



**CISMOB**  
Interreg Europe



European Union  
European Regional  
Development Fund

Interregional European Cooperation platform to promote sustainable transport through ICT – an overview of best practices

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(SoCiaL) Smart cities & Smart mobility towards improving quality of life & Well-being

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de aveiro



# CISMOB

## Interreg Europe



European Union  
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European Union  
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# SoCiaL Smart cities & Smart mobility towards improving quality of life & Well-being PETRA CONFERENCE



[www.interregeurope/cismob](http://www.interregeurope/cismob)

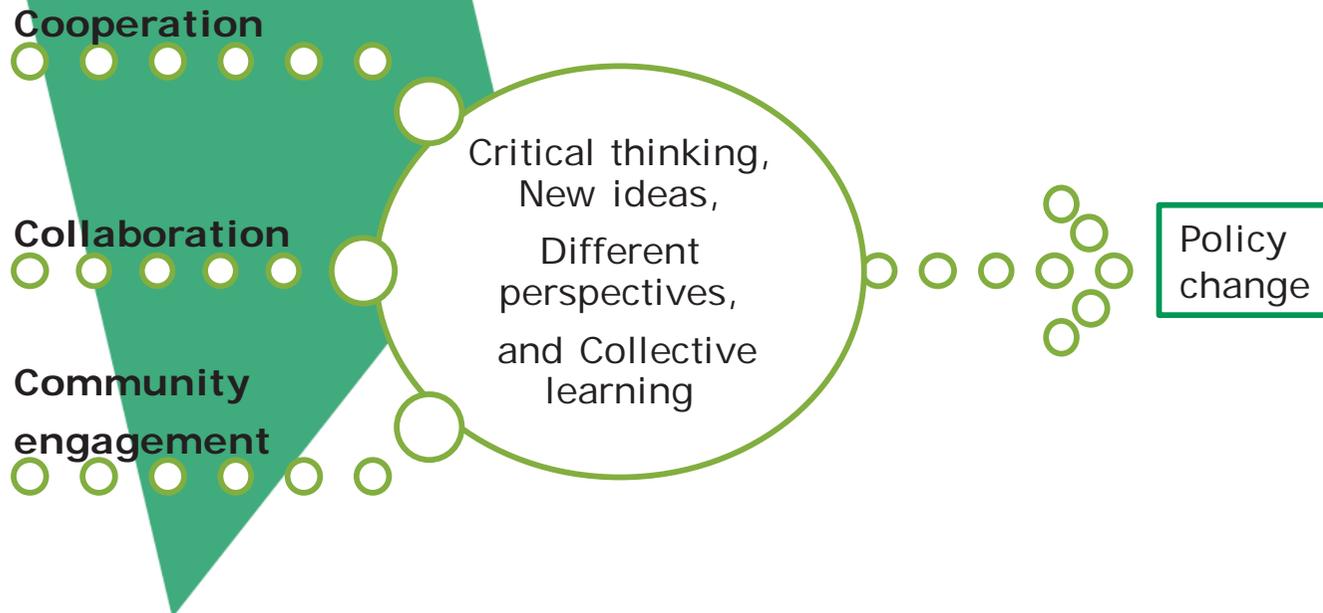


*Project smedia*

# What is Interreg Europe?

European program to help regional and local governments across Europe to develop and deliver better policy.

To ensure that government investment, innovation and implementation efforts leads to integrated and sustainable impact for people and place.



# Inter-regional co-operation

## Phase 1

Share experience

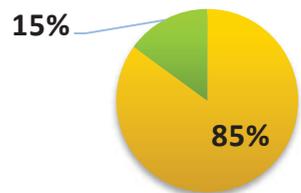
Set up- stakeholder group;  
Participate - Policy Learning Platforms;  
Action plan.

## Phase 2

monitor progress of the implementation

Pilot actions may be supported

### Co-finance



■ ERDF ■ National

Total Budget 1.04 M€

Phase 1: 1<sup>st</sup> April 2016 – 31<sup>st</sup> March 2018

Phase 2: 1<sup>st</sup> April 2018 – 31<sup>st</sup> March 2020

# Consortium

LP University of Aveiro (UA)

P2 Stockholm University (SU)

P3 City of Águeda (CA)

P4 Intelligent Transport Systems Romania (ITS-R)

P5 Bucharest Metropolitan Transport Authority (BMTA)

P6 Extremadura Energy Agency (AGENEX)

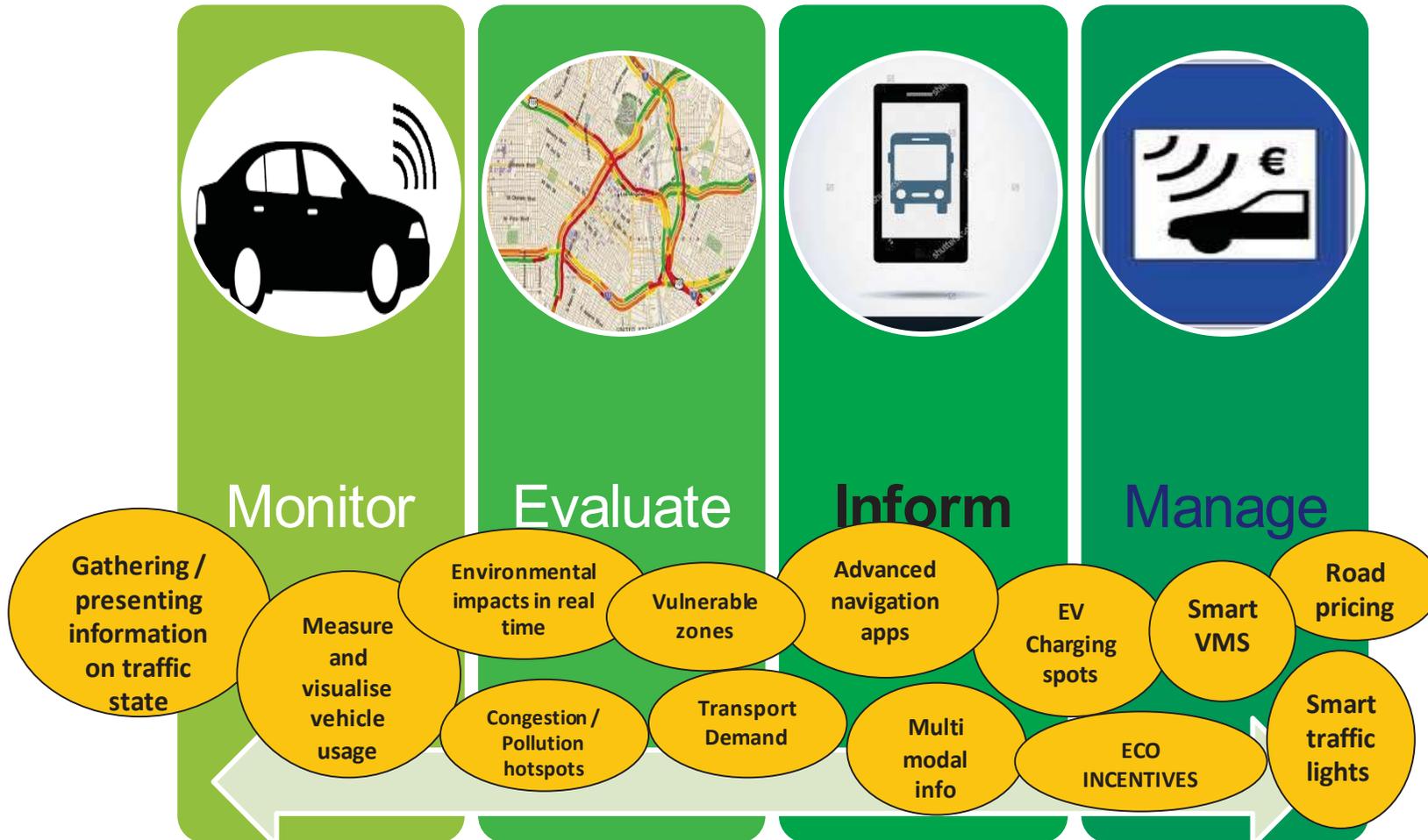


# *General statement of the problem*

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- ❑ Congestion costs Europe about 1% of GDP;
  - ❑ More than 2/3 of transport-related GHG are from road transport (still growing);
  - ❑ Emissions from vehicles are a main source of air pollution for human exposure;
  - ❑ Air pollution: Costs to society ~ 2% of the GDP;
  - ❑ External costs of noise (e.g. annoyance, health damage) > 0,35% of its GDP;
  - ❑ Liquid hydrocarbon fuels are expected to remain predominant over the next decades.
-

# Opportunity: ICT applications



# Main vision

- To promote innovative ways to reduce carbon footprint;
- To increase the sustainability by improving the efficiency in the use of urban transport infrastructure through ICT.



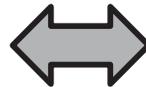
## Exchange of experience events

### 4 international main events

- 3 Thematic seminars
- 3 Building capacity workshops

6 partners × 2 semesters = 12 Staff  
Exchange program

3 regions × 1\* 4 semesters = 12 Local  
Stakeholder meetings



## Technical Documents

### 1 Baseline Assessment Report

3 regions × 3 semesters = 12 Technical  
papers

1 AGENDA entitled "ICT towards low  
carbon and sustainable mobility a multi-  
scale perspective"

5 Action plans ⇒ Policy  
changes



# Policy instruments



PI1: Programme for the Centro Region – **Centro** 2020



PI2: Sustainable Mobility Strategy for the Municipality of **Águeda**



PI3: **BMTA** policy and strategic aims

PI4: **Romania** Operational Programme (ROP)



PI5: Operational Program for ERDF of **Extremadura** 2020



# Stakeholder groups and objectives

Centro Region HEI and Technological Platforms

- Founding for new R&D projects,
- Mobility plans (big demand generator)

IT companies / startups

- Promoting R&D support and disseminate products (e.g smart transport apps)

Public Transport providers

- Promoting multimodal information, integrated ticketing systems

Environmental associations

- Ensuring Environmental Sustainability

Institutional, CCDRC, APA, IMT, Inter municipal associations

- Ensure consistency between regional objectives and national legislation

# Best practices GEO Database

Smart Transport - ICT applications

Open Platform to disseminate good practices of ICT in transport sector

9 views

All changes saved in Drive

Add layer Share Preview

- BOB CARD
- E-Ticket
- Oyster Card

Automatic Vehicle Location

Individual styles

- HeLMI
- SIMON
- BIAS
- Ibus
- Sitere
- AVL
- AVL

Electronic Fee Collection / Conges...

Individual styles

- Congestion Charging London
- Milan Area C - Congestion Ch...
- EPASS24

Smart Parking

Individual styles

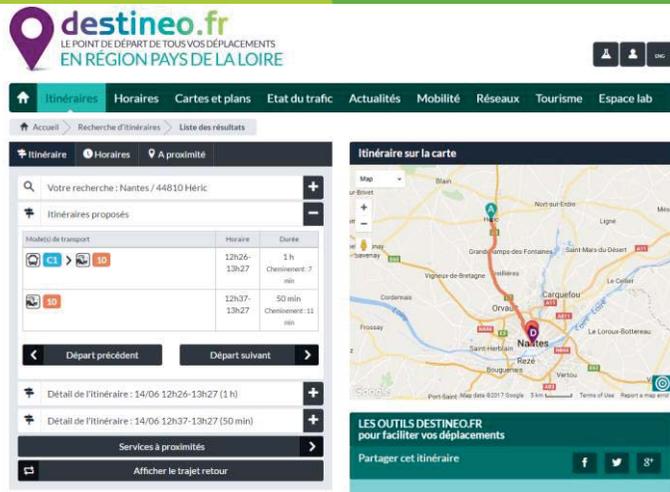
- SF PARK

Cooperative Vehicle Systems and ...

Individual styles

# Best practices

Contribution for transport sustainability



Pollution and city activity patterns monitoring

- Multimodal Journey Planners
- Smart ticketing
- Real-Time Passenger Information
- Automatic Vehicle Location
- Information systems for Bicycle Sharing Schemes

- In-Vehicle Information Systems and eco-routing systems
- Smart pricing / congestion Charging
- Smart Parking
- Traffic Signal Control
- Cooperative Vehicle Systems and automated vehicles

Increase PT use

Increase soft modes use

Better use of infrastructures (Best routes, Time departure, eco-driving)

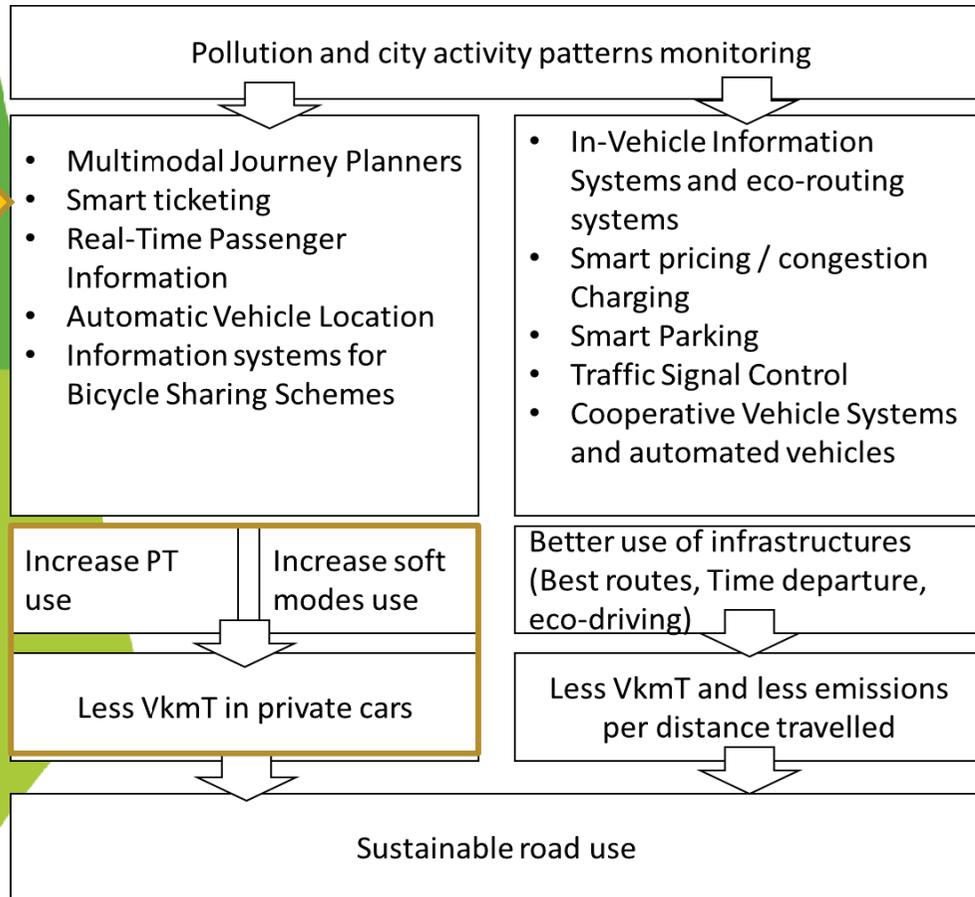
Less VkmT in private cars

Less VkmT and less emissions per distance travelled

Sustainable road use

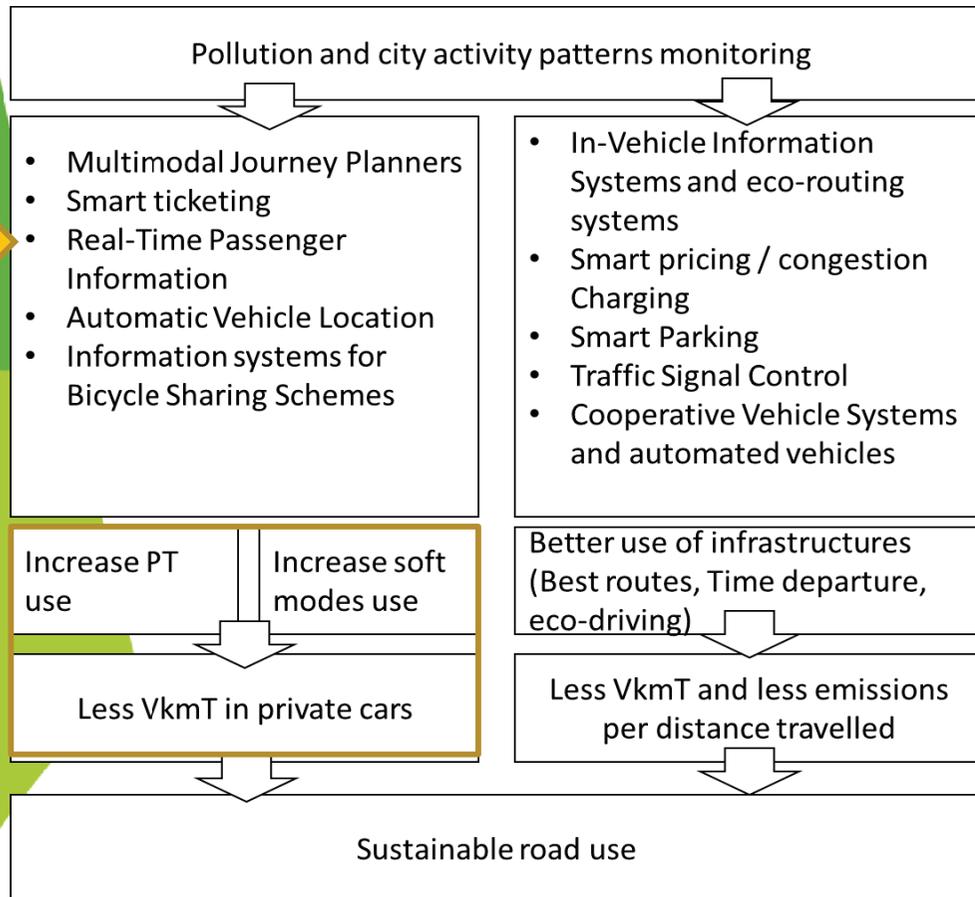
# Best practices

## SMART TICKETING



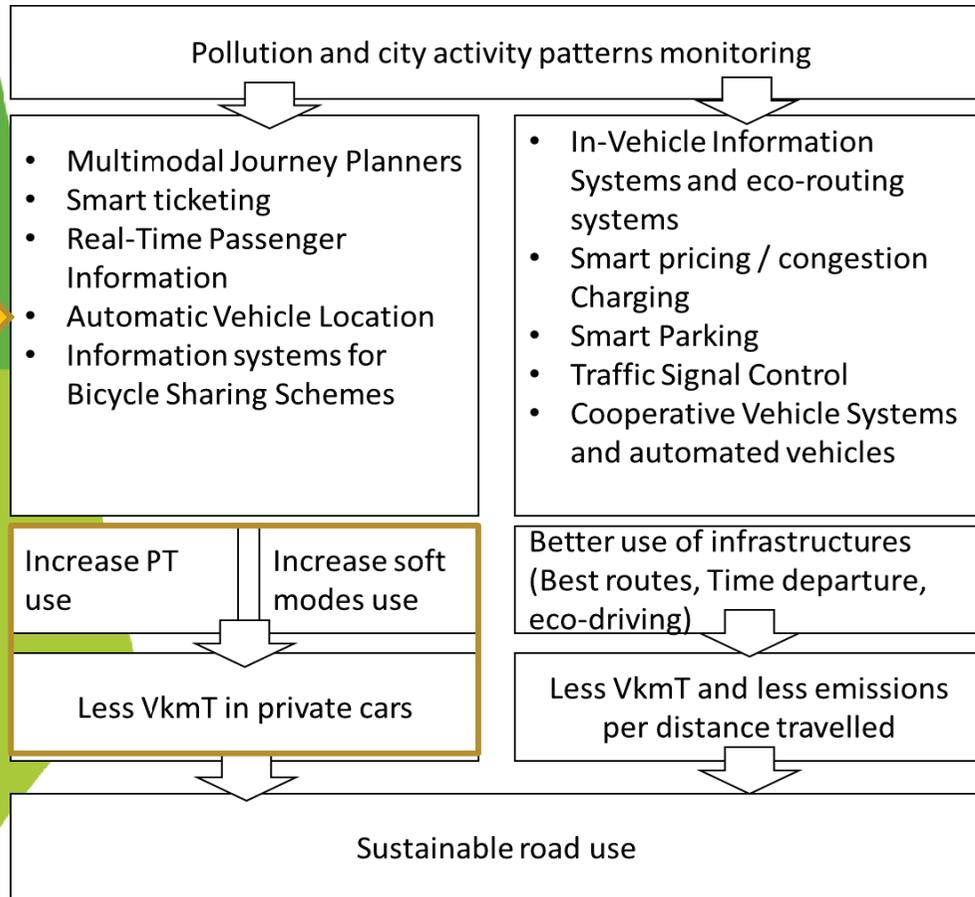
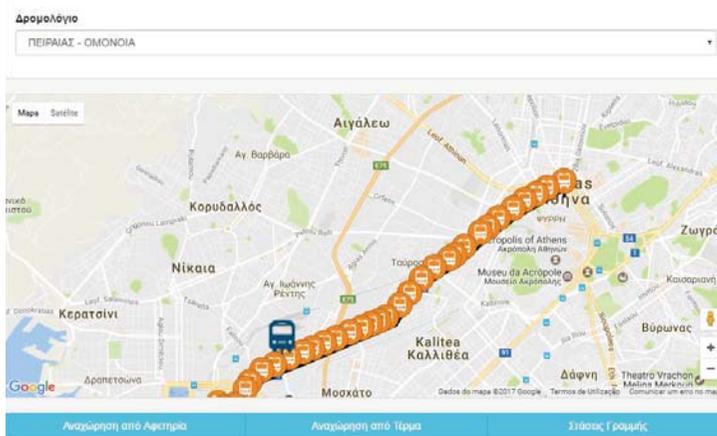
# Best practices

## Real Time Passenger Info



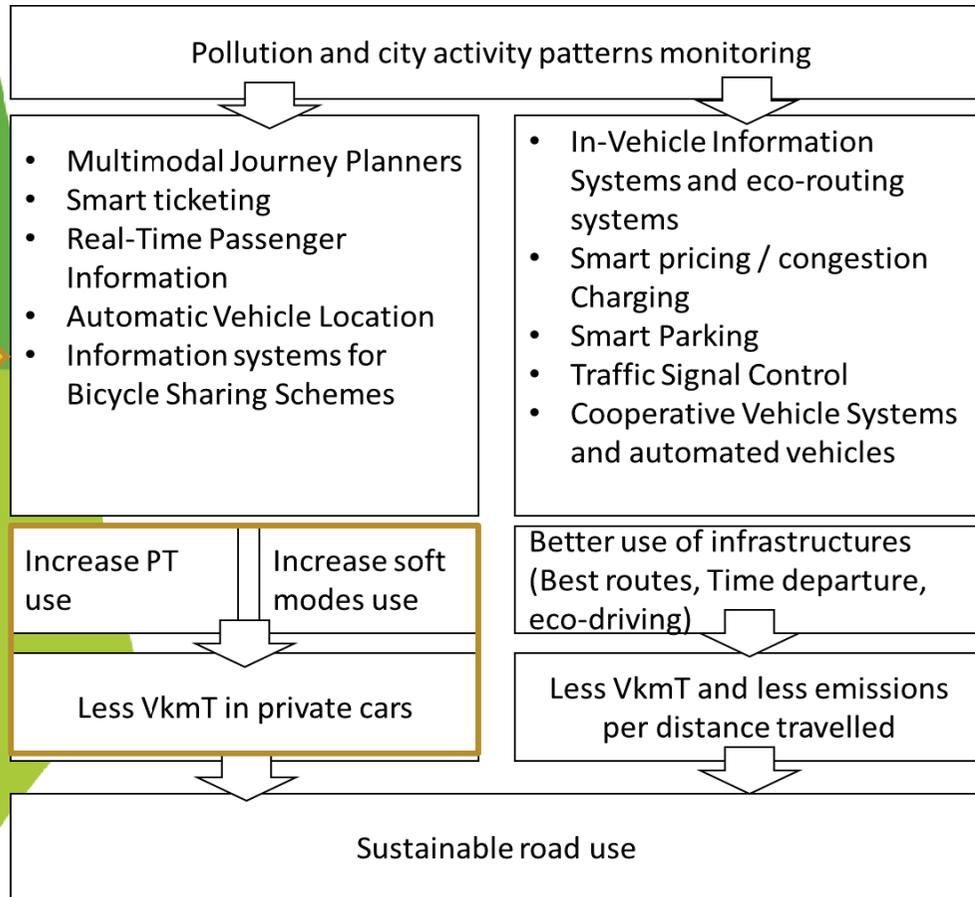
# Best practices

## Automatic Vehicle Location



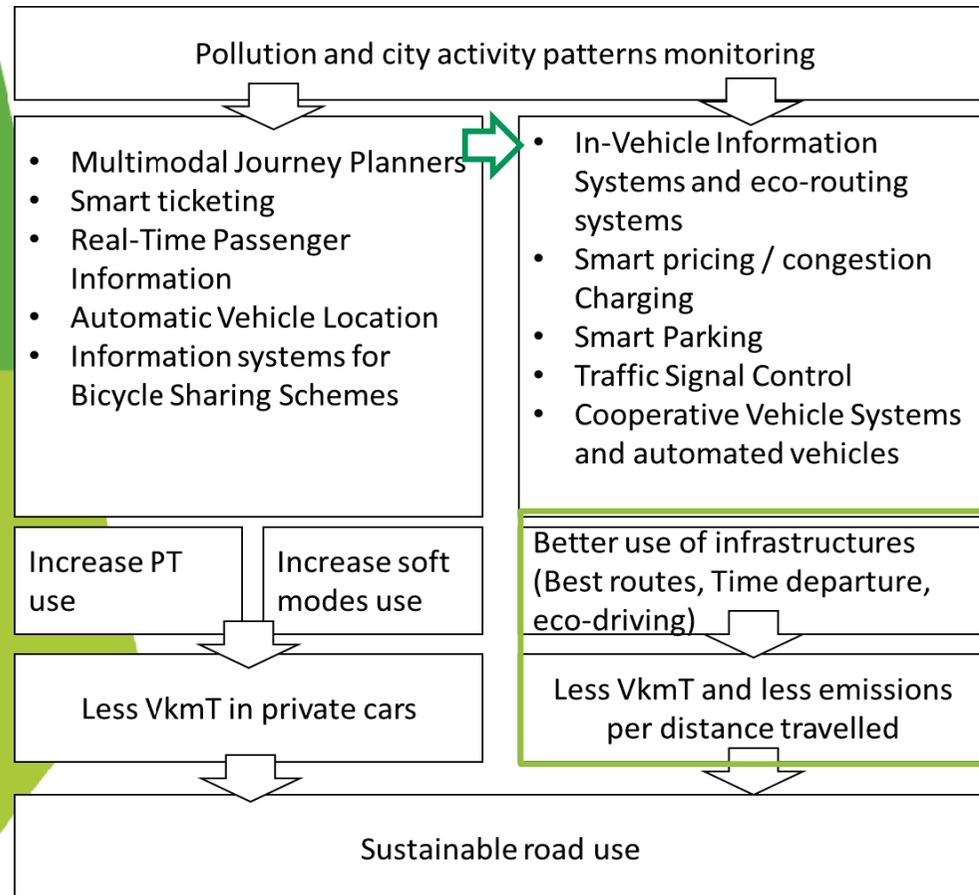
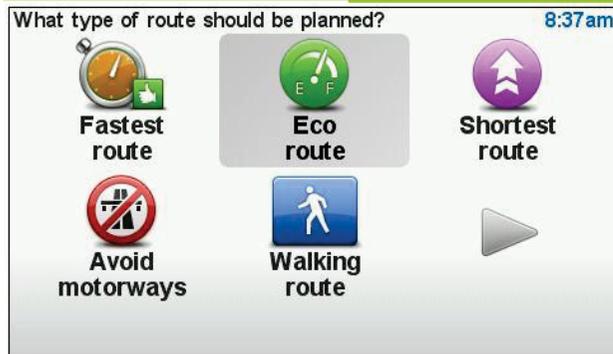
# Best practices

## Bicycle Sharing Schemes



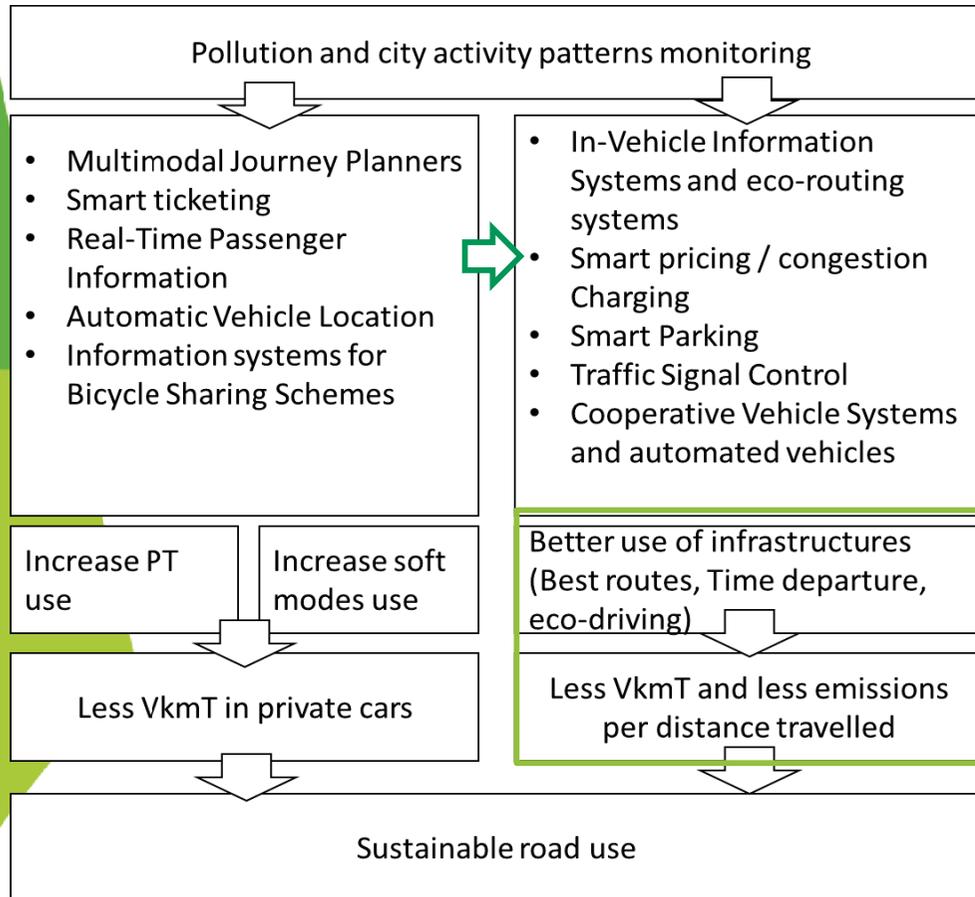
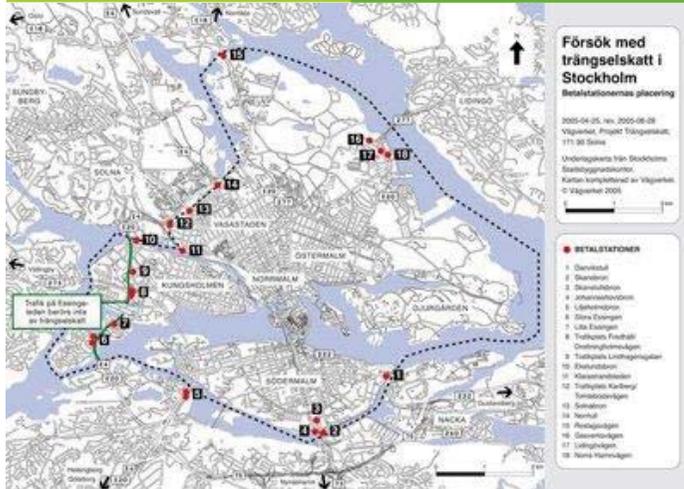
# Best practices

## In-Vehicle Information



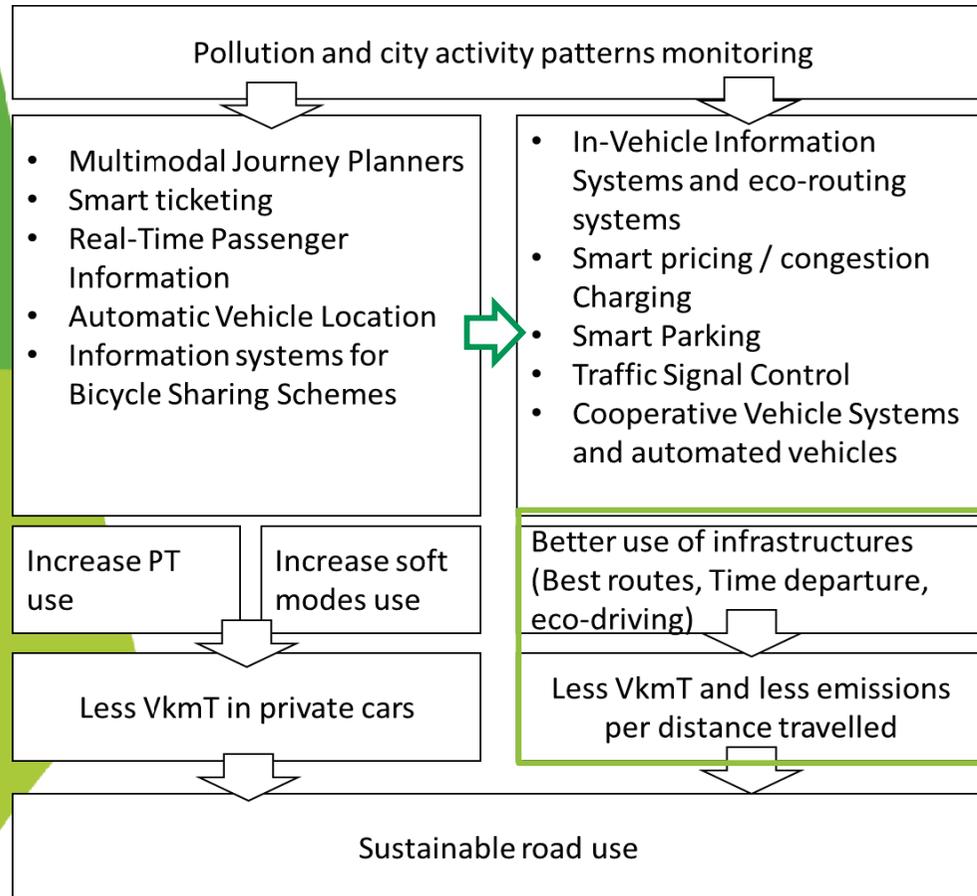
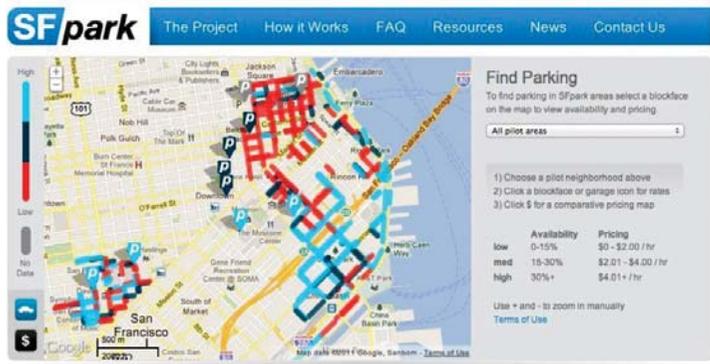
# Best practices

## Congestion Charging / Smart pricing



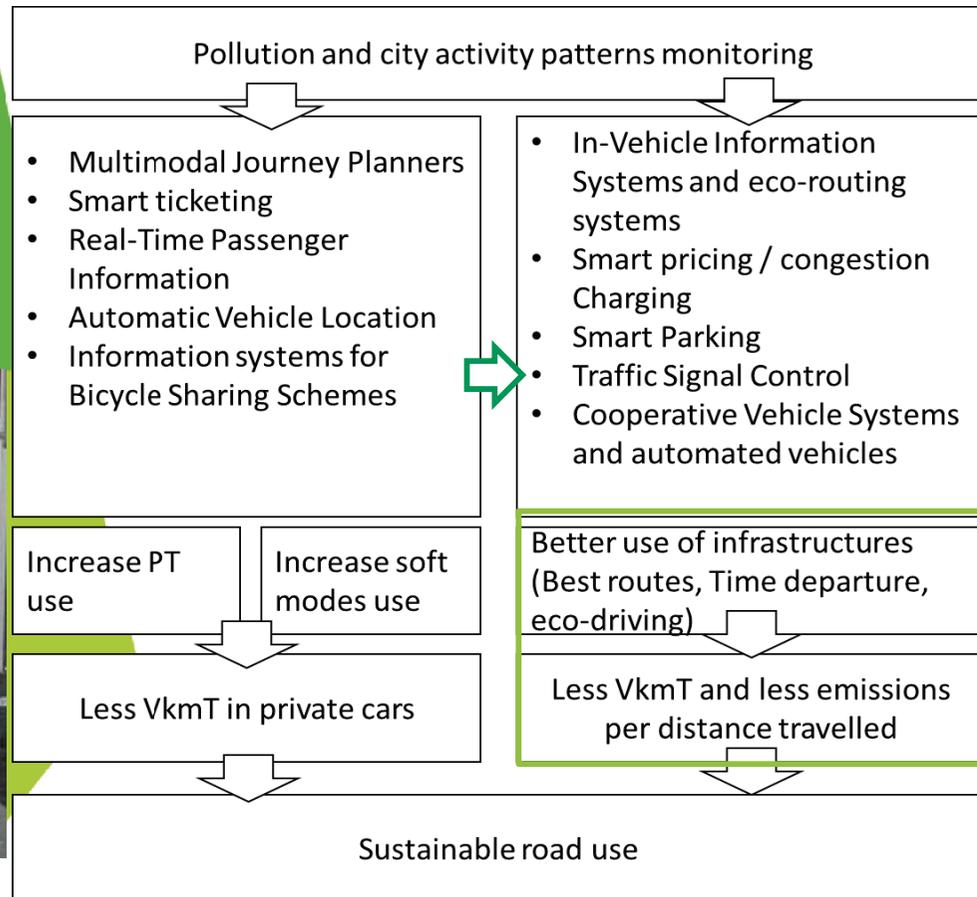
# Best practices

Contribution for transport sustainability



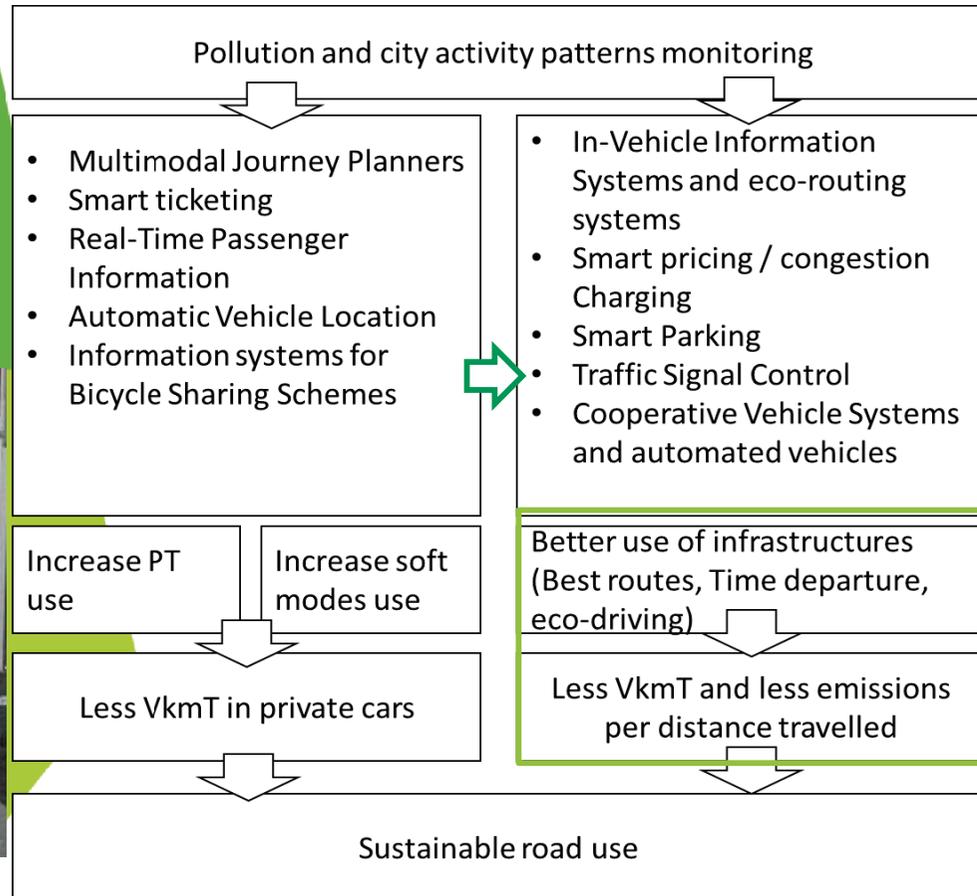
# Best practices

## Traffic Signal Control



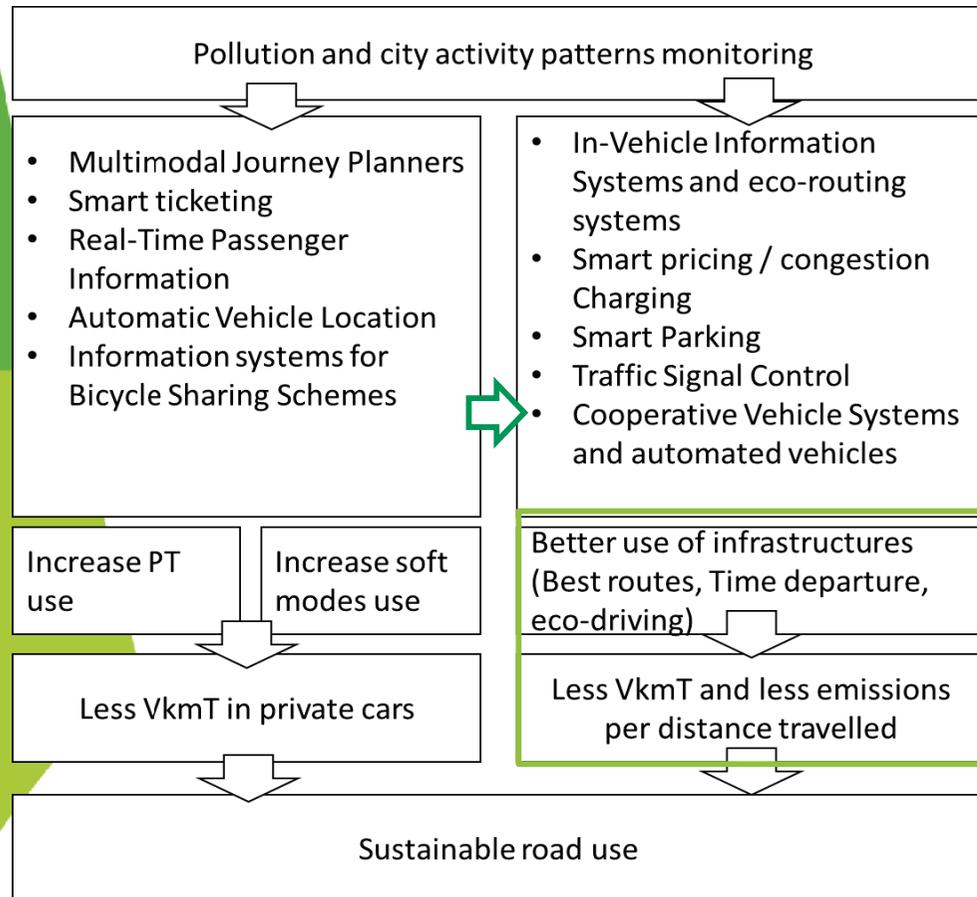
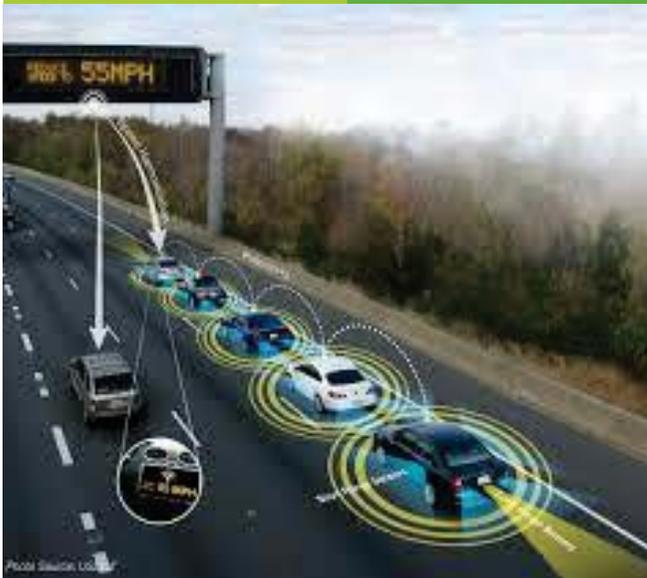
# Best practices

## Traffic Signal Control



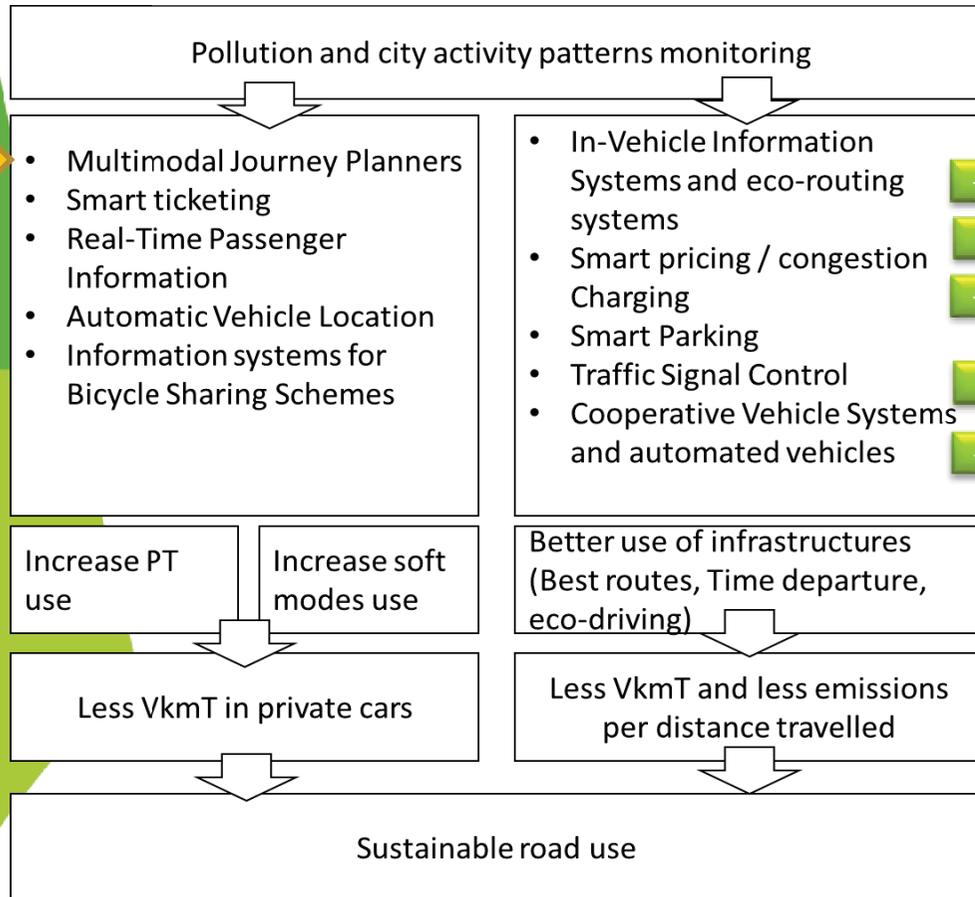
# Best practices

## CAVs



# Best practices

Contribution for transport sustainability



**OBSERVED CO2 REDUCTION**

# Conclusions and Future Work

Significant potential to reduce emissions

Few available results (besides modeling)

Pervasive systems will contribute to overcome inertia?

Ongoing: Regional SWOT Analysis

Best practices overview => action plans

Portugal

Romania

Sweden

Spain



**1<sup>st</sup> regional stakeholder meeting, Aveiro. 9<sup>th</sup> September 2016.**

**1<sup>st</sup> regional stakeholder meeting, Bucharest**



# THANK YOU!

**An interregional cooperation project for improving low-carbon economy policies**

*Project Partners*

- Extremadura Energy Agency (ES)
- Municipality of Aguada (PT)
- University of Aveiro (PT)
- Bucharest Metropolitan Transport Authority (RO)
- Intelligent Transport Systems Romania - ITS Romania (RO)
- Stockholm University (SE)

<http://www.interregeurope.eu/cismob/>

