



# SUGAR

# URBAN DISTRIBUTION IN ROME: DATA COLLECTION FROM STAKEHOLDERS

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#### **Outline**

- Brief introduction to the CTL centre of excellence
- Urban distribution problems in Rome
  - ➤ Comparative survey results
  - > Identified criticalities
- Current activities in cooperation with public and private stakeholders











#### CTL

- Active in research and development, training, and information in transport and logistics, in particular in sustainability and the application of information, communications, and ITS systems technology.
- Research takes a multidisciplinary approach:
  - Hydraulics, Transport and Roads;
  - ➤ Information and Communications Technologies ;
  - Computer Science;
  - Mechanical and Aeronautical.
- Main research topics:
  - Transport, Safety, Freight transport and logistics
  - > ICT applications to transport and logistics
  - Environmental and energetic monitoring of transport means











# **Policy actions in Rome**

#### 1999 Urban Transport Plan required a Freight Plan to:

- ➤ Improve the quality level of urban liveability, and the efficiency of urban freight distribution
- > Reduce traffic congestion, pollution and noise
- 2007 Review of the regulation on freight vehicle traffic zone 2008 Comparative survey on urban distribution practices (CTL) 2010 PSMS – strategic plan on sustainable mobility 2010 Institution of a working table to prepare the freight plan
  - ➤ New apprach to simultaneously reduce the impact of freight distribution (new eco-vehicles) and guarantee business activities
  - > CTL cooperates with UIR (roman association of industries)

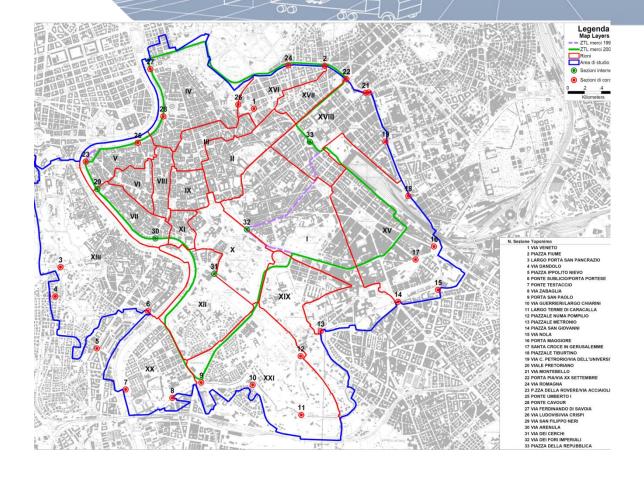












#### 2008 Study on urban freight distribution

Freight traffic limited zone (no control system) regulated Clustering of the zone, Selection of freigt categories Traffic counts and interviews to 1000 operators











# **Access charging in Rome LTZ**

- Categories qualifying for permit include goods delivery
- Yearly permit at 570 €
  - ➤ discounts for green vehicles (-20% CNG, LPG hybrid, -50% electric)
- Daily permits at 35 € + 20 € una tantum
- Opposition of operators to charge and to obligation of documentation delivery to get a permit



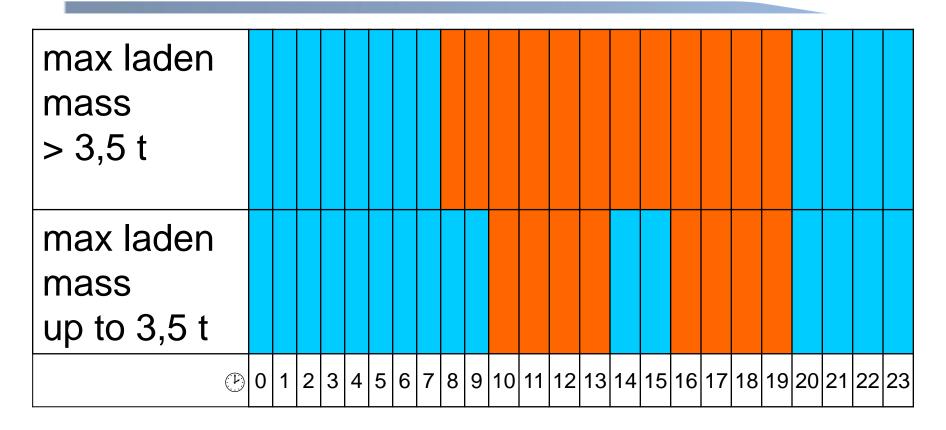


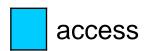


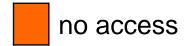




# Time windows in Rome inner area

















# Impacts of time windows in Rome

- Third account vehicles exempted
- Increase of third account based on survey on retailers

	own account	third account
1999 survey	54%	46%
2007 survey	21%	79%



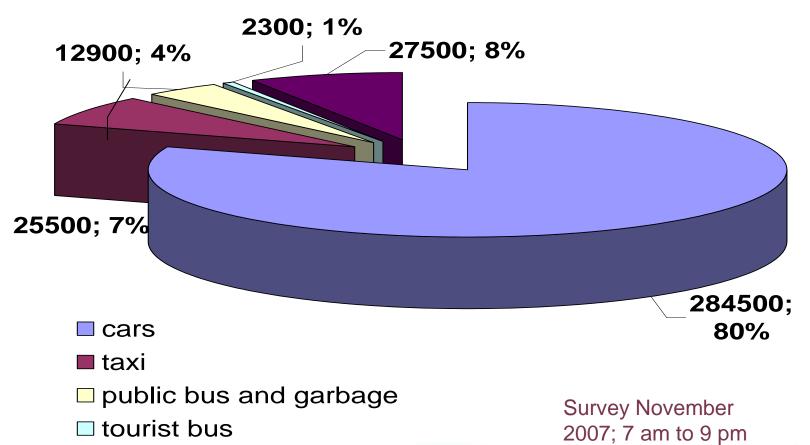






# **Traffic flows measured**

vehicles; % share

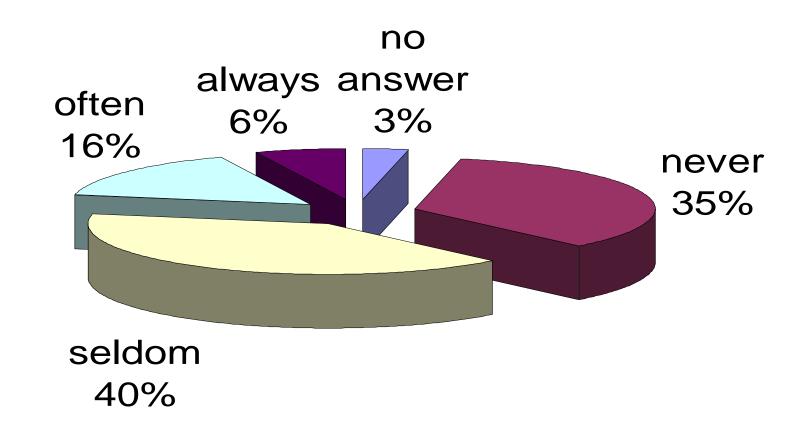




■ freight



# Use of loading/unloading space



Survey November 2007



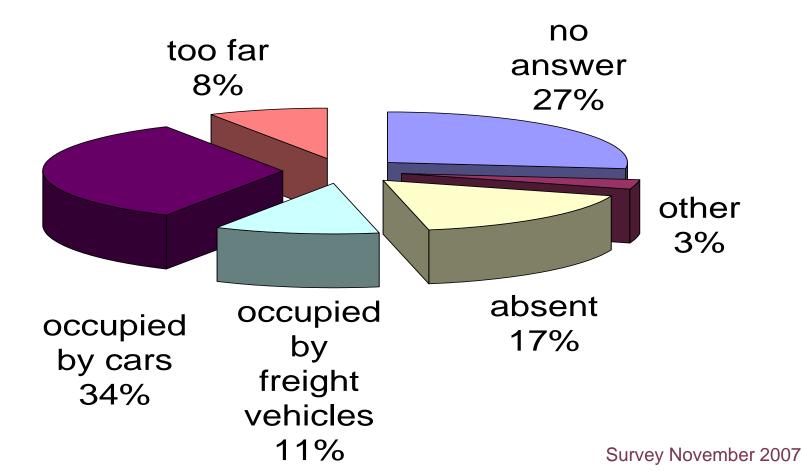








# Reasons for non-use of L/U spaces













## Volumes in the reference area

	Quantity	
	Emitted	Attracted
	[ t/g]	[t/g]
Foodstuffs	34	5.234
Home accessories	88	2.864
Stationery	31	2.476
Clothing	38	1.075
Building Materials	0	468
Household and personal hygiene	0,1	207
Other goods	3	2.175
Total	194,1	14.499











## **Criticalities**

- After about 10 years the distribution in Rome has the same dimension (number of vehicles) and the only effect of the regulation is that fleet have been resized to be compliant
- No use of loading/unloading bays, difficult to control
- Stakeholders have different thoughts on what the problems are and which solutions can be put in place
- High percentage of own-account transport
- The municipality is focussed on a short-term vision (administrative period) while long-term scope is required
- Confusion about the priorities:
  - UDC? Incentives on eco-compatible vehicles?
  - More restrictive rules?











## How can we solve it?

#### Change of method

- From to-down political concertation to mixed bottom-up approach involving all the stakeholders
- Supply chain approach
- Business oriented solutions
- Decisions based on actual measurements of phenomena

#### Change of tools

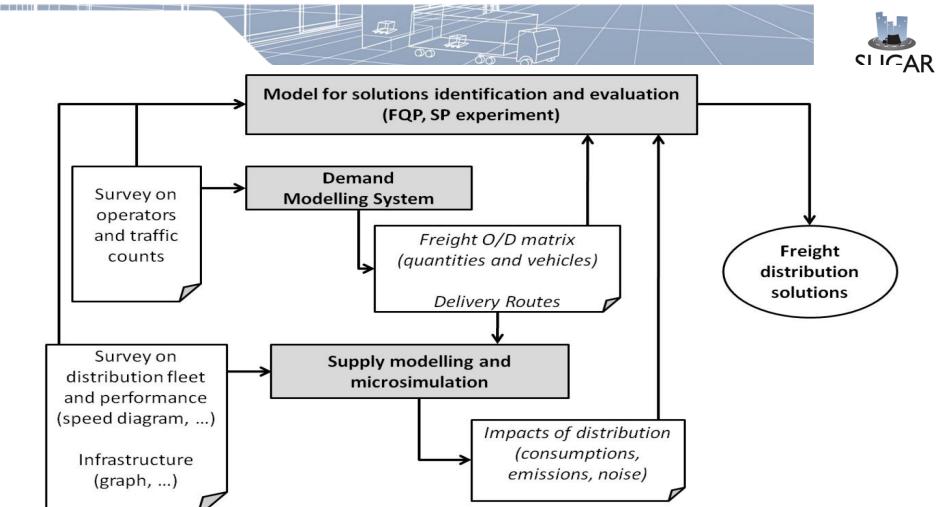
- Continuos monitoring of the freight distribution (ICT can help), in terms of flows and impacts
- Use of freight models to anticipate trends, validate measures and calculate impacts
- Use of agent based analysis techiques to anticipate stakeholders' behaviour











#### **Example of innovative methodology**

Use of freight models regarding demand and suppy, stakeholders's behaviour, microsimulation of vehicles, impact measurement











## **Current activities in Rome**

- The Municipality intends to prepare the new Plan for Urban Freight Distribution (EC Urban Mobility action plan)
- Interested operators categories have been consulted
- CTL is cooperating with UIR Association of Industries representatives of Rome (e.g. Finmeccanica Group, Trenitalia, CEVA Logistics, Poste Italiane) to the discussion on city logistics
- A proposal regarding an innovative approach to the problem has been designed and delivered to the Municipality (under approval in these days)











# The Business Opportunity Plan concept

- A tool to create conditions to promote business projects within the supply chain characterizing urban distribution flows
- Makes use of direct institutional actions supported by the municipality with the involvement of stakeholders (mobility agency, industrial associations, retailers, etc.)
- A committee has to be put in place in order to:
  - ➤ Define, promote and support the implementation of the measures for sustainable urban distribution
  - Define strategies and procedures for freight distribution using winwin approach, balancing environmental, economical and social requirements



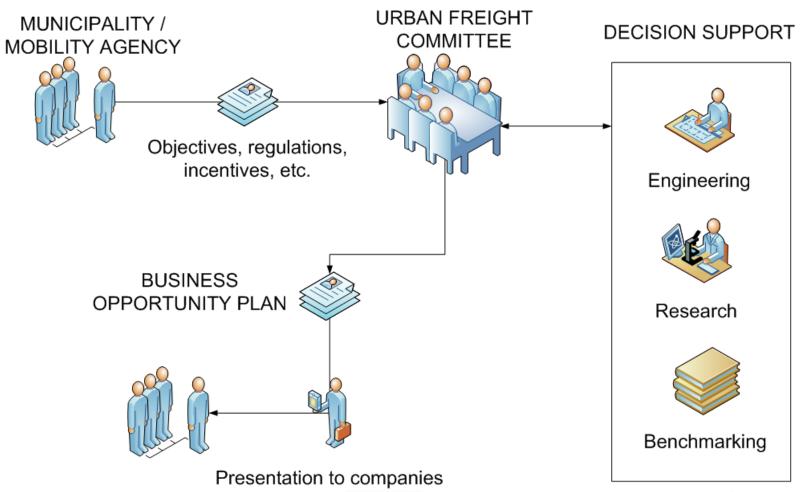








## **Proposed mechanism**













## **Conclusions**

- Discussion around city logistics seems to be focussing on public-private mechanisms to make efficient the process to improve urban freight distribution practices
- Policy makers should be concerned with the involvement also of business stakeholders to invest in opportunities from city logistics related activities
- Regulation should be based on proper support from continuous monitoring of current practices
- Technologies can be actual enablers only in business oriented scenarios
- The concept of Business Opportunity Plan could be a valid method and is being investigated in Rome













# Thanks for your attenction!

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