

Your Global Partner for the Airport City





The technological innovation and domain knowledge makes Selex ES an international leader providing airport operators with integrated, intelligence-led solutions that improve efficiency and sustainability and enhance the passenger experience.

Nowadays we are assisting to the continuous transformation of the airport environment, from a public transport facility to a business oriented infrastructure, the "Airport City".

This new multiservice & multifunctional environment moves passengers, baggage and goods and offers traditional services as travel and transport as well as innovative services like business centers, shopping, events, cultural life, dining experiences. In this global business environment, airports need to maximize overall safety and security, while increasing passenger facilitation and improving operational efficiency and profitability.

The goal for a modern airport, in fact, is to transform the airport experience into a world class customer experience, in order to deliver the best in class service to all customers whilst complying with international standards of safety and security and delivering a profitable business that provides stakeholder value.

Technology can play a vital role to achieve this objective, either to optimise the integrated management of operating processes, linking every area of airport operation, and to support the overall growing and evolving business.

## COMPLETE SOLUTIONS

With a 60-year heritage in both military and civil ATM domains and a customer base spanning more than 150 countries, Selex ES offer covers most of the airport needs, directly with proprietary products as well integrating products from the market or partner companies.

We provide complete ATM solutions, baggage handling products and solutions for the management of both physical processes (check-in, routing, sorting and claiming), and information flows (supervision systems, track&trace, flight schedule reporting, packing list production and reconciliation), state-of-the-art telecommunication networks, building management solutions as well as integrated supervision and security systems.

Thanks to its in-depth knowledge of the industrial processes, Selex ES has the technological competence, the organization and the financial capability to provide global solutions for complex projects provided as turn-key solutions, aimed at supervising all critical infrastructures requiring sophisticated functions, high reliability, service continuity and certified security.

The solutions result from the synergy between multiple competences in specific areas: Air Traffic Management (ATM), baggage handling, process control systems, multi-technology network solutions, cyber, physical and logical security, communications services and ICT solutions, and leverage the Selex ES's long tradition in project management, design, engineering, development, installation and commissioning.





## OUR EXPERTISE

### **Baggage security and sorting**

These are some of the most important priorities of airport operators. The effectiveness of this service is essential to an airport, since it must grant that luggage are returned to passengers as they arrive. The Net 6000 system - one of the largest Transit Baggage Handling System in Europe - represents the culmination of an innovation process that has drawn on Selex ES's experience in automation, security and ICT.

Covering about 7,000 sqm in Rome's Fiumicino airport, Net 6000 can handle up to 6,000 bags per hour while using 30% energy less than comparable market solutions. The solution is based on the innovative Multisorting Baggage Handling System (MBHS). MBHS is a "cross-belt" sorter, which is able to handle different size and surface objects, enabling Aeroporti di Roma to drastically reduce baggage mishandling.

Based on the same transport system made up of a continuous train of cells moving around a closed loop, the Multisorting Tilt-Tray System (MTTS) is a tilt-tray sorter whose main innovation lies in the patented tilting activation system, that applies the Direct Drive Motion Technology. The great controllability and high acceleration granted by linear motors reduces unloading time and improves unloading trajectory precision, making it possible to increase operating speed and reduce the space allocated for outlets. Furthermore, Selex ES product portfolio in baggage handling presents efficient ranging from check-in stations to baggage reclaim carousels.

### **Telecommunications solutions**

Selex ES is able to provide turn-key telecommunications solutions, from design to installation and maintenance services for road, railway and mass transit environments as well as for air and maritime communication needs, such as GSM-R, fibre optic, SDH transport networks, VoIP, Wi-Fi and WiMAX, as well as TETRA-based and satellitebased communication systems, used for voice, data and video and is actively working on the application of wideband and broadband evolutions of these networks to the transportation sector.

### **Air Traffic Management**

Selex ES provides a wide range of systems and scalable solutions for Air Traffic Management: with capability covering the domains of communications, navigation, weather and surveillance and backed by an extensive system integration expertise, Selex ES helps ensure the safe, fast and efficient flow of air traffic, the security of people and goods, and the effective exchange of information between operators.

Selex ES furthermore plays an active role within several European and global programs, such as SESAR (Single European Sky ATM Research), in which the company works on more than 10 projects concerning the study of future technologies within the air traffic management (ATM) sphere.





### **Voice and data communications**

Selex ES is a leader in the supply of turn-key systems for voice and data communications between pilot and controller.

Thanks to the development of its third generation of Radio Base Stations, Selex ES can provide its customers, such as the Italian ENAV, Chinese CAAC and Indian AAI, with a multi-mode communication system, able to communicate using various voice and data modes simultaneously allowing increased operations effectiveness and leading to a cut in operational costs, in compliance with ICAO and EUROCONTROL regulations.

### **Security**

Relying on the consolidated experience in security, both logical and physical, Selex ES offers integrated security systems and operation control rooms for joint forces operations. It also supports and maintains solutions for major events protection for the full lifecycle of the event itself.

This was, for instance, the case for the G8 summit held in L'Aquila in 2009, which synthesizes Selex ES's capabilities through the delivery of a complete video surveillance system to monitor the airport operations.

Baggage inspections included the full management of ICT infrastructure comprising the content delivery network for the dynamic distribution and management of professional contents, the networking infrastructure for the secure radio communication throughout the entire interested area, as well as the realization of the event web portal.

### **Cyber security**

Selex ES also provides cyber security applications and services to the Italian ATC body (ENAV) extending to this crucial sector the capabilities of its Security Operations Center (SOC) and of its cyber security consulting unit in the domain of Critical National Infrastructures protection.





### Smart building

The Selex ES smart building solution optimizes energy consumption to save money and increase security without sacrificing comfort.

The system continuously commands data from multiple operations, building occupancy and weather condition systems. Data streams from these sources are integrated into a dashboard control panel that provides complete high-level visibility to the operator. The system analyses the information and proactively recommends real-time system adjustments, identifies inefficiencies, and provides early warnings of potential system instabilities.



### Information & Communication Technology

In the ICT domain, Selex ES has a proven capability to build, measure and apply to very large programmes lasting several years, “in an accomplished manner”, the whole of its ICT value proposition, from organisational consultancy to the delivery of ERP applications as a principal partner of SAP, to the application management, web services, facility management and outsourcing, with strict reliability and security requirements.

### System integration

Selex ES’s capability in system integration is driven by the demand for effective processes along with the growing airports demand for global security, encompassing infrastructure, physical and cyber elements. Among the services offered by the company are Business Concept, Design and Engineering, Manufacture & Delivery, and all services oriented to designing and building operationally efficient environments.





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