Objectives of the measure

- **At *measure* level:**
    - Improve PT LoS along a specific road-axis.
    - Improve environmental conditions around metro stations.

- **Contributing to city level objectives of:**
    - Enhance city centre's commercial character.
    - Reduce CO2 emissions.

Description of the measure

- **Situation before**:

Egnatia street is one of the most important and commercial road-axes in Thessaloniki. During the last years, Egnatia street suffered significantly from the construction of the metro line, but recently most of the construction sites have been removed and the axis is returning to normal. The recent SUMP of Thessaloniki proposes the reformation of Egnatia street, in order to become a modern multimodal corridor capable for adequately serving the increased demand that is being expected due to the operation of the new metro line.

- **General description:**

This measure will propose a plan for the optimal management of PT and pedestrian flows along Egnatia street, as well as a plan for public space reallocation along this corridor.

Various scenarios will be formed regarding the operation of public buses along the corridor. Through the examination of these scenarios, it will be identified which parameters (e.g. protected bus lane, routes frequency, priority in traffic signals) contribute in improving PT level of service (LoS) and how these parameters affect the rest motorized traffic. Also, scenarios will be examined regarding the LoS that the sidewalks of Egnatia street provide to pedestrians, through the aid of Viswalk software.

Particular emphasis will be given in the parts of the pedestrian network which are in proximity with the metro stations, and they are expected to concentrate high pedestrian flows due to the operation of the metro line. Also, scenarios about prioritizing pedestrians in traffic lights, when pedestrian LoS is reaching low values will be assessed.

The outcomes of the abovementioned simulations will not only contribute to identifying the optimal traffic management measures either for PT or pedestrians, but it will also contribute to identifying the space that each mode requires. Based on this, a plan for redesigning Egnatia street will be proposed, while appropriate 2D and 3D designs will be prepared for presenting the final plan for the reformation of Egnatia street.

- **Measure outputs:**

This measure will deliver:

- Modelling of motorized traffic at corridor level.
- Modelling of pedestrian flows to/from metro stations.
- Detailed plan for optimal management of flows and reallocation of public space in Egnatia street.

- **Supporting activities**:

The main output of the measure (i.e. detailed plan for optimal management of flows and reallocation of public space in Egnatia street) will be widely disseminated in the local community and it will be presented to the local authorities, as a follow up activity of SUMP's proposals.

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

This measure is linked to another measure in Thessaloniki which is also related with simulation of traffic management measures for improving PT operation:

- **TES_06:** Social optimum-based traffic management to reduce PT travel times and increase user satisfaction

Target groups and/or geographical impact areas

- **Target groups:** PT users, pedestrians.
- **Geographic implementation area:** The implementation is focused on the Egnatia street which is one of the main road-axis of the city and goes through all of the city centre.

Stakeholders

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

- **CERTH:** Definition of scenarios, corridor simulation, preparation of 2D and 3D designs, data provision.
- **TheTA:** Definition of scenarios, data provision.
- **Municipality:** Consultation for the preparation of the final proposal regarding reallocation of public space.

U-tools support

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

- **U-SIM.plan and U-NEED:** These two tools can be used in conjunction with existing traffic models that CERTH has developed for traffic simulation at corridor-level.

Link to other UPPER measures

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

- **VAL_01:** Redistribution of urban space with a focus on Mobility as a Right.
- **ROM_08:** (Re)Designing the urban space to promote active travel modes, PT and environmental "30 zones".
- **VAL_04:** To reduce travel times through the implementation of dedicated bus lanes.
- **LEU_07:** Increase the quality of the PT services through traffic management and dedicated lanes for PT.

Process of implementation of the measure

Stages	Description	Intermediate milestones
Design	Data collection	- OD matrices per mode - PT static data - Traffic signals cycle
Preparation	Scenarios simulation	- Definition of scenarios - Motorized traffic simulation - Pedestrian simulation
Planning	Formation of final plan	- Identification of optimal traffic management measures - 2D and 3D designs for space reallocation

Sub-measures and preliminary indicators

Measure	Sub-measure *(if applicable)*	Impact indicators
TES_03	n/a	- Bus travel time along the corridor - CO_2 emissions - NOx emissions - PM emissions