

Objectives of the measure

- **At measure level:**
 - Increase intermodal trips that include PT.
 - Understand the potential of P&R areas.
- **Contributing to city level objectives of:**
 - Reduce trips made by private cars in the city centre.
 - Reduce pollutant emissions.

Description of the measure

▪ Situation before:

Intermodality in Thessaloniki is at very low levels and PT is only in a few cases combined with other modes and especially sustainable ones. This is attributed to the inadequate physical integration of transport modes, but also to the inadequate provision of information about the real-time operation of the various transportation services. This measure will deal both with the physical and digital integration and it will attempt to utilize the positive momentum of the expected start of the operation of the metro system in the beginning of 2024.

▪ General description:

The aim of this measure is to develop a digital service that will provide real-time information to travellers and to integrate this service within an existing MaaS app. This way intramodality will be facilitated, especially for those travellers with long commuting distances.

As a first step, areas that are suitable for P&R will be investigated. SUMP's proposals will be considered, as well as consultations with relevant stakeholders. Moreover, the progress with regards to the operation of the metro system and the specified parking areas in metro stations will be considered. The abovementioned actions will lead in the selection of at least one P&R area, where the digital service will be demonstrated. In this P&R area(s) protected parking should exist, as well as PT (buses or/and metro) and shared mobility stations.

The digital service will inform travellers in real-time about the existence and the number of available parking spots, as well as about the arrival time of the next PT mode and the availability of shared mobility modes. Users will be able to organize properly their intermodal trip and secure the feasibility of performing it and therefore users' disutility that is being derived from modes transfers will be minimized. In order to develop such a digital service, data regarding a) parking availability in the P&R area, b) PT scheduling and c) shared modes availability, are required.

▪ Measure outputs:

This measure will deliver:

- *An analysis for the suitable areas for P&R in Thessaloniki.*
- A digital service that will facilitate intermodality.
- A P&R area where PT, private car parking and shared modes will be combined.

▪ Supporting activities:

For making TES_01 more impactful, the digital service will be integrated in an already operating MaaS app. Moreover, dissemination activities will be implemented, and they will be targeted to residents of areas that can be benefitted by the new P&R area.

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

This measure is related to other measures in Thessaloniki to enhance PT-based intermodality:

- **TES_05:** To enhance the information provided through adapted services for different groups of passengers
- **TES_08:** To create new incentive-based services in the MDMS system to increase the use of PT
- **TES_10:** To incentivize the use of PT in combination with active modes

Target groups and/or geographical impact areas

- **Target groups:** PT users, shared mobility users, potential PT and shared mobility users.
- **Geographic implementation area:** At least one P&R area will be implemented. The P&R area(s) will affect residents and visitors of peri-urban areas that can be benefitted by the selected P&R area(s).

Stakeholders

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

- **CERTH:** Selection of area(s), development of digital service, integration in existing app, data provision.
- **TheTA:** Selection of area(s), require permission for space for (virtual) shared mobility stations, data provision.
- **Transport operators:** OASTH and Attiko Metro can also contribute with data provision.
- **MaaS provider:** Contribution in the integration of the digital service in an existing MaaS app

U-tools support

The implementation of this measure will be actively supported by three 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.live and U-TWIN:** These two tools 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.
- **ROM_03:** To adapt the PT offer and include new mobility services in multimodal interchange nodes.
- **IDF_04:** Added-value services in multimodal nodes to integrate active modes with PT
- **OSL_02:** Design multifunctional hubs to increase the accessibility to public transport and active modes in strategic areas outside the centre and city accesses
- **OSL_06:** Develop and implement solutions for improved user experience in the first/last mile
- **LIS_07:** To create a new Multimodal Digital Mobility Services (MDMS)
- **LIS_09:** To improve the integration of PT and active travel modes
- **HAN_04:** Mobility dashboard solution
- **OSL_08:** Increase visibility of sustainable modes of transport and measuring effects by integrating in MaaS-solutions
- **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

Process of implementation of the measure

Stages	Description	Intermediate milestones
Design	Data collection and analysis	<ul style="list-style-type: none"> - Data collection for PT, shared mobility and parking availability - Data analytics - Find suitable areas for P&R - PT in-vehicle volume estimation
Preparation	Identification of P&R area(s)	<ul style="list-style-type: none"> - Review of SUMP proposals - Consultations with relevant stakeholders - Require permission for space for (virtual) shared mobility station(s)
Implementation	Measure implementation and testing	<ul style="list-style-type: none"> - Development of the digital service - Integration of the service in existing app - Implementation of the shared mobility station(s) in the P&R area(s)

Sub-measures and preliminary indicators

Measure	Sub-measure (if applicable)	Impact indicators
TES_01	n/a	<ul style="list-style-type: none"> - Modal split - % increase of intermodal trips - Coverage of area or travellers which is served by the measure - Number of users of digital service