

# RENAISSANCE AND NEW TRANSPORT SYSTEMS



10 settembre 2010 - Perugia, Palazzo dei Priori, Sala dei Notari

## Mobility Management and urban development in Perugia

### Biographical Summary



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### Abstract

The presentation concerns the policies and the technologies adopted by the Municipality of Perugia and by APM towards the achievement of a sustainable mobility. The morphology and orography of Perugia requires a complex activity of Mobility management in order to satisfy the mobility demand and guaranteeing an efficient system

### Summary of Paper

The presentation concerns the policies and the technologies adopted by the Municipality of Perugia and by APM towards the achievement of a sustainable mobility. The morphology and orography of Perugia requires a complex activity of Mobility management in order to satisfy the mobility demand and guaranteeing an efficient system, whose main features are:

- Innovative mobility policies for a better transportation demand management that result in more efficient use of transportation resources while implementing security and safety, environmental strategies. The mobility policies are build upon a set of key elements such as price, transit regulation, restricted accesses to the road network, besides the travel time/congestion parameter.
- New ITS (Intelligent Transport Systems) technologies aiming at reaching a new balance between demand and offer. The term intelligent transportation system (ITS) refers to efforts to add information and communications technology to transport infrastructure and vehicles in an effort to manage factors that typically are at odds with each other, such as vehicles, loads, and routes to improve safety, transportation times, and fuel consumption.

ITS can be used for managing both collective and individual mobility.

*Dr. Piero Sunzini is currently member of the APM board of directors with mandate to internationalization processes and environmental issues. He has a great experience in managing, coordinating and evaluating development cooperation projects in different countries. He participated to the development and implementation of numerous territorial cooperation projects such as Interreg III B Archimed, Interreg IIIC, etc. From 2001 to 2005 he has been Director of the Service "Labor, Professional training, Education and Cooperation" of the Marche Region, covering also the position of Managing Authority of the Regional Operational Plan – European Social Fund Objective 3 2000-6, as well as the position of manager of the Equal programme for an Intermediate Entity of the Marche region. He was a member of the Monitoring Committee "DOCUP – Unique Planning Document Objective 2 – ERDF" as well as member of the Monitoring Programme for Rural Development – European Agricultural Guidance and Guarantee Fund (EAGGF).*



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## Collective mobility implementations in Perugia:

- **Traffic-light management:** 16 traffic lights displaced at the most congested intersections. The system allows the coordination and optimization of traffic lights, with specific attention and priority to public transport. All the system is managed from a control centre, with a closed television circuit allowing traffic to be monitored in real time, and strategic points to be monitored.
- **Intermodal passengers transport:** based on the involvement of the use of more than one mode of transport for a journey: urban and extra-urban bus, train, Minimetrol, lifts and escalators. It involves also integration of tariffs for facilitating passengers transfers.
- **Tariff integration of the public transport:** UP Perugia (Unico Perugia), allowing to travel on:
  - All APM urban routes;
  - On all APM extra-urban routes within the Perugia municipality for the residents;
  - On the Minimetrol
  - On all the ACAP urban routes (telebus and buxi)
  - On the railway network FCU (Central Railway Umbria) within the Perugia municipality
  - On the railway network FS within the Perugia municipality

## Individual mobility implementations in Perugia:

### - Macro-simulation system: VISUM

VISUM is a macro-simulator of the traffic flows allowing the modeling of a network through the representation of the individual, collective and goods transport. The software has been developed in a Windows environment, it supports data exchanges in other standard formats and has similar properties to the GIS system as for the data storage, management and representations. A key feature of the software is to work to the strategic planning besides integrate the scientific approach to the most innovative technologies.

### - Centralized traffic-light control: UTOPIA

UTOPIA (Urban Traffic Optimisation by Integrated Automation) is a system for network management and control aiming at improving traffic over the whole covered area by minimizing travel time for private traffic, while giving priority to public transport. In creating a better flow of vehicles, it leads to energy savings, a reduction of emissions and a welcome increase in safety. UTOPIA operates on distributed intelligence. The

processing capabilities at intersection level enable a swift response to the traffic volumes at the intersections. This makes UTOPIA ideal for flexible traffic control and priority to specific identified traffic, like public service vehicles.

### - Information to users: City information LED signs

28 panels allow to give daily notices and public information to citizens and private vehicle users in real time, with great evidence and good readability. The messages concern road traffic, availability of parking lots for both free and payment parking areas.

### - Entry gates form and to Limited traffic zone (LTZ)

Devices for the management of transgression (RFID and video cameras), directly sent to the Municipal police for issuing the sanction. About 15.000 vehicles entering the LTZ during working days (24 hrs).

- **Automatic accessing posts** for forbidding the access to the LTZs. The authorized citizens will be equipped with ad hoc remote controls.

### - MISTIC Infomobility platform

MISTIC is the platform supporting the implementation of Traffic Control and Information Centres by interfacing the different traffic control, transport management and information systems operational in the site. MISTIC makes available the middleware needed to validate, normalise and synchronise the information and data provided by the systems connected, and monitors the status of road network and systems availability.

Starting from this information, MISTIC:

- calculates the optimal distribution of traffic within the network
- estimates and updates the traffic demand O/D model
- establishes the actual network availability
- forecasts the traffic distribution and performance on the whole controlled area.

### - Parking areas

Perugia has both public and private parking areas. The management of the public parking areas is on a private company SIPA:

- 6 parking areas with availability of more than 2.100 lots
- Areas with parking meter system in several areas of Perugia with availability of additional 1.200 parking lots.

The 6 parking areas are equipped with free lifts or escalators for the connection with the historical centre.

