ECMT-USDOT WORKSHOP ON
FOSTERING SUCCESSFUL IMPLEMENTATION
OF SUSTAINABLE URBAN TRAVEL POLICIES

5-7 November 2003
Washington D.C.

Managing Travel in Rome:
Visions and Challenges for the Future
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ATAC Public Transport Agency
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Stefania Di Serio
ROME
Roma in figures: the city

- **POPULATION**: 2.8 Million
- **EXTENTION**: 1350 sKm
- **VEHICLE PER RESIDENT**: 0.7
- **DAILY TOTAL TRIPS**: 5.6 Million
- **MODAL SPLIT (PR/PUB)**: 60/40
- **Two Wheels Vehicles**: 0.6 Million
- **Daily Car Vehicle Km**: 39 Million
- **Total number of cars**: 1.8 Million
- **Total number of scooters**: 0.5 Million
Roma in figures: the historical center

- **POPULATION**: 0.4 Million
- **URBANIZED AREA**: 6 sqKm
- **BUSINESS ACTIVITY**: 21,000 works/sqKm
- **DAILY TOTAL TRIPS**: 17% of shifts during the rush hours
### City Buses

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network</td>
<td>Km 3.281</td>
</tr>
<tr>
<td>Night network</td>
<td>Km 306</td>
</tr>
<tr>
<td>Lines</td>
<td>282</td>
</tr>
<tr>
<td>Night lines</td>
<td>22</td>
</tr>
<tr>
<td>Vehicles</td>
<td>2.536</td>
</tr>
<tr>
<td>Vehicles km (million/year)</td>
<td>144</td>
</tr>
<tr>
<td>Passengers (million/year)</td>
<td>873</td>
</tr>
</tbody>
</table>

### Trams

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network</td>
<td>Km 52</td>
</tr>
<tr>
<td>Lines</td>
<td>6</td>
</tr>
<tr>
<td>Trams</td>
<td>154</td>
</tr>
<tr>
<td>Vehicles km (million/year)</td>
<td>5.6</td>
</tr>
<tr>
<td>Passengers (million/year)</td>
<td>46</td>
</tr>
</tbody>
</table>
**Underground Lines A and B**

<table>
<thead>
<tr>
<th></th>
<th>Km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network</td>
<td>36.6</td>
</tr>
<tr>
<td>Number of trains</td>
<td>80</td>
</tr>
<tr>
<td>Number of stations</td>
<td>49</td>
</tr>
<tr>
<td>Vehicles km (million per year)</td>
<td>31</td>
</tr>
<tr>
<td>Passengers (million per year)</td>
<td>267</td>
</tr>
</tbody>
</table>

**Railway Lines under concession**

<table>
<thead>
<tr>
<th></th>
<th>Km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total network</td>
<td>148.4</td>
</tr>
<tr>
<td>Roma-Lido di Ostia</td>
<td>28.8</td>
</tr>
<tr>
<td>Roma-Pantano</td>
<td>17.8</td>
</tr>
<tr>
<td>Roma-Viterbo/Giustiniana</td>
<td>101.8</td>
</tr>
<tr>
<td>Passengers (million per year)</td>
<td>40</td>
</tr>
</tbody>
</table>
In their effort to meet the diverse mobility needs of their customers with the emphasis on both quality and quantity, the Companies can count on a staff of 15,688:

### Regional Buses

<table>
<thead>
<tr>
<th>Category</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network</td>
<td>km 11,700</td>
</tr>
<tr>
<td>Municipalities involved</td>
<td>376</td>
</tr>
<tr>
<td>Vehicles</td>
<td>1,672</td>
</tr>
<tr>
<td>Vehicles km (million per year)</td>
<td>81</td>
</tr>
<tr>
<td>Passengers (million per year)</td>
<td>105</td>
</tr>
</tbody>
</table>

### Staff

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative</td>
<td>1,453</td>
</tr>
<tr>
<td>Travelling</td>
<td>10,525</td>
</tr>
<tr>
<td>Technical</td>
<td>3,710</td>
</tr>
<tr>
<td>Total</td>
<td>15,688</td>
</tr>
</tbody>
</table>
The Demand Management Policy

Target:

- reduce traffic congestion, air pollution and acoustic nuisances;
- modifying modal split in favour of public transport;
- increasing traffic safety;
- rationalising public space use safeguarding citizens health;
- preserving historical and architectural heritage

Measures:

- The General Traffic Masterplan (PGTU);
- Reform of the LPT Management
- The “Cura del Ferro” & PT supply actions
- Zone Access Control and parking;
- Special actions on historical center
- Soft measure
In 1999 the City Council approved the Urban Traffic Master Plan (PGTU, Piano Generale del Traffico Urbano)

On 2002 Administration has started the planning phase

The strategy:

- radial corridors serving traffic to and from the central areas
- strengthening and redesigning of the radial railways system
- Priority to radial public transport (reserved lanes, traffic light priority)
- measures discouraging car use in the central areas.

The main objective is to limit vehicles accessing the LTZ and promote public transport and intermodality

Action implemented are:

- Gravitational framework for parking fares
- access control to the historic centre
- Public transport improvements
Objectives:
- Improving P.T. service standards
- Adjusting P.T. supply
- Controlling service costs

Actions: 
- Services privatization
- Competition among the operators
- Determination of service standards

Results:
SINCE JANUARY 2000
TRAFFIC REVENUES = 35%
OPERATIVE COSTS
The "Roman Model"

Agency for Public Mobility Services

Planning and monitoring mobility

operation

Other Operators
(Specific Routes)

MUNICIPAL PUBLIC TRANSPORT OPERATOR

Monopolistic approach

Controlled market

JOINT-STOCK COMPANY COLLECTIVE TRANSPORT SERVICES SUPPLIER

Legislative Decree n°422/97 for P.T. reform

Reform of the LPT Management
ATAC Mission

- Planning, design and monitoring of Public Transport (PT) services in Rome
- Management, monitoring and development of PT services assets
- Supporting the integrated management of mobility
- Management of the “services contract” (call for tender) with the operators
- Promotion and sale of services and support to fare policies of the Municipality
- Management of traffic revenues and of the relationship with PT customers
- Development of any service and activity related with or complementary to transport services and, in general, concerned with mobility
Plan for the protection of the historical heritage

- **1989**: Creation of the limited traffic zone (ZTL)
- **1994**: Enforcement of traffic zone
- **1998**: Pay Access Introduction:
  - Payment for permit: 340 EURO
  - Residents free,
  - Uniform user profile for authorised
- **2001**: Introduction of the automatic access control system
private traffic flows towards the ZTL reduced by 20% - by 15% in the peak hour
Results

C6H6 Conc Before (January/01)

- decrease of benzene C6H6 by 40%, and PM10 is decreasing.

- number of polluting vehicles decreased by 180,000

And After (January 03)
The first results:
- 350Kms of urban railways;
- number of passenger doubled over three year;
- a single multi-modal ticket - METREBUS (metro, bus, tram, extra-urban bus, urban and suburban railways);
- 15 new interchange points fully equipped with P+R facilities, taxi ranks, urban/sub-urban bus terminals and advanced telematics.
Thanks to the SMART CARD and to the computer-based selling network:

- the customer will always be able to find the ticket of the type he needs,
- the Transport Operator will always have real selling data,
- it will be possible to have ticket checking in real time,
- it will be easier to fight frauds,
- the Transport Operator will be provided with up-dated data on transport demand,
- it will ease the management of other services.
• currently 12 Hybrid busses are being exploited on a central route
• an all-electric bus contains 50 places it has just been experimented
• ATAC has the largest fleet of electrical vehicles in Europe, consisting of 52 minibuses in the central area of the city, with service routes of 1500 000 km per annum
• 2 new e-lines have just been implemented
• 7 Biogas buses
• By the end of the year 2003 the fleet will be totally EURO III compliant;
• ATAC is now experimenting the GECAM a low sulphur content fuel Gecam™. A fleet of 105 buses ATAC, for a 1 million liters consumption in order to obtain a reduction of 1.5 tons of Pm, 3.5 tons NOx and 95 tons of CO₂ per year.
implementation of Sustainable Mobility projects

- Mobility management
- Car pooling
- Car sharing
- Taxibus
Sustainable Mobility policies & campaigns in urban context:

- MIRACLES
- PROGRESS
- TAPESTRY

IST in a Urban context

- ISCOM
- TELEPAY
- PRISMATIC
- TRIDENT
The MIRACLES Project

Measures adopted
- Access Restrictions
- Integrated Pricing Strategies
- Collective Passenger Transport
- New Forms of Vehicle Use
- New Concepts for the Distribution of Goods
- Innovative Soft Measures
- Integration of Transport Management Systems
- Clean public and private fleets

Allows the integration of all the aspects of the policy of Rome Municipality to improve the citizens’ quality of life and to reduce traffic congestion.
• INFO on transport are daily published on METRO;

• Radio ROMA transmitting from ATAC HEADQUARTER provides information, entertainment and music in the Underground;

• Awareness campaigns in schools have been carried out every year
Information on the use of PT

ATAC journey planner
The INFOPOINT is accessible through ATAC Gateway

http://www.atac.roma.it
Atac is covering a position between Municipality, directly involved on security, and PT Operators, play the role of security supervisor and manager.

Currently a special task for security, directly controlled by board management, has been provided, accordingly with company mission.

Four actions have been implemented in order to satisfy the security need.

- Database for security
- Crisis Special Unit
- Intelligent Surveillance System
- SIT project

Soft measures
This database collects all the info inherent to security coming from several sources. An analysis based on a huge amount of cases, allowed to carry out a decisional support system customized on Roman PT security events. Amongst the other, the following dangerous behaviour have been categorized:

- graffiti
- terrorist threats
- abandoned objects
- personal assaults
- suicides
- sabotages
<table>
<thead>
<tr>
<th>Measure</th>
<th>Institutional/policy</th>
<th>Legal</th>
<th>Resources</th>
<th>Social/Cultural</th>
<th>Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZTL</td>
<td>☹ ☹</td>
<td>☹ ☹</td>
<td>☹</td>
<td>☹ ☹ ☹ ☹</td>
<td>☹ ☹ ☹ ☹</td>
</tr>
<tr>
<td>Public transport improvement - infrastructure</td>
<td>☹</td>
<td>☹ ☹</td>
<td>☹ ☹</td>
<td>☹ ☹ ☹ ☹</td>
<td>☹ ☹ ☹ ☹</td>
</tr>
<tr>
<td>Public transport improvement</td>
<td>☹ ☹ ☹ ☹</td>
<td>☹ ☹</td>
<td>☹ ☹</td>
<td>☹ ☹ ☹ ☹</td>
<td>☹ ☹ ☹ ☹</td>
</tr>
<tr>
<td>Soft measure</td>
<td>☹ ☹ ☹ ☹</td>
<td>☹ ☹</td>
<td>☹ ☹</td>
<td>☹ ☹ ☹ ☹</td>
<td>☹ ☹ ☹ ☹</td>
</tr>
<tr>
<td>Integrated information</td>
<td>☹ ☹ ☹ ☹</td>
<td>☹ ☹</td>
<td>☹ ☹ ☹ ☹</td>
<td>☹ ☹ ☹ ☹</td>
<td>☹ ☹ ☹ ☹</td>
</tr>
<tr>
<td>payment system</td>
<td>☹ ☹ ☹ ☹</td>
<td>☹ ☹</td>
<td>☹ ☹ ☹ ☹</td>
<td>☹ ☹ ☹ ☹</td>
<td>☹ ☹ ☹ ☹</td>
</tr>
</tbody>
</table>
In conclusion the Rome philosophy for avoiding a clean congestion is the implementation of different measures mixed by our magic word: INTEGRATION.
This unit is the key element to coordinate and joint the Operators (TRAM.BUS. S.p.A., MET.RO. S.p.A., SITA and SAIS Trasporti) and armed surveillances.

Its tasks in details are:

- security measures audit
- continuous improvement and update of safety procedures
- ensures info flow circulation in order to disseminate properly and to receive users’ suggestions “unit.sicur@atac.roma.it”

Security for ATAC is not only an activity to implement, but is a basic issue of company mission, reported in all the Contract Agreement.
IPSATAC is the intelligent surveillance system currently under test phase in the subway station. The project, implemented also through MIRACLES founding, aims to design, implement, and test a video processing system in order to monitor areas interested by PT-users, means, and passengers. Image processing operates through a system that continuously learns and analyzes current situations, and comparing with a database using logical processes, is able to “comprehend” phenomenon and to catalogue the most “normal”, or “to mark”. Amongst the other, recognized situations are:

- congestion - ticket offices, open areas, platforms
- intrusion
- unusual standing (people, objects)
- terrorist behavior and actions
- the system is based on images captured by a system of TVCC cameras
SIT, Territorial Informative System, is a project started in 1997, with the aim of support mobility decisions in the city of Rome.

The system is based on SIT of Dept. Innovation and Research of ATAC and has been developed by the Staff of ATAC and, with an Official Agreement between, with Territorial Bureau of Government which is in charge of system update and maintenance.

The framework of the system is formed by:

- graph of transportation supply (private and public provided of timetable, ticket distributors) at urban, provincial, and regional level
- map of activities in the city: Hotels, restaurants, public offices
- information about handicapped facilities
The system allows to acquire information about public mobility, but overall allows to **access to information of contingency plan in case of incident at the Subway Stations**;

The info managed by system are:

- detailed maps (both internal and external)
- coordination between internal operative units
- management and logistic of interventions, included restriction and control of interested areas

The know-how supplied by ATAC was a fundamental contribute to system development.

The **SIT Project** is a clear result of shared awareness of security between

- a public authority – Roman Prefecture –
- a private company – ATAC.
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