Project Fact Sheet

Stargate within EU Green Deal

Road Rush Barometer

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	Road Rush Barometer
Partners involved	Brussels Airport Company, Transport & Mobility Leuven
Implementing airport / site	Brussels Airport
Period tested	2026
Project lead / contact	Brussels Airport Company

02 OBJECTIVE

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

Help passengers anticipate major roadworks affecting access to Brussels Airport.

The Road Rush Barometer combines roadwork data, traffic conditions and travel patterns to predict delays and provide pre-travel advice.

By warning car users before departure, it aims to reduce uncertainty and encourage them to leave earlier or consider more sustainable alternatives.

Success criteria

Assess impacts by route and roadwork phase, forecast additional travel time up to 12 days ahead, provide clear passenger guidance and highlight alternative transport options when significant road disruption is expected.

03 APPROACH (HOW WE TESTED)

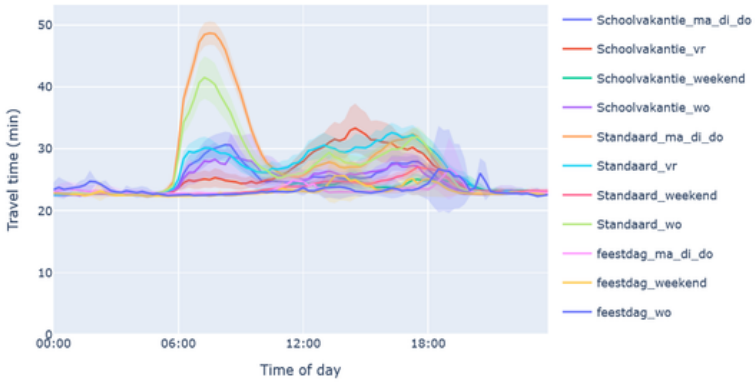
Test set-up & method

The project combines roadwork data, traffic conditions and travel patterns to predict where delays are likely.

A model estimates additional travel time to Brussels Airport by route and time slot, up to 12 days ahead.

The front-end converts these forecasts into clear pre-travel warnings and advice to leave earlier or consider public transport.

Data & measurement



Evaluation focuses on forecast availability and accuracy, passenger reach and the potential influence of the information on journey planning and transport choice, linking the tool to the wider SAMP modal-shift objectives.

Risks & mitigations

Key risks are changing roadwork phases and traffic conditions, data or forecast quality, integration between model and front-end, and outdated advice.

Mitigation requires up-to-date inputs, forecast monitoring, timestamped messages and links to current alternative transport options.

Limitations

The model focuses only on the main roadworks around Brussels Airport and the impact on the main roads to the airport because of these works.

Its value depends on timely input data, forecast quality and continuous maintenance as construction phases and traffic conditions change.

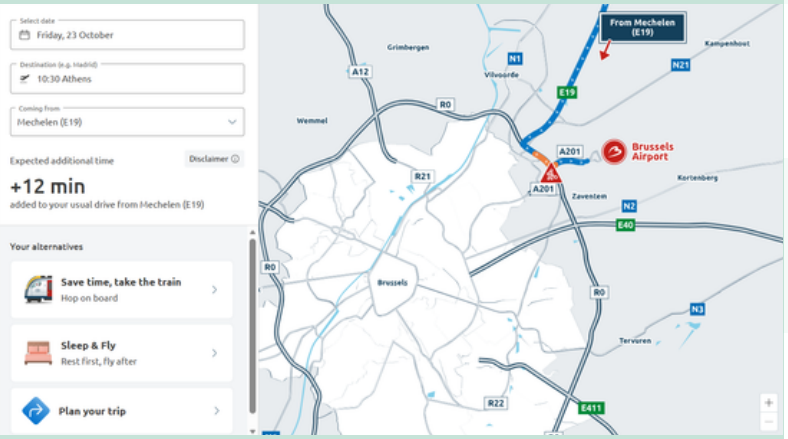
04 RESULTS & IMPACT

Key results

The Road Rush Barometer was developed to help passengers anticipate disruption caused by major roadworks around Brussels Airport.

It combines roadwork data, traffic conditions and travel patterns to predict likely delays and translates these into clear warnings before passengers set off.

Rather than acting as another navigation tool, it uses expected disruption as a behavioural nudge: car users are advised to leave earlier or consider public transport, supporting more predictable journeys and more sustainable travel choices.







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

Notes

The concept can be transferred to airports facing prolonged road-access disruption.

Replication requires reliable roadworks and traffic data, route-based forecasting, integration with passenger communication channels and clear alternative-mode information.

Impact should be evaluated after deployment.

06 NEXT STEPS / RECOMMENDATION

Recommendation

Continue and evaluate: operate the tool with current data, validate forecast accuracy and measure whether the information influences passenger journey planning or transport choice.

Next steps

1) Maintain current roadworks and traffic inputs.
2) Track forecast error by route and time slot.
3) Measure passenger reach and interaction.
4) Assess influence on journey planning and mode choice.
5) Link disruption advice to current public transport and journey-planning options.
6) Clearly show update times and uncertainty.

Links: https://www.brusselsairport.be/en/passenger/mobility/roadworks