



PRICING APPROACH OF THE CITY OF ROME

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S.T.A.- The mobility Agency of the City of Rome

**Genova
8-11-2001**

Mobility Planning and Management



⇒ POLICY OBJECTIVES

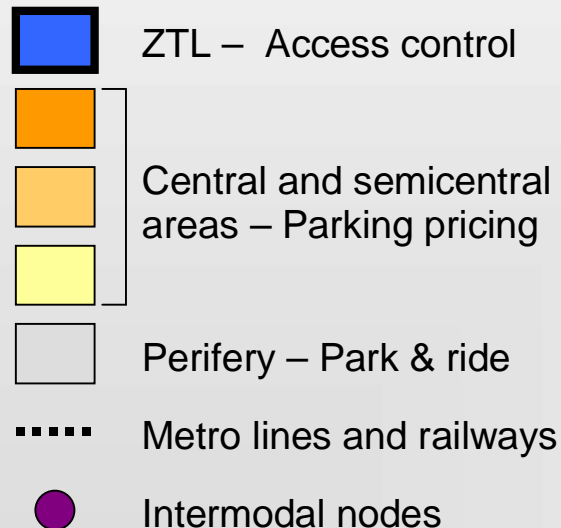
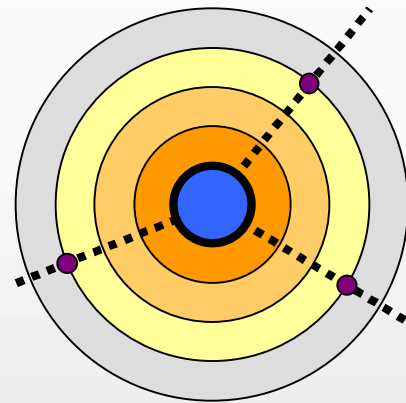
- Improve mobility conditions, achieve modal shift towards public transport, increase safety, decrease transport-related environmental impacts
- Retrain urban spaces, rationalise public space use, safeguard citizens health, preserve historical and architectural heritage

⇒ STRATEGIC OBJECTIVES

- Discourage private vehicle usage in urban central area, increasingly with proximity to the historic centre ⇒

**ACCESS RESTRICTION
AND PRICING STRATEGIES**

Measures to achieve goals



- ⇒ Extended metro, railway and tram networks
- ⇒ Completed tangential road system
- ⇒ Improved and new intermodal nodes in peripheral areas
- ⇒ New reserved lanes and priority at intersections for buses and trams
- ⇒ **Parking pricing**
- ⇒ **Access control** (road pricing)

Limited Traffic Zone: Access Control

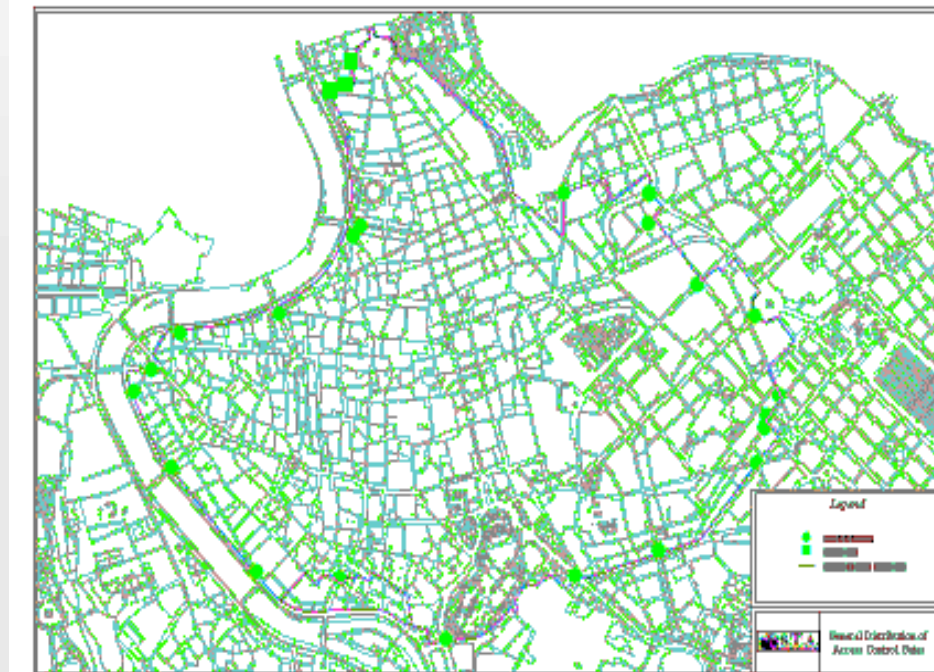
- ⇒ Area: about 5 km²;
- ⇒ 22 Accesses (electronic gates)
- ⇒ 42,000 Residents,
- ⇒ 12 Ministries, Municipality's Offices, Corporate Headquarters
- ⇒ Tourist Sites

⇒ TIME ENFORCEMENT

- Working day: 6.30-18.00
- Saturday: 14.00-18.00
- Holiday: no enforcement

⇒ PARKING

- Free 8000
- Hourly fare approx. 1
• /hour
- Total 10000 places



Who access the ZTL

- Residents (31.000 vehicles) - **PERMIT**
- Special business needs (23.000 v.) - **PERMIT**
- Handicapped (39.000 v. *) - **PERMIT**
- Freight lorries (< 3,5 t) (6.000 v.)
- Service fleets (21.000 v.)
- Two weels vehicles (450.000 !)
- Temporary access - **PERMIT**

* 5 V. each

Access Control to ZTL

POLICY

- **1989: Decision to create limited traffic zone (ZTL)**
- **1994: Enforcement of traffic zone**
- **1998: Pay Access Introduction**
 - Payment for permit: 340 EURO
 - Residents free, Business hours, Uniform user profile for authorised

TECHNOLOGY

- **1996: Realisation of the access control system prototype**
 - 10 gates, Control centre (basic functions), Investments: *1 Meur*
- **1996-1998: System s.w. development,**
 - Technological demonstration (400 equipped cars)
 - Investments: *1,5 Meur*
- **1999: Design & procurement of the full system**
 - 22 gates (29 lanes), 35.000 on board unit and smart card, Control centre, Investments: *4.8 Meur*



Access Control System Development

- ⇒ System homologation on 26 June 2000
- ⇒ Official approval for service operation released by the Ministry of Public Works on March 21st, 2001
- ⇒ **22 e-gates switched on on August 11th 2001 to test the process**
- ⇒ **OBU and smart-card distributed to residents and handicapped**
- ⇒ **Electronic enforcement against violations operational since October 1st**

Access Control System Architecture



**SYSTEM FEATURES:
ACTIVE
CLOSED**

**Local Gate
Control System**

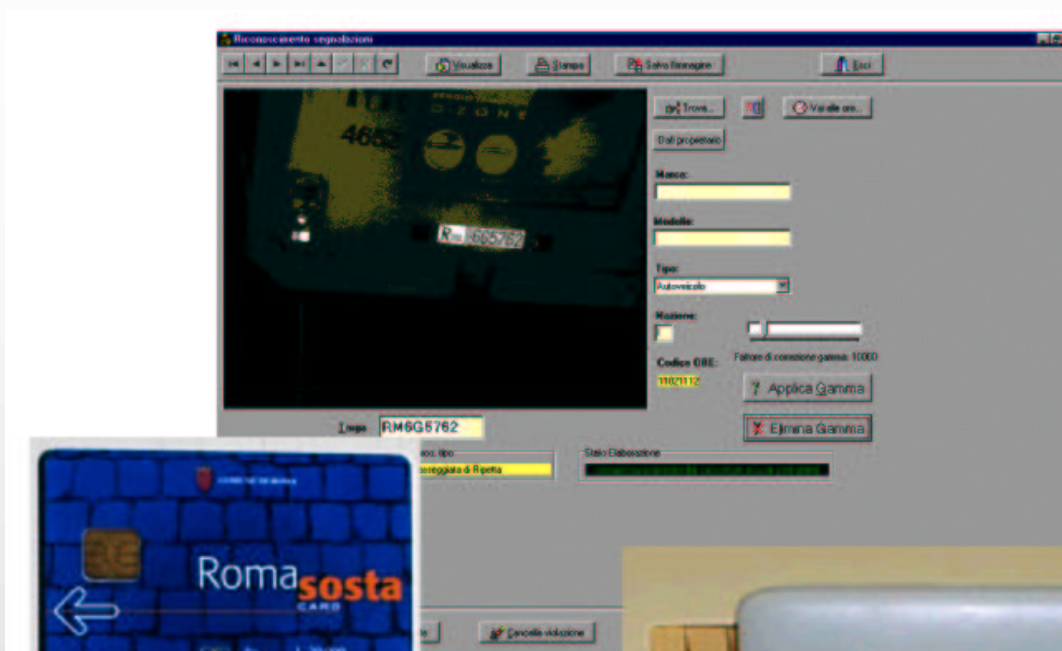
ISDN

Central Access Control System

**Supplied by
Elettronica Santerno
(Italy)**

**Genova
8-11-2001**

Access Control System Details



Smart-card:
Final design



OBU
On-Board Unit



Entrance gate:
OCR Final Design

Acceptance and Awareness

Examples of dissemination material used in the awareness raising campaign launched mid-September by STA and Municipality



Dal 1° ottobre i varchi elettronici.
Un occhio di riguardo per la città.

Per informazioni 06-57118333 (S.T.A.)
Numero verde per i portatori di handicap 800154451.

I numeri sono attivi dal lunedì al venerdì dalle 8.00 alle 18.00 e il sabato dalle 14.00 alle 18.00.

06-57902155 (Comune di Roma VII Dip.)
Il numero è attivo dal lunedì al venerdì dalle 9.00 alle 13.00.
Il lunedì, martedì e giovedì dalle 9.00 alle 13.00 e dalle 14.00 alle 17.00.

Il controllo dei varchi è attivo dal lunedì al venerdì dalle 6.30 alle 18.00 e il sabato dalle 14.00 alle 18.00.

www.ata.roma.it



Dal 1° ottobre i varchi elettronici.
Un occhio di riguardo per la città.



I varchi elettronici di accesso alla ZTL

Dal 1° Ottobre i varchi elettronici.
Un occhio di riguardo per la città.

1. Via Nazionale	11. Via Veneto	21. Via Veneto
2. Via Veneto	12. Via Veneto	22. Via Veneto
3. Via Veneto	13. Via Veneto	23. Via Veneto
4. Via Veneto	14. Via Veneto	24. Via Veneto
5. Via Veneto	15. Via Veneto	25. Via Veneto
6. Via Veneto	16. Via Veneto	26. Via Veneto
7. Via Veneto	17. Via Veneto	27. Via Veneto
8. Via Veneto	18. Via Veneto	28. Via Veneto
9. Via Veneto	19. Via Veneto	29. Via Veneto
10. Via Veneto	20. Via Veneto	30. Via Veneto



Finisce la sperimentazione.
Il controllo dei varchi è attivo dal lunedì al venerdì dalle 6.30 alle 18.00 e il sabato dalle 14.00 alle 18.00.

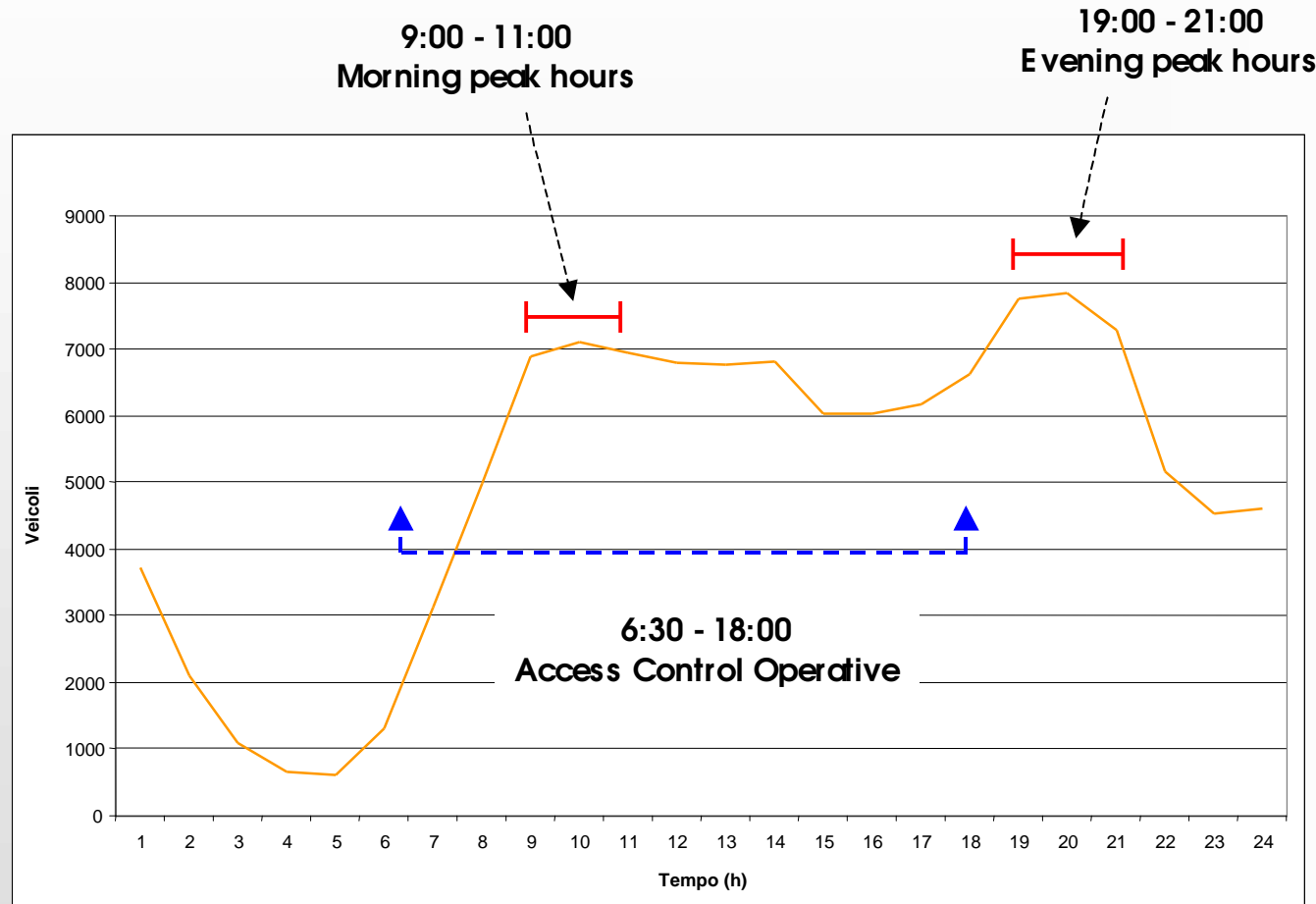
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Access demand to ZTL

(Typical working day)

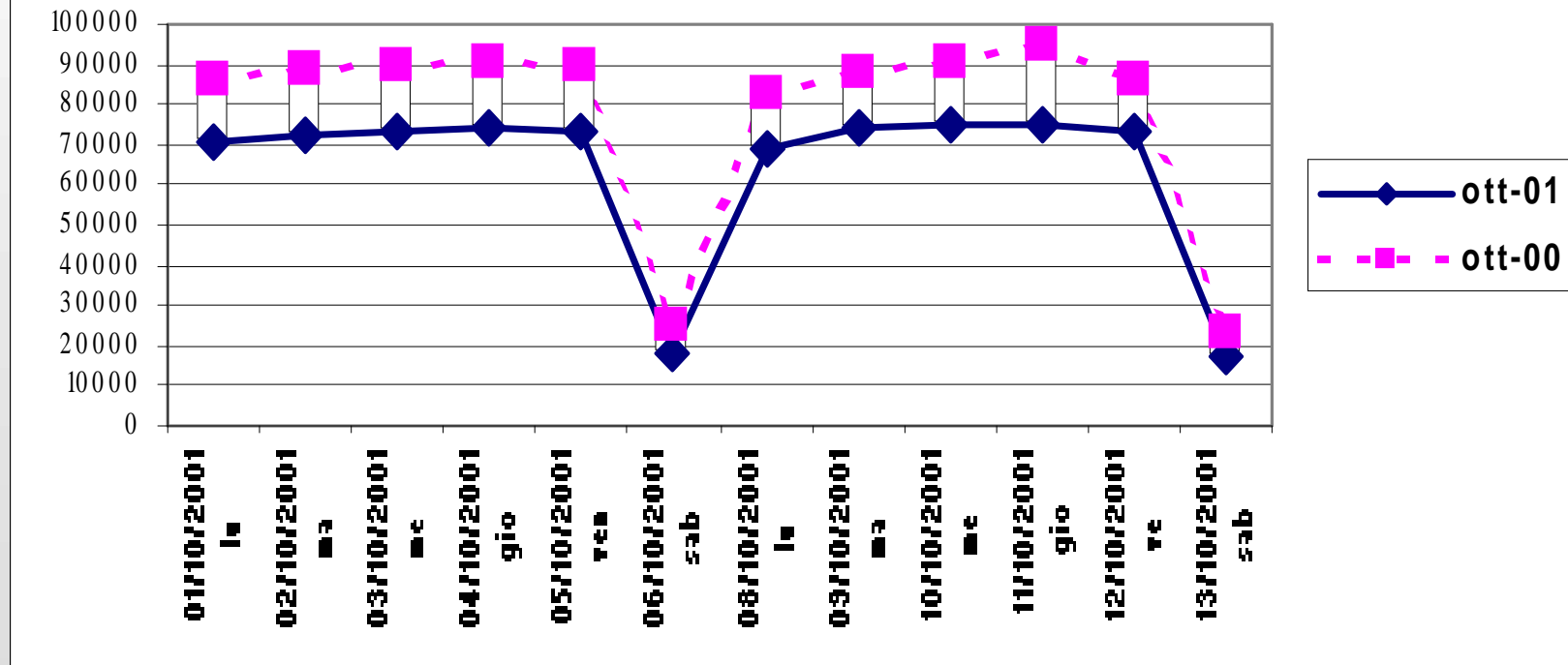


Access Demand to ZTL

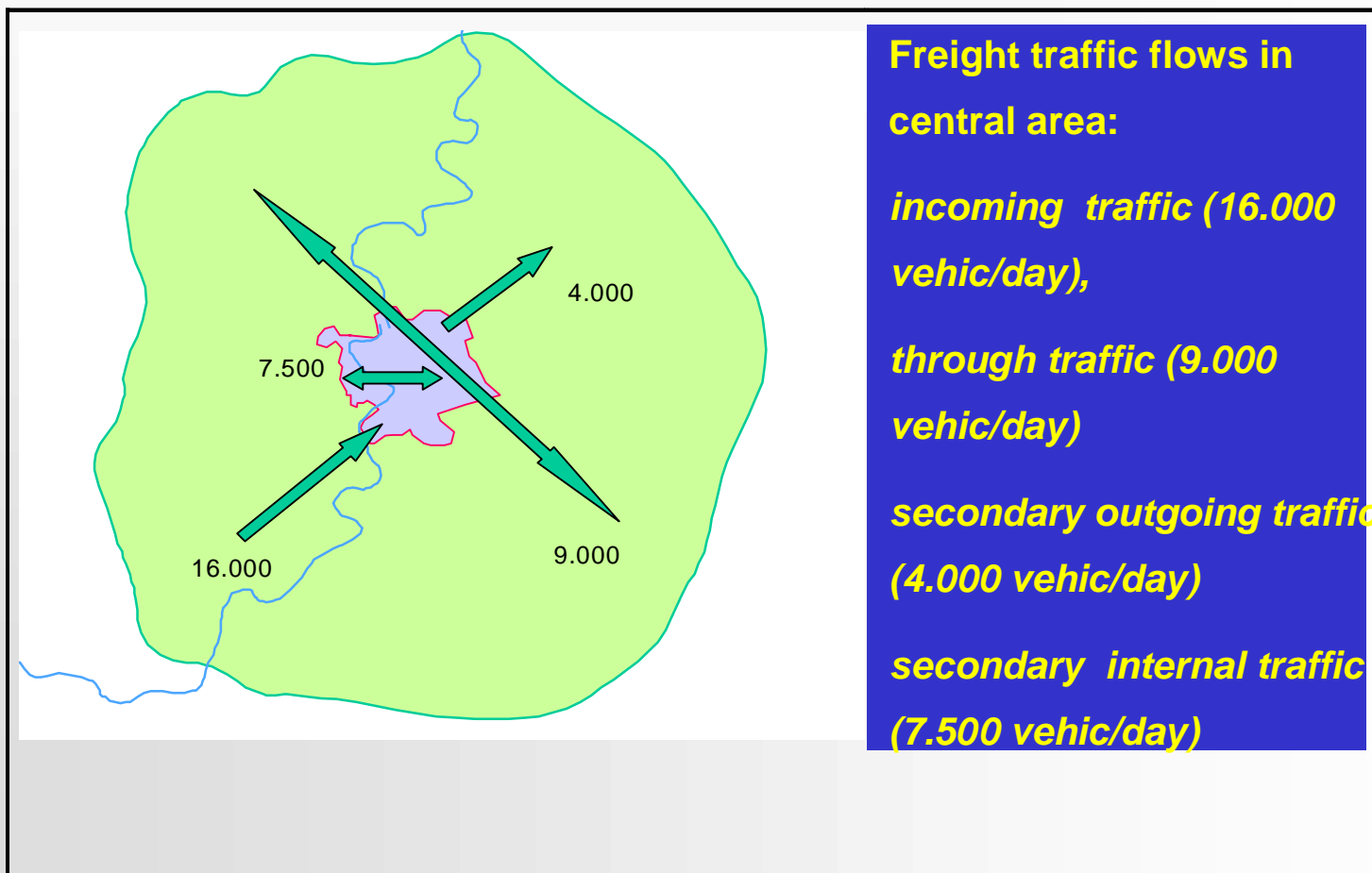
(October 2000 vs 2001)



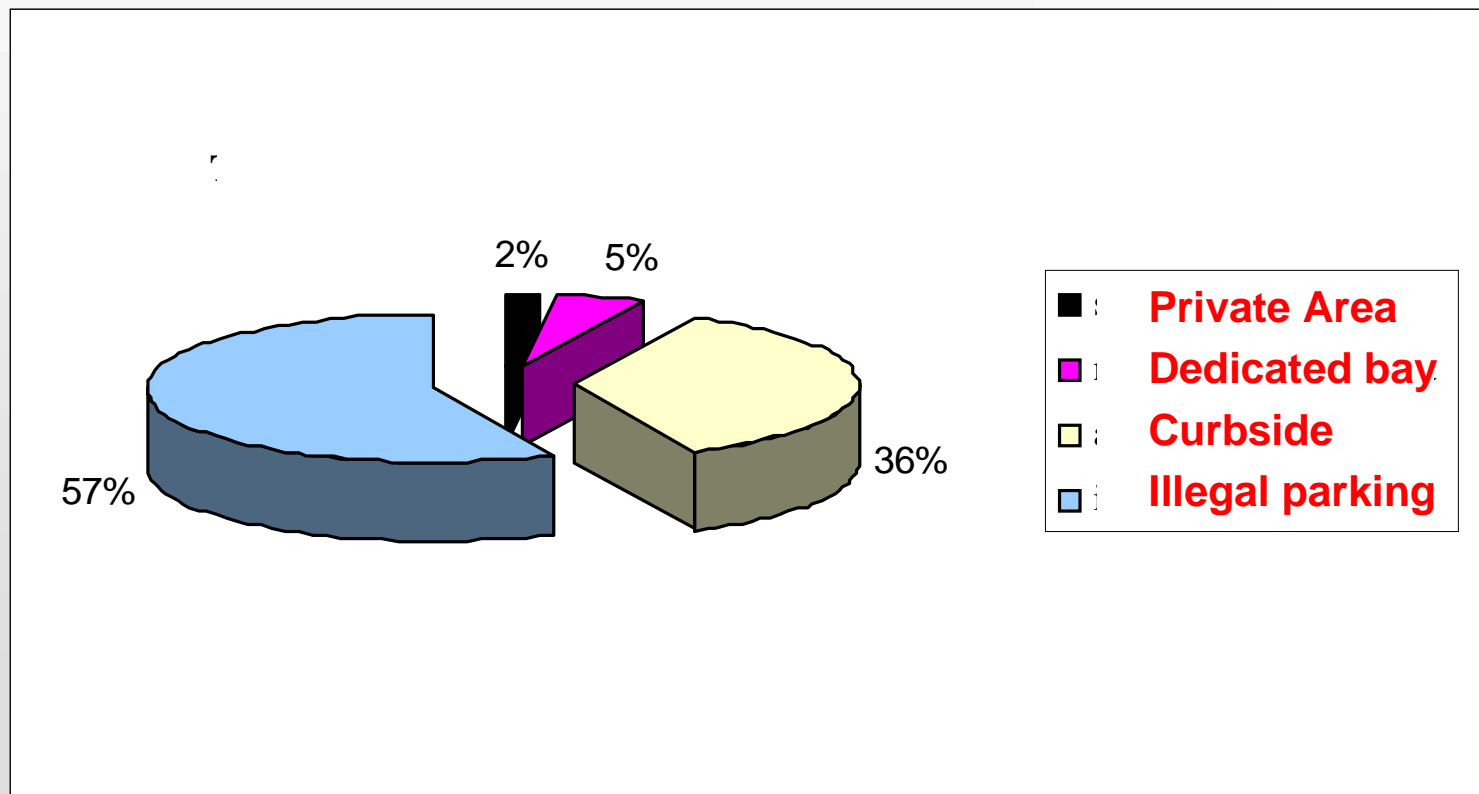
Domanda di accesso per i giorni di ottobre 2001 e confronto con la stima dei flussi nei giorni omologhi di ottobre 2000



Rome Central Area Freight Delivery



Rome Central Area Freight Delivery



Freight Delivery in ZTL

(Proposed Lines of Action)

- **Monitoring** system of the freight distribution process
- Integrated **road pricing** (access, circulation, parking)
- **Bay** system reorganization:
 - ⇒ *number,*
 - ⇒ *location,*
 - ⇒ *multiusage by time of the day*

Freight Delivery in ZTL (Proposed Line of Action)

- Integrated system (logistic & distribution):
 - ⇒ **Siting** of logistic bases for ZTL deliveries
 - ⇒ Set up of warehouses shared at street level for off peak deliveries (night?)
 - ⇒ **Incentives** for promoting better loading factors and low emission vehicles
(5 Meuro already allocated by the Municipality)

I.T.S. National Architecture

- Ministry of Transport & Infrastructures issued a **National Plan for Transports and Logistics (PGT)**.
- The PGT foresees the definition of a **National ITS Architecture**, currently under way.
- The adoption of the ITS Arch. is based upon:
 - the compliance to the European schemes
 - the verification of consensus of all stockholders
 - the results of sectorial **pilot projects**

I.T.S. Pilot Project on Freights

- Among the pilot projects special care is given to the ITS support to **goods distribution in urban areas**
 - The City of Rome is proposing a **test area within the ZTL**

Transition towards Road Pricing

Pricing Objective: Modal shift from private transport to public transport and Reduction of congestion.
Within P_{RoGR}•SS (EU 5th FP) in Rome:

- **First Phase: Access Control**
- **Second Phase: Payment for Access Control (only authorised individuals)**
 - **Annual Permit (1998)**
 - **Conversion to Automatic Access Control System (2001-2002)**
 - **Per Trip Charge (2002-2003)**
 - **Duration of Stay Charge (2004-2005)**

Challenges Expected: Pricing Levels

- **Current fees:**
 - authorised permits: 670.000 LIT (equivalent to 12 P.T. monthly passes)
 - on-street parking: approx. 3.300.000 LIT annually
- **Road pricing** has the objective of rationalising the system, based upon:
 - Modelling exercises
 - Political feasibility



Demonstration Development



1. Implementation of the tolling system

- procurement and installation of the tolling/ charging equipment (details);
- technical and service management issues;
- other issues (excluding regulatory) raised by the implementation of the tolling system.

2. Implementation of complementary measures

- overview of complementary measures: focus on synergies between them and with the tolling system;
- procurement and installation of complementary equipment;
- technical and service management issues.



Demonstration Development (2)



3. Verification of pricing system technology

- verification of pricing and local evaluation plan for both:
 - tolling system, and;
 - complementary measures.

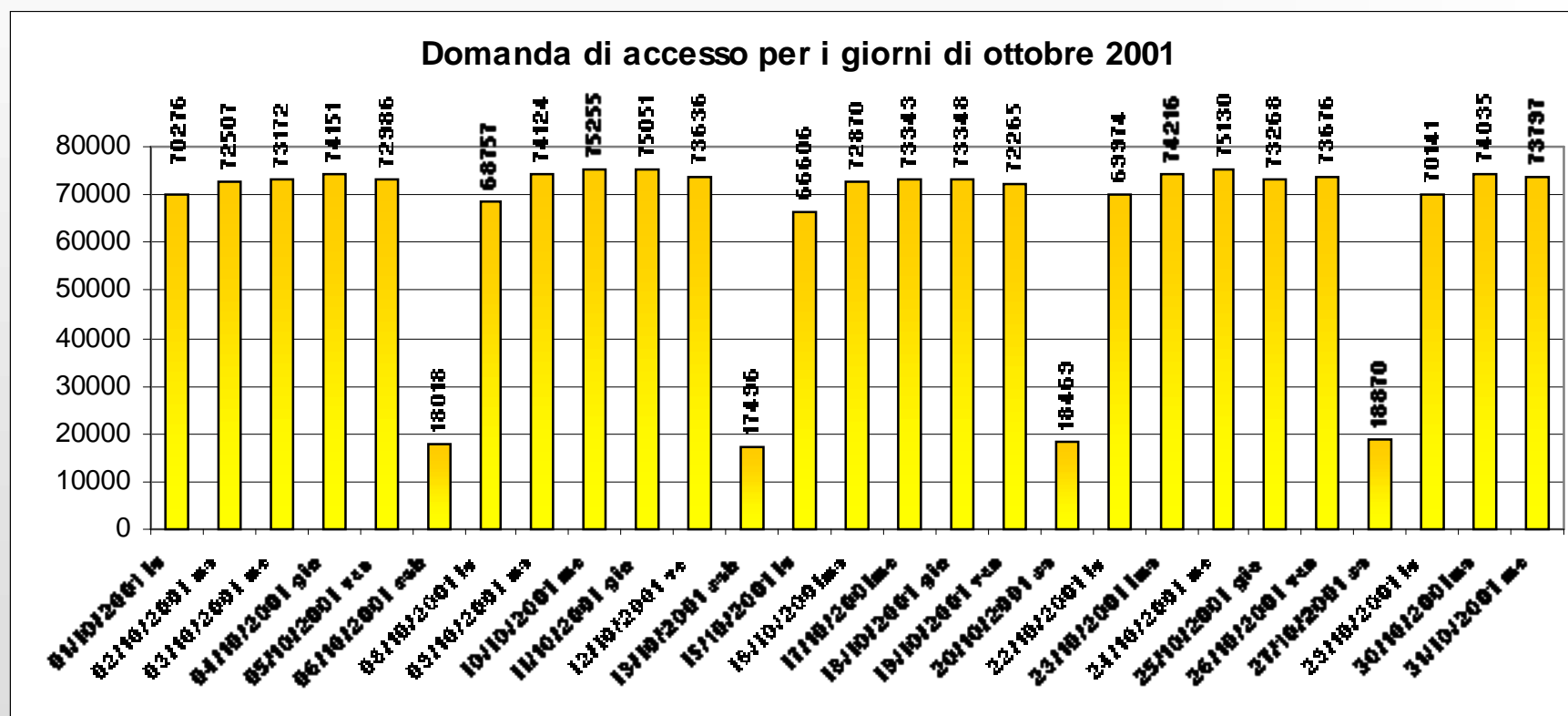
4. Running the demonstrations

- evaluation of results
- assessment of impacts according to a common procedure

Access Control: Results

- **The system is performing with high reliability.**
- **Total flow already decreased (15-20 %).**
- **Key issue: special cases (temporary, lorries)**
- **Freight delivery reorganisation project**

Access Control: Daily Total Flows



Access Control: Daily Violations (Potential)

Percentuale delle violazioni sanzionabili nel mese di ottobre 2001

