An example of integrated transport policy at local level: the city of Genoa
GENOA

sits on a narrow coastal plain and has a highly dense urban territory

- urban territory: 603,896 abitanti
- area: 239 km²

- 1401 km of streets network

392,000 cars
32,000 trucks
67,000 motorcycles
904 bus

- 158 million passengers in 2001
- 32 million km covered
- 874 km bus network
- 127 lines
THE CITY OF GENOA
Integrated plan for a Sustainable Mobility

1. ACCESS CONTROL
2. PRICING STRATEGIES
3. PUBLIC TRANSPORT
4. NEW TYPES OF CAR USE
5. GOODS DISTRIBUTION
6. MOBILITY MANAGEMENT
7. MANAGEMENT SYSTEMS and ITS
8. FLEETS OF CLEAN VEHICLES
An example of integrated transport policy
local level: the city of Genoa (1)

- ACCESS RESTRICTION
  - Blue parking zones
  - Limited Transit Zones and Limited Parking Zones
  - Benzene Decree
  - Lanes restricted to Public Transport
An example of integrated transport policy at local level: the city of Genoa (2)

- INTEGRATED PRICING STRATEGIES
  - Road Pricing Experimentation (P.R.O.G.R.E.S.S EU) project
  - Interchange parking areas
  - Parking - Public Transport integrated ticket
  - Public Transport - Railway integrated ticket
  - Parking automated tolling experimentation based on “telepass” car recognition
- City centre access control by 9 gates
- Automated parking payment
- Railway-LPT-Parking ticket integration
P.R.O.G.R.E.S.S. (E.C. Project)

Pricing ROads use for Greater Responsibility, Efficiency and Sustainability in cities

Testing different road pricing schemes to prove the utility of this tool in the mobility management

**Objectives:**
- Reduction of private cars in the city centre
- Evaluation of road pricing effects both on users and society (energy savings and social overall benefits).

**Period:**
- 48 months (from 1/7/00 to 1/7/04)

**Budget:**
- MTPG total budget: 896,164 euro
- EU funding: 330,684 euro
An example of integrated transport policy at local level: the city of Genoa (3)

- Collective Passenger Transport
  - 4 new railways urban stations
  - Collective taxi
  - Connection between airport zone and city centre by sea
  - Underground extension
  - Trolley bus lines extension
  - Electric buses introduction
  - Hybrid buses testing
  - Bus on demand
  - Automated call centre for the collective taxi
- Restricted lanes to Public Transport
- Interchange Parking
- Collective taxi
- Bus on Demand
- Connection with the city centre by sea
COLLECTIVE TAXI

To improve the use of public transport instead of the cars

Objectives

• 10% decrease of private vehicles
• a shorter time to go through the city centre
• Increase the use of the collective taxi as a public transport
IMPROVED RADIO-TAXI
System operation

- FIXED PHONE
- MOBILE PHONE
- SUPERVISORY STATION
- PARKING PLACE 1
- PARKING PLACE B
- TRANSCEIVER
- TAXI MAP

IMPROVED RADIO-TAXI
DRINBUS
On Demand Transport System

On demand transport system to link suburban zones to park & ride sites or to the city centre

Objectives:

- more flexible public transport system
- a better accessibility to the historical centre
- integration with the road pricing system
An example of integrated transport policy at local level: the city of Genoa

- NEW FORMS OF VEHICLES USE AND/OR OWNERSHIP
  - Car sharing National Circuit (ICS)
  - Car pooling (Benzene Decree)
  - Electric vehicles rental system for the city centre integrated with the car sharing
An example of integrated transport policy at local level: the city of Genoa (5)

- DISTRIBUTION OF GOODS

  - New urban freight transport management strategies in the city centre
M.E.R.CI.

The project foresees a system of goods delivery, using non-polluting vehicles managed by a hub. The hub collects the goods that will be delivered to the Historic Centre of Genoa with non-polluting vehicles.

Objectives:
- Decreasing environmental impact (air pollution and noise) caused by goods delivery;
- Rationalizing goods delivery with consequent increasing efficiency of whole distributive system;
- Economic and social requalifying Historic Centre of the city.
An example of integrated transport policy at local level: the city of Genoa (6)

- **MOBILITY MANAGEMENT**
  - Mobility manager
  - Pedestrian zones
  - Teleparking
  - School safety plans
1) Companies involved in the mobility management by M.D. 27/3/1998

2) The plan of the movements home - farm for the employees of the Municipality of Genoa
INFO-PARKING

• 17 big size VMS (Variable Messaging System)

• 33 small size VMS for a real time information to provide the local pay - parking availability

• Next installation of active and bigger VMS, for a road dynamic management and for parking areas
An example of integrated transport policy at local level: the city of Genoa (7)

• TRANSPORT MANAGEMENT SYSTEMS
  - Traffic Control Centre revamping
  - S.I.MON. (Integrated GPS Bus Management System)
  - Traffic light priority for Public Transport
  - VMS for parking information and routeing
  - WAP and Internet technology for traffic data diffusion
  - Parking WAP Payment
  - New traffic sensor experimentation
  - WEB Site Infomobility
T.C.C. Traffic Control Centre
Mobility and Transport department

TCC Architecture

- It's ongoing the installation of the Road Pricing SERVER

Simulation and analysis tools:
- Emme/2
- Transyt10
- Aimsun2

Traffic data management:
- Link to POC and to BCC
- Network Synoptic

Centralized Traffic light Management
Variable Message Panels
TVCC

Server Sigma
Server PMV
Server TVCC
Server PIANIFICAZ.
Server ZENIT

CLIENT
CLIENT
CLIENT
CLIENT
S.I.MON.

Integrated fleet monitoring and management System
GENERAL ARCHITECTURE of the SYSTEM
SIMON is an integrated ITAS control system aiming to improve public transport quality (comfort, regularity and effectiveness).

SIMON supplies the citizens news about its activity through the following information systems:

- Messaging Smart Signs
- Informations point
- Visualization System of the “approaching stop”
40 + 33 TRAFFIC LIGHTS IMPROVED WITH THE BUS PRIORITY SYSTEM

DATA EXCHANGE WITH THE BUS IS MADE BY SHORT RANGE TRANSMITTERS PUT ON THE TRAFFIC LIGHTS

THE TRAFFIC LIGHTS PRIORITY IS CERTIFIED BY THE TRAFFIC CONTROL CENTRE
Infopark Service

- The service supplies information about the position and the number of the free places in the urban parkings and about the prices, the addresses and the timetables.

- The service suggests the nearest free parking place to the colling user.
Parking place WAP payment system
II. Activation

- Single number from cell.
- Code car matching
- Area code digitation
- Tariff activation

III. Payment

- Single number from cell.
- Code car matching
- End parking confirmation
- Area and user tariff application
IV. Control

Stamp reading

PALM
- GSM
- GPRS
- RF

CELL.
- GSM
- GPRS

DB

DB
An example of integrated transport policy at local level: the city of Genoa

- Fleets of clean vehicles
  - 2 urban funiculars (1428 m with 7 stops and 366 m)
  - 1 rack-railway (1200 m)
  - 1 metrò (7 Km) to be completed within 2004
  - 9 public double lifts
  - 1 horizontal-vertical lift
  - 20 filobuses (18 m) + 20 (18 m) within 2002
  - 17 hybrid buses (12 m)
  - 8 battery buses (7.5 m)
  - 7 metane minibuses (DRINBUS)
  - 504 out of 904 have been bought after 1996
An example of integrated transport policy at local level: the city of Genoa

Conclusions:

- To broaden the use of LPT (Local Public Transport) it’s necessary to adopt policies that make LPT more tempting, comfortable, reliable and competitive.
- The Municipality of Genoa is experimenting successfully diversified supply policies to satisfy at best the demand.
- The evolution of Information and Communication Technologies make them very useful for the mobility management.
- The results of all these efforts show that the challenge for a sustainable mobility can be won.
- The target is to impose a new culture of the urban sustainable mobility.
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