FIRST LINE SOLUTION LTD.

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AIRPORT TECHNOLOGY PORTFOLIO

Smarter Airports.
Safer Operations.
Seamless Passenger Journeys.

01 Wildlife Detector

02 FOD Detection System

03 Information Kiosks

04 Wayfinding Application

05 AI-Powered VR Training Agent

ABOUT FLS SOLUTION

One integrated ecosystem for the connected airport

First Line Solution Ltd. is a European technology company specialising in custom software development and drone services, with a strong focus on aviation safety and wildlife management. We apply AI, AR, VR and Industry 4.0 technologies to deliver tailor-made airport solutions — from airside detection systems to terminal intelligence — as a single, end-to-end integration service.

Airside Safety

01 Wildlife Detector (WD)

WildDetector® — Intelligent Airport Wildlife Management

Mobile vehicle-mounted units and autonomous fixed stations detect wildlife in real time, count it with AI, and trigger scaring alerts 24/7.

KEY FEATURES

- Mobile and fixed stations; operates with or without AI
- Environmental monitoring to a 13 km radius: habitats and migration routes
- Risk assessment and forecasting modules
- Event Analytics

BENEFITS

- Risk engine turns detections into prioritised safety actions
- Audit-ready reporting for aviation safety compliance
- Scalable and customisable system

02 FOD Detection System

Foreign Object Debris Detection for Runway Safety

Three complementary configurations: a vehicle-mounted LiDAR and camera station, permanent high-resolution radar, or a hybrid of both, with automated alerts to ATC and airport systems.

OBSERVATION BY DEVICE

- **Radar, fixed:** 150 + m radius, 360° sweep, continuous coverage through rain, fog and zero visibility
- **LiDAR, mobile:** 5 m swath at 80–100 km/h, millimetre-level surface profiling, unaffected by darkness
- **Camera, mobile:** visual confirmation and classification, images held with each event record

BENEFITS

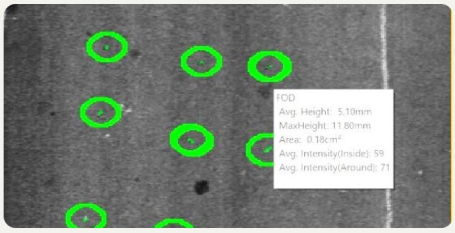
- Prevents engine, tyre and airframe damage, closures and delays
- Mobile Solutions can scan a full 4 km runway scanned in 50–60 minutes**
- Fixed Solutions scans the runway continuously providing real time alerts**



WildDetector mobile unit



FOD mobile survey station


Radar detection output

Passenger Experience & Workforce Training

03 Information Kiosks

Self-Service Hubs with an AI Virtual Agent

An on-screen virtual agent answers passenger questions by voice or touch, alongside live flight, wayfinding and queue updates.

KEY FEATURES

- Multilingual virtual agent with natural voice conversation
- Live FIDS integration, accessible touchscreens and QR handoff

BENEFITS

- Instant answers, less congestion and lower staff workload
- Enables advertising revenue opportunities

04 Wayfinding Application

Intelligent Indoor Navigation

Step-by-step routing across multi-floor terminals via kiosks, mobile web (no app required) and digital maps.

KEY FEATURES

- 3D indoor mapping with accessible routing
- Live updates for gate changes, queues and closures

BENEFITS

- Better passenger flow, fewer missed connections
- Analytics to optimise layout and staffing

05 AI-Powered VR Training Agent

Immersive, Intelligent and Measurable Training for Airports and Ground Handling

Virtual reality and AI combine to create realistic, interactive learning. Trainees interact naturally with a configurable AI instructor in aviation scenarios — turnaround coordination, passenger disruptions, emergency procedures and cross-team communication — building practical skills without exposure to operational risk.

BUILT FOR

- Airport operators and ARFF teams
- Ramp, apron and load-control teams
- Passenger and baggage handling
- Technical and ground-handling staff

KEY FEATURES

- AI instructor tailored in look, voice, style and expertise
- Role-play simulations plus SOP, compliance and certification modules
- Supervisor tablet to assign, monitor and adapt sessions
- AI scoring of decisions, reaction speed and communication

BENEFITS

- Lower training costs and faster onboarding
- Improved safety compliance
- Standardised training across locations
- Competency measured, not just completion

CONSISTENCY SCALABILITY MEASURABILITY OPERATIONAL PREPAREDNESS

Why FLS Solutions?

Unified Platform

All products integrate seamlessly via open APIs and enterprise connectors (SAP, Microsoft Dynamics, A-CDM, SWIM).

International Appearance

Exhibited at GSE Expo Las Vegas 2023, Airport Show Dubai 2024 and ACI Global Innovation Rome 2024.

Compliance Ready

Meets ICAO, FAA, EASA, and GDPR requirements.

Scalable Architecture

Supports 20 to 3,000+ concurrent resources or passenger interactions.

Future-Proof

Transform your airport with intelligence, proactive safety, and seamless passenger experiences.

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SCAN TO VISIT

