

F R O S T & S U L L I V A N



AIRPORTS 2030

FROST & SULLIVAN
RESEARCH PROGRAMME OVERVIEW



Airport operations and business models are rapidly changing, driven by competitive forces and capacity constraints.

Outside the airport terminal, congested airspace and obsolete air traffic management (ATM) infrastructure will necessitate investment in next-generation equipment and information management systems.

Within the airport terminal, increasing reliance on non-aeronautical revenues puts pressure on airport managers to remove operational inefficiencies and invest in the digital transformation of the airport ecosystem. As airports gradually evolve from pure transit points into customer-centric organisations, the focus shifts to the passenger journey and improving the overall passenger experience.

Frost & Sullivan has worked with technology vendors, system integrators and airport operators to identify technology solutions, recommend business improvement and growth opportunities and develop strategy plans.

AIRPORT MARKET POTENTIAL

- Over 6.3 billion passenger journeys on 30,000 aircraft
- Almost 100% remote completion of passenger processing tasks
- Majority of airport revenues from non-aeronautical activities

AIRPORT 2030

Intelligent Fleet and Surface Management Systems

Almost \$300 million annual spent on ADS-B infrastructure

Airport Security Worth Over \$15 Billion

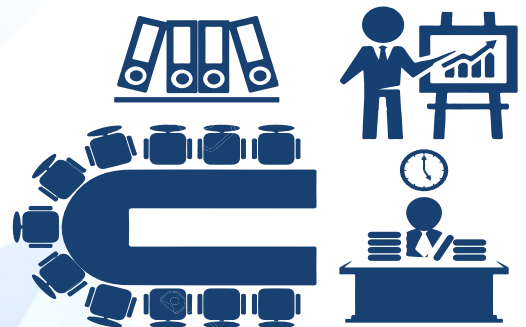


Airport Retail Revenues of \$80 Billion

Baggage Handling Market Growing Twofold (2x)



Airport Check-In Market Worth \$5.0 Billion



Business Intelligence at The Core of Airport Operations

TRANSFORMATIONAL SHIFTS



Connected Traveller



Airport Cities Become Reality



Big Data will Revolutionise Business Models



Retail - A New Business Paradigm

A key consideration for airports is how to interact with the connected traveller. This is leading to the introduction of interactive mobile applications, location-based services (LBS), mobile location analytics (MLA) and investment in the expansion of loyalty programmes. New technologies allow improved management of passenger flows and more targeted and effective marketing.

DIGITALISATION - MARKETING TO THE TRAVELLER



WHY FROST & SULLIVAN?

PROVIDING CUSTOMERS ACROSS THE AIRPORT ENVIRONMENT WITH INSIGHTS ACROSS THE ENTIRE PASSENGER JOURNEY

STRATEGIC APPROACH TO AIRPORTS

Vertical Market Depth

AIRPORT SUPPORT SYSTEMS:



- Air Traffic Management
- Baggage Management
- Security Management
- Mobility
- Information Technology

AIRPORT AIRSIDE/LANDSIDE OPERATIONS:



- Retail
- Cargo
- Passenger experience
- Ground Handling
- Infrastructure Management

AIRPORT MANAGEMENT FUNCTIONS:



- Master Planning
- Loyalty Programmes



KEY PROGRAMME COMPONENTS

STRATEGIC INSIGHT

Analysis of key topics driving market development

MARKET SIZING (TECHNOLOGY)

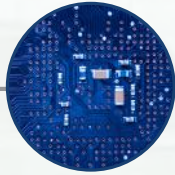
Technology Across the entire Airport Passenger Journey

AIRPORT BENCHMARKING

Insights into new developments of the major hubs

HOW FROST & SULLIVAN CAN SUPPORT YOUR STRATEGIC PLANNING PROCESS:

Define Growth Opportunities Through 'Macro to Micro' Mega Trends Workshops



Support Performance Management Systems, e.g. Balanced Scorecards, By Providing Industry KPI Benchmarks



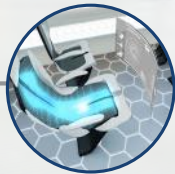
Document The Passenger Journey and Identify 'Pain Points' Through the Airport



Perform Market Research and Competitor Analysis, to Assess Size of Opportunities and Business Threats



Identify Future Passenger Segments and Assess Needs and Wants



Develop New Business Models and Assist in Monetisation of Non-Aeronautical Opportunities



Support in Strategy Execution



INDUSTRY AND TECHNOLOGY RESEARCH DELIVERABLES FOR AIRPORTS

- Airport Terminals
- Cargo Handling
- Ticketing
- Perimeter Security
- Information Technology
- Sustainability
- Infrastructure Development
- Smart Airports
- Baggage Handling
- Airside Services
- Passenger Screening
- Passenger Experience
- Air Traffic Management
- Privatisation



With the pressure mounting on airports to increase profits whilst becoming more environmentally friendly, there will be increasing investment in connecting the airport and using data analytics to improve efficiency and increase automation. As the Internet of Things continues to develop, the airport environment is going to experience significant digital transformation, impacting people, businesses and processes.

EIA:

Andrew Thorndyke

Vice President - Business Development

P: +44 (0) 1865 398 645 | M: +44 (0) 7961 772 545

E: andrew.thorndyke@frost.com

NA/LATAM:

Gary Leikin

Global Vice President

P: 415 888 8074 | M: 310 266 3468

E: gleikin@frost.com

MENASA:

Diogenis Papiomytis

Consulting Director | Aerospace & Defence

P: +971 (0) 443 318 82 | C: +971 (0) 555 945 136

E: diogenisp@frost.com

APAC:

Amartya De

Associate Director | Aviation, Public Sector &

Government Practice

P: +61 (0) 2 8247 8917 | C: +61 (0) 4 2605 2795

E: amartya.de@frost.com