Objectives of the measure

- **At measure level:**
  - Improve PT services.
  - Understand and develop directions-KPIs for PT planning LEZs.
- **Contributing to city level objectives of:**
  - Provision of better connectivity and interoperability
  - Improve environment.

Description of the measure

- **Situation before**:

The SUMP of Thessaloniki recommends among measures, a LEZ in Rotonda area. In this area we would like to explore through simulation the optimum PT service that would better serve the zone. A methodology will be foreseen to restructure existing PT, for serving the Low Emission Zone (LEZ).

Currently there are no policies that limit or guide the car and PT use in this area. The current state for car and PT use is the same for the whole area of central Thessaloniki.

- **General description:**

The method/tool will consider the size of the zone, existing PT stops, land use, etc (see data below). It will optimize PT frequency, stops and feasibility of service, type of service and prioritize actions regarding the PT mode that is implemented and scheduling.

As a first step, the LEZ area will be defined by considering the corresponding SUMP measure; additional consultation by CERTH and THETA will be considered. Existing data will be collected regarding the LEZ area, including size, origin destination data, PT stations, vehicles and frequency/schedules. The travellers' satisfaction and their travel behaviour will be also collected through a dedicated survey (U-NEED can provide good support in this task (travel behaviour analysis). The GIS will be used to model areas that are served by existing PT services, and they will be compared with travellers' acceptability to walk to/from LEZs. In this way the proposed planning scheme will guarantee that most travellers may access the LEZ. Accessibility and PT indices will be developed to assess the size of the LEZ.

The appropriate offered PT service will be analysed through simulation (**U-SIM plan may** be used in conjunction with Thessaloniki's strategic traffic model, developed by CERTH). This measure aims at defining optimum PT services and digital management of transport demand to/from the LEZ.

- **Measure outputs:**

This measure will deliver:

- A digital service that will facilitate PT planning in LEZs
- KPIs to support decision making when implementing LEZs.
- A survey of user satisfaction and travel behaviour

- **Supporting activities**:

Provision of better connectivity and interoperability of metro stations with active modes of transport will be sought.

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

This measure is related to SUMP measures and to:

- **TES_09:** To raise environmental awareness and trigger behavioural change towards PT

Target groups and/or geographical impact areas

- **Target groups:** Citizens, Micromobility users, PT users, PT authorities
- **Geographic implementation area:** The measure will be implemented in the Rotonda area.

Stakeholders

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

- **CERTH:** Selection of area(s), development of digital service, data provision, survey deployment.
- **TheTA:** Selection of area(s), data provision and assist in survey deployment.
- **Transport operators:** OASTH and Attiko Metro can also contribute with data provision.

U-tools support

The simulation/testing of this measure will be actively supported by two IT tools from the UPPER toolkit:

- **U-NEED:** It can be used along with already existing methodologies of CERTH for facility location planning, specifically for the identification of the appropriate P&R areas.
- **U-SIM plan:** This tool can be used in conjunction with Thessaloniki's strategic traffic model, developed by CERTH, for estimating PT in-vehicle volume.

Link to other UPPER measures

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

- **VAL_02:** Creation of a network of multimodal hubs
- **LIS_09:** To improve the integration of PT and active travel modes
- **IDF_06:** Advanced technology to optimise the PT offer in line with users' needs and patterns

Process of implementation of the measure

Stages	Description	Intermediate milestones
Preparation	Identification of area and data requirements	- This SUMP solution will be used as a basis for setting up the measure. - Set up the boundaries of the area - Identify the traveller groups to be included in the survey - Identify PT data to be collected - Identify tools to be used
Design	Data collection and analysis	- Data collection for PT frequency and coverage - Deploy survey and analyse data - Identify accessibility and PT KPIs and quantify them
Simulation	Measure simulation and testing	- Development of the digital service - Simulation of the area - GIS analysis and interpretation by integrating the survey results

Sub-measures and preliminary indicators

Measure	Sub-measure *(if applicable)*	Impact indicators
TES_02	n/a	- Modal split - CO_2 reduction in LEZ