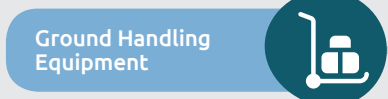
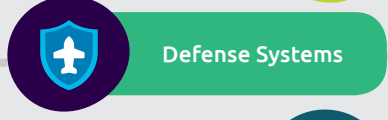
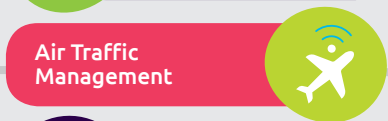
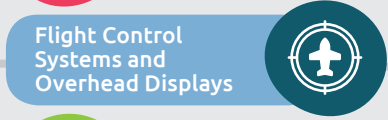
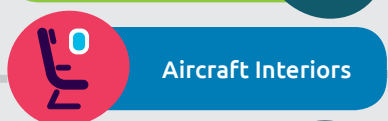
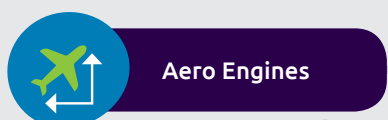




# Next Generation Solutions for Aerospace & Defense

## Connected, Smarter and Safer



The global Aerospace and Defense industry is witnessing continual changes thanks to furious pace of technology change and the developing economies spreading their wings. New-generation aircrafts have even more sophisticated avionics making it more exotic and expensive. According to industry reports, Aerospace and Defense industry is expected to continue its growth trajectory, led by growing commercial aircraft production and strong defense spending. As we see original equipment manufacturers increase production rates, there remains a risk of suppliers facing difficulties in ramping up production. Airlines are challenged to meet profitability goals and must focus on customer experience and asset utilization.

To overcome such challenges, the industry should consider the use of advanced technologies to enhance productivity and efficiency. With a changing workforce profile, use of 3D visualization, AR & VR, IoT & analytics, asset health monitoring, advanced simulation in design and testing, software configuration protocols, cloud and edge computing provide significant opportunities.

With over 4000 Aerospace and Defense specialists worldwide, Capgemini is a global leader in providing engineering, IT and business solutions to the industry. Incorporating the technology shift and innovation partnerships we build technology agnostic solutions for successful products and services in the A&D ecosystem. We guide our clients through their Digital Transformation while keeping them secure.

Capgemini's expertise in Aerospace and Defense comes from over 30 years of experience with leading aerospace OEMs, operators, MROs, suppliers and technology companies.

## IoT

Connected Aero Systems  
IoT Data Integration  
Engineering Analytics  
Predictive Maintenance and Monitoring  
Cybersecurity

## Digital Manufacturing

Industry 4.0 Solutions  
Product Lifecycle Management  
Manufacturing Execution Systems  
Services Lifecycle Management  
Asset Management

## Enterprise Applications

ERP  
MRO Management  
Supply Chain Management  
Inventory Management  
Field Service Management  
Modernization and Cloud Adoption



## Smart Engineering

### Avionics and Embedded Software

- Embedded Systems Design, Development and Lifecycle Management
- Quality Assurance and Testing
- SOI Participation
- Configuration Management

### Mechanical Design & Simulation

- Design for manufacturing and serviceability
- CAD/ CAE/ CFD / Thermal Analysis/ 3D DMU
- Model Based System Engineering (MBSE)
- Manufacturing Process and Tools Engineering

### Digital Technical Content Management

- Technical Publications Management
- Digital Solutions (3D, PLM, AR, VR, Mobile Apps)
- Digitization and Migration
- Tools and Platform Management

### Aerospace Testing and V&V

- Ground & Flight Tests
- Aircraft System Tests
- Multi-level Physical Tests
- Test Data Management & Analysis Accelerators
- Test Engineering, Automation and Robotics

## The Capgemini Advantage

- Experience:
  - » Work with top 9 out of 10 Aerospace & Defense OEMS
  - » Work with the top 5 commercial aircraft OEMS
  - » Work with leading aero engine and tier 1 suppliers
  - » Experience with aero engines: GE-90, CFM56, GE-115B, LEAP56, SaM146, TP400, SM-X, M88, Arden, TRENT 900, Open Rotor (R&D)
- Consulting led approach for holistic Digital Transformation
- Partnerships: Dassault Systems, PTC, Siemens, GE, SAP, IBM, Oracle
- Standards:
  - » Aerospace product documentation standards ATA 100, ATA iSpec 2200, DITA, AECMA SE, S1000D
  - » Global delivery processes AS 9100C certified for compliance to aerospace standards DO-178, DO-254, DO-160
- Flexible business models aligned to the client's roadmap
- Global Presence: Offices in all key and developing markets for aerospace