



Soaring new heights:
INSPIRE INFOSOL'S
AVIATION SBU
AIRPORTS PRODUCTS

MARCH 2024

Airports



TECHNOLOGY AND IT CHALLENGES

Lack of data visibility and centralized insights



Inefficient resource management & decision-making



Limited insights on consumer behavior



Airports encounter common challenges within their operating environment, such as high operating costs, regulatory complexities, and uncertainties. However, the integration of IT solutions is increasingly vital. These technologies provide disruption management, decision-support, and customer experience enhancements, enabling airports to anticipate, plan, and effectively manage events, ultimately improving operational efficiency and passenger satisfaction.

OUR AIRPORT PRODUCT PORTFOLIO

UNLOCKING THE FUTURE OF AVIATION TECHNOLOGY SOLUTIONS – TAKING FLIGHT WITH INNOVATION!

AeroAnalytics - Airports can harness the power of AI-driven analytics to make informed decisions, optimize processes, and ensure a seamless passenger experience, ultimately driving operational excellence and success in the aviation industry. Our product revolutionizes airport operations by harnessing the power of AI and machine learning through integration with various data sources.

Dynamic Resource Allocation: As airports continue to face fluctuations in passenger demand and operational needs, dynamic resource allocation platforms powered by advanced AI and machine learning algorithms will become increasingly essential. These platforms will optimize resource allocation in real-time, enhancing efficiency across various airport functions such as gate assignment, security screening, and baggage handling.

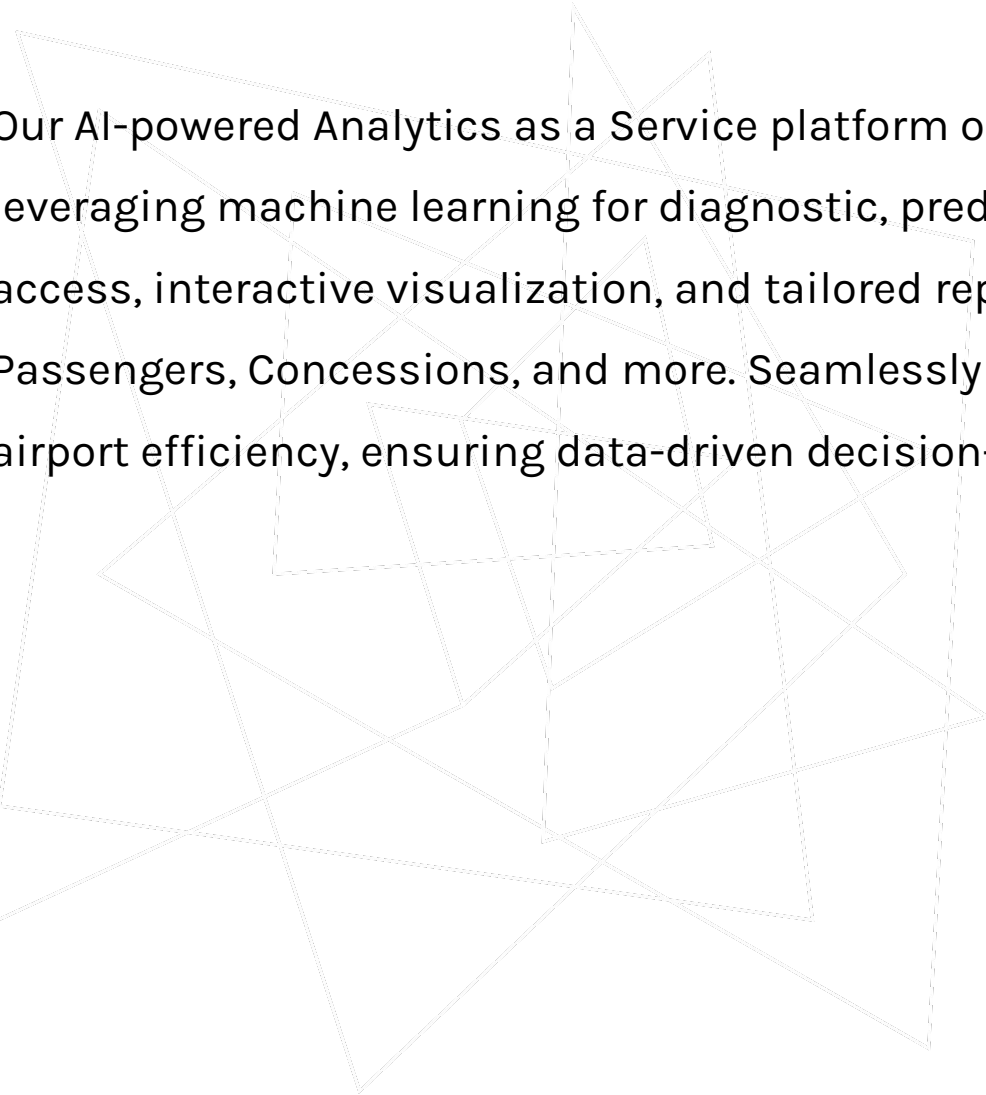
UNLOCKING THE FUTURE OF AVIATION TECHNOLOGY SOLUTIONS – TAKING FLIGHT WITH INNOVATION!

Real-time Passenger Flow Analysis Tools: As airports strive to optimize operational efficiency and passenger experience, real-time passenger flow analysis tools powered by AI and machine learning will become indispensable. These tools will enable airports to monitor passenger movement in real-time, identify congestion points, predict wait times, and optimize terminal layout and resource allocation to ensure smooth and efficient passenger flow throughout the airport.

Aero Pulse Asset Care: With the increasing complexity of airport infrastructure and equipment, predictive maintenance systems driven by AI and machine learning will become vital for ensuring the reliability and availability of critical airport assets. These systems will analyze data from sensors and other sources to predict potential equipment failures, schedule maintenance proactively, and minimize downtime, thereby optimizing airport operations and reducing operational disruptions.

Aero Sustain: Revolutionize airport sustainability with our advanced dashboard ensuring net-zero goals. Track and score sustainability metrics, from suppliers to energy sources, for precise alignment with green objectives. Elevate your commitment to sustainability using our product.

AERO ANALYTICS

An abstract graphic consisting of several overlapping, semi-transparent geometric shapes, primarily squares and rectangles, in various orientations. The shapes are drawn with thin, light gray lines, some solid and some dashed, creating a complex, layered effect behind the main text.

Our AI-powered Analytics as a Service platform offers a 360-degree view of airport operations, leveraging machine learning for diagnostic, predictive, and prescriptive analytics. With role-based access, interactive visualization, and tailored reporting, stakeholders gain insights into Baggage, Passengers, Concessions, and more. Seamlessly integrated and scalable, AeroAnalytics optimizes airport efficiency, ensuring data-driven decision-making and tech-enabled operational excellence.

360-Degree Airport Analytics: Complete data pipeline for in-depth analysis of airport operations, covering modules such as Baggage, Passengers, Concessions, Cargo, Parking, Rentals, Flight Operations, Finances, HR, Terminal Operations, Capital Spend, Safety and Security, Airport Maintenance, Visitor Management, Lounge Management, IBMS (Integrated Building Management System), Video Surveillance, Runway Management, and AOCC (Airport Operations Control Center).

AI-Driven Insights: Leveraging AI and machine learning algorithms by providing diagnostic, predictive, and prescriptive analytics capabilities. It analyzes vast amounts of data to identify patterns, predict outcomes, and recommend actions to optimize airport operations and enhance decision-making.

Role-Based User Access: Offering role-based access control, ensuring that stakeholders at all levels, from executives to analysts and operations staff, have access to relevant data and insights tailored to their responsibilities and objectives.

Interactive Visualization and Tailored Views: Featuring interactive visualization tools and tailored views, allowing users to explore data trends, analyze performance metrics, and gain actionable insights through intuitive dashboards and reports.

Comprehensive Reporting: Generating comprehensive reports on key aspects of airport operations, including departures, arrivals, employee performance, passenger demographics, retail revenue, rentals, and KPI summaries. Users can download reports in PDF and CSV formats for further analysis and sharing.

Integration and Scalability: Seamless integration with existing airport systems and infrastructure, enabling easy deployment and scalability to meet evolving needs and requirements.

AIRPORT 360

PRODUCT FEATURES



Reports		
User Management	Concessions	Rental
Executive Dashboard	Baggage	Capital Spend
Financial Dashboard	Passengers	Airport Maintenance
Terminal Operations	Parking	Flight Operations
Safety & Security	Sustainability	Admin

AIRPORT 360

USER ROLE MANAGEMENT



Users	Access Level	Level of Detail
Administrator or Super User	All Dashboards	-
Executive Management	Executive Dashboards Analytical Dashboards Operational Dashboards	Aggregations & Snapshots with progress Indicators
Middle Management	Analytical Dashboards Operational Dashboards	Ability to filter at region and Channel wise
Operational Staff	Operational Dashboards	Ability to filter at Flight, Sector level

AIRPORT 360

SAMPLE REPORTS – AIRPORT DASHBOARD



AeroAnalytics Dark

Welcome to airport analytics
Reference site about Lorem Ipsum, giving information on its origins, as well as a random Lorem Ipsum generator. Reference site about Lorem Ipsum

Reference site about Lorem Ipsum

 Cargo	 Parking	 Departure +34,743 <small>Reference site about Lorem Ipsum</small>	 Passengers +34,743 <small>Reference site about Lorem Ipsum</small>	 Employees +34,743 <small>Reference site about Lorem Ipsum</small>
 Concessions	 Executive	 Arrivals +34,743 <small>Reference site about Lorem Ipsum</small>	 Revenue +34,743 <small>Reference site about Lorem Ipsum</small>	 Click here to see 'full dashboard'
 Flight operations	 Passengers			

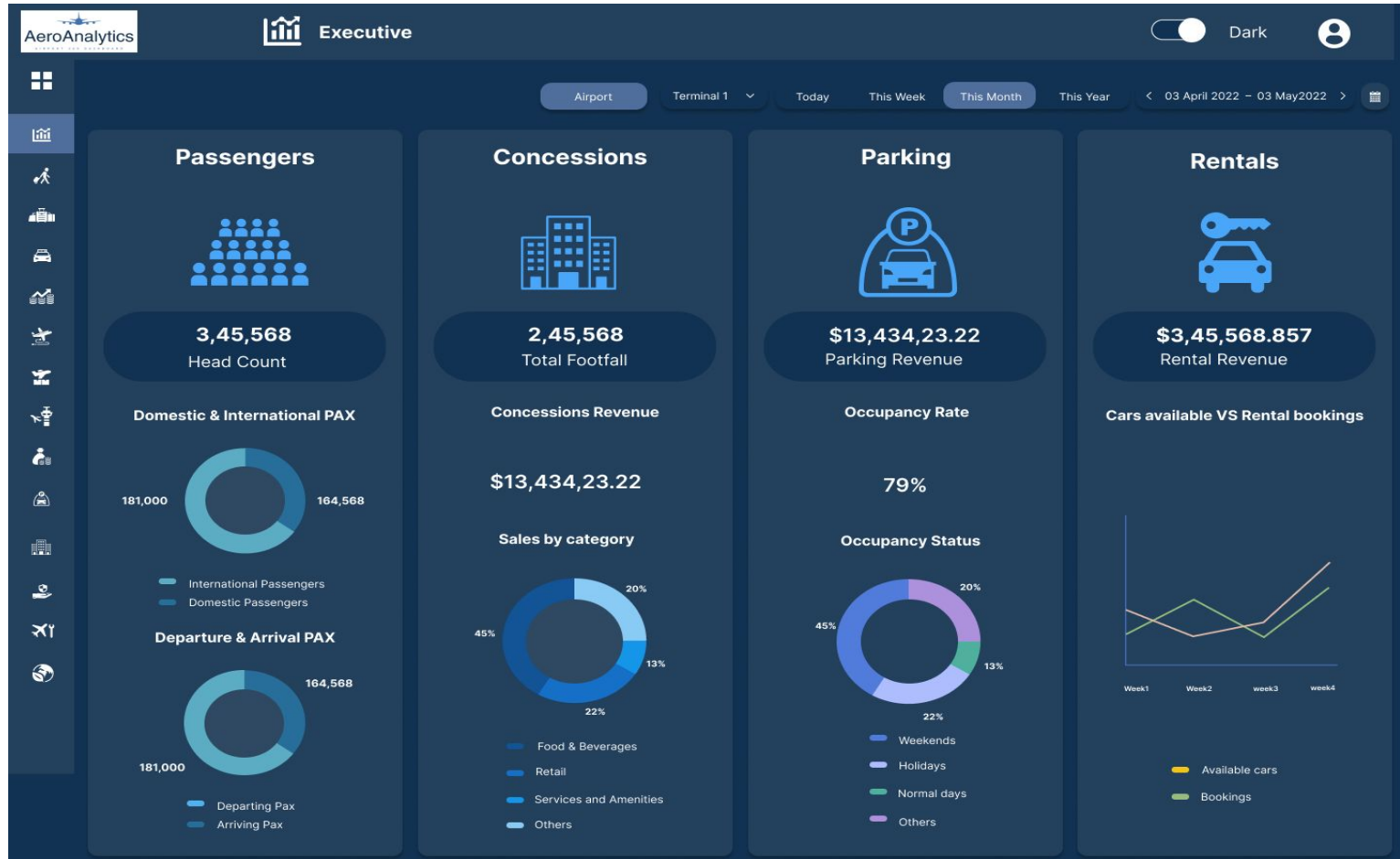
AIRPORT 360

AIRPORT 360

SAMPLE REPORTS – AIRPORT DASHBOARD



AIRPORT 360

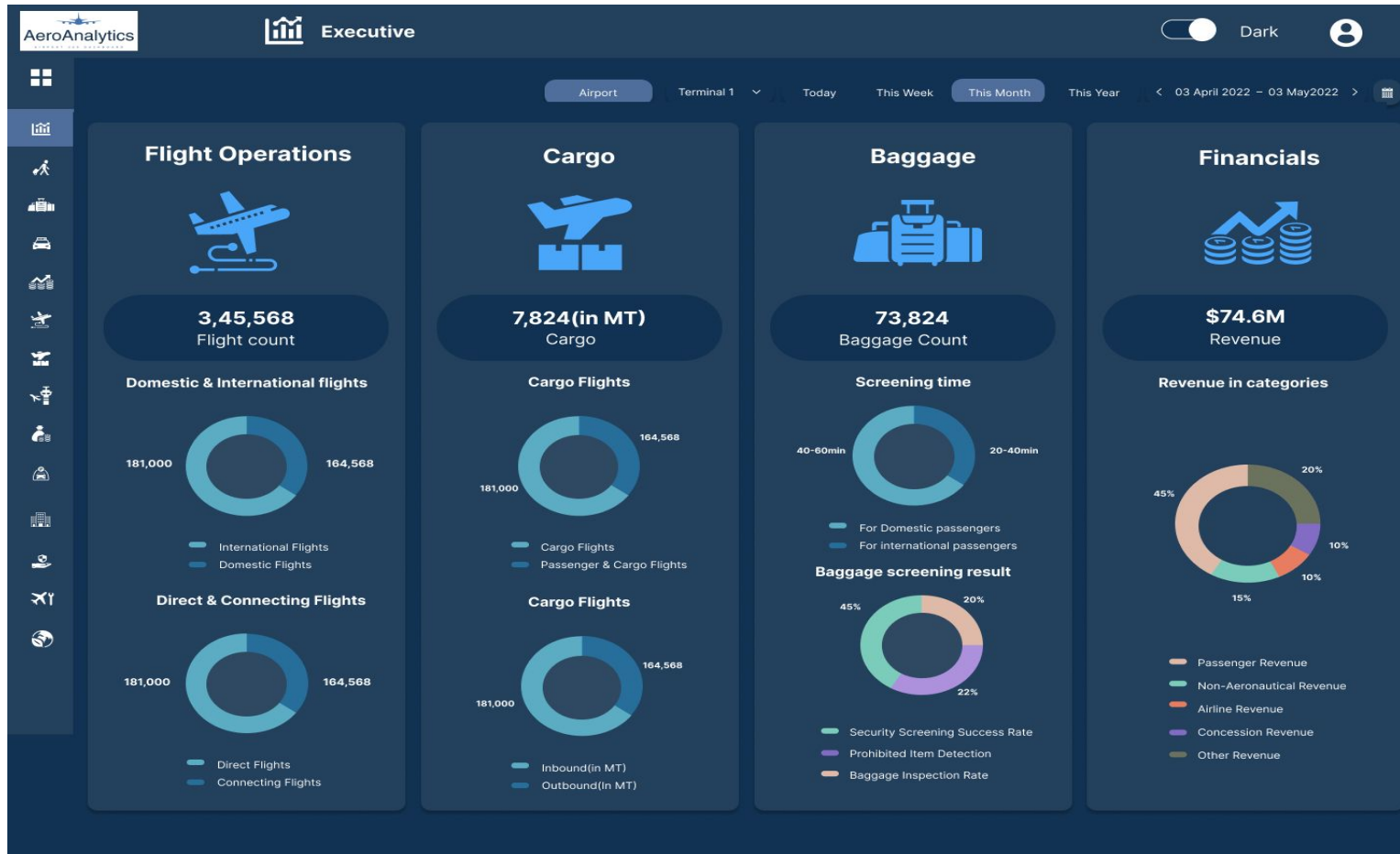


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SAMPLE REPORTS – AIRPORT DASHBOARD



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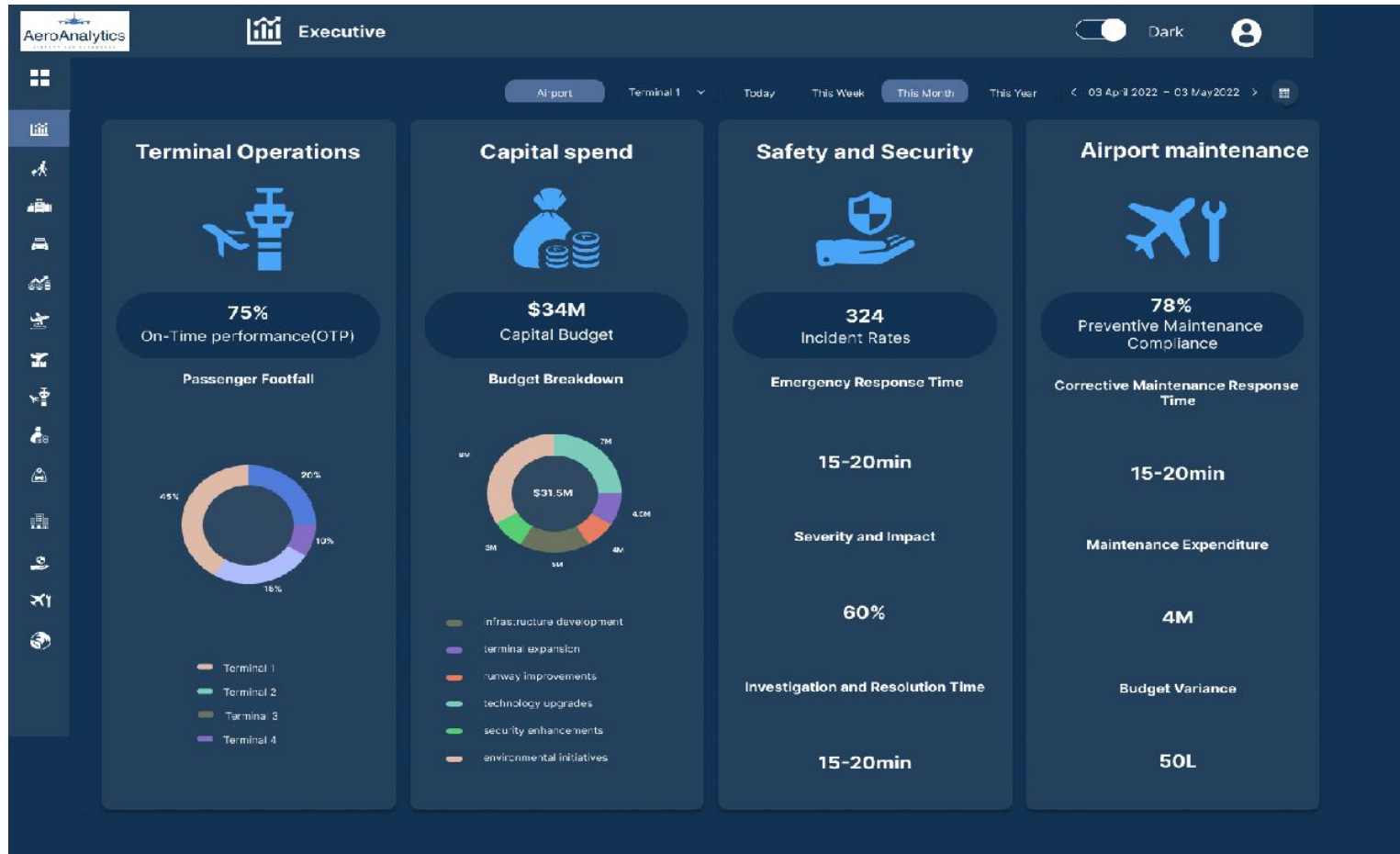


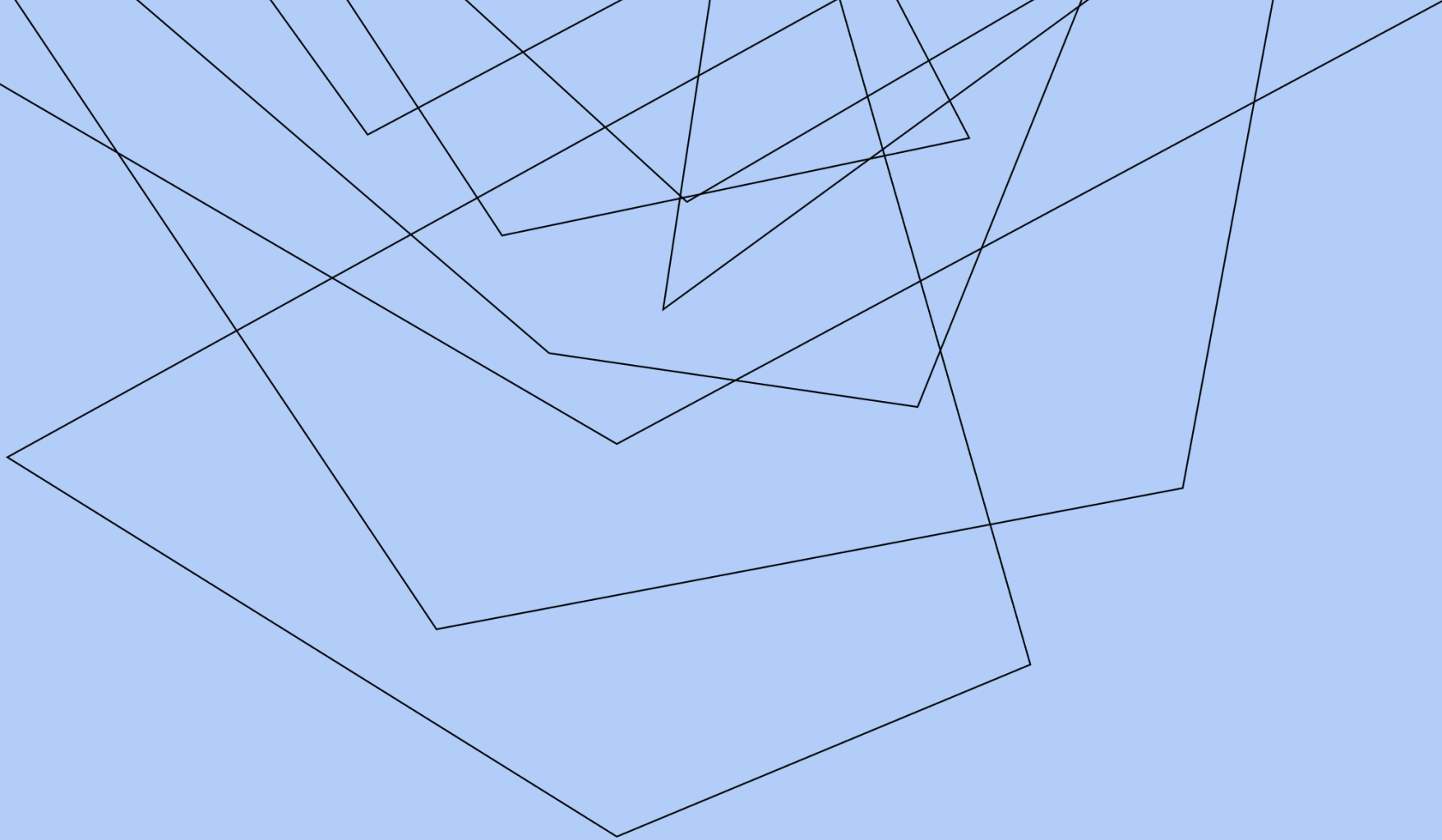
AIRPORT 360

SAMPLE REPORTS – AIRPORT DASHBOARD



AIRPORT 360





AEROFLOW OPTIMIZE

In the ever-fluctuating landscape of aviation, airports grapple with the challenge of meeting dynamic passenger demands while maintaining operational efficiency. Our Dynamic Resource Allocation platform is fueled by advanced AI & Machine Learning algorithms and is poised to optimize allocation in real-time, transcending traditional static approaches. From gate assignments to security screening and baggage handling, every facet of airport functionality benefits from this transformative technology.

By harnessing real-time data streams and predictive analytics, airports can adapt swiftly to changing circumstances, ensuring optimal resource utilization across all operational domains. Gate assignments become agile and responsive, security screening is streamlined without compromising safety, and baggage handling evolves into a seamless orchestration of logistics. Moreover, these platforms offer resilience in the face of uncertainty, enabling airports to navigate disruptions with agility and maintain service standards even in the most challenging of times. As airports embrace the power of dynamic resource allocation, they pave the way for a future where efficiency and adaptability define the new standard of excellence in air travel operations.

Real-Time Optimization: The platform continuously analyzes incoming data streams, including passenger traffic, flight schedules, and staffing levels, to dynamically adjust resource allocation in response to changing demand patterns and operational conditions.

AI-Powered Decision-Making: Leveraging sophisticated AI and machine learning algorithms, the platform makes intelligent decisions to allocate resources efficiently, considering factors such as passenger flow dynamics, security priorities, and baggage handling capacity.

Enhanced Efficiency: By optimizing resource allocation in real-time, the platform improves operational efficiency, minimizes wait times, and reduces congestion at critical airport checkpoints, ultimately enhancing the overall passenger experience.

Multi-Function Optimization: Dynamic resource allocation extends beyond gate assignment to encompass various airport functions, including security screening, baggage handling, and ground transportation, ensuring a holistic approach to operational optimization.

Adaptive Capacity Planning: The platform anticipates future demand trends and adjusts resource allocation accordingly, enabling airports to proactively manage capacity constraints and optimize resource utilization for maximum efficiency.

Seamless Integration: Designed for seamless integration with existing airport systems and infrastructure, the platform complements and enhances existing operational workflows, ensuring minimal disruption during implementation.

AERO PULSE

Real Time Passenger Flow Analysis

In the pursuit of heightened operational efficiency and passenger satisfaction, airports can depend on real-time passenger flow analysis tools driven by AI and machine learning.

Recognizing patterns aid as indispensable assets in their operational arsenal. Our solutions empower airports to monitor passenger movement in real-time, identifying congestion points, predicting wait times, and optimizing terminal layout and resource allocation with precision.

By harnessing the insights provided by our tool, airports can ensure a seamless flow of passengers throughout the terminal, alleviating bottlenecks and enhancing the overall traveler experience.

This integration will be a significant shift in airport management strategies backed by data-driven decision-making becomes paramount, enabling airports to dynamically respond to fluctuations in passenger traffic, streamline operations, and set new standards for efficiency and passenger-centricity in the aviation industry, solidifying their position as facilitators of seamless global connectivity.

Real-time Monitoring: Utilizes advanced sensors and data analytics algorithms to monitor passenger movement continuously throughout the airport terminal in real-time.

Predictive Modeling: Employs machine learning algorithms to analyze historical data and predict future passenger flows, enabling proactive management of resources and anticipation of congestion points.

Heatmap Visualization: Generates dynamic heatmaps to visually represent passenger density and flow patterns, facilitating intuitive decision-making for airport operators.

Queue Management: Provides insights into queue lengths and wait times at security checkpoints, immigration counters, and boarding gates, allowing for efficient resource allocation and staff deployment.

Adaptive Resource Allocation: Automatically adjusts staff allocation, security screening lanes, and boarding gates based on real-time passenger flow analysis, optimizing operational efficiency and minimizing wait times.

Integration with Airport Systems: Seamlessly integrates with existing airport management systems, such as flight schedules, passenger check-in data, and baggage handling systems, for comprehensive analysis and coordination of operations.

Mobile Alerts: Sends real-time alerts to airport staff and management personnel regarding potential congestion points, allowing for proactive intervention and crowd management strategies.

Performance Metrics: Provides detailed performance metrics, including average wait times, throughput rates, and queue lengths, for continuous monitoring and improvement of airport operations.

Scalability and Customization: Scalable architecture allows for deployment in airports of varying sizes, with customizable features to adapt to specific operational requirements and passenger demographics.

Compliance and Security: Ensures compliance with privacy regulations and data security standards, safeguarding passenger information while providing valuable insights for operational optimization.

AERO PREDICT

In the face of escalating complexity within airport infrastructure and equipment, the integration of predictive maintenance systems propelled by AI and machine learning emerges as a pivotal strategy for ensuring the reliability and availability of critical airport assets. These advanced systems will harness data gleaned from sensors and various sources to anticipate potential equipment failures, enabling proactive scheduling of maintenance activities to preemptively address issues before they escalate. By minimizing downtime and operational disruptions, these predictive maintenance solutions not only optimize airport operations but also bolster overall efficiency, ensuring seamless travel experiences for passengers while upholding stringent safety standards. As airports worldwide embrace these transformative technologies, they pave the way for a future where proactive maintenance becomes synonymous with operational excellence, solidifying their position as key facilitators of global connectivity and mobility.

Predictive Maintenance Algorithms: Utilizes advanced AI and machine learning algorithms to analyze data from sensors and historical maintenance records to predict potential equipment failures.

Real-time Monitoring: Constantly monitors the condition and performance of critical airport assets in real-time, providing early warnings of impending issues.

Fault Detection: Identifies anomalies and deviations from normal operating conditions, allowing for timely intervention and proactive maintenance.

Health Monitoring: Monitors the health and performance metrics of equipment components, detecting signs of wear, degradation, or impending failure.

Failure Prediction: Predicts equipment failures based on patterns and trends observed in historical data, enabling proactive maintenance scheduling.

Maintenance Scheduling Optimization: Generates optimized maintenance schedules based on predictive analytics, prioritizing tasks to maximize asset uptime and minimize disruptions.

Resource Allocation: Recommends optimal allocation of maintenance resources, including personnel, spare parts, and equipment, to efficiently address identified maintenance needs.

Integration with Maintenance Systems: Seamlessly integrates with existing maintenance management systems to facilitate workflow automation, task assignment, and tracking of maintenance activities.

Performance Metrics Tracking: Tracks key performance metrics related to maintenance activities, including mean time between failures (MTBF), mean time to repair (MTTR), and equipment reliability metrics.

Reporting and Analytics: Provides comprehensive reports and analytics dashboards to visualize maintenance performance, identify trends, and track the effectiveness of predictive maintenance initiatives.

Compliance and Safety: Ensures compliance with regulatory requirements and safety standards, prioritizing maintenance activities to mitigate safety risks and ensure operational integrity.

Continuous Improvement: Facilitates continuous improvement through feedback mechanisms, data-driven insights, and iterative optimization of predictive maintenance strategies.

AERO SUSTAIN

Introducing our tech-enabled AI/ML product, the Sustainability Navigator, designed to revolutionize airport sustainability efforts. This innovative dashboard leverages advanced AI and machine learning algorithms to ensure seamless alignment with your airport's net-zero goals.

With our Sustainability Navigator, stakeholders gain access to a comprehensive suite of tools to track and score sustainability metrics, from supplier practices to energy sources. By harnessing real-time insights and actionable data, airports can proactively identify areas for improvement and implement targeted sustainability initiatives.

Our AI-powered platform empowers airports to elevate their commitment to sustainability, fostering a culture of environmental responsibility and stewardship. By exceeding sustainability targets, airports pave the way for a greener future, not only for the aviation industry but also for the planet as a whole.

Comprehensive Sustainability Metrics Tracking: Tracks and scores sustainability metrics comprehensively, including supplier practices, energy sources, waste management, emissions reduction, water conservation, and more.

Real-time Insights: Provides real-time insights into sustainability performance, allowing stakeholders to monitor progress and make informed decisions.

Actionable Data: Delivers actionable data and recommendations to help airports identify areas for improvement and implement targeted sustainability initiatives.

Supplier Sustainability Assessment: Conducts assessments of supplier sustainability practices, enabling airports to partner with environmentally responsible vendors and suppliers.

Energy Source Analysis: Analyzes energy sources used within the airport, including renewable energy adoption rates and carbon intensity, to optimize energy efficiency and reduce carbon emissions.

Waste Management Optimization: Optimizes waste management practices by tracking waste generation, recycling rates, and landfill diversion efforts, facilitating the transition towards a circular economy

Emissions Reduction Strategies: Develops and implements strategies to reduce greenhouse gas emissions across airport operations, including aircraft operations, ground transportation, and terminal facilities.

Water Conservation Measures: Implements water conservation measures and tracks water usage to minimize environmental impact and ensure efficient resource utilization.

Net-Zero Goal Alignment: Aligns sustainability efforts with net-zero goals, providing a roadmap for achieving carbon neutrality and mitigating environmental impact.

Stakeholder Engagement: Engages stakeholders, including airport staff, airlines, tenants, and the local community, in sustainability initiatives to foster collaboration and support for sustainability goals.

Reporting and Transparency: Generates comprehensive sustainability reports and dashboards for stakeholders, promoting transparency and accountability in sustainability efforts.

Continuous Improvement: Facilitates continuous improvement through benchmarking, goal setting, and performance monitoring, ensuring ongoing progress towards sustainability objectives.

Regulatory Compliance: Ensures compliance with environmental regulations and standards, helping airports navigate regulatory requirements and mitigate regulatory risks.

Green Certification Support: Supports airports in achieving green certifications, such as LEED or ISO 14001, by providing tools and resources to meet certification criteria and demonstrate sustainability leadership.

Educational Outreach: Provides educational resources and outreach programs to raise awareness about sustainability issues and inspire behavior change among airport stakeholders and passengers.

THANK YOU
FOR YOUR TIME!

CONTACT US AT:

E: suraj@inspireinfosol.com

W: www.inspireinfosol.com

M: (+91) 99484 82799

M: (001) 630 687 9279