

What can we look forward to in the aviation industry in the coming years?



Aviation 2020

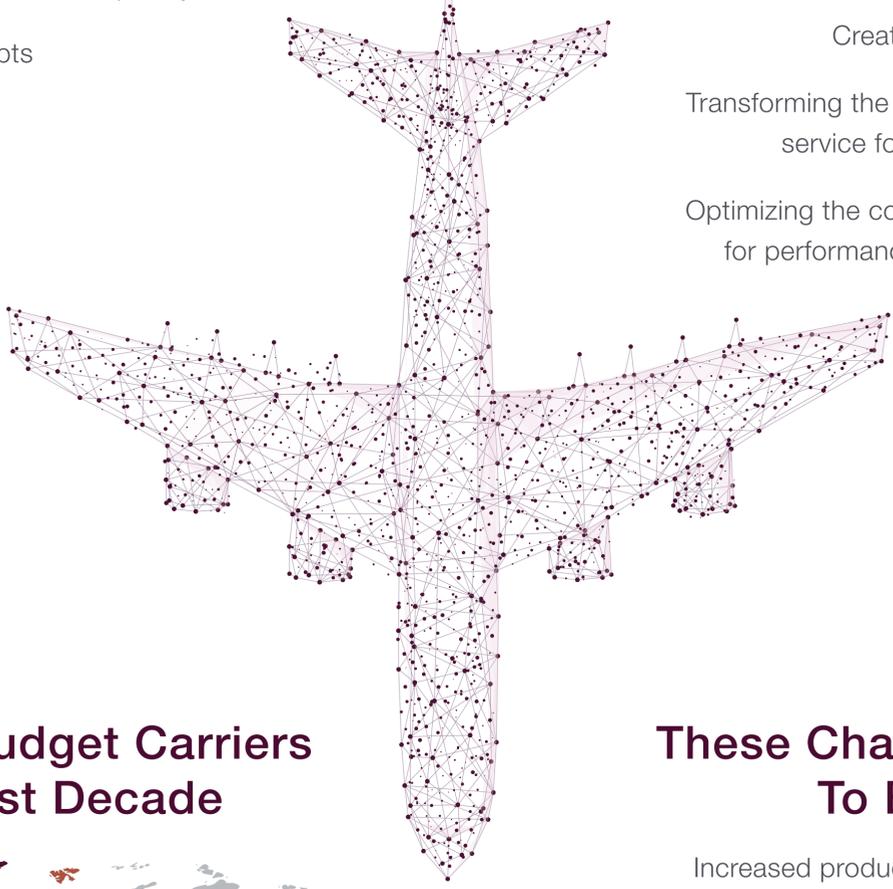


Key Opportunities

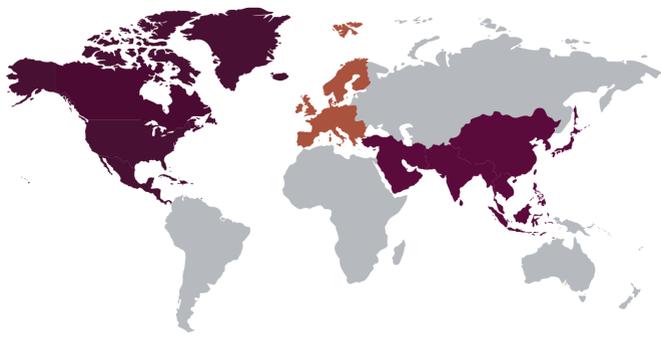
- Light weighting of the aircraft
- Growing customization and complexity
- New propulsion concepts
- Increased competition
- Urban transportation

Design Solutions To Tap Key Opportunities

- Electrification of air transport
- Creating a holistic digital twin
- Transforming the design, production, and service for greater business value
- Optimizing the composite aero structures for performance and manufacturability



Growth In Budget Carriers Over The Last Decade

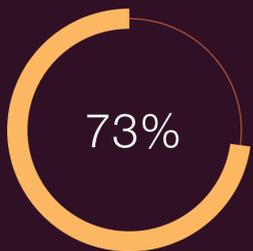


2.2% North America 13.4% Europe 24.5% Asia-Pacific Region

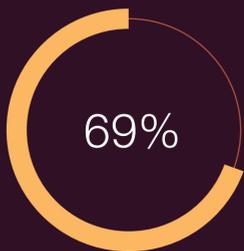
These Challenges Need To Be Overcome

- Increased product complexity that arises due to the growth in electrical and electronic content and value in products
- Customer demand for better products
- Competing products
- The pressure to keep up to the improved product maintenance or service
- Globalization of the supply chains

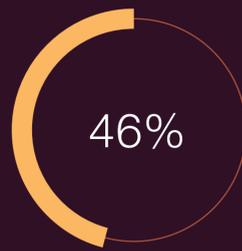
Challenges Faced



Electronics & Software core to product



Customer demand for better product



Competing products



Improved product maintenance & service

Percentage (0-80%)

Significant Trends Shaping The Airline Industry Over The Next 5 Years

Increasing passenger demand	7.19% to 4.1 billion
Boost in capacity addition (Available seat per miles)	6.3%
Decline in efficiency of operational metrics	Drop from 10.8% to 9%
High load factors that drives the revenue	80.3% to 80.6%
Ancillary revenue	In-flight Internet (54%) In-flight meals (19%) Entertainment (16%)