

DIGITAL TRANSFORMATION IN AVIATION INDUSTRY

“Harnessing Technology to Drive Innovation, Efficiency, and Competitiveness in Aviation”

Schedule

Date	Venue	Fees (Face-to-Face)
07 - 11 Sep 2026	London, UK	USD 3495 per delegate

► Available delivery methods: Face-to-Face & Online Training

Introduction

The aviation industry is undergoing rapid transformation driven by emerging digital technologies such as artificial intelligence, big data, blockchain, IoT, and predictive analytics. As passenger expectations rise and cost pressures intensify, digital transformation is becoming a strategic necessity for airlines, airports, and aviation service providers.

This 5-day course explores how digitalization is reshaping business models, operational processes, safety systems, and customer engagement within the aviation ecosystem. Participants will gain insights into leading-edge trends, implementation roadmaps, risk considerations, and measurable performance outcomes of digital transformation initiatives in aviation.

Objectives

By the end of this course, participants will be able to:

- Understand the scope, benefits, and challenges of digital transformation in aviation
- Identify and evaluate key enabling technologies such as AI, IoT, and data analytics
- Develop digital strategies that align with organizational and regulatory goals
- Plan and lead digital initiatives across various aviation operations
- Measure digital maturity, ROI, and transformation impact

Why Attend

- To stay ahead of digital disruption affecting aviation operations and services
- To align digital investments with operational efficiency and customer experience goals
- To benchmark your organization's digital maturity against global aviation leaders
- To understand cybersecurity, compliance, and change management requirements
- To drive innovation through data, connectivity, and intelligent automation

Target Audience

This program is designed for:

- Airline and airport operations managers
- Aviation IT professionals and innovation leads
- Engineers, safety and maintenance teams involved in digital modernization
- Aviation consultants and digital transformation officers
- Regulators, civil aviation authorities, and transport ministry officials

Individual Benefits

Key competencies that will be developed include:

- Digital strategy and transformation planning
- Technology evaluation and roadmap development
- Understanding of AI, IoT, and big data in aviation contexts
- Process reengineering and user experience design
- Leadership in digital change management

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved use of technology for operational efficiency and safety
- Enhanced passenger satisfaction through personalized and automated services
- More informed investment decisions in digital infrastructure
- Reduced costs and disruptions through predictive and intelligent systems
- Stronger alignment with global aviation digitalization trends and regulations

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings - Digital frameworks, regulatory outlook, and emerging trends
- Case Studies - Aviation examples of successful and failed transformation efforts
- Workshops - Hands-on analysis of tech use cases and digital solution design
- Peer Exchange - Aviation challenges, lessons learned, and collaborative planning
- Tools - Maturity models, ROI calculators, change readiness checklists, and digital audit templates

MAWA EVENTS

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Course Outline

Detailed 5-Day Course Outline

Training Hours: 7:30 AM - 3:30 PM Daily Format: 3-4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 - 02:00

Day 1: Foundations of Digital Transformation in Aviation

- Module 1: Aviation in the Digital Era (07:30 - 09:30) • Evolving aviation business models and digital disruption • Global drivers of change: passengers, competition, and regulation • What digital transformation really means
- Module 2: Digital Maturity and Transformation Roadmap (09:45 - 11:15) • Digital capability assessment tools • Maturity models for airlines and airports • Key success factors and transformation barriers
- Module 3: Stakeholder Engagement and Governance (11:30 - 01:00) • Leadership commitment and alignment • Cross-department collaboration • Regulatory, financial, and cultural considerations
- Module 4: Workshop - Assess Your Digital Maturity (02:00 - 03:30) • Score your organization using a digital maturity tool

Day 2: Key Technologies Reshaping Aviation

- Module 1: Big Data and Predictive Analytics (07:30 - 09:30) • Data-driven decision making • Applications in maintenance, fuel efficiency, and passenger flow • Real-time vs. historical analytics
- Module 2: Internet of Things (IoT) and Connected Operations (09:45 - 11:15) • Sensor technologies and smart infrastructure • Asset tracking and predictive maintenance • Smart airports and connected ecosystems
- Module 3: Artificial Intelligence and Automation (11:30 - 01:00) • Chatbots, baggage handling, and crew scheduling • AI in aircraft health monitoring • Human-machine collaboration
- Module 4: Workshop - Tech Mapping (02:00 - 03:30) • Match technologies to use cases in airline/airport operations

Day 3: Customer-Centric Digital Transformation

- Module 1: Personalization and Passenger Experience (07:30 - 09:30) • Omnichannel customer engagement • Smart ticketing, biometric boarding, and digital identity • Customer journey mapping
- Module 2: Mobile and Cloud Platforms (09:45 - 11:15) • App-based services and mobile workforce enablement • Cloud infrastructure and scalability • Integration challenges and cybersecurity
- Module 3: Disruption Management and Service Recovery (11:30 - 01:00) • Real-time rebooking, alerts, and passenger communication • Operational recovery support through data insights
- Module 4: Workshop - Passenger Experience Redesign (02:00 - 03:30) • Design a digital journey for a target customer segment

Day 4: Digitalizing Operations and Safety Functions

- Module 1: Digital Maintenance, Repair and Overhaul (MRO) (07:30 - 09:30) • Digital twins, 3D printing, and predictive diagnostics • E-logbooks and e-signatures in maintenance • Reducing downtime and improving compliance
- Module 2: Flight Operations and Crew Enablement (09:45 - 11:15) • EFBs (Electronic Flight Bags) and route optimization tools • Smart crew rostering and fatigue tracking • Flight deck digitization
- Module 3: Safety, Security, and Risk Management (11:30 - 01:00) • Cybersecurity risks in connected aviation systems • Safety Management System (SMS) integration with digital tools • Event tracking and AI-based risk alerts
- Module 4: Simulation - Tech-Enabled Operations Plan (02:00 - 03:30) • Build a digital improvement plan for a selected operation

Day 5: Building a Digital Future in Aviation

- Module 1: Investment and ROI in Digital Projects (07:30 - 09:30) • Business case development • CapEx vs. OpEx considerations • ROI metrics and success tracking
- Module 2: Change Management for Digital Adoption (09:45 - 11:15) • Overcoming resistance and legacy mindsets • Training and digital upskilling • Driving continuous innovation
- Module 3: Creating a Digital Transformation Roadmap (11:30 - 01:00) • Setting priorities and milestones • Aligning with global aviation trends and sustainability
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Module 4: Final Presentations and Certification (02:00 – 03:30) • Group project presentations • Course review and certificate awarding

Certification

Participants will receive a Certificate of Completion in Digital Transformation in Aviation Industry, validating their knowledge of digital strategies, technologies, and implementation techniques across various functions in the aviation sector.

Why Choose MAWA Events

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