT and camera infrastructures

Benefits of AI-powered computer vision ≫

Gain full visibility and operational transparency

- Real-time dashboards provide a clear view of workforce utilisation, productivity KPIs, and activity monitoring.
- Visual traceability enhances trust with airline customers and regulatory bodies.

Plan and optimise future maintenance with AI-driven insights

- Leverage data analytics to get insights on maintenance workload and workforce optimisation.
- Continuously improve operational workflows with data-driven decisions.

Maximise workforce productivity and cost efficiency

- Convert idle workforce hours into billable hours, reducing waste from inefficiencies.
- Can save between **$500,000–$900,000 annually** per hangar through optimised workforce utilisation.

... that results in:

≫ **Reduced overtime**
A 10% optimisation can equal 40-50 daily work hours saved
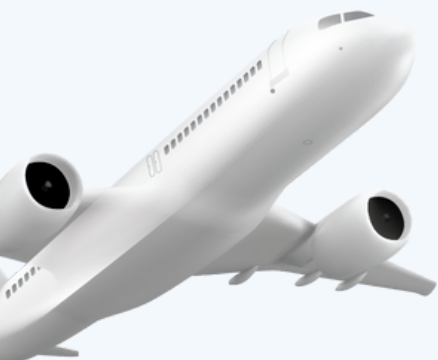
≫ **Data driven decisions**
Maximise workforce utilisation and overall efficiency

≫ **Enhanced productivity**
Minimise unplanned downtime due to aricraft ground time (AGT) and achieve long-term savings through improved turnaround time (TAT)

Contact us for more information

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