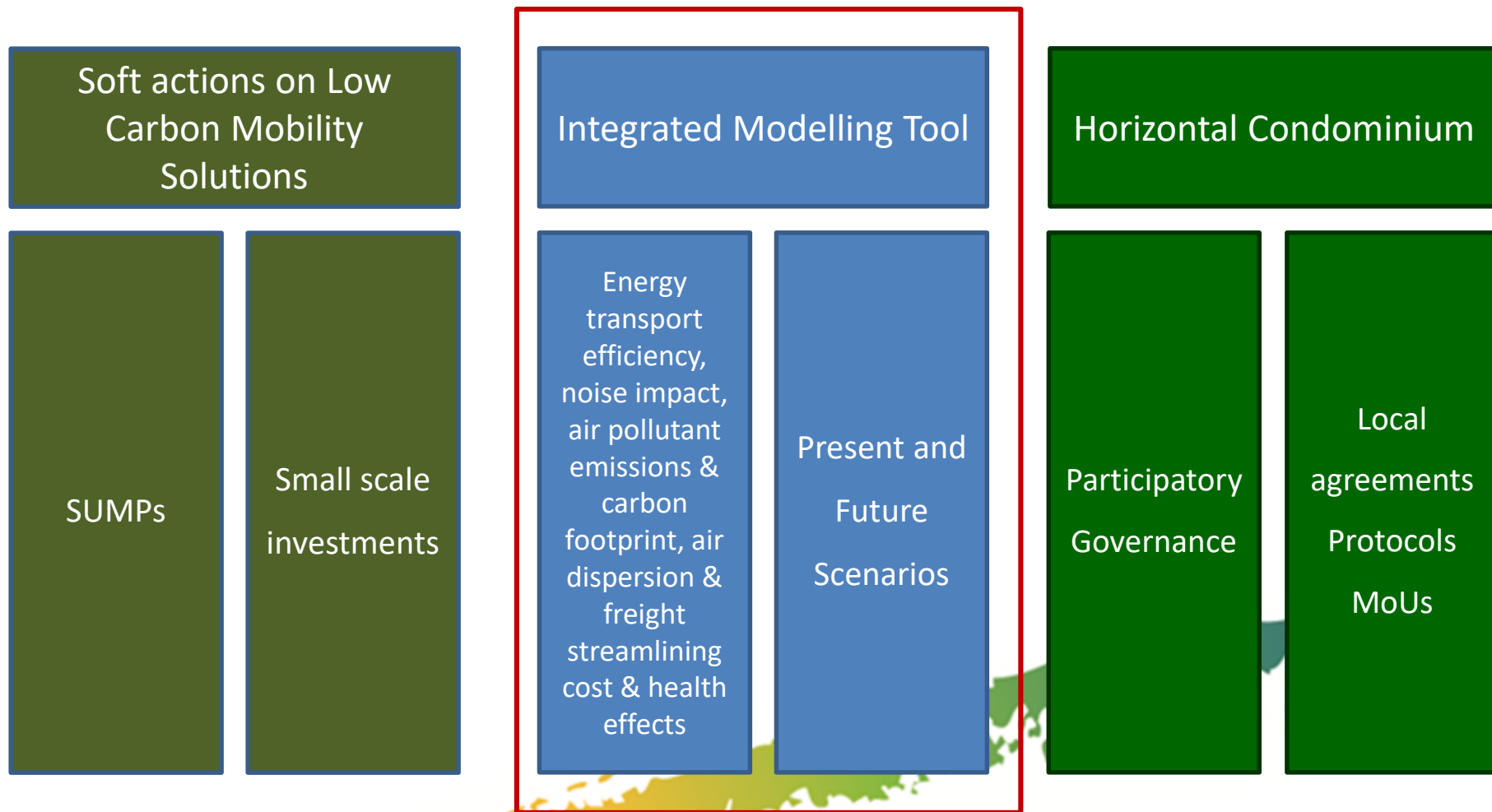


Session 1: Low Carbon Transport Modes / Services

Integrated Modeling Tool of REMEDI

Technical Partners: University of Seville, Aristotle University of Thessaloniki,
Instituto Superior Técnico, ARPA Veneto - Regional Agency for Environment
Protection in Veneto Region

REMEDIO Main Actions

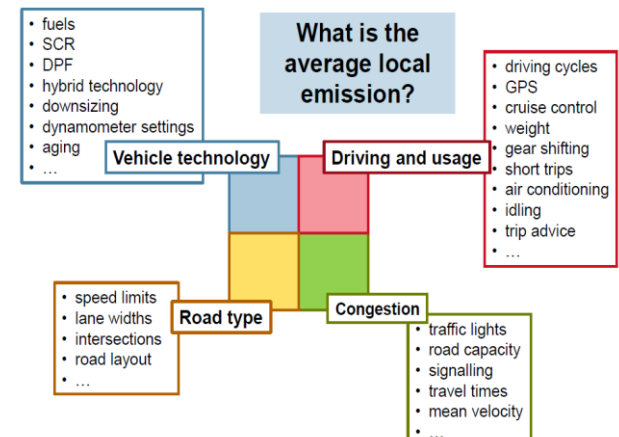


Integrated Modelling Tool (IMT)

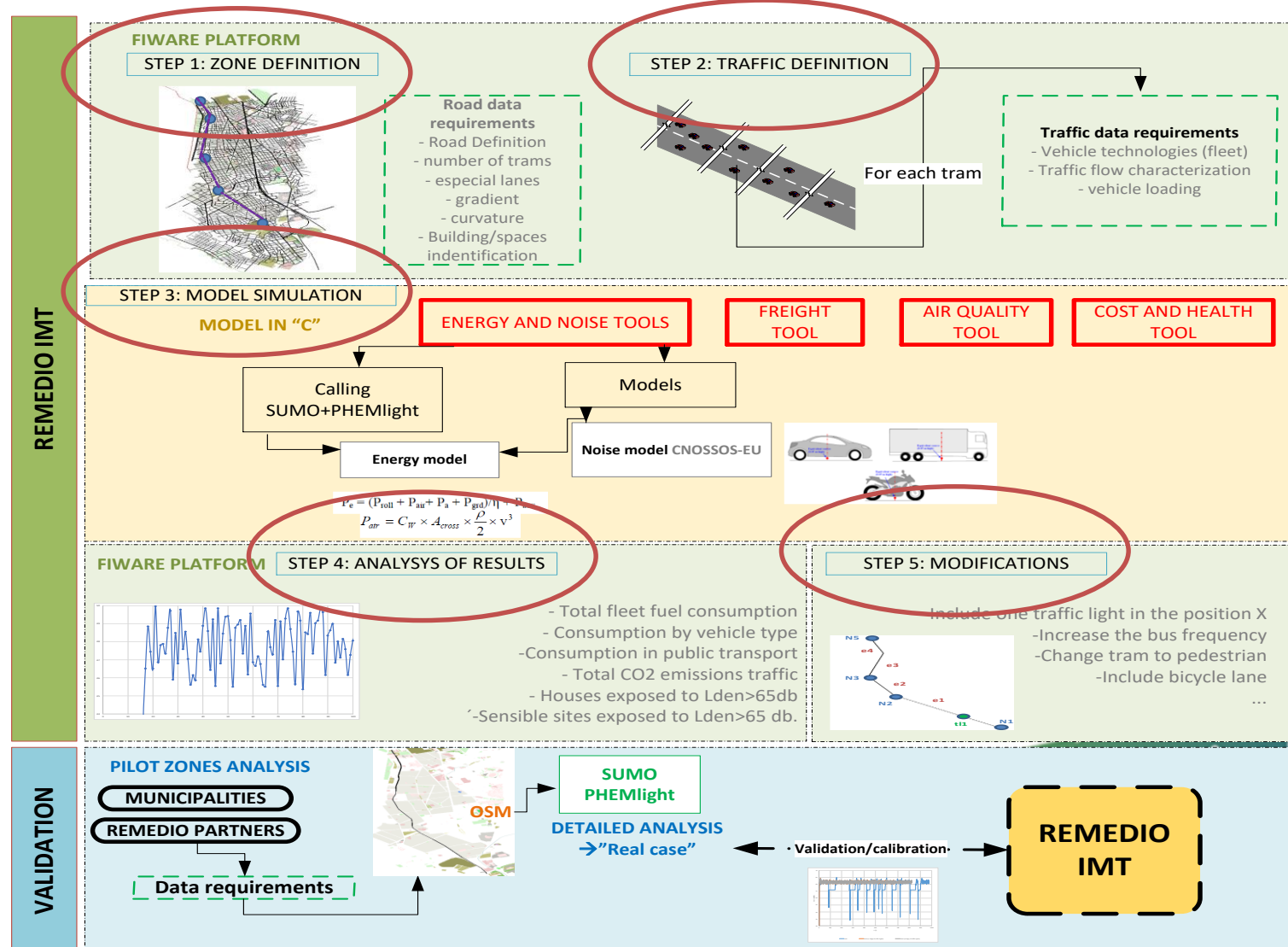
Customized modelling tool to evaluate the transport, energy and environmental-related performance of low-carbon actions to be implemented.

- At local street level
- Includes models for tailpipe emissions, carbon footprint, dispersion, energy, noise, freight, cost and health
- Validated in selected roads participant regions (Treviso)
- Structure based on FIWARE platform

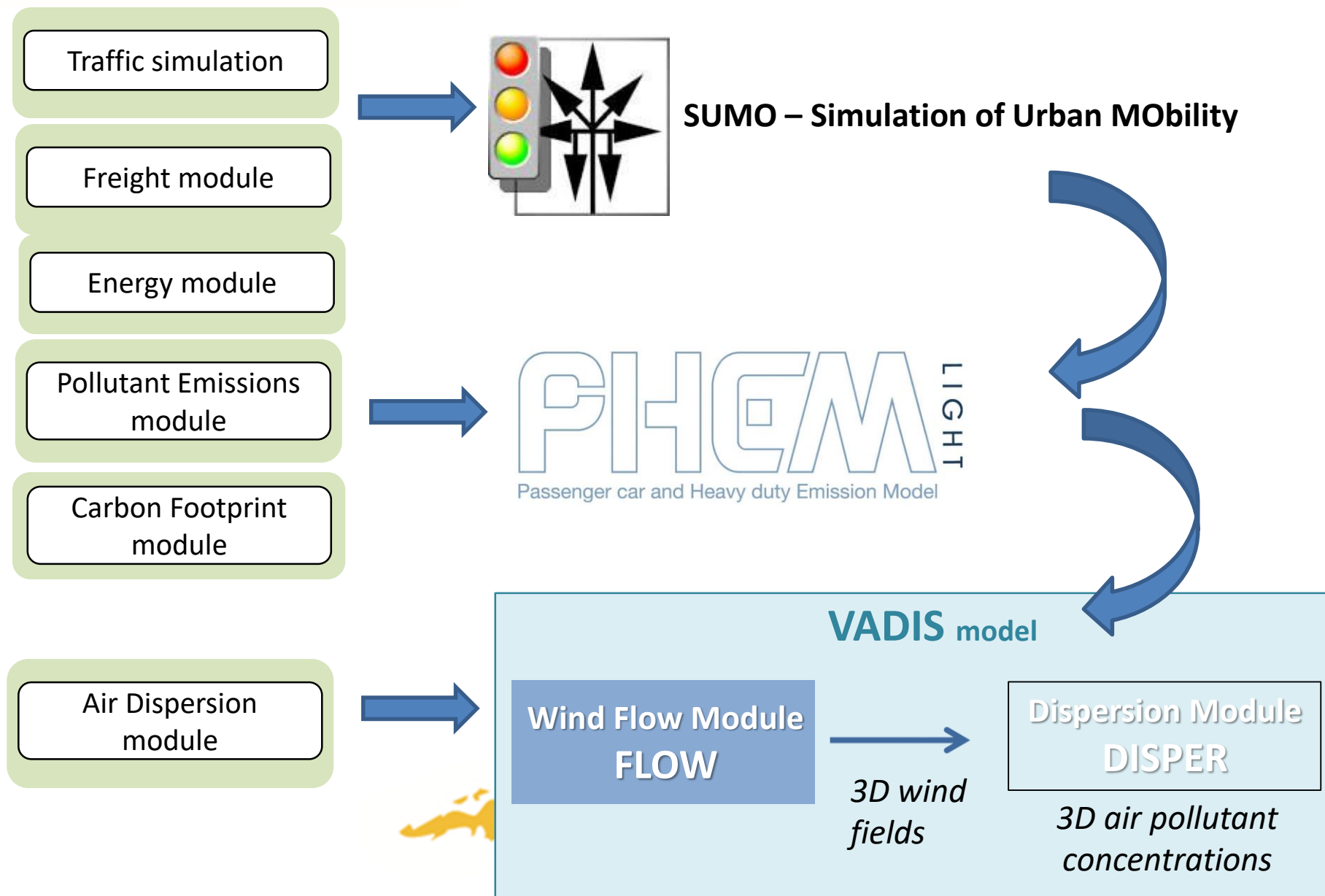
GETTING THE COMPLETE PICTURE



Conceptual Modelling Approach



IMT Modules



IMT Modules

SUMO

Noise module



CNOSSOS-EU: Common Noise Assessment Methods
in Europe

VADIS

Health module



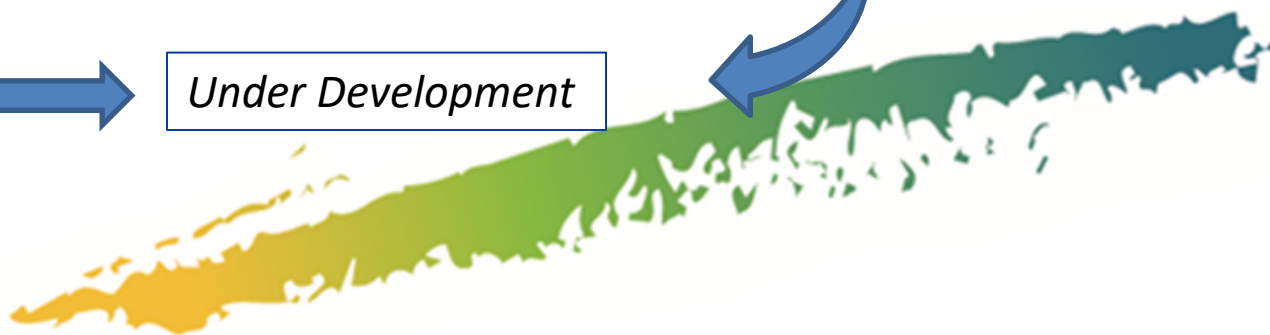
Generalized Additive Models (GAMs): Statistical
models to relate air pollution, temperature,
barometric pressure to health events (deaths,
hospitalization)



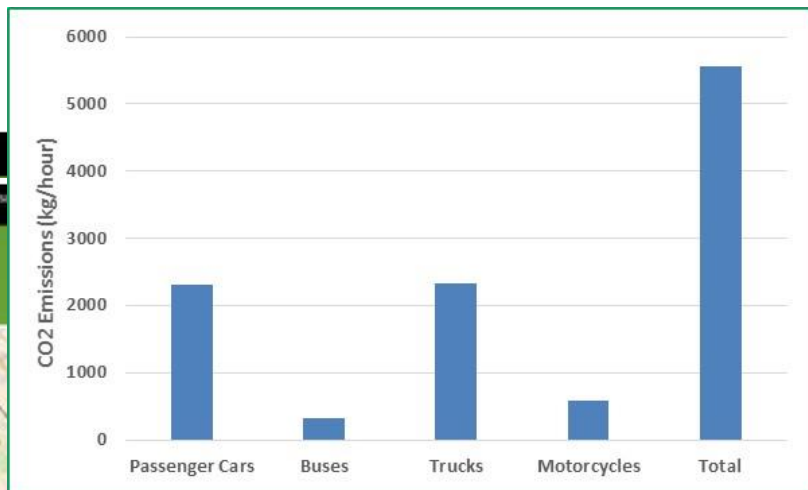
Cost module



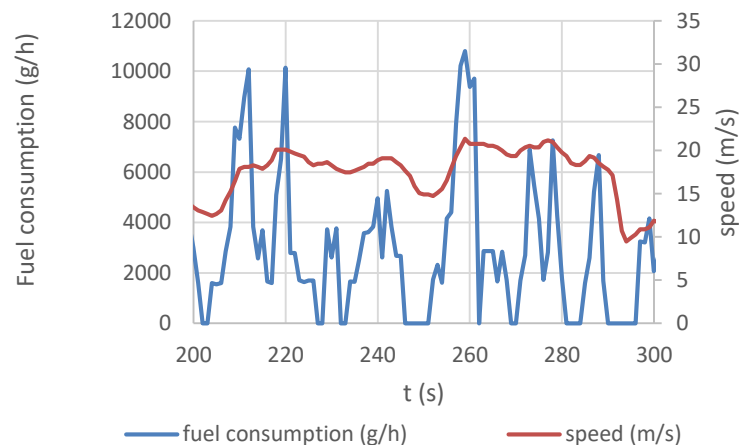
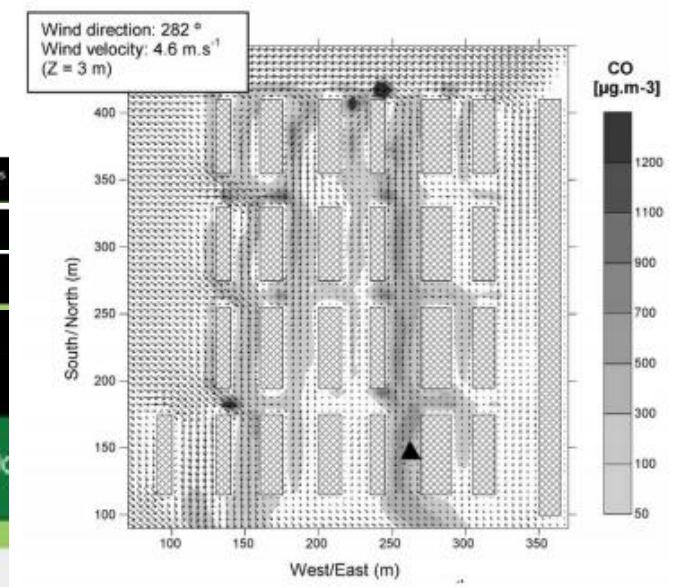
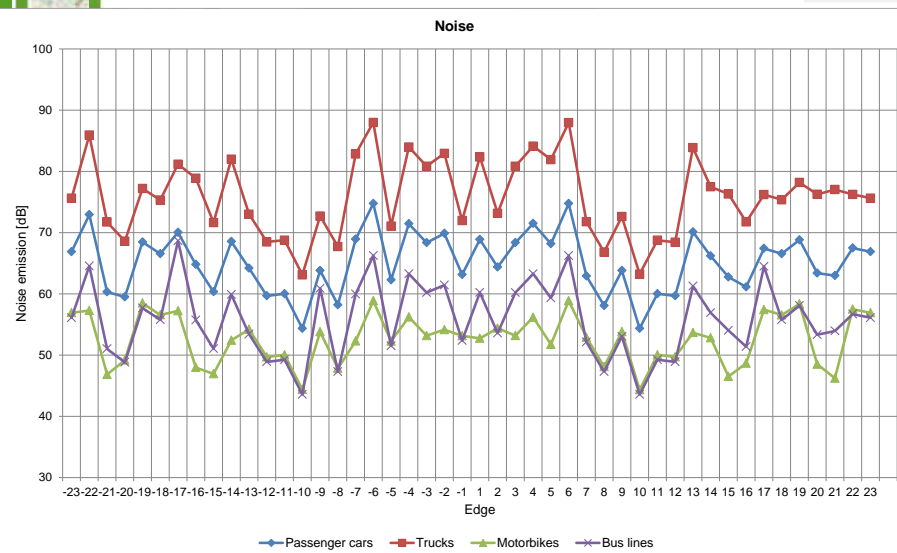
Under Development



Application of IMT- Results Presentation



Traffic noise source emission per vehicle category



Application of IMT – Mobility Scenarios Building and Assessment

MODULE DEVELOPER LEVEL

MODULES DEVELOPED IN LINUX TO
BE INTEGRATED IN THE PLATFORM

SUMO
TRAFFIC MODEL RESULTS
AVAILABLE FOR MODULE
DEVELOPERS IN .xml FILE

Traffic Definition
with SUMO

IMT USER LEVEL

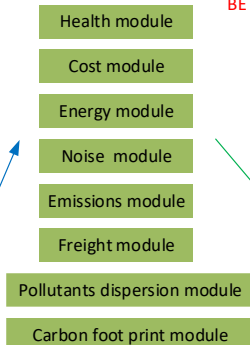
DATA INPUT

1



IMT PLATFORM (FIWARE)

2

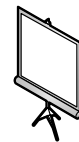


3

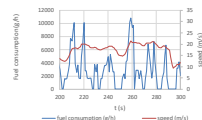
MODULES RESULTS

RESULTS
ANALYSIS

4



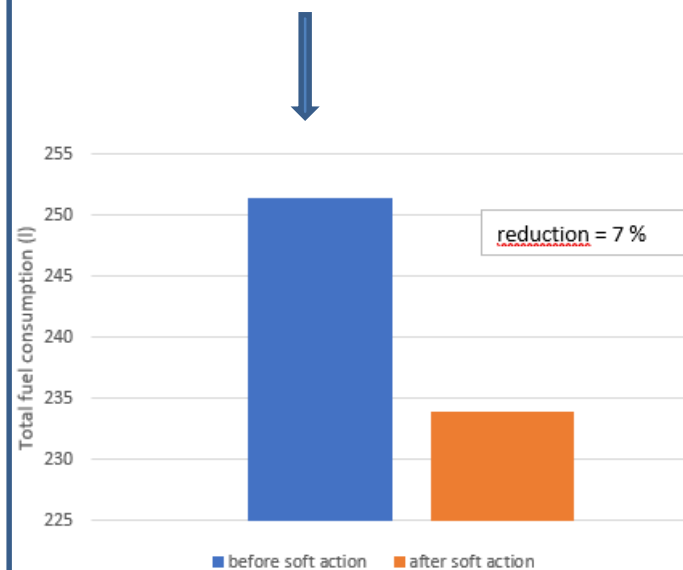
IMT PLATFORM (FIWARE)



✓ Steps 1 to 4 for:

- Baseline traffic conditions
- Traffic conditions after mobility actions.

✓ Estimation of indicator values changes



By all REMEDIO partners



ARPA Veneto



Instituto
Superior
Tecnico



Municipality
of Loures



City of Split



Metropolitan
Development
Agency of
Thessaloniki
S.A



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