Stargate
within EU Green Deal

Project Fact Sheet

Airside navigation app

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement GA101037053

01 BASIC PROJECT INFORMATION

Project name	**Airside navigation app**
Partners involved	**Sopra Steria and Budapest Airport, with contributions from IT, Operations, Sustainability and Communications teams**
Implementing airport / site	**Budapest Airport's airside and apron environment**
Period tested	**2026**
Project lead	**Sopra Steria / Budapest Airport**

02 OBJECTIVE

What are we trying to solve or tackle with this project?

The application addresses safety and coordination problems arising from complex airside vehicle movements.

It combines route planning, real-time positioning, geofenced alerts and incident logging to help drivers and supervisors avoid restricted areas, respond to operational changes and select routes that consider safety, speed and CO2 emissions.

Success criteria

1. Deliver a reliable navigation and supervisor platform
2. Improve visibility of vehicle movements and incidents
3. Alert users to restricted areas, aircraft safety zones and low-visibility conditions
4. Support route and emissions analysis
5. Establish a scalable system that can be measured after production deployment

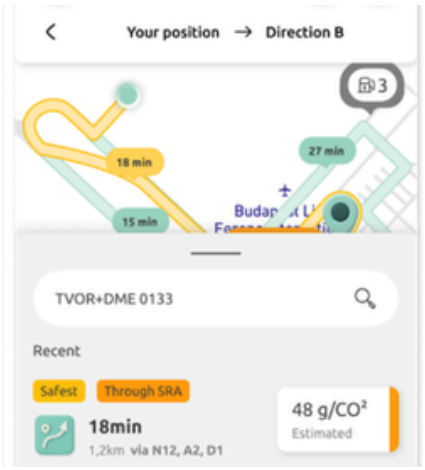
03 APPROACH (HOW WE TESTED)

Test set-up & method

The project used a phased, user-centred approach:

Phase 1 validated feasibility, defined data and system architecture, and tested mapping, routing, alerts and geofencing.

Phase 2 developed an MVP with cloud infrastructure, identity management, vehicle linkage, real-time positioning, dynamic routing, supervisor tools and logging. Small-group testing informed refinement before planned full integration.



Risks & mitigations

Risks include incomplete or inaccurate mapping, unreliable real-time data, unclear apron markings, weak adoption by contractors, integration delays, scope expansion and limited data for emissions calculations.

Mitigations include phased delivery, user workshops, prioritised requirements, access controls, proof-of-concept testing, data-quality checks and staged deployment.

Limitations

Testing has covered only an MVP and a small internal user group, so results cannot yet demonstrate airport-wide safety, efficiency or emissions impacts.

Full integration and production use were still planned. KPI definitions, baseline values and the measurement period should be confirmed before reporting final results, particularly for emissions attributed to companies and vehicle types.

04 RESULTS & IMPACT

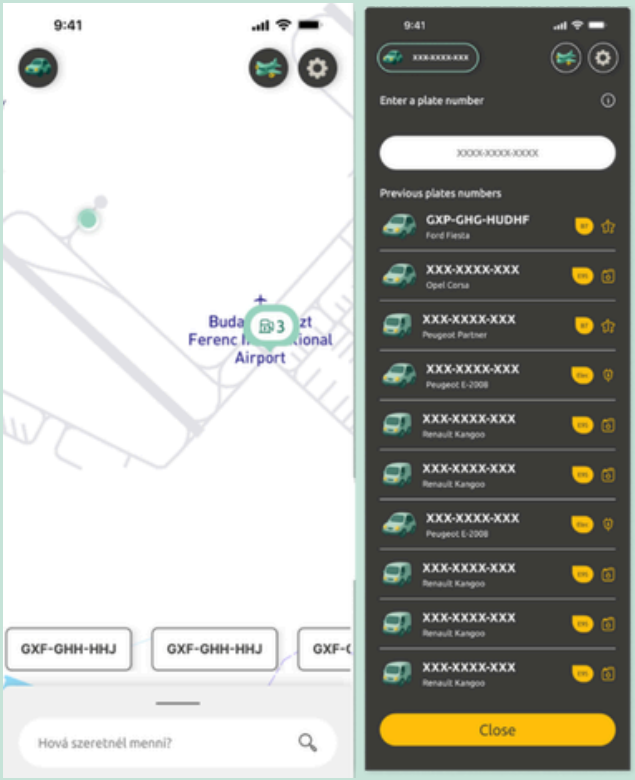
Key results

The project delivered an MVP tested with a small internal user group.

It displays vehicle and aircraft movements in real time, alerts users to restricted areas, safety zones and low-visibility conditions, logs routes and activity, and supports supervisor monitoring and notifications.

Wider production deployment is planned for late 2026. As the solution had not yet been deployed at scale, final adoption, operational and CO2 results were not yet available.

These will be measured through user numbers, kilometres driven, daily CO2 per vehicle-km, and emissions by company and vehicle type.



05 RATINGS (QUICK ASSESSMENT)

Deployment Approach

How standardised is the solution: can it be deployed off the shelf, or does it require extensive customization?

Off The Shelf — Custom-Built

Investment Magnitude

From low-cost deployment to major investment.

Low Investment (less than €10k) — High Investment (more than €15mio)

OPEX ■ □ CAPEX

Sector Readiness

From non-existing or emerging standards, regulations, and certification pathways to fully established industry practices.

Emerging Framework — Established Framework

Innovation Maturity

How does the solution score in terms of maturity, from low TRL experimental/pilot-stage to high TRL market-ready.

Experimental — Market-Ready

Operational Impact

Does the innovation deliver targeted improvements or rather drastically transform processes and/or operations.

Incremental Improvement — Transformational Change

06 NEXT STEPS / RECOMMENDATION

Recommendation

Continue with staged deployment, prioritising high-risk routes, restricted zones and low-visibility procedures. Confirm data ownership, KPI definitions and baseline capture before production release.

Maintain engagement with contractors and operational teams, and use pilot feedback to refine the interface before wider rollout.

Next steps

1. Complete the planned integration and production release
2. Onboard external operators and supervisors
3. Establish baseline data for users, kilometres and CO2
4. Monitor performance by company and vehicle type
5. Review data quality, adoption and operational benefits before expanding functionality.