



SELEX SISTEMI INTEGRATI: THE INTEGRATED AIRPORT MISSION

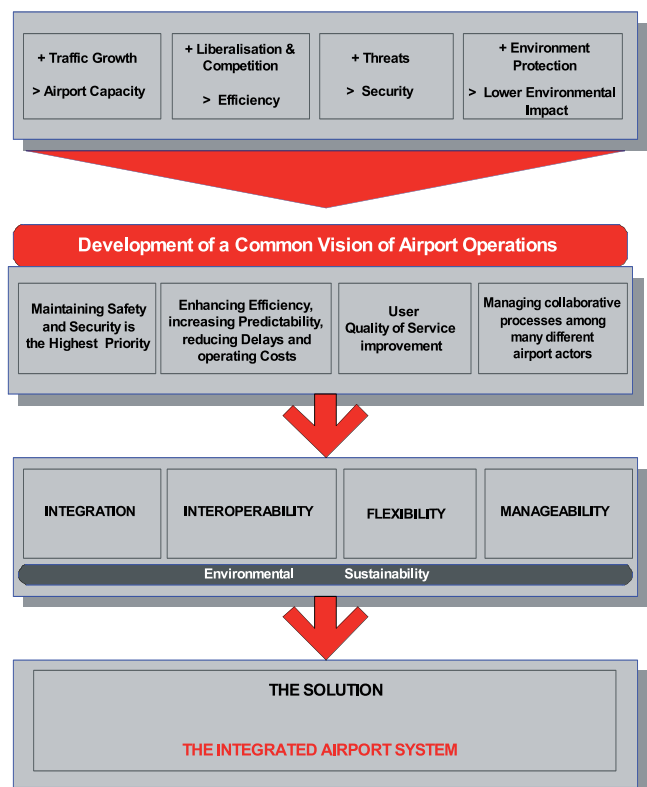
The predicted increase in airport traffic is such that global air traffic demand will not be met unless radical changes occur.

Airports are evolving into bottlenecks in the Air Traffic Management network and the capacity crunch at airports poses a threat to safety, efficiency, and competitiveness of all stakeholders in the air transport sector.

Moving to an Airport Operations & Air Traffic Management “network centric” approach to embrace all airport operatives is a way forward.

Operational processes need to be managed more efficiently while guaranteeing safety and security standards, and limiting environmental impacts. This means the provision of information to be processed quickly and reliably, integrated and distributed to the right people at the right time.

The Integrated Airport Solution proposed by SELEX Sistemi Integrati provides the answer for the benefit of the overall network: Air Navigation Service Providers, Airlines, and Airport Operators.



INTEGRATED AIRPORT: TURN-KEY SYSTEMS SOLUTION

SELEX Sistemi Integrati global multidisciplinary skills and responsibility for Integrated Airport Turn-Key Systems give to the customers the advantage of having only one single entity responsible for the whole realisation of the project. Key benefits are:

- technical accuracy, integrity and reliability
- reduced implementation time and impact on current operations
- cost control

SELEX SISTEMI INTEGRATI PRIME CONTRACTOR FOR INTEGRATED AIRPORT TURN-KEY SYSTEMS

Within the Finmeccanica Group, SELEX Sistemi Integrati is the authority and prime contractor for designing, developing, and marketing of Integrated Airport Systems.

With access to a wide range of technologies, products, and skills SELEX Sistemi Integrati is enabled to successfully carry out this mission.

SELEX SISTEMI INTEGRATI A-SMGCS INTEGRATED SOLUTION

Aircraft will land safely and will be guided to the gate under the control of SAIL, the SELEX A-SMGCS Integrated solution.

The controller can see the aircraft position relying on a number of different surveillance sensors. Sophisticated algorithms are conceived to provide optimized routing and runway occupancy. Airport Lighting Systems provide guidance information to pilots in order to safely and timely reach parking areas. Control Function warns controllers of any potentially dangerous situations, providing a prompt Surface Conflict Alerting service and assuring a safe traffic flow on the ground.

Surveillance:

- ADAM - Advanced Airport Multilateration
- SMR - Surface Movement Radar
- MXC - ADS-B Ground stations network
- Approach Radar Integration
- En-Route Surveillance Integration
- Data Fusion

Control:

- Runway Incursion Alerting
- Taxiway Conflict Alerting
- Prohibited Area Violation Alerting

Guidance:

- Airfield Lighting System
- Automated Management of Assigned Routes (Routing-Guidance Integration)
- Automated Management of Conflict Situation (Control-Guidance Integration)



Routing:

- Runway Occupancy Optimization
- Taxi Time Optimization
- Conflict Free Routing
- Route Deviation Alert

AIRPORT INTEROPERABILITY

Aircraft will land in fewer minutes and airport operators will begin allocating vehicles and staff for Turn-Around Services.

For the timely completion of all the Turn-Around procedures, different interoperating services will be performed:

- Cleaning
- Catering
- Re-fuelling
- Towing
- Baggage Handling
- Passenger Disembarking and Boarding
- De-icing

These procedures will involve different stakeholders at different or partially superimposed times:

- Airline
- Airport Operator
- Airport Handler
- Fire Brigade
- Air Navigation Service Providers

Delays will be minimised depending on the timely completion of the turn-around procedures. This result will be achieved relying on an optimized scheduling of services, vehicles, and staffs resources.

SAFE AND SECURE APPROACH

Aircraft will rely on various systems located in the airport vicinity during en-route and final phases of flight:

- Navigation and landing aids
- Aeronautical communication solutions

SELEX Sistemi Integrati provide solutions to allow customers to carry out a smooth transition from traditional Navigation Aids and Landing Systems to new GNSS-based Navigation Systems.

SELEX Sistemi Integrati has a complete line of ground-based traditional equipment:

- VOR - VHF Omni-Directional Range
- ILS - Instrument Landing Systems
- DME - Distance Measuring Equipment

SELEX Sistemi Integrati is active in the following GNSS based navigation systems:

- SBAS - Satellite Based Augmentation System
- GBAS - Ground Based Augmentation Systems
- GRAS - Ground Regional Augmentation Systems



SELEX Sistemi Integrati offers a wide range of solutions and products to satisfy ATC ground-to-air and air-to-ground voice and data communications.

A complete line of products includes:

- ATC VHF/UHF radio systems
- ATC VDL4/VDL2 radio systems
- Voice Communication Switching Systems
- Telephone Systems (PABX/PAX)
- AMHS systems, allowing the exchange of ATS messages over ATN

SELEX Sistemi Integrati provides the expertise to define and implement best technical solutions in the field of Communication Networks and IT security including different technical platforms, networks, and infrastructures.

SAFE AND SECURE ALL-WEATHER OPERATIONS

Safety of flying and landing is improved with the provision of weather data coming from several sensors and systems:

- Meteorological systems
- AWOS
- Runway weather sensors
- LLWAS

SELEX Sistemi Integrati offers a complete line of customer-adapted system products for weather information, working together in a seamless system, providing reliable weather data for traditional meteorological aviation services.

Airport Weather Information System:

- Forecaster Workstation
- Airport Weather Display
- Graphical Situation Display
- Message Switching System
- Sensor Fusion Module and Alert System
- WEB based Airport Weather Display
- Pilot Briefing System

Runway Weather Sensors:

(Automatic Weather stations, Ceilometer, Transmissometer, Forward Scatter Meter, Anemometer)

Meteorological Garden Equipment:

- Advanced Doppler Weather Radar Systems
- Lightning Detection System
- Radiosonde
- Wind Profiler

LLWAS - Low Level Wind Shear:

System detects wind speed and direction at remote sensor stations (anemometers and MET Garden equipment). System processes and warns Controllers about runway windshears and microbursts.



SELEX Sistemi Integrati provides first class, reliable and state of the art solutions as well as comprehensive services to Customers all over the world. SELEX Sistemi Integrati provide skills, leading edge technology and through life support required to carry out the most complex turnkey airport projects from definition to final deployment.

SELEX Sistemi Integrati offers a wide range of services:

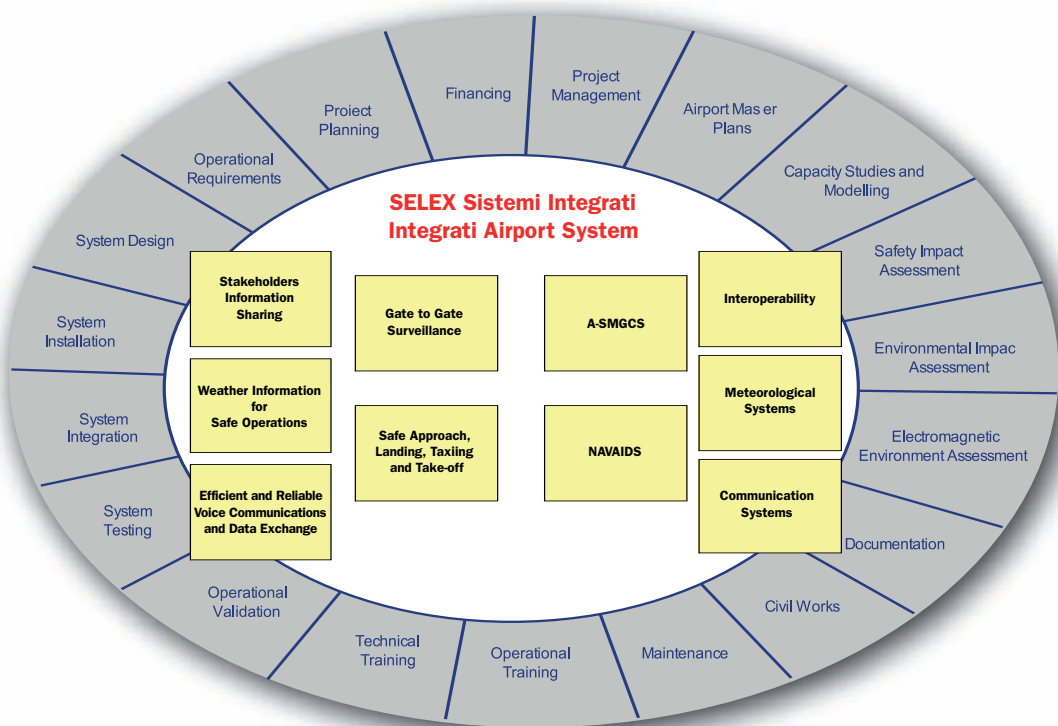
- Project planning & Financing
- Airport Master Plans
- Capacity Studies & Capacity Modelling
- Safety Impact Assessment

- Environmental Impact Assessment
- Electromagnetic environment assessment
- Operational Requirements, Technical

Specifications, Engineering Design

- System Installation & Integration
- System Testing & Operational Validation
- Operational and Technical Training
- Documentation
- Maintenance planning and services
- Civil Works and Construction activities
- Project management

AIRPORT SOLUTIONS AND SERVICES PORTFOLIO



ONE STOP SHOP FOR ALL YOUR AIRPORT TURN-KEY SYSTEM NEEDS