

The REMEDIO project

**Regenerated mixed-use
MED urban communities
congested
through innovative low
carbon Mobility solutions**



Anthi Tsakiropoulou

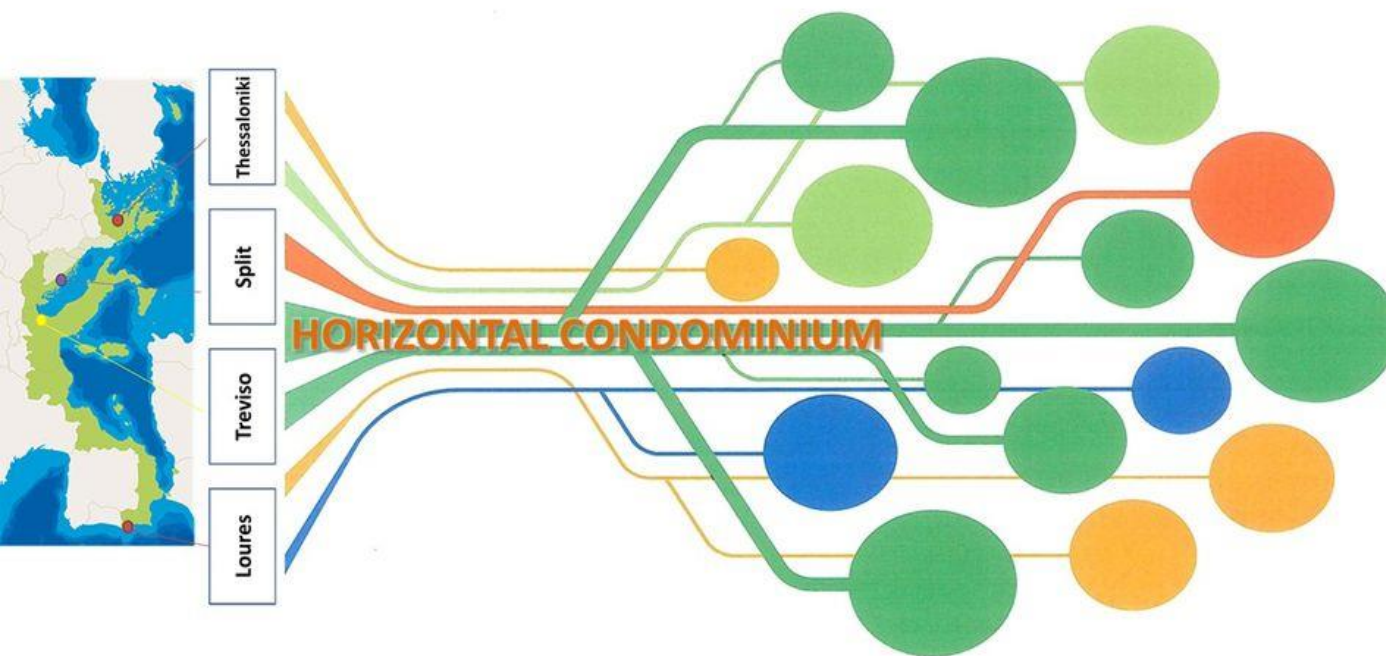
Major Development Agency Thessaloniki S.A.

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REMEDIO REgenerating mixed-use MED urban communities congested by traffic through Innovative low carbon mobility sOlutions



Would you like to live in a Horizontal Condominium?

In a Horizontal Condominium citizens, local public authorities, small and larger business enterprises, providers of public transport...



all together participate for a common goal:

**a better quality of life in high
congested roads**

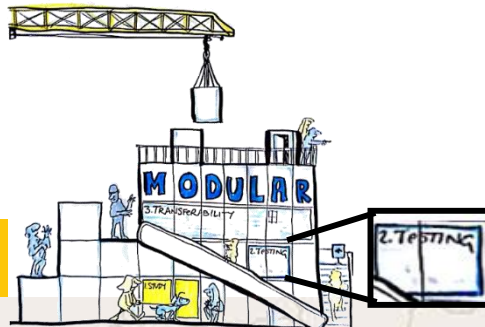
how?

by solution for the logistic processes of freight and services

by choosing cycling and public transport for small and medium urban journeys

by an urban renewal toward a more sustainable city





REMEDIO: a testing project



Loures

158 km²
205'000
inhabitants

Treviso

56 km²
84'500
inhabitants

Scientific Support



Split

79 km²
179'000
inhabitants

Thessaloniki

1,455 km²
1,110,312
inhabitants

#1

GOVERNANCE PILLAR

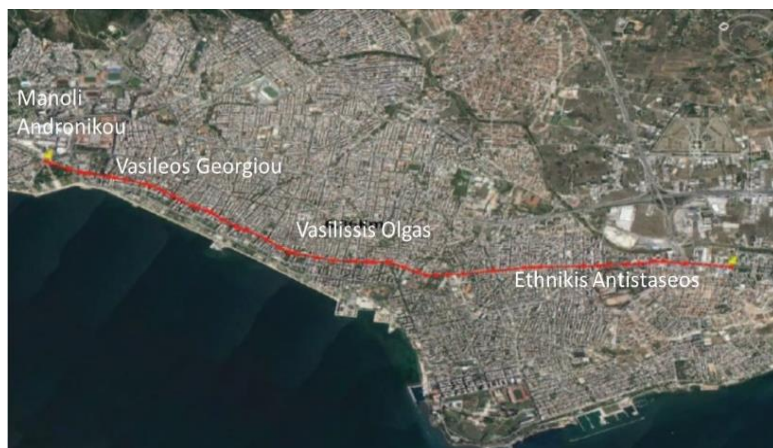
a new participative governance model for
roads of middle sized Mediterranean cities,
based on "horizontal condominium"

Strategy

Giving identity, visibility and
voice to urban communities
congested by traffic



Pilot area Thessaloniki, Greece



MAJOR
DEVELOPMENT
AGENCY
THESSALONIKI S.A.

**Major Development
Agency Thessaloniki S.A.**

&



ARISTOTLE
UNIVERSITY OF
THESSALONIKI

**Aristotle University of
Thessaloniki**

#2

HARD PILLAR

small scale investments as pilot measures
fostering urban low carbon transport

Type of intervention

Redesign/upgrade of an urban axis based on the
principles of SUMP with a high-participatory approach

Pilot area Thessaloniki, Greece



Type of intervention

Redesign/upgrade of an urban axis based on the principles of SUMP with a high-participatory approach

Pilot area Thessaloniki, Greece

Current situation of the axis Proposed redesign



Pilot area Thessaloniki, Greece

[illegible]

#3

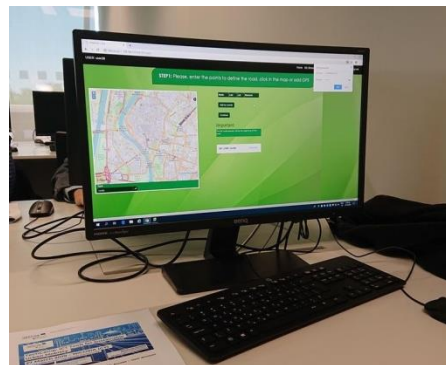
SOFT PILLAR

an Integrated Modelling Tool (IMT) to
evaluate low carbon mobility actions to be
implemented in highly congested roads

Strategy

Assessment of urban solutions for
congested roads

Integrated Modelling Tool (IMT)



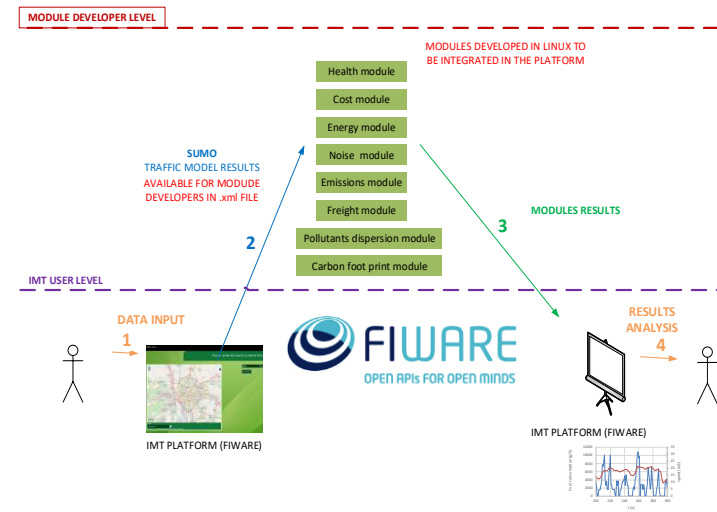
Integrated Modelling Tool #3 Soft Pillar

➔ Customized modelling tool to assess the environmental-related performance of low carbon mobility actions at local street level

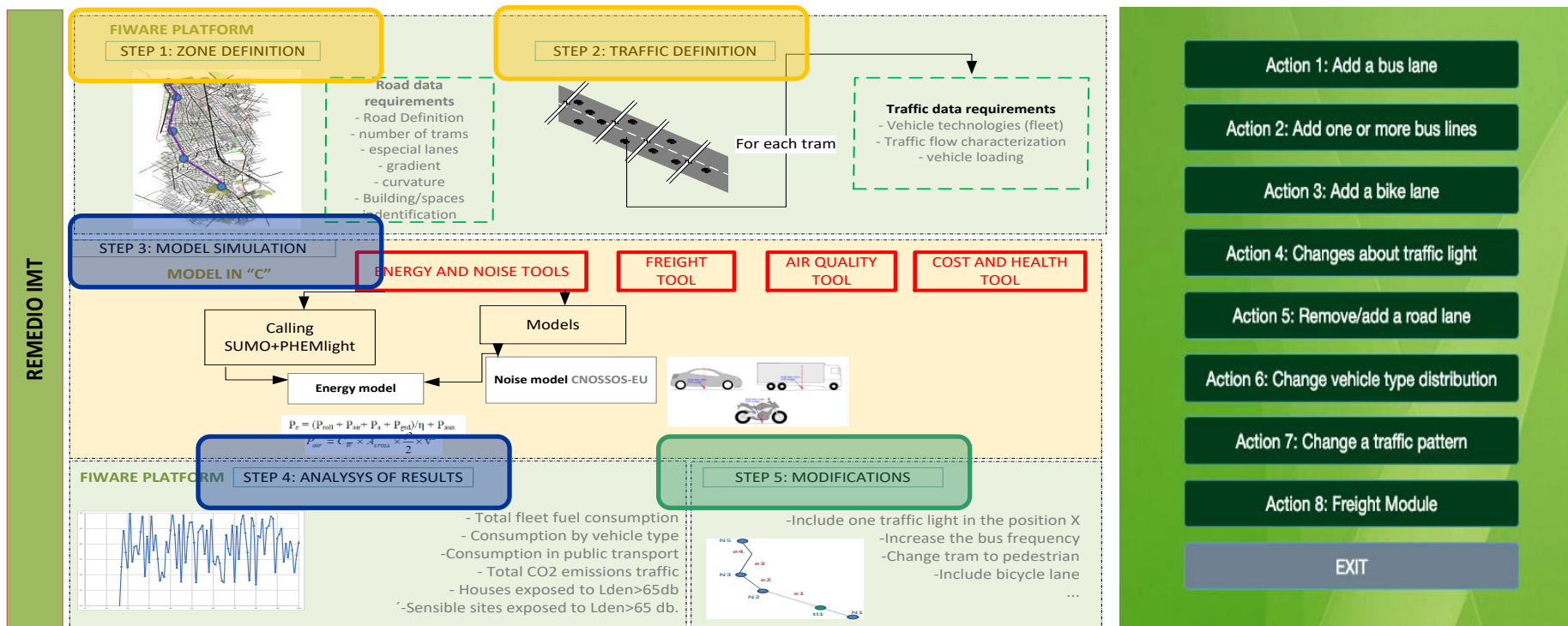
➔ A Decision Making Tool

➔ IMT integrates the following **Modules** for the estimation of traffic related impacts:

- Pollutant Emissions
- Carbon Footprint
- Atmospheric Dispersion
- Energy Consumption
- Traffic Noise
- Health Events and related Costs



Integrated Modelling Tool Conceptual Modelling Approach



Steps 1 and 2

- ❖ **Input data:** Road description, Traffic data, Buildings dimensions, Meteorology, Air quality data

Steps 3 and 4

- ❖ **Application of modules**
- ❖ **Output data:** Raw data, Graphs, Maps
- ❖ **Data analysis**

Step 5

- ❖ **Traffic scenarios building**

Integrated Modelling Tool Environmental Assessment of Mobility

**Actions in Thessaloniki: Redesign/upgrade of an
urban axis based on the principles of SUMP**

**-10% passenger cars
and motorcycles
traffic volume with
respect to the base
case**

Scenario

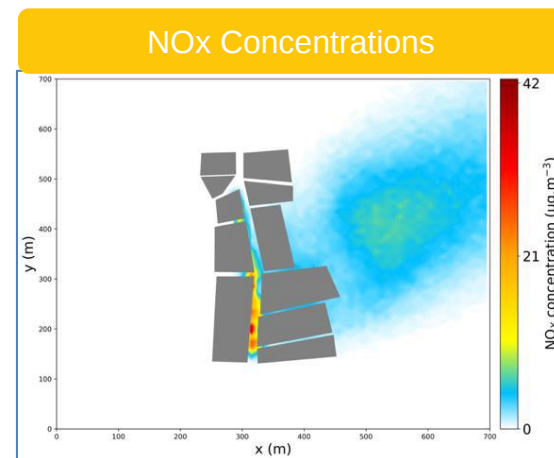
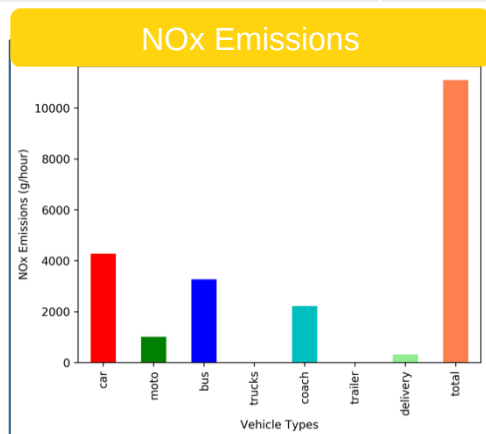
Integrated Modelling Tool Environmental Assessment of Mobility

Actions in Thessaloniki: Redesign/upgrade of an urban axis based on the principles of SUMP Impacts on Energy, Emissions, Air Quality

Environmental Variable	Reduction
Fuel Consumption	18%
CO ₂ , HC Emissions	18%
NO _x Emissions	10%
PM _x Emissions	15%

Pollutant	Max Concentration* Reduction
PM _x	12%
NO _x	9%

**spatially unpaired*



Integrated Modelling Tool Environmental Assessment of Mobility

Actions in Thessaloniki: Redesign/upgrade of an urban axis based on the principles of SUMP

Impacts on Health and Related Costs



What if... daily concentrations of NO_2 , PM_{10} , $\text{PM}_{2.5}$ were reduced by 10% due to the implementation of measures to mitigate congestion?

- ❖ ~ **1.5% reduction** of the median of:
 - Mortality from Respiratory Causes

- ❖ ~ **0.5 % reduction** of the median of:
 - Hospitalization costs for Respiratory Causes
 - Hospitalization costs for Cardiac Causes

REMEDIO Take home message

Further steps From planning to implementation & Added value of the experience gained

1. Efforts for the proposal integration in the Thessaloniki SUMP



REMEDIO Take home message

Further steps
From planning to implementation
&
Added value of the experience gained

**2. MoUs for further
collaboration with**
**i. the involved relevant
authorities and**
ii. social actors



REMEDIO Take home message

Further steps
From planning to implementation
&
Added value of the experience gained

3. Investigation for financing of the further studies and the implementation

MINISTRY FOR DEVELOPMENT, COMPETITIVENESS,
INFRASTRUCTURE, TRANSPORT & NETWORKS

General Secretariat for Investment (NSRF)

ΠΕΡΙΦΕΡΕΙΑ ΚΕΝΤΡΙΚΗΣ ΜΑΚΕΔΟΝΙΑΣ
ΕΙΔΙΚΗ ΥΠΗΡΕΣΙΑ ΔΙΑΧΕΙΡΙΣΗΣ
Ε.Π. Περιφέρειας Κεντρικής Μακεδονίας

Αποτύπωση προτάσεων Φορέων Πολιτικής ενόψει του νέου
αναπτυξιακού σχεδιασμού της Περιφέρειας Κεντρικής Μακεδονίας για
την περίοδο 2021-2027

ΕΡΠΟ 2: Ολοκληρωμένος ανασχεδιασμός του Ανατολικού Οριζώντιου Άξονα της Θεσσαλονίκης: Οδοί Εθνικής Αντιστάσεως – Βασιλέως Όλγας – Βασιλέως Γεωργίου –
Μανόλη Ανδρόνικου και προώθηση λύσεων χαμηλού ανθρακικού αποτυπώματος

- Κυκλοφοριακές ρυθμίσεις με έμφαση στα ΜΜΜ, διευθέτηση σύγχρονης αποκλειστικής λωρίδας λεωφορείων, διευθέτηση στάθμευσης και ένταξη ποδηλατοδρόμου
- Ανάπλαση δημόσιου χώρου με αύξηση παρόδου αστικού πρασίνου, αναβάθμιση πεζοδρομίων και βελτίωση αστικού εξοπλισμού
- Σχεδιασμός ένταξης καινοτόμων τεχνολογιών (εφαρμογές και συστήματα ΤΠΕ) για ενημέρωση πολιτών, υποστήριξη οραλής ροής κυκλοφορίας και πρόληψη παραβατικότητας

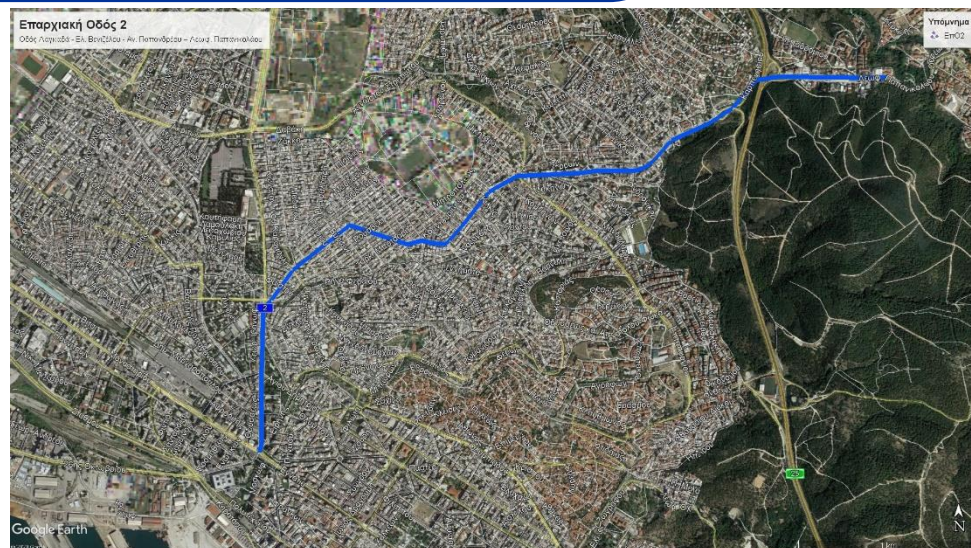
Ο ανασχεδιασμός του άξονα μελετήθηκε, σε στρατηγικό επίπεδο. Στόχος, στη βάση των αρχών του Σχεδιασμού Βιώσιμης Αστικής Κινητικότητας, ήταν η πρόταση επανασχεδιασμού του άξονα να αναδειχθεί μέσα από διαδικασίες ευρείας διαβούλευσης με φορείς και αρχές, άμεσα ή έμμεσα εμπλεκόμενους στη διαχείριση και λειτουργία του άξονα, καθώς και με το ευρύ κοινό, ώστε να επιλεγεί η λύση που θα έχει την ευρύτερη δυνατή αποδοχή.

Κοινός προανατολισμός με το ΣΒΑΚ Θεσσαλονίκης και ανάγκη ένταξης της πρότασης σε αυτό.

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Further steps
From planning to implementation
&
Added value of the experience gained

**4. Transfer of the gained
experience for the
redesign/upgrade of the axis
EPO2**



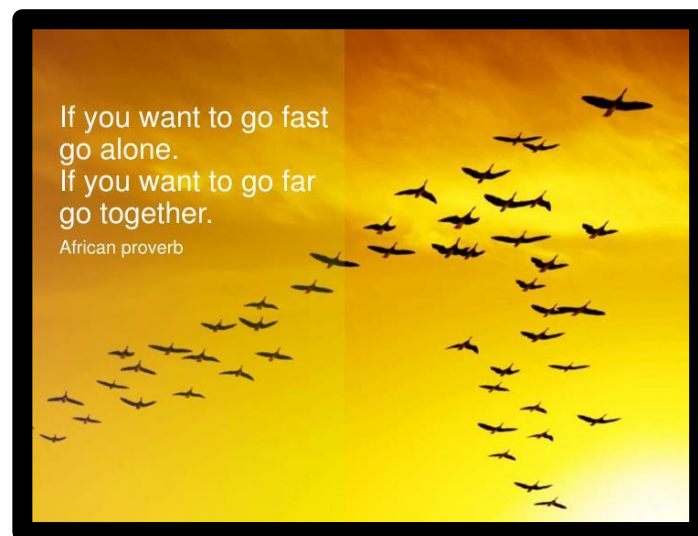
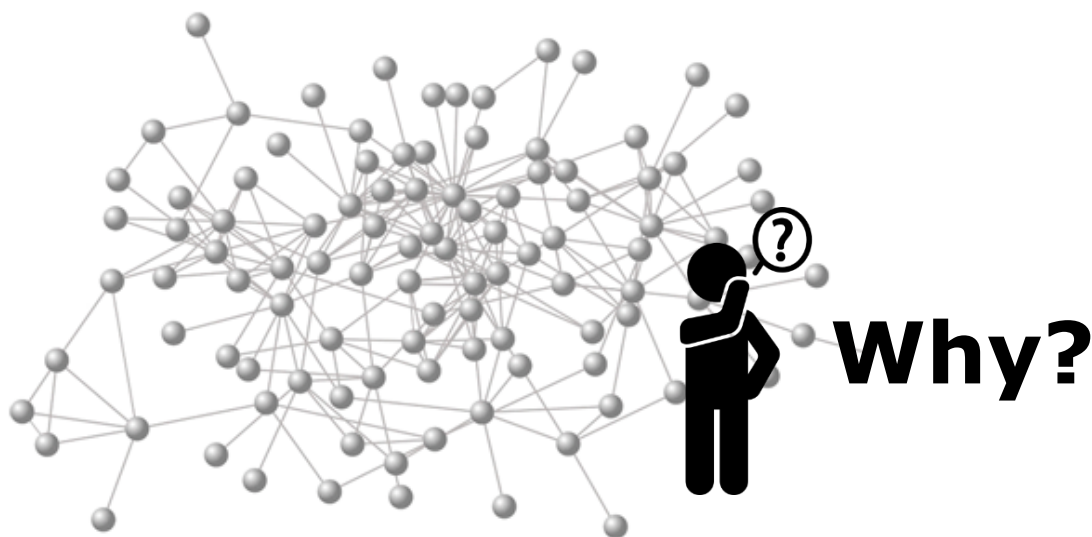
REMEDIO Take home message

A local human ecosystem of knowledge

Citizens, users, experts, stakeholders, organisations, local authorities

Collective intelligence and participatory actions

4P effect: Place – People – Participatory Policy



Thank you for your attention!



/remediomed



remedio.interreg-med.eu/



remedio-med@ctn.tecnico.ulisboa.pt

Territorial partners

- Municipality of Treviso
- Major Development Agency Thessaloniki S.A.
- City of Split
- Municipality of Loures

Scientific Institutions

- Environmental Agency of Veneto Region
- Aristotle University of Thessaloniki
- Instituto Superior Técnico of University of Lisbon
- University of Seville