



SOFTECH

SYSTEMS AND SOLUTIONS
FOR AIRPORTS



www.softechweb.it

ABOUT US

SOFTECH provides systems and solutions for airports **since 1991**, using cutting-edge technologies and higher quality equipments.

Thanks to our **30-year experience**, we are able to offer a wide range of tools to monitor, measure and supervise objects and people in motion, as well as the effects they generate: pollution, traffic, noise and much more.

Over the years our know-how has grown and we are now able to transfer it to a wide range of other sectors.



MISSION

Generate value, transforming skills and experience into competitive advantage for the company.
Design of new solutions and the integration of innovative scenarios in existing environments are the core of our strategies.



VISION

Pursuing innovation and excellence to be part of our customers' success.



VALUE PROPOSITION

- Continuous Improvement
- Customer Oriented
- Integrity and reliability
- Quality and transparency
- Respect for the environment

All our products are user-friendly and supported by a set of additional services that help customers in minimizing their environmental impact and building up a strong relationship with communities.

**Our boundaries are our customer's visions.
Our goal is to find a solution to every problem.**

OUR PRODUCTS



SARA

Environmental monitoring and analysis in airport



EAGLE

public and private fleet management



PARK & FLY

Smart parking system for airport

ISO CERTIFICATION



SOFTECH

INTERNATIONAL PRESENCE

- EUROPE
- NORTH AMERICA
- SOUTH AMERICA
- ASIA



1991 - 2021: 30 years of SOFTECH.
Just one step on a longer journey
towards more important goals.





SARA

WHAT'S THIS

SARA is Softech's solution to monitor and analyze the environment indoor and outdoor in airports.

Scalable, modular and with an intuitive graphical interface, SARA collects noise, air quality and weather data from monitoring control units to correlate them with flights operations.

Web based, multi-airport architecture with fully customizable functionalities, interface, accounts and languages. SARA is provided in two configurations: on-premises or as SAAS (software as a service) accessing to our dedicated cloud.

WHAT DOES

- Identification of noise events by duration, sound pressure and/or frequencies map to remove ambient disturbance and background noise.
- Correlation between noise events and air pollution trends with aeronautical activities.
- Modeling of noise contours of ground footprint using INM/AEDT models.
- Radar tracks analysis (flight profiles, noise abatement procedures, CCO/CDO procedures)
- Managing of complaints

PLATFORM STRUCTURE

1. MONITORING TERMINAL

- Noise terminal
- Air Quality Terminal

2. SOFTWARE

- Technical Interface
- Public Interface

3. ADS-B RECEIVER

4. OTHER PUBLIC INTERFACES

- Public Viewer
- Environmental Totem
- App

5. OPTIONS

- SARA IoT
- SARA Follow Me

1

MONITORING TERMINAL

Environmental Monitoring terminal can be fixed or mobile according to customer's needs.

AIR QUALITY TERMINAL

Pollutant analyzers available for:

- CO, NO, NOX, NO2
- BTX, HYDROCARBONS
- PM10, PM2,5
- O3, SO2

Shared resources with noise network:

- Datalogger
- Communication equipment

For standalone installations:

- Specialized datalogger
- 3G/4G, ADSL communication

With SARA-AIR software option:

- SARA-AIR web interface
- Correlation between flights and air pollutants
- Real time control of analyzers
- Warning and alarms

NOISE MONITORING TERMINAL

- Stainless steel/PVC cabinet, alarms and internal temperature controlled.
- **Class 1 Noise Analyzer:**
 - PCB Larson & Davis, 01Db, Bruel & Kjaer
 - Norsonic, SINUS, Cirrus
 - Softech
- **Outdoor stainless steel microphone**
- Industrial standard fan less solid state datalogger (32 GB solid state disk data storage, up to 3 months storage capability)
- **Options:**
 - VAISALA multisensor weather station
 - IP TVCC
 - Solar power or power switching with a 5 days backup battery
 - 3G/4G, WiFi, ADSL data transfer, storage capability



2

SOFTWARE

TECHNICAL INTERFACE

An easy-to-use tool for viewing, managing and analyze data collected by SARA Environmental Monitoring System (EMS). Designed for professionals, the technical interface reduces the working time of sound specialists and assists them in the everyday work.

- **Report:** A wide range of standard, customizable and free reports on the EMS data (flights, noise, air & weather).
- **Tracks management:** Radar tracks display in 2D/3D interface. Radar tracks/noise investigations. Complaints management
- **EMT Real Time control:** Realtime verification/ control of the EMT operation.
- **Data Analysis:** Detailed EMS data history analysis. Integration with INM, AEDT, IMMI models

PUBLIC INTERFACE

An eye-catching application showing data collected by EMT outside of your organization.

Info can be displayed in 2D or 3D, in "near real-time" or historical mode and shown on website or Environmental Totem.

Displayable Info:

- List of flights departing / landing at the airport
- Distance of the flight from the airport
- PCA: distance between a flight and a point on the map
- Virtual Noise: noise perceived at a point on the map
- Traced closer to a point on the map
- Selection filter on landings / departures and the historical period of interest
- Possibility to identify a map point by entering the address (Geo coding)

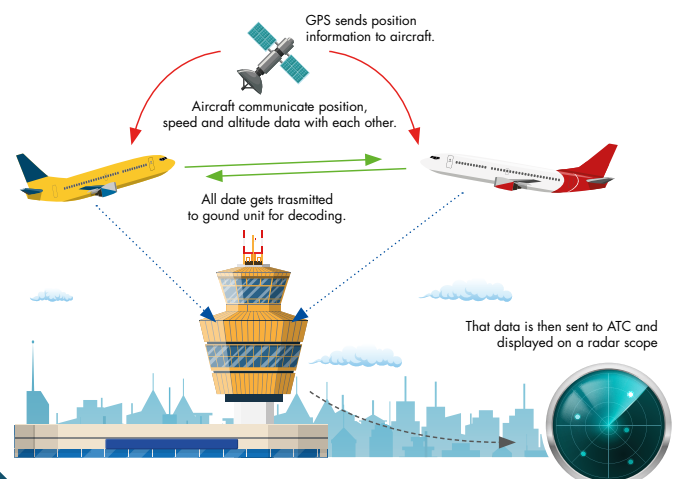


3

ADS-B RECEIVER

SARA receives information on radar tracks & FIDS from certified Authority or from SARA-ADSB receiver real time evaluation of aircraft position, in flight and on the ground.

- Fully integrated with SARA;
- Multi-lateral technology;
- Open to third-party software.



SARA

www.softechweb.it

4 PUBLIC INTERFACES

Transparency and **communication** are key points for airport companies and requirements by international standards.

For this reason, in addition to the Public Viewer (see the section Public Interface in software) we have developed for SARA:

ENVIRONMENTAL TOTEM

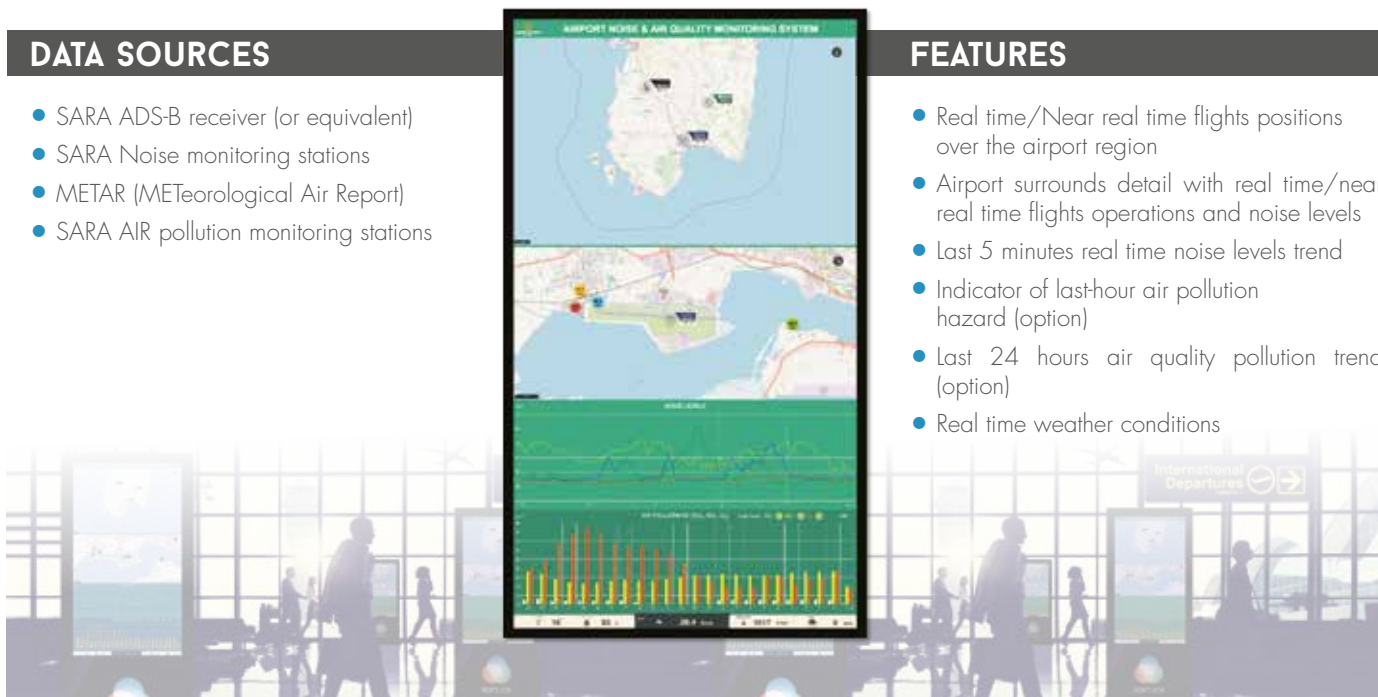
Innovative, smart, with a high quality graphic interface, **ENVIRONMENTAL TOTEM** is a digital signage equipment. It is ideal to show environmental real time information to airport travelers.

DATA SOURCES

- SARA ADS-B receiver (or equivalent)
- SARA Noise monitoring stations
- METAR (METeorological Air Report)
- SARA AIR pollution monitoring stations

FEATURES

- Real time/Near real time flights positions over the airport region
- Airport surrounds detail with real time/near real time flights operations and noise levels
- Last 5 minutes real time noise levels trend
- Indicator of last-hour air pollution hazard (option)
- Last 24 hours air quality pollution trend (option)
- Real time weather conditions



IOS / ANDROID APP

Converts your smartphone in a real time noise analyzer.

FUNCTIONALITIES

- LEQ (dBA) real time measurements
- Internal microphone calibration
- Noise campaigns Geocoding
- Local archive for all campaigns (whenever 3G/4G not available)
- Real time or batch data transfer to SARA
- Data analysis in SARA



5

OPTIONS

SARA FOLLOW ME

Thanks to an IP camera with dual optical and thermal lenses mounted on existing acoustic monitoring stations allows you to:

- Optical /thermal real-time video streaming
- Associate the video recording with acoustic events
- Validation of the acoustic event through video analysis

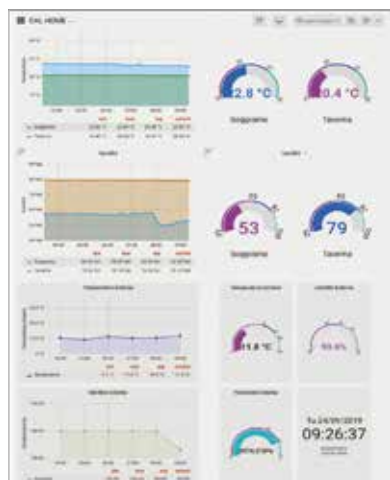
- Automatic management of video streams based on the position of the aircraft ("Follow me" function)
- Visualization of optical / thermal "live" video streams on PUBLIC VIEWER and ENVIRONMENTAL TOTEM



SARA IoT

SARA IoT allows the management of the entire airport environment with a single platform.

The LoRaWAN technology behind the system guarantees efficient monitoring with reduced maintenance and energy savings requirements.



FEATURES

- Accessibility via web or APP (Android, iOS)
- Integrated into SARA EMS
- Based on LoRa technology
- Reduced energy consumption
- Settable alarm warnings
- Real-time and historical data analysis
- Interfacing with third-party systems



SARA IOT FOR SMART AIRPORTS

• ENVIRONMENTAL MONITORING (INDOOR & OUTDOOR)

Accessibility via web or APP (Android, iOS)
air quality (CO, CO2, NO, NO2, ...)
temperature
humidity
lighting
noise

• SMART LIGHTING

light - dimming control
light status

• WASTE MANAGEMENT

filling level of the garbage bins
organize the garbage collect

• FLOW MEASURING

measures the flow of passenger in a specific area in real-time

• SMART TRACKERS

geolocation and tracking of movable objects (luggage trolleys, pushback, ...)

• SMART METERING

energy consumption
fluid control and measurement

• SMART PARKING

parking availability

• SMART SECURITY

monitoring opening/closing):
- gate
- doors
- fences
- automatic gates



SARA

www.softechweb.it



SOFTech



**OTHER
PRODUCTS
FOR
AIRPORT**



EAGLE

EAGLE FOR AIRPORT

Eagle4Airport is a multi-platform fleet management system (PC and mobile devices) that allows real-time localization, on Internet or proprietary cartography, of the location of all controlled vehicles. The system also guarantees the safety of passengers and workers with real-time management of alarms relating to the position, such as deviations or changes to the itinerary, unplanned movements or presence in prohibited areas.

BENEFITS

- CO2 Carbon Tax Accreditation
- Resource management
- Service Optimization
- Cost control



AIRPORT FLEET MANAGEMENT

• GEOLOCATION

Real-time alerts on: speeding, idle time, distance traveled
Tracking
Vehicle movement log
State of the vehicles

• FLEET MANAGEMENT

Maintenance programming
Usage reports

• SAFETY

Perimeter control
Forbidden areas
Routes reserved for vehicles





PARK & FLY

PARK & FLY

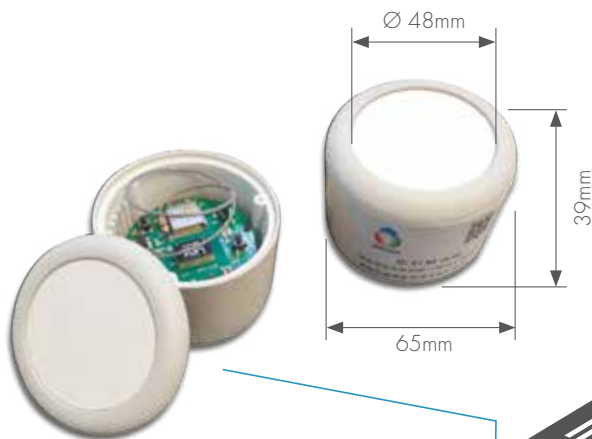
HOW DOES IT WORK?

A network of IoT magnetic sensors with LoRaWAN interface collects and transmits data to the management software for processing and returning differentiated outputs.

Covered, spacious, closer to the gate ... no matter how you prefer it! Just download the app and with a few clicks, you can book the parking stall you like best! Pack your bags and drive to your seat following the map, park in the chosen space and run to catch your flight! ... and if you get stuck in a hurry? No problem, the system recognizes your vehicle and immediately sends you a notification of correct or incorrect parking!

FEATURES

- Simple installation,
- Low consumption
- Minimal maintenance required
- LoRa technology for data transmission
- LI-SOCL2 battery
- Magnetic sensors designed by Softech



SOFTECH

MEASURE UP!



SOFTECH is part of
the Italian Airport
Industrial Association.

Air Tech Italy (ATI) is the
leading Trade Association
representing Italian companies
specialized in supplying
products, technologies and
services for airports
and air-traffic control.

We are the first hub
for international clients
looking for top-quality
Italian companies.



SYSTEM DESIGN:

Architecture configuration, number and locations of fixed NMT, number of mobile NMT, interfaces with tracks, fids (flight information plans) information providers. Service executed by our engineers which have a 15 years experience in airport noise monitoring systems design.



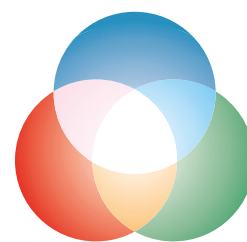
MAINTENANCE SERVICE:

This service is executed by local qualified technical support organized and supported by our dedicated maintenance team from Italy. We train and certify our local partner technicians to be able to provide high level, immediate and efficient support.



NOISE OFFICE SERVICE:

Our team is composed by long-term experienced acoustic technicians to manage "environmental office" tasks and to assist our customer managing environmental issues.



SOFTECH

Measure up!

Via Bernardino Forni 2,
21013 Gallarate - VA
ITALY

info@softechweb.it
Phone: +39 0331 26821

www.softechweb.it

