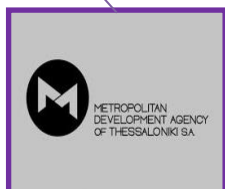
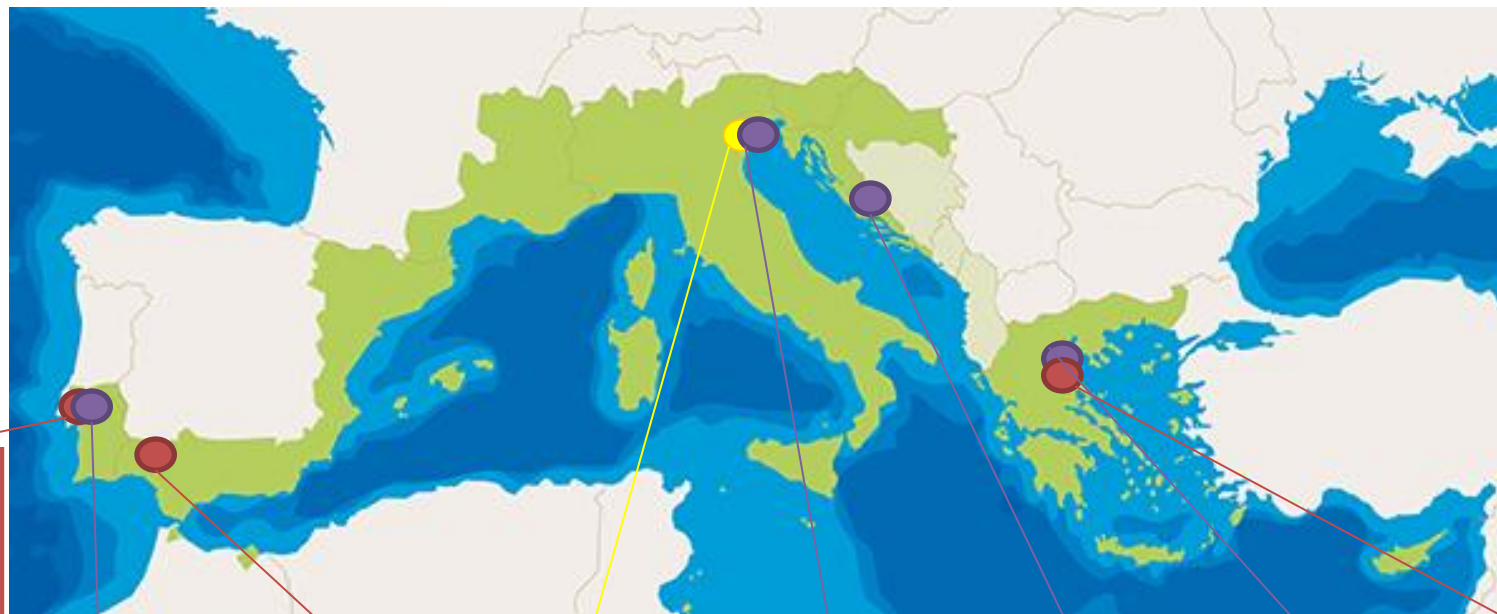


# REMEDI: REgenerating mixed-use MED urban communities congested by traffic through Innovative low carbon mobility solutions

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# REMEDIO partners



- Coordinator
- Scientific Partners
- Territorial Partners

**REMEDIIO** works in high density areas characterized by congested roads.

For such congested roads, REMEDIIO proposes to transform them into “horizontal condominiums”, forms of participatory governance that actively engage institutions, stakeholders and citizens and with which the Municipality can directly interact to improve multi-modal and low carbon mobility, freight logistic and environmental quality.



## REMEDIO specific objectives

1. **Improvement of the environmental and mobility performance in traffic hot spots**, through the adoption of low-carbon mobility scenarios
2. Development **low-carbon mobility plans** focused on **urban hot spots** characterized by traffic congestion in MED cities
3. Create innovative models of **participatory governance** to foster the implementation process of low-carbon mobility plans



# REMEDIO Main Actions

Integrated Modelling Tool

Low Carbon  
Mobility  
Solutions

Present and  
Future  
Scenarios



# REMEDIO Main Actions

Integrated Modelling Tool

Horizontal Condominium

Low Carbon  
Mobility  
Solutions

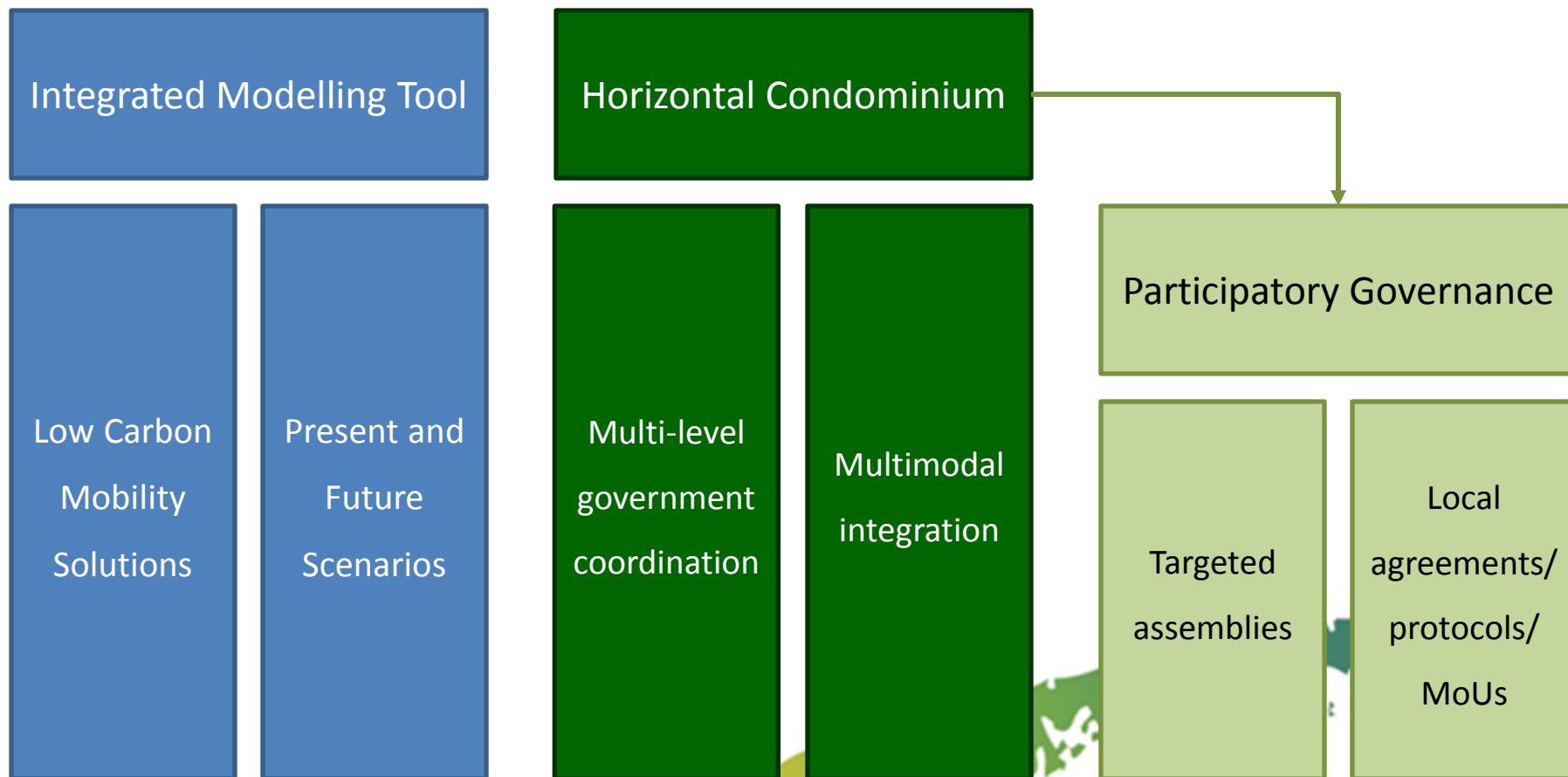
Present and  
Future  
Scenarios

Multi-level  
government  
coordination

Multimodal  
integration



# REMEDIO Main Actions



# Integrated Modelling Tool

REMEDIO IMT

VALIDATION

## FIWARE PLATFORM

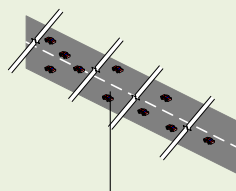
### STEP 1: ZONE DEFINITION



**Road data requirements**

- Road Definition
- number of trams
- especial lanes
- gradient
- curvature
- Building/spaces identification

### STEP 2: TRAFFIC DEFINITION



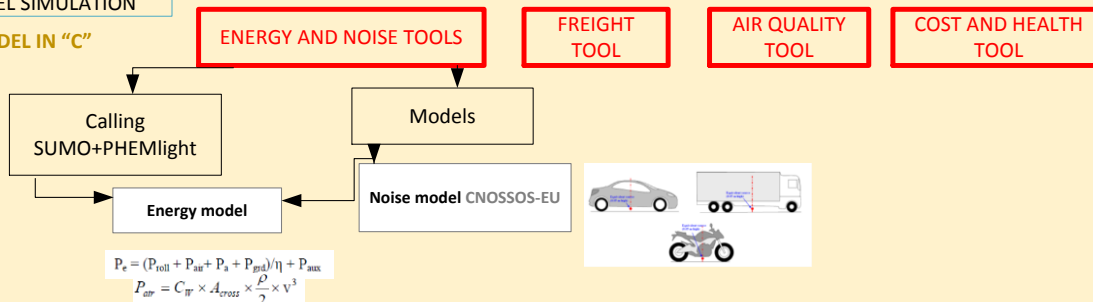
For each tram

**Traffic data requirements**

- Vehicle technologies (fleet)
- Traffic flow characterization
- vehicle loading

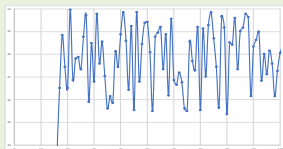
### STEP 3: MODEL SIMULATION

MODEL IN "C"



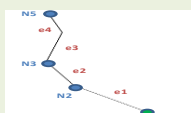
## FIWARE PLATFORM

### STEP 4: ANALYSIS OF RESULTS



- Total fleet fuel consumption
- Consumption by vehicle type
- Consumption in public transport
- Total CO2 emissions traffic
- Houses exposed to Lden>65db
- Sensible sites exposed to Lden>65 db.

### STEP 5: MODIFICATIONS

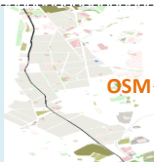


- Include one traffic light in the position X
- Increase the bus frequency
- Change tram to pedestrian
- Include bicycle lane

## PILOT ZONES ANALYSIS

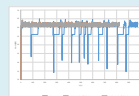
MUNICIPALITIES  
REMEDIO PARTNERS

Data requirements



SUMO  
PHEMlight  
DETAILED ANALYSIS  
→ "Real case"

Validation/calibration



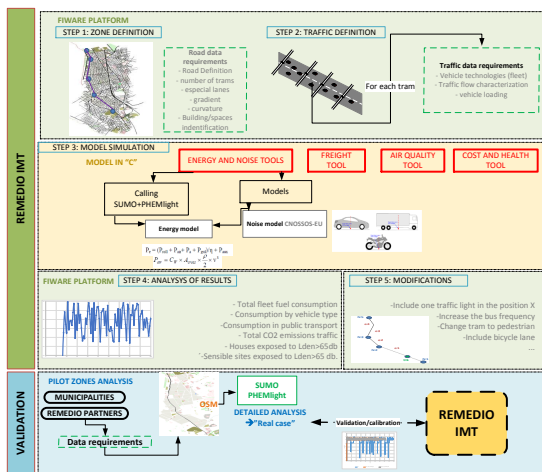
REMEDIO  
IMT



# Integrated Modelling Tool



Treviso



## TREVISO Bike Sharing

### Bike sharing project in REMEDIO:

9 stations

50 bikes

Users: citizens

Location: along the West Road – pilot area

Status: positions of stations and numbers of bikes identified,  
soon opening public procurement for implementation

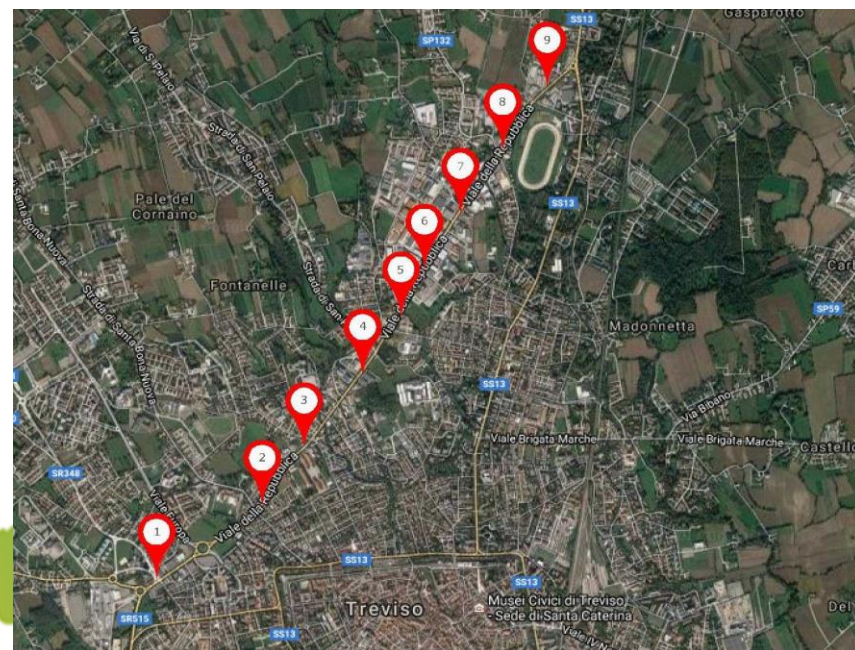
### Bike sharing today:

22 stations

120 bikes

Users: citizens

Located: mainly in the historical city center



**Thanks to REMEDIO**  
**Treviso = 20 bikes/ 10'000 inhabitants**

# Integrated Modelling Tool

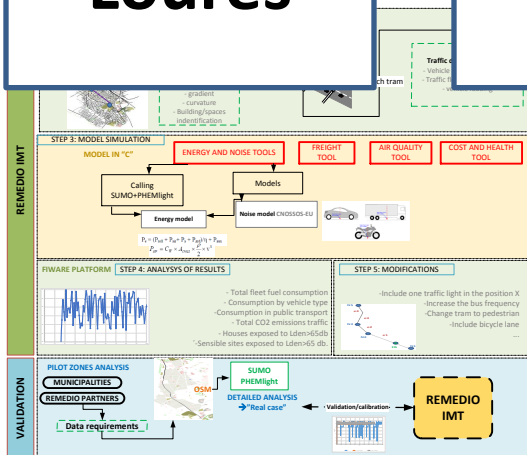


**Loures**

**Treviso**

**Split**

**Thessaloniki**

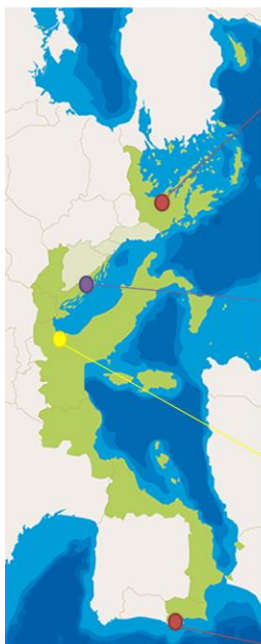


**REMEDIO Pilot-Areas**



# Integrated Modelling Tool

## REMEDIO Low Carbon Mobility Solutions



Thessaloniki

Split

Treviso

Loures

— Electric Bike Network

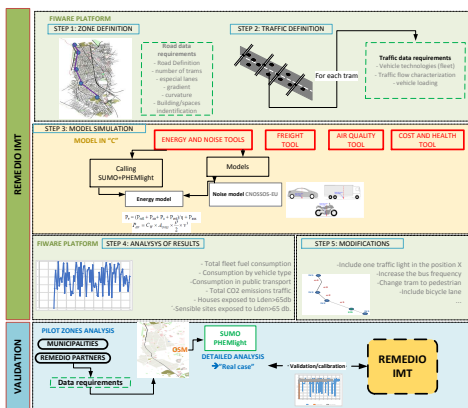
— Bicycle Parking Areas

— Bus Rapid Transit

— Green-taxiway

— Safety road infrastructure for bus stops

— Multi-modal public transport optimization



Create a set of scenarios on their present  
and future mobility and environmental  
settings.

## Split mixed e-bike Sharing



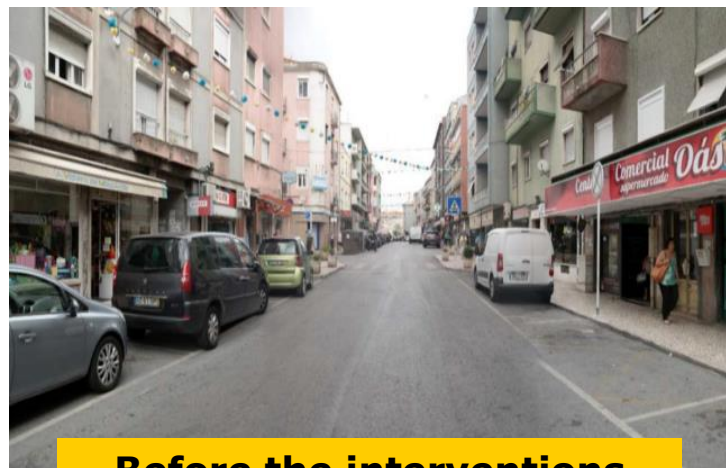
Split is facing highly congested urban roads in summer season, but also during the year, especially in some specific spots in the wider old city centre.



**Status:** Public procurement soon to be open.  
The optimal configuration of the network (number of stations, bikes, positions, typology) are to be identified by the expertise of an analyst



# Loures urban renewal



**Before the interventions**



**During the interventions**

## Interventions:

- enlargement of sidewalks
- cycle paths
- bike parking
- one lane traffic
- velocity limit 30 km/h

## Status:

- Most of the structural works already concluded



**Expected results**

## Thessaloniki 2<sup>nd</sup> generation Bus Lane

### Road axis today:

- Bad function of bus lines
- Illegally parked cars

**Users:** Residents and Commuters

**Located:** East horizontal axis of Thessaloniki

Ethn. Antistaseos-Vas. Olgas-  
Vas. George-Man. Andronikou

6.36Km



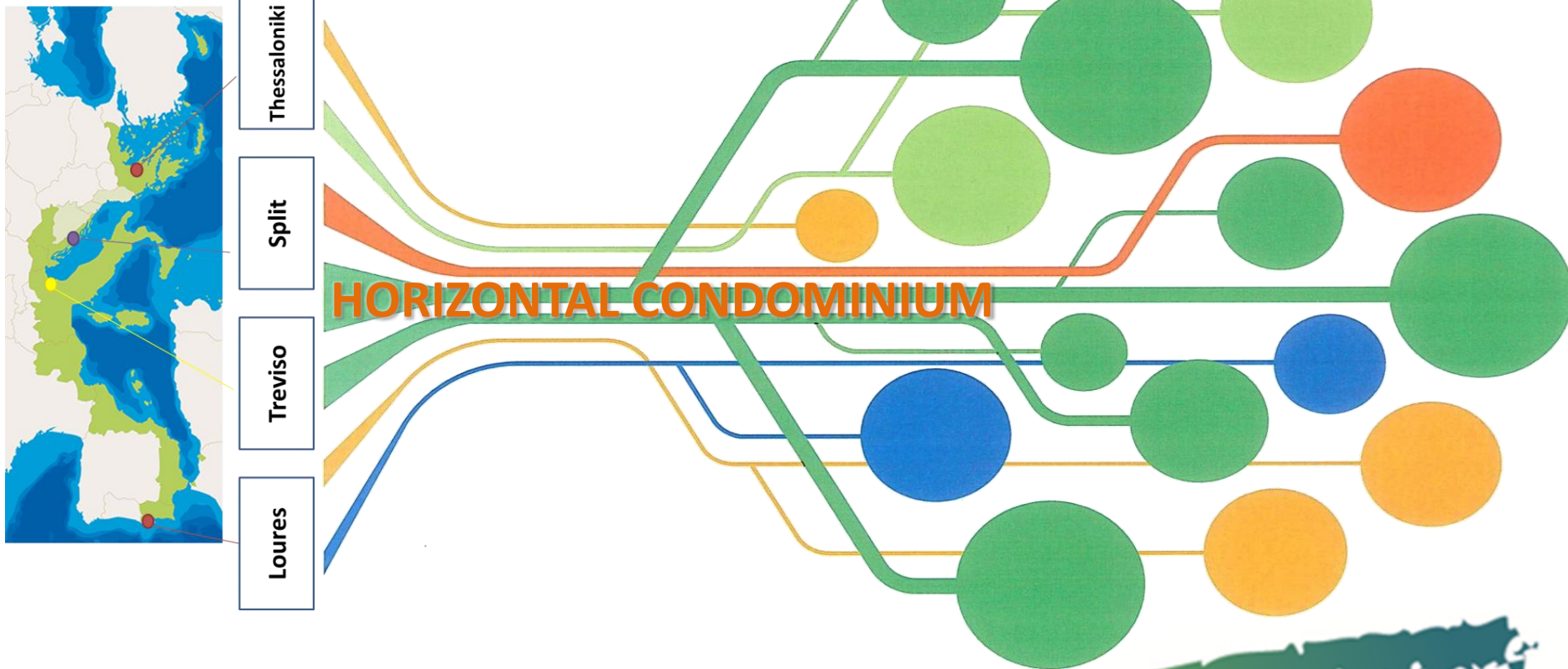
**Status:** Under assessment for preparation

**Users:** Residents and Commuters

- ✓ Modulo proposals for the environmental upgrade of the road axis with a 2nd generation bus lane
- ✓ Consultation with the local stakeholders - Selection of the best scenarios
- ✓ Simulation of the selected scenarios and impact assessment



# Horizontal Condominium



## WHAT?

- Multi-level government coordination, coordination among local stakeholders, and regulator-operator coordination.

## HOW?

- Multimodal integration: PARTNERSHIP or MoU



## Participatory Governance

**Transferring of know-how among different solutions of participatory governance appointed in each pilot-area.**

- Targeted assemblies involving policy makers, technical expert and the partners of the project to mainstream project results and deliverables with the view to foster the participatory governance approach and to facilitate decision process.

**CATMED Cities**

**CIVITAS**

**European Mobility  
Week**

**????**

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**CATMED Cities**

**CIVITAS**

**European Mobility  
Week**

**????**

- CATMED Seminar in Seville: May 2017
- CATMED Seminar in Split: Nov 2017
- CATMED Seminar in Thessaloniki: May 2018
- CATMED Seminar in Treviso: March 2019

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CATMED Cities

CIVITAS

European Mobility  
Week

????

- Awareness Campaigns in:
  - Loures
  - Split
  - Thessaloniki

## Participatory Governance

### Participatory governance for urban mobility solutions:

- Local agreements/protocols/MoUs between the **critical actors** will be promoted to contribute in medium term **concrete actions for innovative low carbon mobility solutions** to alleviate in a cost effective way the traffic congested roads so as to improve the environmental balance in the Mediterranean cities and to serve better the everyday life of citizens and the commercial and financial development of the city.

**Freight  
Companies**

**Commercial  
Companies**

**Public Transport  
Companies**

**Local Enterprises**

**Residential  
Commissions**

**???**

 Agenzia Regionale per la Prevenzione e Protezione Ambientale del Veneto	Agenzia Regionale per la Prevenzione e Protezione Ambientale del Veneto		Municipality of Treviso
	Instituto Superior Técnico		Metropolitan Development of Agency of Thessaloniki, S.A.
	Universidade de Sevilla		City of Split
 Aristotle University of Thessaloniki	Aristotle University of Thessaloniki		Municipality of Loures





# Thank you



/remediomed



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