

# Workshop

Gestione del traffico eco-compatibile

24th June 2014



**Il progetto LIFE+ PERHT:  
un insieme di azioni per la mobilità  
eco-compatibile di merci e persone  
in città di piccole-medie dimensioni**

*G. Ambrosino, GA Consultancy*

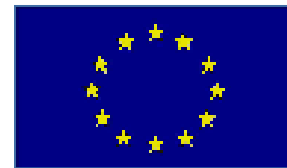
*M. Dall'Agnol, MOM, Treviso*

*M. Mingardo, Comune di Treviso*

*A. Liberato, MemEx, Livorno*



# EMERGING TRENDS in Urban Mobility Policy

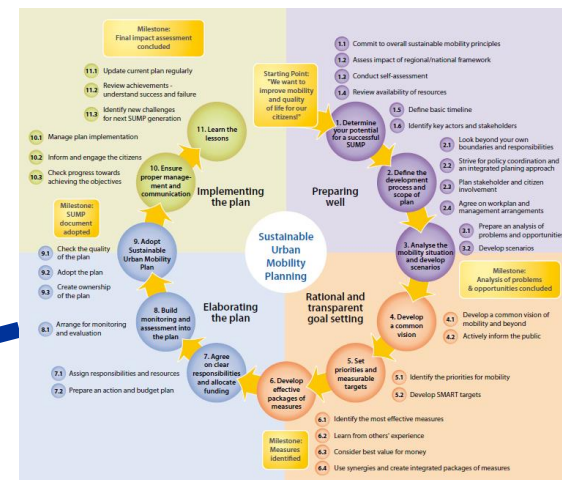


## EU Strategies Best Practices in Towns/Urban Areas Sustainable Urban Mobility Plan- SUMP

*Planning for the people*

**WHITE PAPER (2011)**  
**URBAN MOBILITY PACKGE (2013)**

**Integration** land use and transport planning,  
**Actions** towards public transport green and soft modalities,  
cooperation among modalities,  
**Improve** fuel and vehicle technologies towards emobility



**Smart Town is based on  
extended, efficient and quality  
Urban Public Transport**

# Mobility Governance: Main Axes of Intervention

- **Systems and ICT infrastructures**
  - Access Control and enforcement systems
  - Traffic Light coordination, traffic sensors network,...
  - **Integrated Parking management, Variable Message Signs**
  - Integrated payment and e-ticketing systems
  - Infomobility services pre and on trips,
- **Qualification and differentiation of PT services (BRT-BHLS, DRTS etc.)**
- **Urban logistics services** (city logistics, last mile distribution, urban consolidation Centre, etc.)
- **Integration of different modalities** (FS-Bike, FS-TPL, P&R schemes, etc) and services interoperability
- **Green-Soft Measures** (bike sharing-station, collective taxi, car pooling, car/van sharing, bike lanes, e-mobility, pedestrian/space use etc.)



**MIXED SOLUTIONS by TECHNOLOGIES and INFRASTRUCTURES.....**

**but also... ORGANIZATION/OPERATION and NORMATIVE....**



# The Small and Medium Towns context

- Private car trips are up 70% of total (in some case up 80%)
- Decreasing attractiveness of public transport
- Increase the requirement of **flexibility for mobility services**
- The **freight distribution impacts** are relevant
- **Parking management** plays a key role in mobility policies
- Emerging role of ITS
- **Bike Trips and pedestrians** are increasing with **e-mobility**
- Emerging “**political sensibility**” for “green solutions” and **clever and coordinated mobility management**

**The stakeholder should have the capability to set measures vst the real city requirements**

# Treviso Small Historic Town

**City Area: 52 km<sup>2</sup> Population: 82.355 ab. Density: 1583 ab./km**



**Walled town with small historic centre**

**Well-know tourist destination**

**Based for Venice trips**

**Rynair HUB**

**Limited pedestrian areas**

**ZTL – no access control system**

**Wide availability of parking near the inner centre and within the first urban ring**





# MOM – Public Transport Operator



**MOM - Mobilità di Marca**, new public transport company started in 2014 and composed by:

**ACTT** – TREVISO city (leader);

**ATM** – Vittorio Veneto, Conegliano and northern Treviso's province;

**CTM** – Castelfranco Veneto and west Treviso's province;

**La Marca** – whole Treviso's province

Served area: **2500 KM2** and **0.9M** population, over 150 bus lines, **700** employers, **600** buses,

**20M Km/year** and **18M passengers/year**



PARKING GREEN SERVICES FOR BETTER  
ENVIRONMENT IN HISTORIC TOWNS



## PERHT Project: Green Parking Services For Better Environment In Historic Towns



# LIFE PERHT project

Start: 1 October 2012 End: 30 September 2015

- Priority 2 – Environmental Policy and Governance
- Objective: 5 – Urban Environment

## Partners

- **MOM** - Coordinating Beneficiary - Project management – Local stakeholder/PT Operator
- **Treviso Municipality** - Local stakeholder, institutional level, local services management
- **MemEx** – Technical coordination and transport engineering
- **Softeco SISMAT** – ICT development and integration of advanced solutions
- **EAHTR** - European Association of Historic Towns and Regions Association - Promotion

Collaboration with:

Taxi Cooperative, TREVISosta



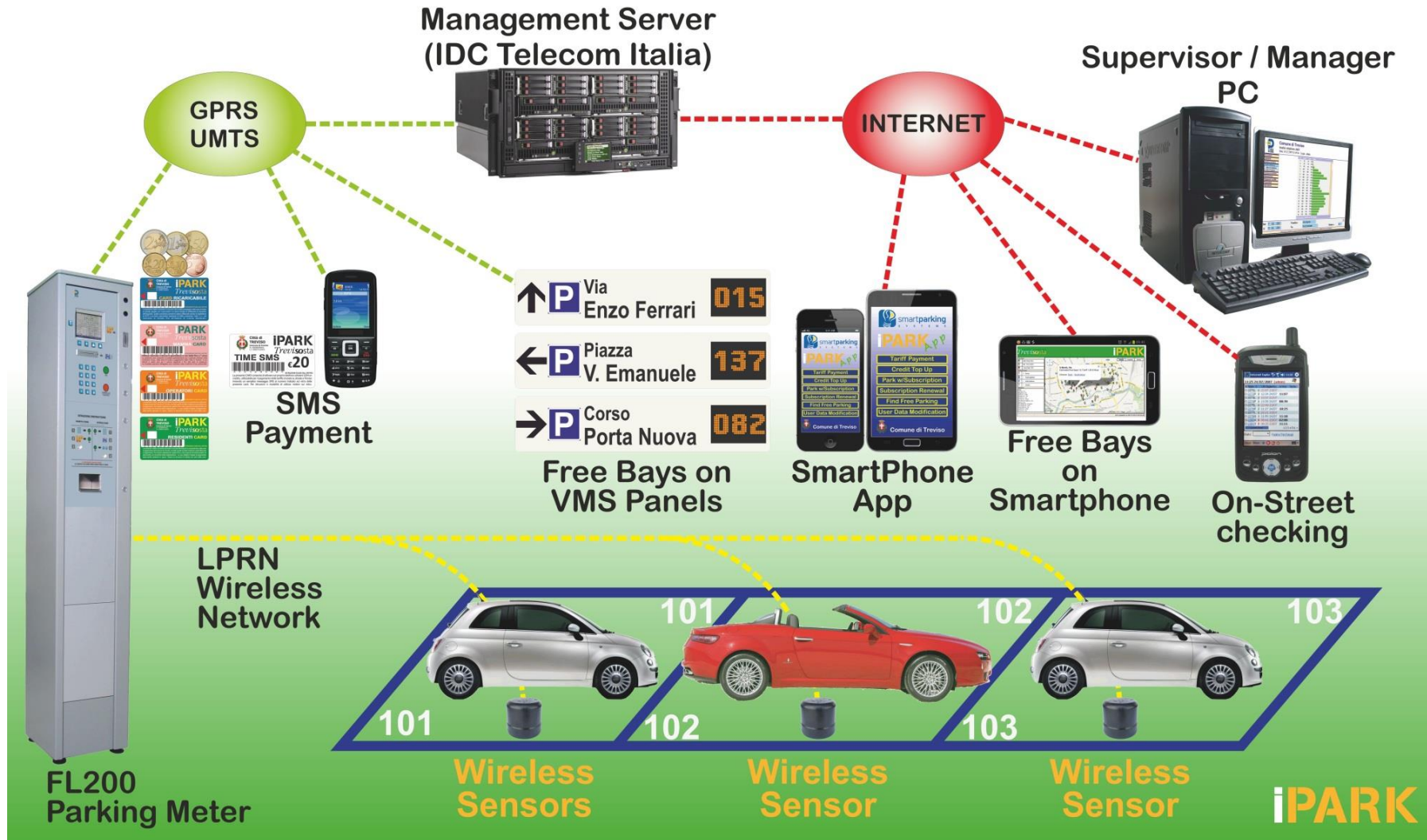


# PERHT MAIN OBJECTIVE



# MAIN INNOVATION: I-PARK SYSTEM!!!!

Treviso



Started on 2010

# Perht project approach

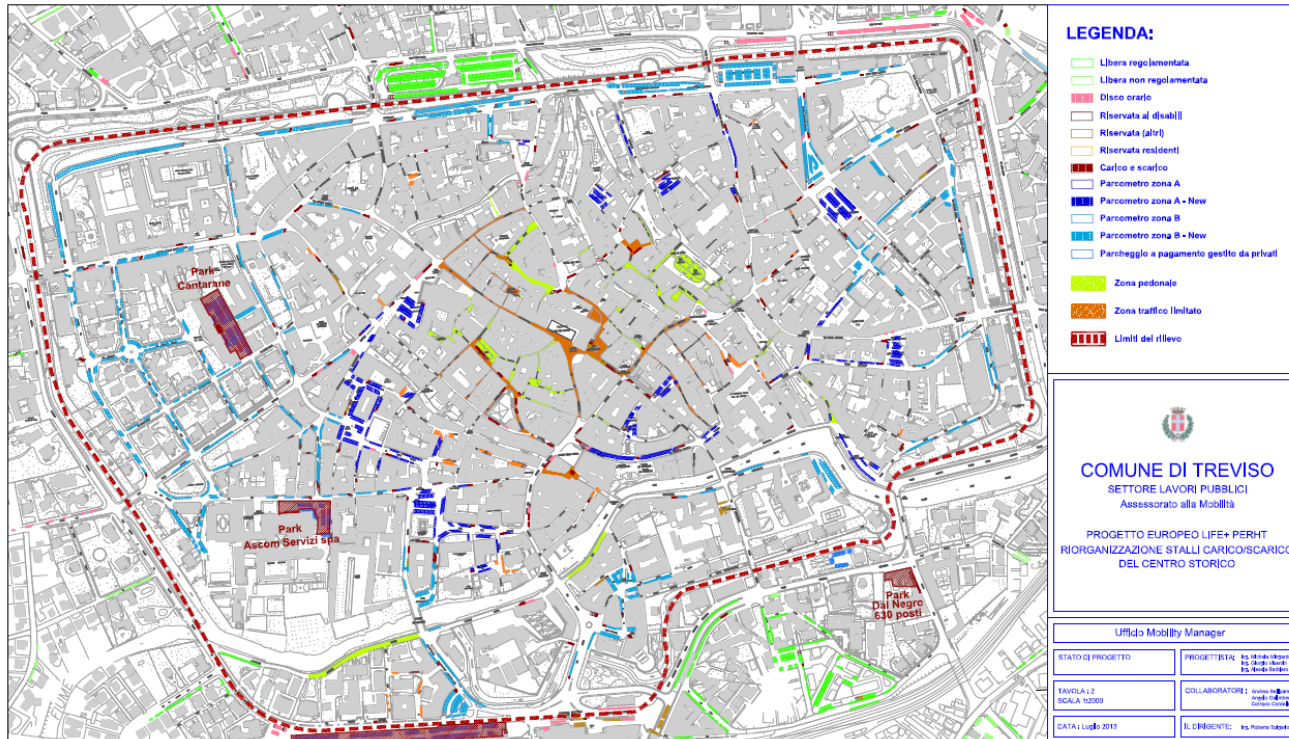


Realization a set coordinated **Services and Measures based on PMS:**

- **Monitoring of loading/Unloading** lots for commercial vehicles
- Extension of **Bike Sharing service**
- implementation of a set of **bike stations**
- Introduction of **collective taxi services**
- Provision of **infomobility services on mobile apps** and on-road infopanel
- Promotion of **e-mobility** and Installation of **recharge station** for electrical vehicles
- Define of a set of **appropriate regulation measures, incentives** for the use of e- vehicles both people and goods



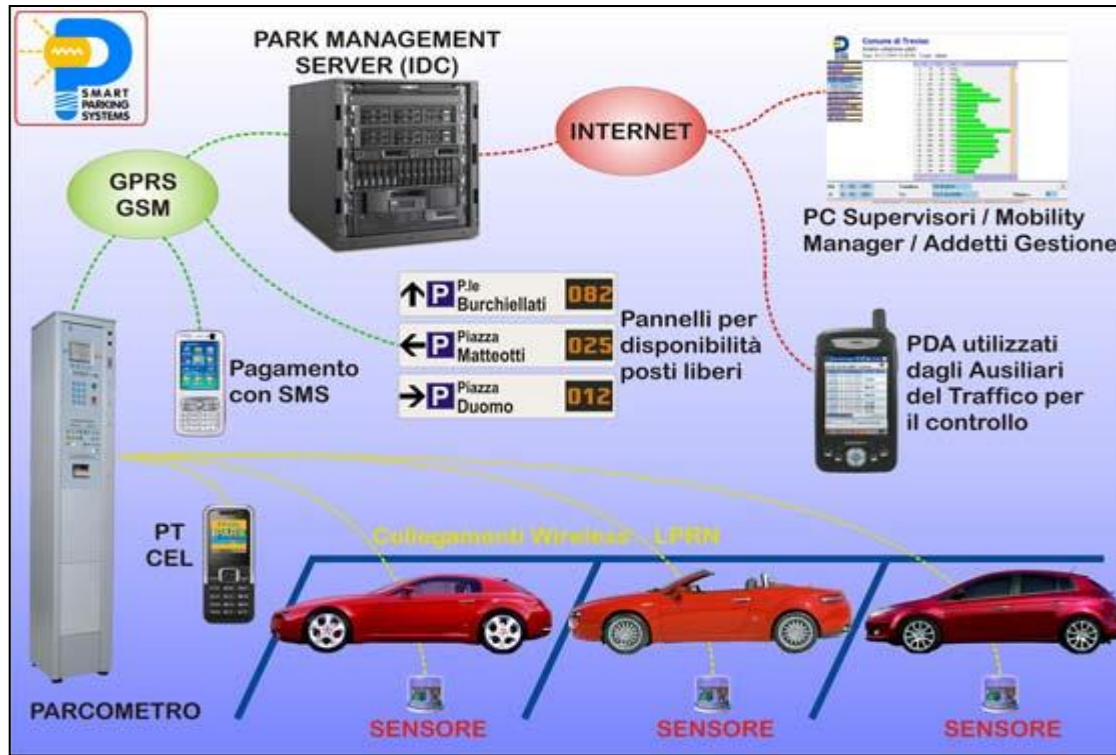
# Management of goods parking bays



- **Redesign of lots by Municipality and normative ( 169 bays)**
- Installation of sensors and integration in I-Park system
- No payment for parking
- Control by I-Park system and warnings
- Road control operator requested by the normative



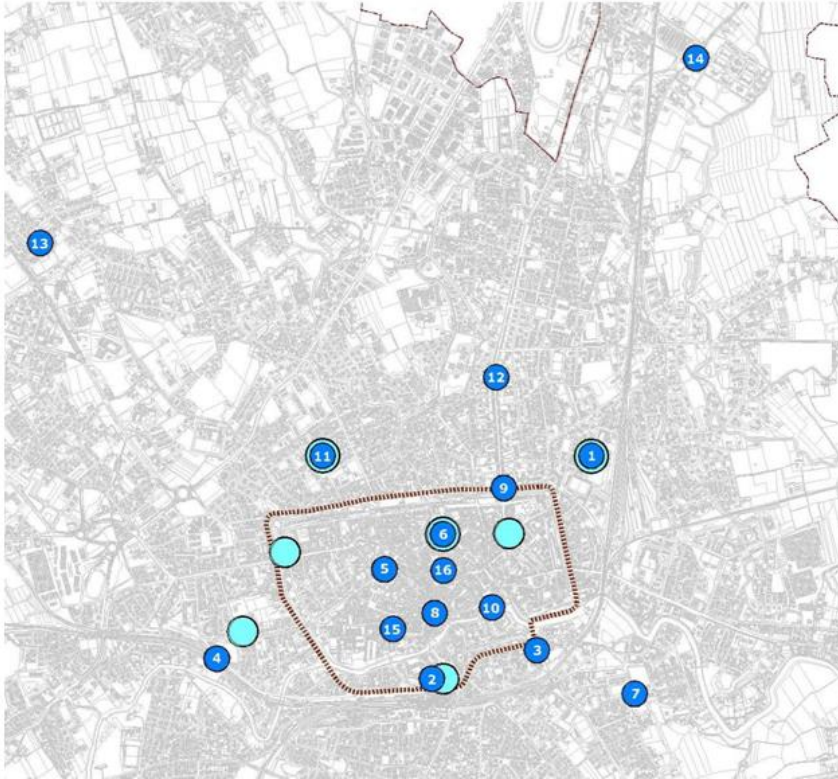
# Treviso (LIFE –PERHT project) Solution by Parking system





# Bike Sharing Extension

- 1 Stadio
- 2 Stazione FFSS
- 3 Dal Negro
- 4 Miani
- 5 Duomo
- 6 Rinaldi
- 7 Ca' Foncello
- 8 Borsa
- 9 Porta S. Tommaso
- 10 Università
- 11 Lancieri di Novara
- 12 S. Camillo
- 13 Piscine
- 14 Sede Provinciale S. Artemio
- 15 Vittoria
- 16 Monte di Pietà



- Based on 16 pick up stations located in the urban area with 70 bikes (more than 120 available slots).
- 1500 users whose 80% are frequent users of the service.
- A total 36000 yearly pick up operations with a total amount of 45000 Km travelled by users



14 bike routes for 160 Km

*Bike Sharing "drama" ?*



# Bike Stations



*Modal Shift*

*From parking house/Railway to bike*

- Installation of n.3 bike stations:
  - near railways station
  - at Foro Boario parking
  - at Miani parking
- **Improvement of P+R services (train/car+bike)**
- Individual bike use alternative to bike sharing
- **Service free of charge**
- Available only for PT subscriber
- Video cameras control
- Possibility to use **PT smart card**



# Col-taxi Service



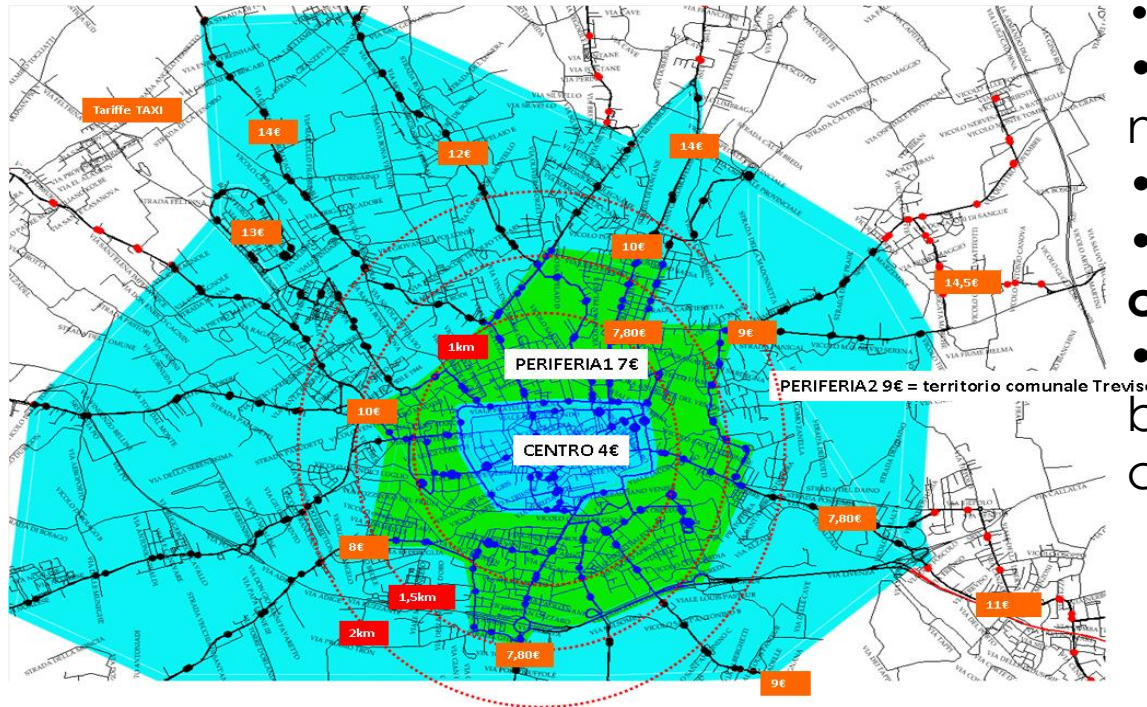
**Col-Taxi**

**COLLECTIVE Taxi  
service**

**In cooperation  
between MOM and  
Taxi company**



# Col-taxi Service rules



- **Service open to PT subscriber**
- Pick up/drop off at bus stop; no predefined routes
- 3 tariffs zones
- Service operated by **taxi company**
- **Pre-bookings**, by smartphone/SMS and taxis call centre

## Motivations

Nightly regular service no operated

Low demand and potential users in the day period

: from 8:30 to 0:30 p.m., from 4:00 to 6:30 a.m

Transport demand not suitable for regular services –  
introduction of collective taxis



# "EV RE-CHARGING" Service



## 3 Recharge stations:

- N.2 in old city centre;
- N.1 in Miani Park
- MOM responsibility
- The parking and recharging **is free**
- **PT smart card** for accessing the service service
- **Max** 5 hours from 7.00 to 20.00 any limitation during the night



# Normative, rules, and specific incentives (tariff/timing) for:

- electric vehicles
- Hybrid vehicles
- CNG vehicles

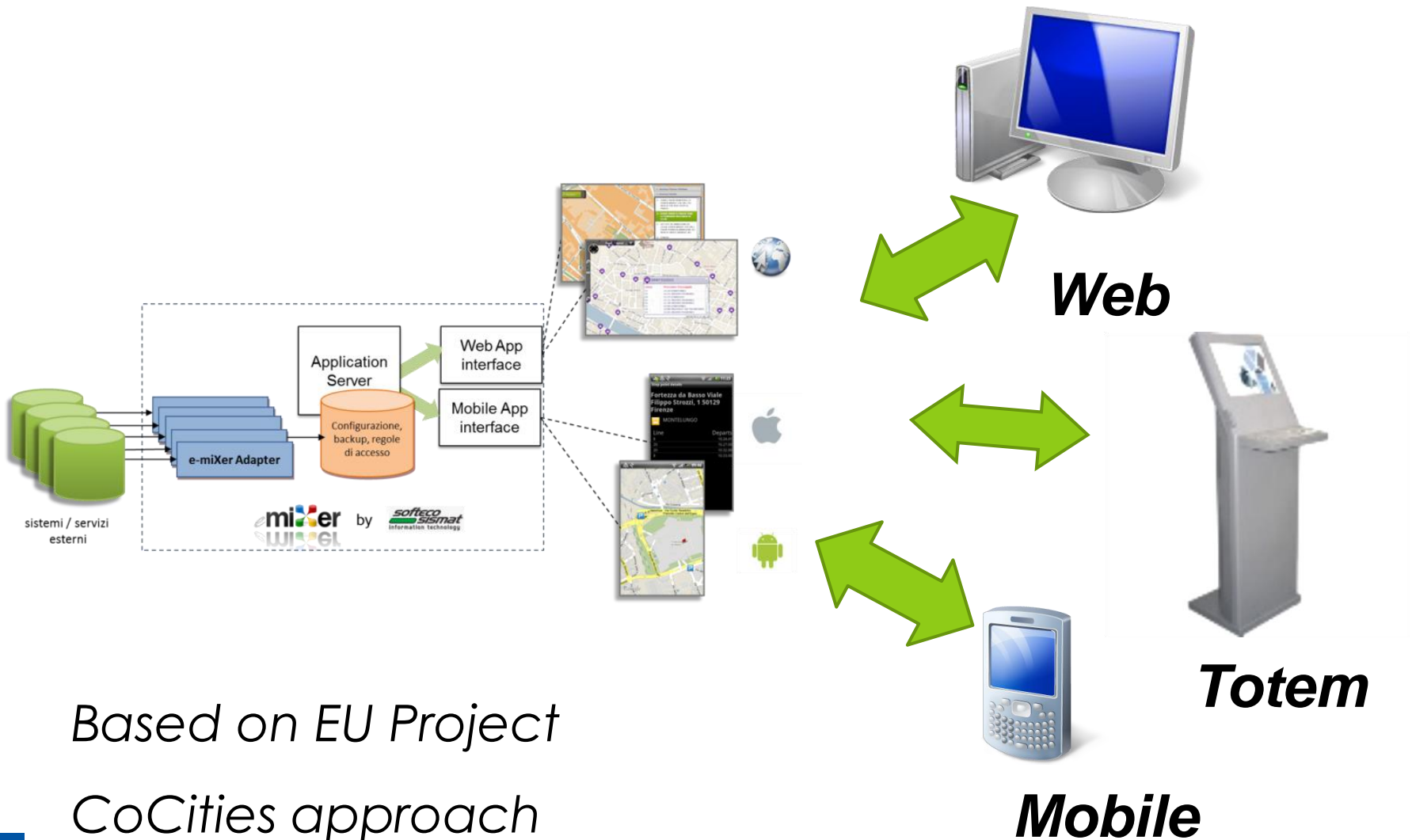
Responsibility of Treviso  
Municipality

Rules for free parking in the  
payment bays and for entering  
in the limited traffic zone





# Info mobility platform





# Treni Move

***App available on the AppStore (IOS)  
and Google Play (Android)  
In 5 months 3.000 users***

# TreviMove Mobile apps



# Mobile apps



**READ** smart card ticket via NFC

**BUY** ticket "URBANO" using credit phone



Next "Col Taxi" booking

# User feedback

**Quality of service**  
Provide a feedback on these service features

Data quality  
★★★★★

Response time  
★★★★★

Service quality  
★★★★★

User interface  
★★★★★

Service reliability  
★★★★★

Type a comment

Send feedback

**Service Quality**

**Journey Planning data quality**  
Rate the following data

Destination GOOD

Last mile GOOD

Estimated time of arrival GOOD

Start location GOOD

End location GOOD

Start time GOOD

End time GOOD

Type a comment

Send feedback

**Data Quality**

**Tuscany Region**  
Send vehicle occupancy feedback

Type a line

Type a vehicle

Occupancy 50%

Empty Full

Type a comment

✓

**Public Transport**

**Tuscany Region**  
Send traffic feedback

Via Pratese

Type an address

Use map Use my position

Abnormal traffic

queue

Microphone ✓

**Traffic**

**Send park data**  
Provide a feedback on park data

Real time capacity 229

0 free space 607 free space

Type disabled capacity

Type a tariff

Type a comment

Covered

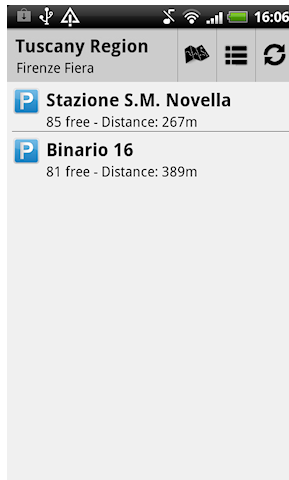
✓

**Parking**

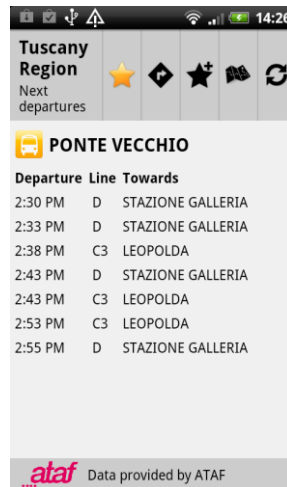
**Events :**

# TREVI MOVE Services extension

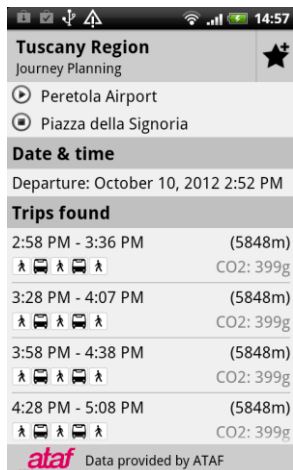
## Traffic real time



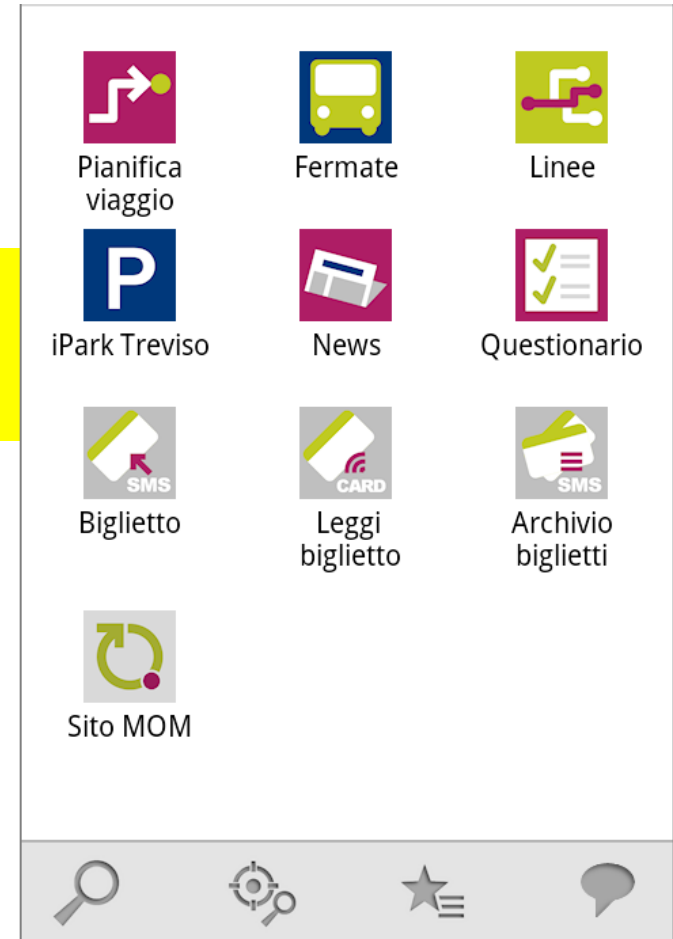
## Parking



## Public Transport Real time



## Journey Planning



# InfoMobility services: Complexity

## Application context

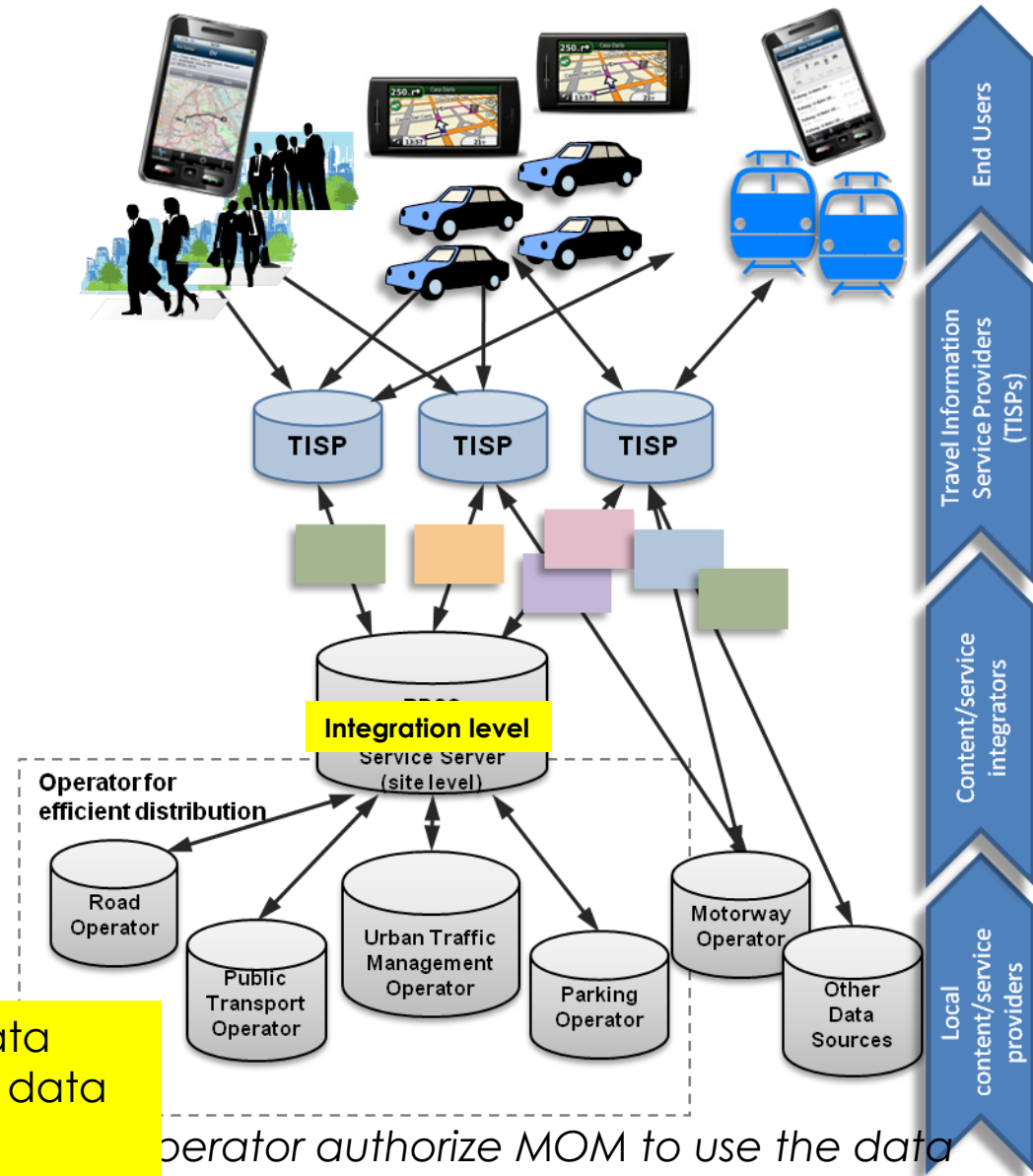
- Local RTTI contents/services by Local Authorities (Regional, city level)
  - base services
- Independent Travel/Traffic Information Service Providers (TISPs) → Value-added services

.....

## Issues and barriers

- different local technologies
- different data formats
- different access services
- Different responsibilities
- ...

Reliability of the systems generating data  
Certification of the quality of provided data  
Clear Management and operation procedures by the Operators





# Parking system and Integrated Mobility Approach: LIFE+ PERHT project in Treviso



*Thanks!!*

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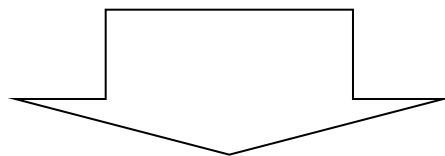
# Small Medium Towns: Mobility approach

**People**: rethinking the PT offer with new services, accessibility, equity, quality and quantity

**Goods** : development of new **logistics services** focused to “last mile” distribution

**Green services**: Bike, pedestrian car sharing, collective taxi, EV, etc.

**Parking**: development of new **schemes integrated with green services and PT flexible services**



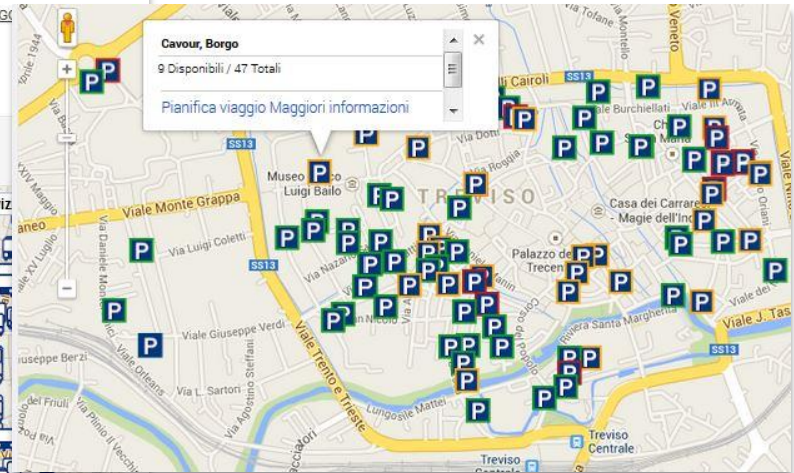
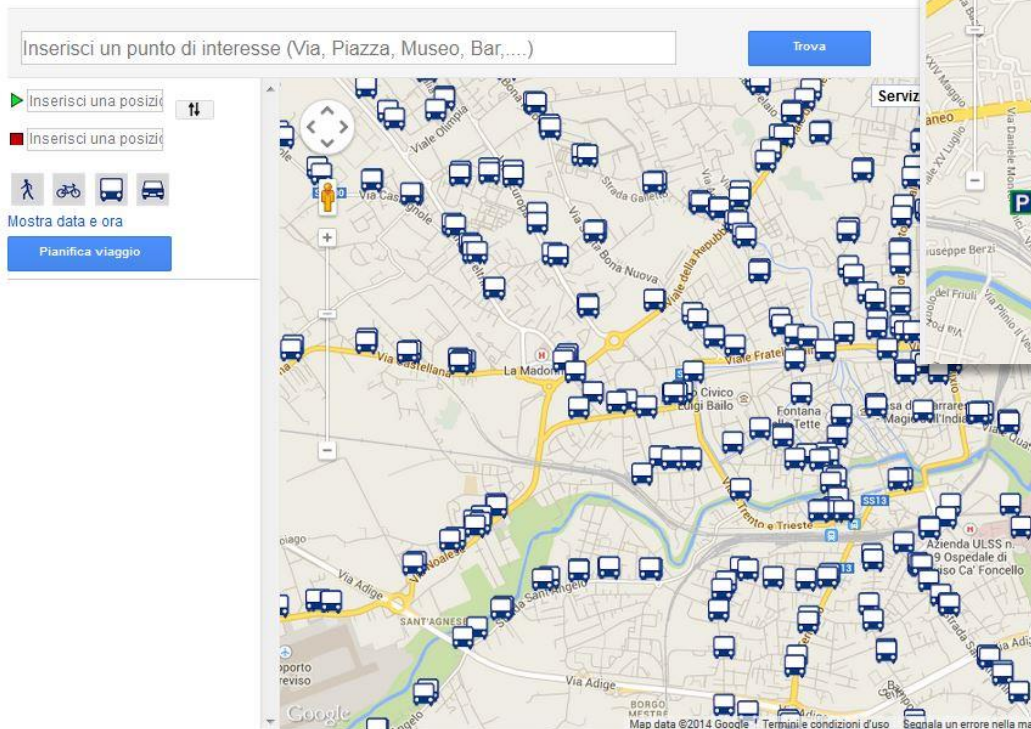
**Coordination of services and actors cooperation  
working  
on the rules/normative and Technology  
Flexibility and accessibility**

# Infomobility Web Info-Planner



## Parking info

### PIANIFICA VIAGGIO - TREVIMOVE



## Trip Planner and bus stops info

[www.mobilitadimarca.it](http://www.mobilitadimarca.it)

INTERGREEN WORKSHOP, BOLZANO 24<sup>th</sup> June 2014

# Info Totem



## Locations

Info on:

- Scheduled arrival time at bus stops
- Service operation:
  - Line limitations
  - Routing diversions
  - Road closure
  - Event impacting buses circulation

- POI
- Utilities: where buy tickets, how download apps, etc.
- News, weather forecast

## Layout

### Scheduled arrival times

Line A  
Line B  
Line C  
.....

### Infoservices

Road closure from...to  
Strike on XXX  
  
Buy tickets on app  
.....

POI 5 min.  
far  
.....

Line A routing modified  
Line B limited to XX

Dynamic bike sharing  
availability

Weather  
forecast  
.....

NEWS...