Objectives of the measure

- **At measure level:**
  - Increase users' satisfaction by providing accurate, relevant and trustable information to the citizens on the PT service.
  - Enabling customers to receive more accurate real-time data, when using BudapestGO.

- **Contributing to city level objectives of:**
  - Attracting more PT users by providing a more accurate travel planning system for customers.

Description of the measure

- **Situation before**:

In the current system, the expected delays are determined based on the current schedule deviation and the planned travel time, so in fact the estimates are made based on the actual schedule deviations. Based on this data - although reliable timetable data is available - in many cases it is only approximately clear to the users how late the vehicle will arrive at the stop. In a similar way, the expected delay of the vehicle will be displayed, which may affect a possible transfer, as well as the achievement of the itinerary. In such a case, despite the correctly defined timetable data, users may draw the conclusion that the application itself or the estimate of departures at the stop is incorrect.

- **General description:**

This measure aims to introduce predictive travel planning option within the BudapestGO journey planner application. The development provides a solution to the problem in a similar way to the Waze application, with the solution it is possible to manage a significant source of customer feedback. The aim is to be able to minimize the communication of incorrect estimates and to increase the reliability of the data provided by the BudapestGO application.

- **Measure outputs:**

This measure will deliver:

- A more accurate estimate based on a new logic is displayed. It is intended to improve reliability and accuracy. The predictor can give a more accurate estimate in two cases:
  - o Long-term estimate: Non-scheduled traffic that cannot be managed with schedule corrections (e.g., infrastructure faults, effects of works) is common. The predictor is a self-learning algorithm that analyses the data and, based on a set of rules defined by us, is able to override the estimates based on the current logic of the timetable, and is able to determine the expected exact departure times at the stops based on historical timetables.
  - o Estimation for operational disruptions: Extending the function of the predictor to traffic disruptions (extraordinary congestion, accidents, etc.).

- **Supporting activities**:

N/A

- **Interaction with other city measures: UPPER and non-UPPER measures**

N/A

Target groups and/or geographical impact areas

- **Target groups:**

    - All transport users of Budapest and its urban area.

- **Geographic implementation area:**

    - The function would be introduced on vehicles operated by BKK in Budapest and its urban area.

Stakeholders

The following stakeholders will be required for the implementation of this measure.

- **BKK:** Public transport authority. Different departments of the organization to be involved in the planning and implementation activities.

U-tools support

This measure will not be actively supported by the IT tools from the UPPER toolkit.

Link to other UPPER measures

This measure is similar to UPPER measures in other cities, in particular:

- **VAL_07:** To provide the citizens with clear and accessible information before and during the trip.

- **LEU_03+04**: To increase visibility and ease of use of public transport by offering improved information on public transport, parking and shared mobility options.

- **TES_05**: To enhance the information provided through adapted services for different groups of passengers.

Process of implementation of the measure

Stages	Description	Intermediate milestones
Design	Requesting for an offer - Acquisition	Q4 2023
Preparation	Putting the system into operation – Use case 1	Q2/Q3 2024
Implementation	Putting the system into operation – Use case 2	Q4 2024 – Q1 2025

Sub-measures and preliminary indicators

Measure	Sub-measure *(if applicable)*	Impact indicators
BUD_05	N/A	- Number of users of the BudapestGO application. - Users' satisfaction. - Accuracy of the estimation for the time of departure (in use case no. 1). - Accuracy of the estimation for the time of departure (in use case no. 2)