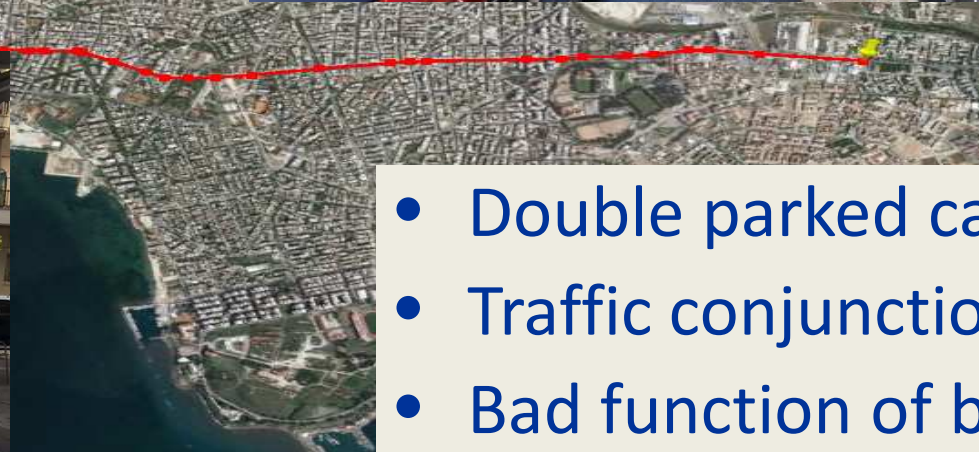


Simulation of low carbon mobility solution in Thessaloniki

Session II: IMT and simulation of low carbon mobility solutions

Metropolitan Development Agency of Thessaloniki S.A.,
Aristotle University of Thessaloniki

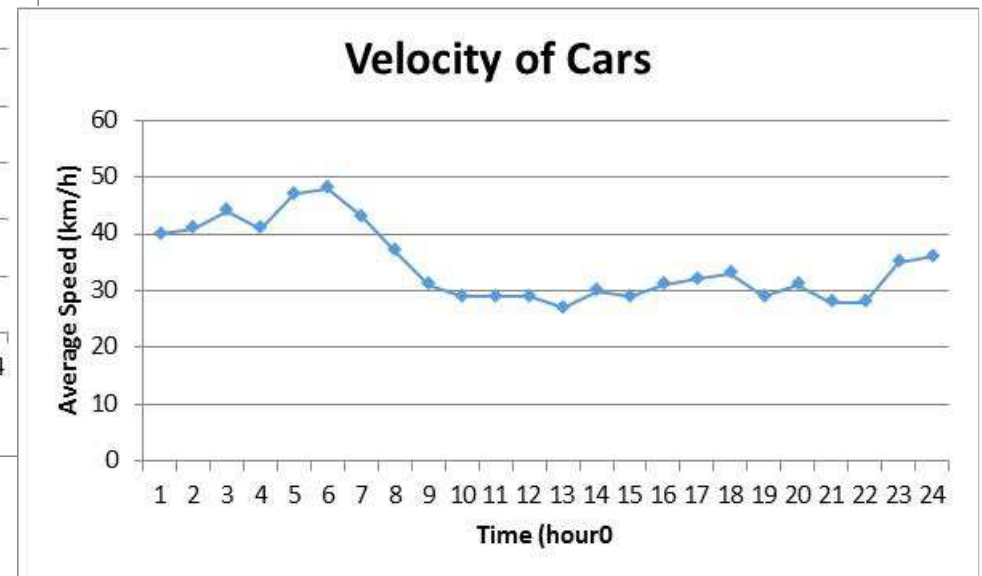
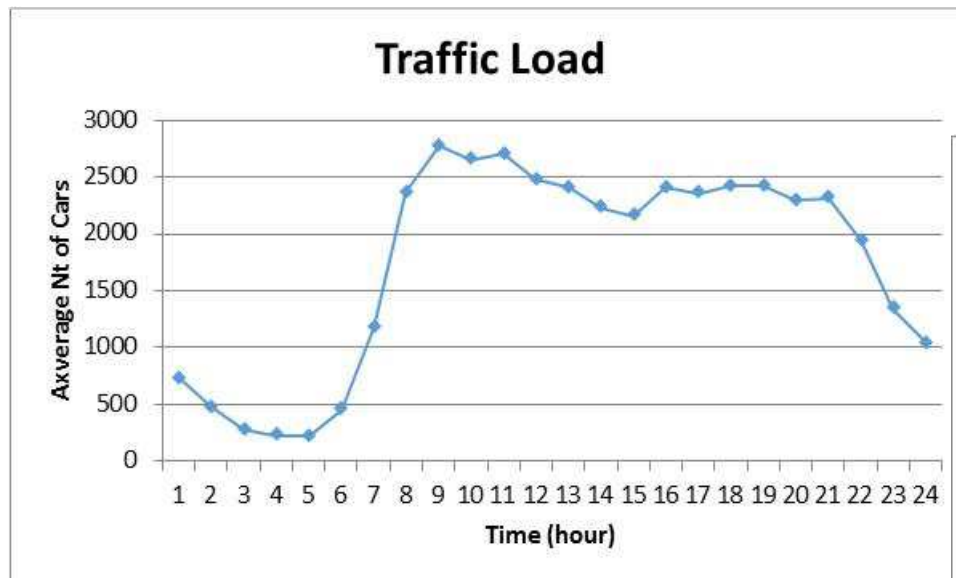
The Pilot Area



- Double parked cars
- Traffic conjunction
- Bad function of bus lines

The Reference/Present Scenario

- The axis is a **3 lane + 1 bus lane, one way** urban road.
- Current traffic situation in the axis will be simulated with the use of a microsimulation tool.
- Available historic and real time traffic data will be used.



Intervention No 1

- The **construction of a 2nd generation bus lane** along the 6,4 km axis of Ethnikis Antistaseos – Vasilisis Olgas- Vasileos Georgiou- Manoli Andronikou streets.

and

- The **overall environmental upgrade of the axis**

will be put forward and discussed with the local stakeholders.

- Use of a microsimulation tool and future traffic situation assessment.

Data Collection and Tools to Be Used

➤ **Microsimulation tool (i.e. AIMSUN, VISSIM, etc.)**

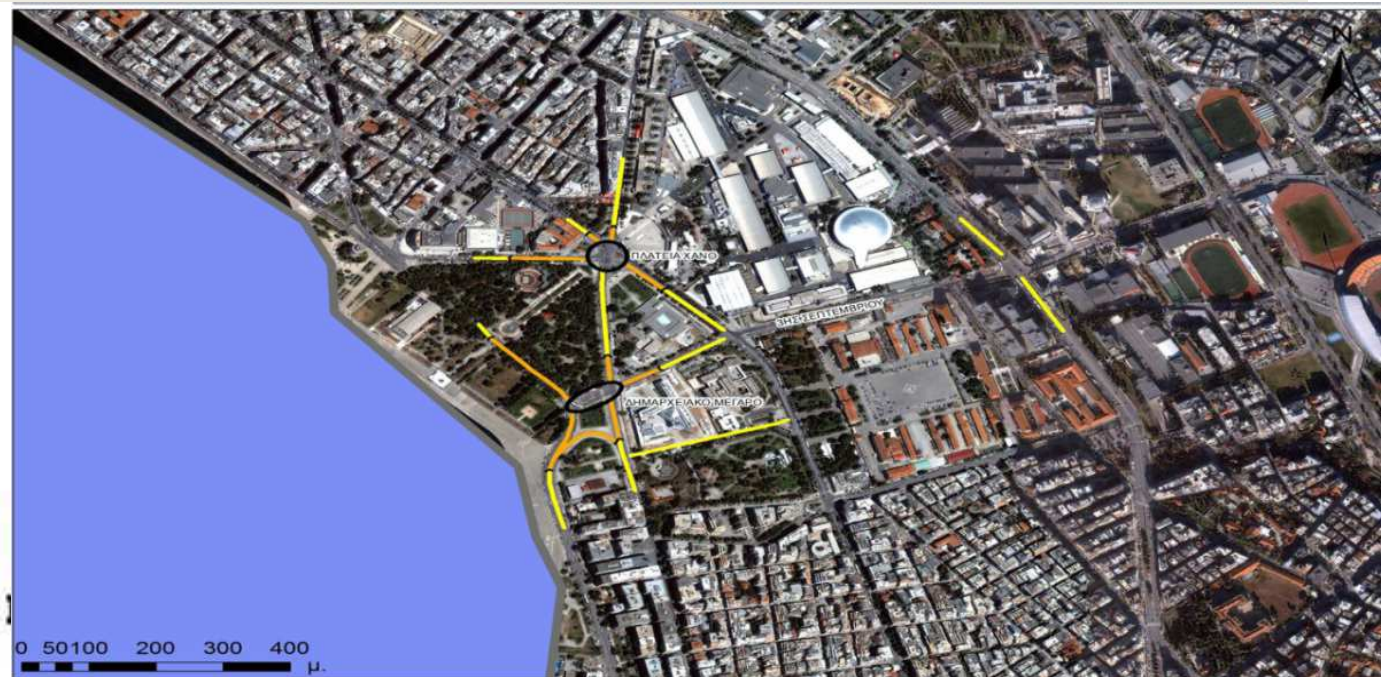
1. The following data will be used for the setup of the model:
 - ✓ **Road sections** (length, no. of lanes, width, direction, existence of bus lanes, max allowed speed, parking regulations, etc.)
 - ✓ **Road intersections** (geometry, movements and conflicts, existence of signalized intersections, etc.)
 - ✓ **Time schedules of traffic lights** for the signalized intersections
 - ✓ **Location of bus stops**
 - ✓ **Bus lines along the axis** (stops and frequency)
 - ✓ **Taxi stops**
 - ✓ **Traffic data count** locations
 - ✓ **Fleet composition**
2. The road network will be loaded with in and out volumes at intersections or adequate O-D matrices and
3. The model will be calibrated with traffic volume, speed and travel time data.

Time plan: “Construction of a 2nd generation bus line”

0. Preliminary data	September 2017
1. Set up of the model + calibration with adequate traffic data	November 2017
2. Modulo proposals for the environmental upgrade of the axis with a 2nd generation bus lane	December 2017
3. Consultation-Selection of the best scenarios	March 2018
4. Simulation of the selected scenarios and impact assessment	May 2018
5. Assessment with the use of IMT	July 2018

Intervention No. 2

- Preliminary study for solving the traffic problems in the area where the city center starts
- Proposed for the wider area of Vas. Olgas- Vas. Georgiou-Man. Andronikou streets that will unify **a public space** between the city museum, the City Hall and the sea-front. (September 2017)



Intervention No. 2

- The **scenarios formulation for the possible technical solutions** that will be addressed/proposed for solving the traffic problems and a **cost / benefit analysis** for the proposed solutions will be provided.
- Lengths of ramps for entry and exit from the tunnel,
- Useful surface to be attributed to the city for use,
- The way in which the outputs of the technical part will be developed (partial or total undergrounding, comprehensive settlement of the traffic).

(Completion on December 2017-January 2018)

Any Critical Points/Warnings:

- The environmental assessment of current and future situation (AUTH).
- The consultation with the local community in order to select the best scenarios for environmental upgrade of the axis (MDAT).
- Citizens positive attitude to the interventions.
- Cooperation between the various stakeholders that will be involved or affected.

Thank you for your attention!