

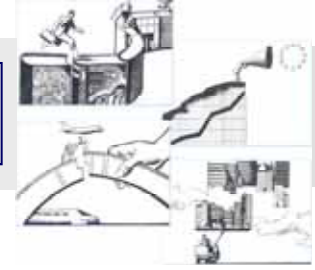
Business models and policies to foster the participation of operators in Italian city logistics experiences

**by Carlo Vaghi, Gabriele Grea,
Gruppo Clas**

**3rd BESTUFS workshop
Kaposvar, 29th September 2005**



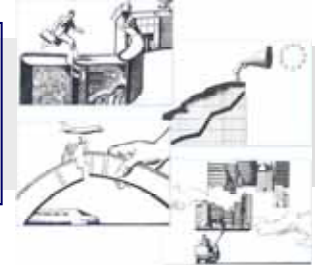
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- **Actors and functions**
- **Tools and actions**
- **Fostering policies and related problems**
- **Business models in Italian city logistics experiences**



City logistics projects: actors and targets



Demand

**Retailers, traders,
economic activities**

- Fast deliveries and known schedules
- Acceptable costs
- High frequency of deliveries

**Supply chain
operators**

- Compatibility between scheduling of deliveries and specific needs of different economic activities

**Carriers on own's
account**

- Freedom for self-provision
- Freedom for hawking
- Freedom for supply of services in urban centers

Supply

Third party carriers

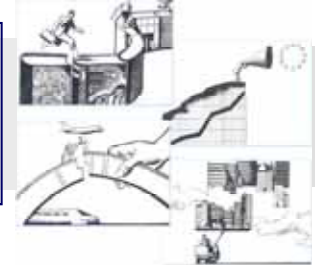
- Guarantees of efficiency and effectiveness of the service, with minimising of restrictions
- Management of the restriction process for most polluting vehicles
- Recognise the organisational effort to keep loading factors high.

**Logistics, terminals,
real estate operators**

- Involvement in city logistics programming
- Supply of areas (inside and outside the city centre)
- Supply of logistics services



Public Administrations: functions and targets



ADMINISTRATION

Functions

- Represents the interests of citizens and operators in town
- Competent body for traffic and parking regulation
- Management of scheduling of time windows
- Owner of areas and building that may be used as loading/unloading lots, logistic platforms
- Owner of ICT tools for the management and monitoring of traffic and vehicles
- Possible financial partner in city logistics projects and experimentations

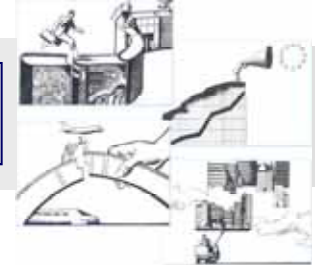
Targets

PRESERVING THE SUSTAINABILITY OF URBAN ENVIRONMENT

MANTAINING OF HIGH COMPETITIVENESS OF THE ECONOMIC AND COMMERCIAL URBAN STRUCTURE



Tools and actions: framework



CITY LOGISTICS TOOLS

Restrictive measures

Incentive measures

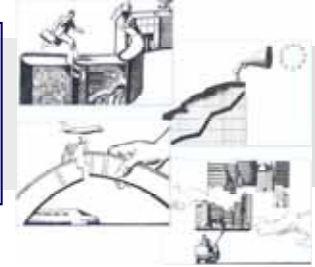
Information measures/agreements

**Infrastructural and technological
interventions**

Public/private partnerships



Tools and actions: restrictions and incentives



RESTRICTIVE MEASURES

On the basis of:

- Full volume payload
- Vehicle dimensions
- Polluting emissions level

Time windows
Stops/parking regulation
Restricted areas

INCENTIVE MEASURES

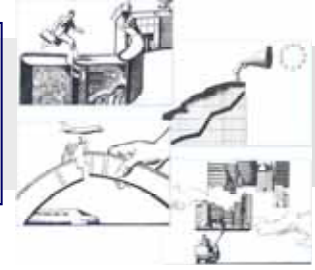
Incentives to the utilisation of load/unloading parkings

Grants for truck/van revamping
Better circulation regimes (wider time windows, access to reserved lanes, etc.)

GOAL: Fine tune the presence of restrictive and incentive measures



Tools and actions: conditions for participation



Spontaneous acceptance of restrictive measures

Willingness of outsourcing the distribution in urban environment (existence of a trust interface)

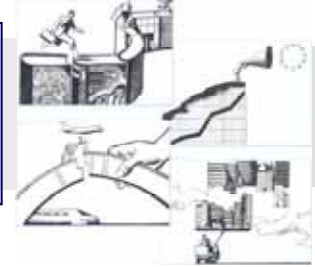
Acceptable costs (possible comparison of outsourcing costs with "last mile" effective costs of distribution)

Social environmental commitment (perception of reduction of external costs and willingness to participate)

But what happens when those conditions are not satisfied?



Legitimacy and effectiveness of fostering policies

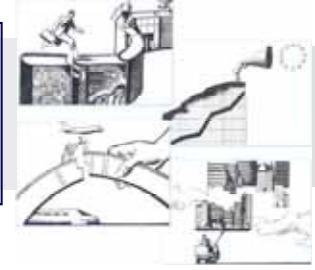


Measures boosting the participation to city logistics experimentations

	advantages	disadvantages
Use of dedicated lanes	Reduction of time for delivering	Need for access control Potential interference with Local Public Transport may affect negatively the passengers transport system The impact in terms of number of circulating vehicles is to be verified
Access without time windows	Optimisation of delivery trips Minimisation of vehicles*km run due to the reduction of delivery trips	Need for a higher control of accesses
Priority on use of dedicated (intelligent) loading/unloading parkings	Possibility and availability of parking in some defined areas Reduction of time for delivering Reduction of congestion causes	Need for infrastructural and ICT investments (for hiring) Possible need for charging systems for parkings mixed use Possible problems related with distance between loading/unloading parkings and destinations
Exemption from road pricing	Limited to cities adopting such an access policy	
Total restriction for "non-participants"	Monopoly regime for the provider of distribution service in urban environment	Risk of claims for market distortions and sub-optimal level of service



Legitimacy and effectiveness of fostering policies



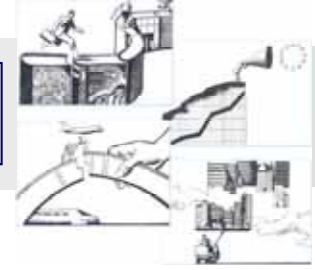
Is fostering participation a key issue in Italy while setting city logistics experimentation?

TRADE-OFF BETWEEN EFFECTIVENESS OF FOSTERING POLICIES
AND THE RISK OF COMPETITION DISTORTIONS

DEBATE ON LEGAL CONSTRAINTS



Legal constraints to fostering policies



Italian Road Traffic Act (D.Lgs. n.285/92, artt.6 and 7)

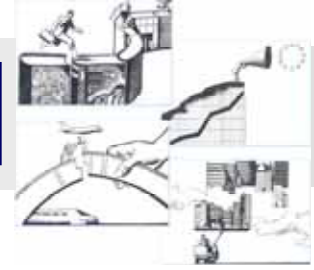
- **Traffic limitations:** The Mayor can issue temporary limitations for **all or some vehicle categories**.
- **Reserved lanes:** The Mayor can reserve the circulation on preferred lanes to **specific vehicle categories**.
- **Parking areas for loading/unloading:** The Mayor can **reserve** areas for loading/unloading.

Does “vehicle categories” refer to fuel only?

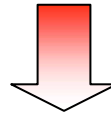
Are “reservations” possible for specific “club” of vehicles?

- No clear possibility to issue **limitations for low loading factor vehicles** or **vehicles running empty**
- No clear possibility to issue special **permissions for vehicles managed by a specific company/brand** (e.g. UDC public manager)

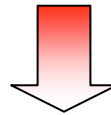
Legal constraints to fostering policies



RISK OF LEGAL CAUSES
between the Municipal Authority and relevant stakeholders



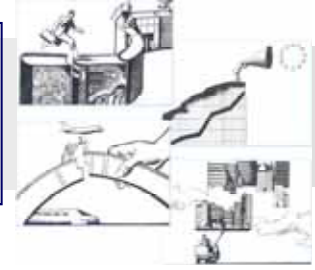
**NECESSITY OF CONCERTATIVE PROCESS
TO AGREE ON REGULATIONS/INCENTIVES
TO ENCOURAGE THE PARTICIPATION OF MAIN TRANSPORT AND
LOGISTICS OPERATORS**



**THE CONCERTATIVE PROCESS MUST BE LED BY A TRUST
INTERFACE**



Operators exempted (or willing to be) from limitations



Definition of postal service provider - EU Directive n.97/67/CE
Liberalisation of postal services: extends the definition of postal operator" to all applicants for a) "individual licence", b) "general authorisation"

Integrated (in Italy) by:

Definition of "postal package":

Parcels up to 30 kg

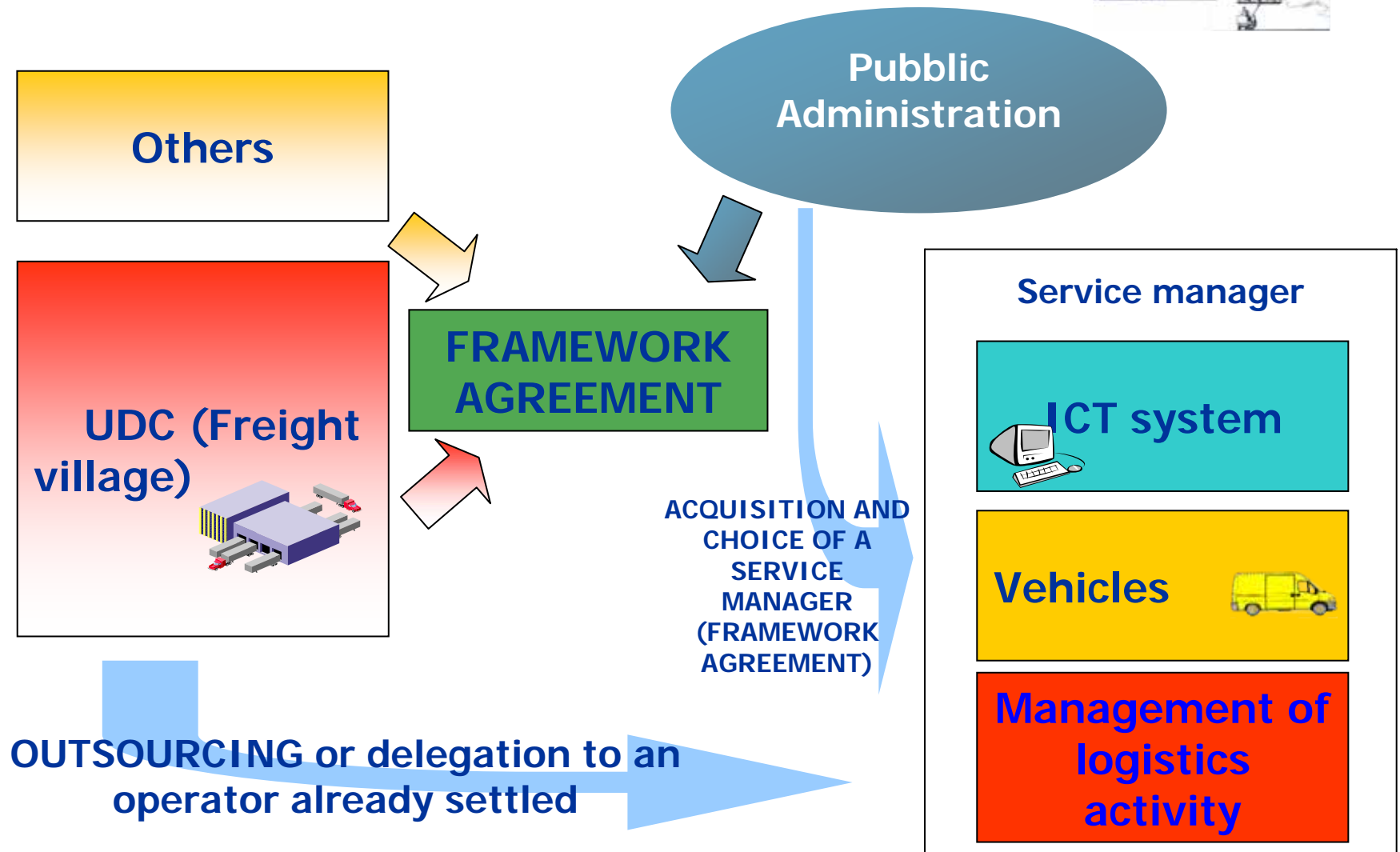
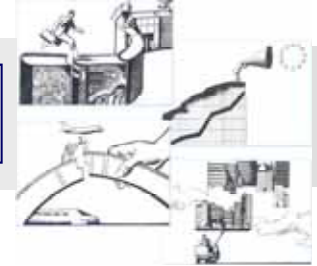
"Essential public service": this is the postal service, even after the liberalisation process.

**General authorisations and individual licences issued in Italy
(December 2004):**

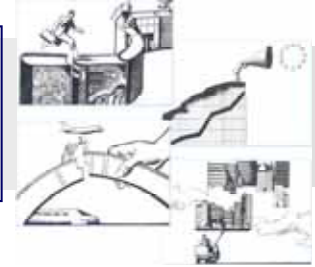
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**THE MOST PART OF THIRD PARTY OPERATORS ARE "POSTALS",
they declare they provide PUBLIC SERVICE and ask for derogations
(in cities where they are not issued yet...)**

Possible business models (Padova)

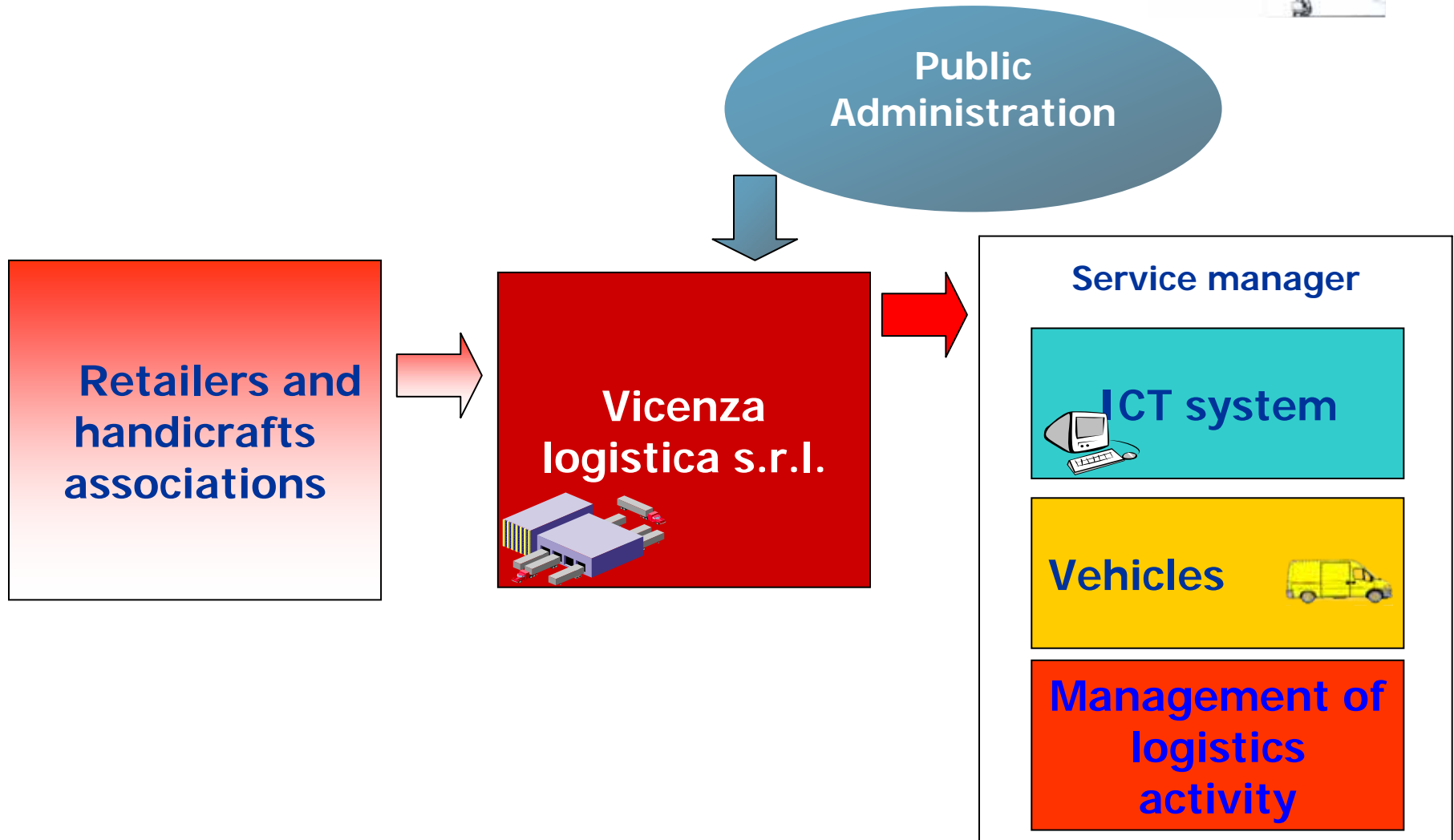
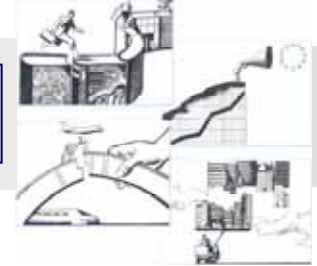


City logistics in Italy: ongoing integrated experimentations

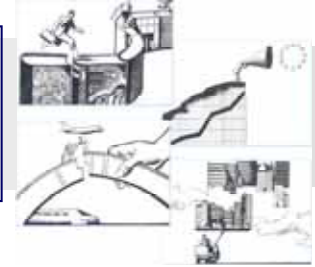


Town	PADOVA
Model	UDC low emission vehicles traffic restrictions (limited traffic zone in historical centre) time windows for access and loading/unloading
Vehicles	4 (natural gas powered)
Period	From March 2004 (ongoing)
Consignments	3700-3900 per month (spring 2005)
Fostering policy	CITYPORTO vehicles (owned by the public holding APS) run with no time windows, and use reserved lanes (such as buses)
Operators involved	15 logistics operators outsource the distribution to CITYPORTO

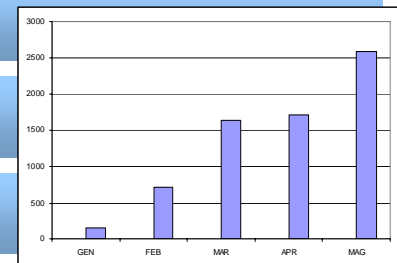
Possible business models (Vicenza)



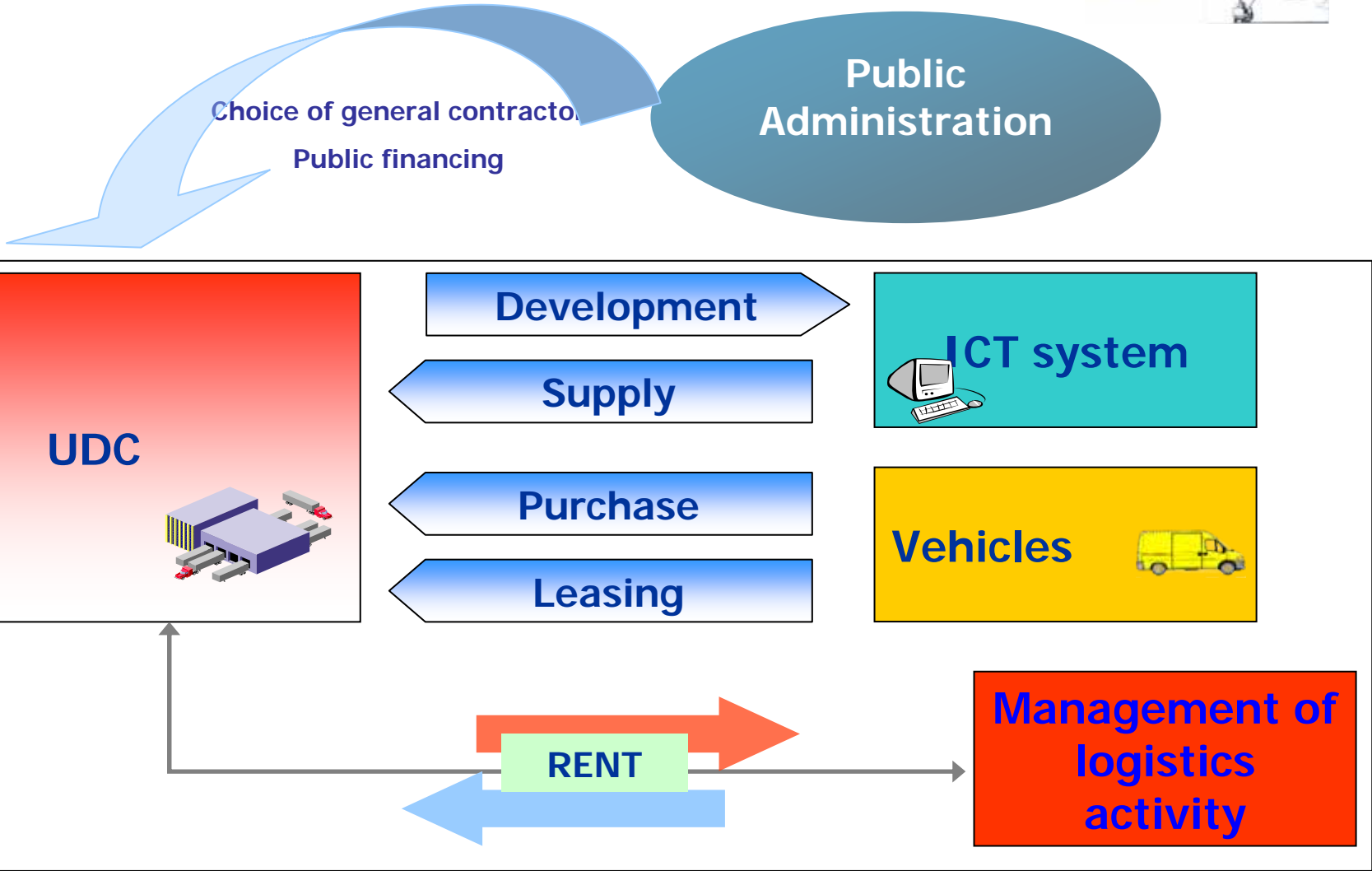
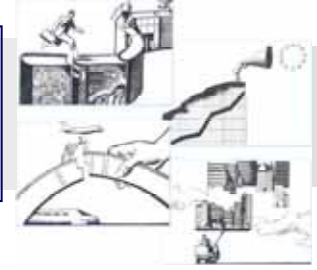
City logistics in Italy: ongoing integrated experimentations



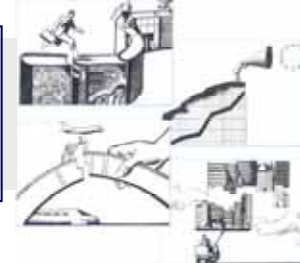
Town	VICENZA
Model	UDC low emission vehicles Total traffic restrictions in historical centre, even for LEV
Vehicles	5 (electric)
Period	From January 2005 (ongoing)
Consignments	2500 per month (May 2005, increasing)
Fostering policy	VELOCE vehicles only (<u>identified by logo</u>) can enter limited traffic area and use reserved lanes (such as buses)
Operators involved	14 logistics operators outsource the distribution to VELOCE



Possible business models ("Misura 5" Emilia Romagna Region)



City logistics in Italy: ongoing integrated experimentations

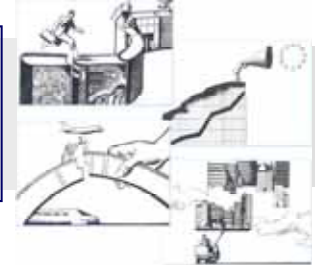


EcoPorto

Town	FERRARA
Model	UDC (managed by private operator) low emission vehicles traffic restrictions (limited traffic zone and pedestrian areas in historical centre) road pricing (to be implemented)
Vehicles	51 (natural gas powered)
Period	From 2002 (ongoing)
Consignments	140000 per month (September 2005)
Fostering policy	Discount on road pricing tariff (80%) for vehicles powered by natural gas and electric
Operators involved	Major shippers of food (milk, other perishable)



City logistics in Italy: ongoing integrated experimentations

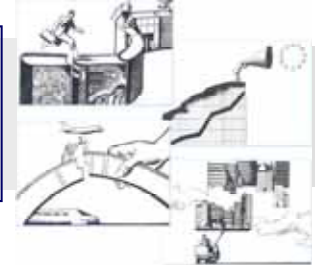


M.E.R.C.I.

Town	GENOVA
Model	UDC (managed by public company) low emission vehicles traffic restrictions (pedestrian areas in historical centre) time windows for access, loading/unloading
Vehicles	8 electric + 2 natural gas powered
Period	Ended in December 2004 (National funds expired)
Consignments	68 per day (2004)
Operators involved	25 logistics operators



City logistics in Italy: ongoing integrated experimentations



M.E.R.C.I.

M.E.R.C.I. Project is going to restart with EU funds. The Municipality is looking for stricter restrictions / stronger fostering policies...

Fostering
policy
(possible)

Soft

- Freight distribution and logistics at UDC tendered - search for private partner
- Access to historical centre for ZEV / LEV vehicles only

Hard

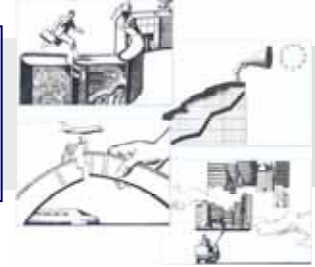
- Freight distribution and logistics at UDC tendered - search for private partner
- Access to historical centre for M.E.R.C.I. Project vehicles only



*Measure adopted in one small town in Italy only (Riva Del Garda).
No other Municipality attempted to introduce it...*

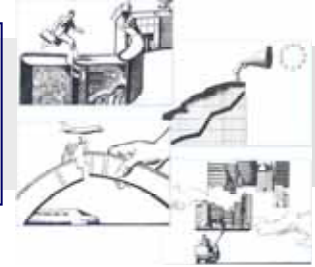


City logistics in Italy: other experimentations (study phase)



Town	BRESCIA
Model	Time windows for access, loading/unloading <u>Reserved parking areas for loading/unloading</u>
Fostering policy (foreseen)	<ul style="list-style-type: none">▪ (Soft) Access to parking areas reserved for “associated” operators (Associazione City Logistics Brescia)▪ (Hard) Distribution permits for “associated” operators only
Operators involved	Major transport operators and trade associations

Specification of participants for the experimentation



... how is a “participant” identified? (e.g. in a UDC based model)

Identification based on:

vehicle technical characteristics (fuel)

vehicles outward appearance (licence, logo)

“club membership”

Related fostering policies:

Fostering policies extended to all the carriers operating with eco-compatible vehicles

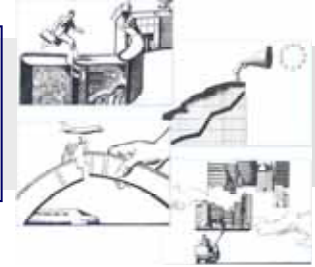
- Are generalised derogations to all the eco-compatible vehicles **effective for urban environment?**
- **Are they neutral in terms of competition, or do they favour bigger operators?**

Fostering policies focused to a defined group of participants

- Do derogations to a defined number of vehicles **result in competitive distortion?**
- **Are they possible only when the vehicles are public-owned?**



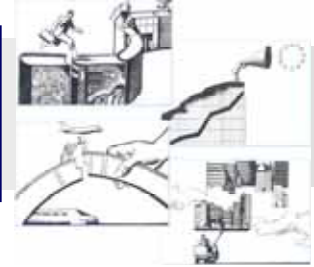
Effectiveness of fostering policies for different specifications of participants



Selection of participants	Effects on congestion		Effects on pollution	
	Short run	Medium/long	Short run	Medium/long
Vehicle characteristics (fuel)	Very positive	Neutral	Positive	Very positive
Vehicle outward appearance	Positive	Positive	Positive	Positive
Club membership	Positive	Neutral	Positive	Neutral

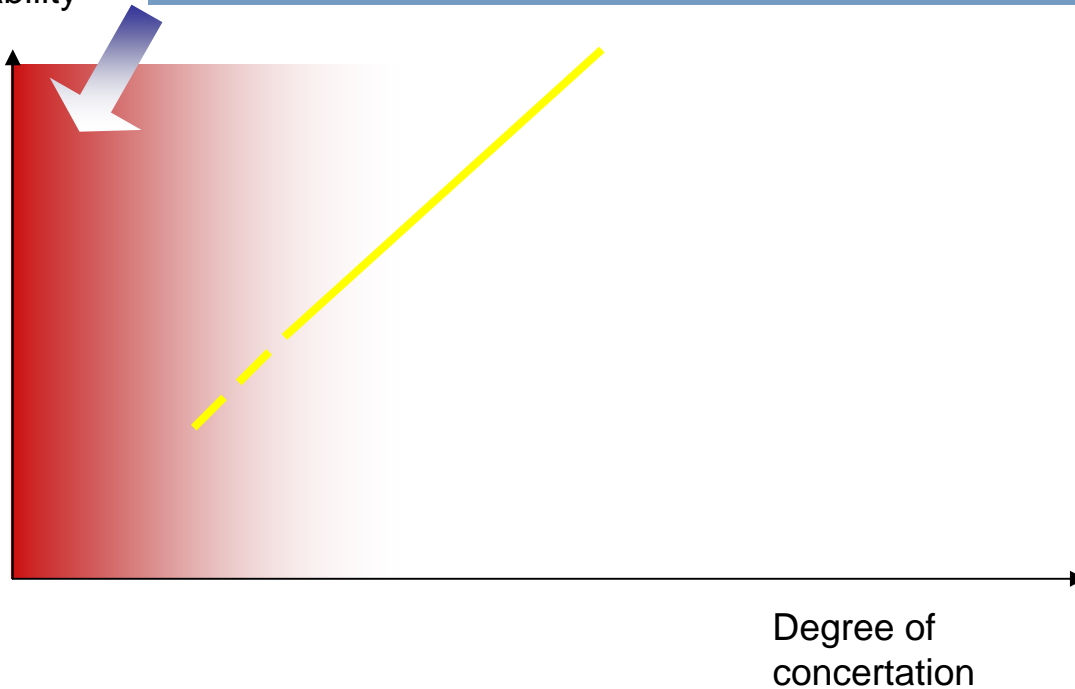


The need for concertation in the italian experience

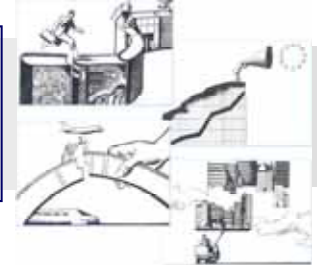


NO CONCERTATION MEANS NO SUCCESS FOR THE EXPERIMENTATION

Financial sustainability



Potential economic performance for different specifications of participants



Monopoly of City logistics manager:
Investments for massive vehicles deployment
will, especially in the short-medium run, pull
down the economic performance

Financial
sustainability

