

Competitive bidding in local public services: the case of Local Public Transport

Prof. Carlo Cambini
Politecnico di Torino
carlo.cambini@polito.it

Auctions

- Markets in which products are bought and sold through formal bidding processes
 - Encourages competition that increases seller's revenue
 - Low cost of transactions
 - Useful for unique items or those with fluctuating value
 - Tokyo fish market

Auction Formats

1. Traditional English (oral)

- Seller actively solicits progressively higher bids from a group of potential buyers
- Buyers are always aware of highest bid
- Stops when no one passes highest bid

Auction Formats

2. Dutch auction

- Seller begins by offering item at relatively high price, then reduces it by fixed amounts until item is sold
- First buyer accepting offered price can buy item at that price

Auction Formats

3. Sealed-bid

- All bids are made simultaneously in sealed envelopes, where winning bid is the one who submitted highest bid

A. First price

- Sales price equals highest bid

B. Second price

- Sales price equals second highest bid

Valuation and Information

- How to choose an auction format
 1. Private-value auction – bidder knows individual valuations of object, but valuations differ from bidder to bidder
 - Signed baseball
 2. Common-value auction: bidders uncertain what the value is
 - Offshore oil reserve

Price-Value Auctions

- Each bidder must choose bidding strategy
- Payoff for winning is reservation price minus price paid
- Payoff for losing is zero

Private Value Auction

- English oral auction and second-price sealed bid auctions
 - Bidding truthfully is dominant strategy
 - Pay based on value of second highest bidder so no incentive not to bid reservation price
 - Risk to bidding higher than reservation price

Private Value Auctions

- English auction
 - Continue bidding until second person is unwilling to make bid
- Sealed-bid auction
 - Winning bid approximately equal to the second highest bidder's reservation price
- Both yield the same revenue

Common Value Auctions

- Winner's Curse
 - The winner is worse off because they overestimated the value of the item and thereby overbid
 - Must reduce bid by amount equal to the expected error of the winning bidder
 - If a lot of variation in other bidders, then estimates are fairly imprecise

Maximizing Auction Revenue

1. Private Value Auction

- Encourages many bidders to increase expected bid of winner

2. Common Value Auction

- Uses open rather than sealed bid
 - Generates greater revenue
- Reveals information about true value, reducing concern of winner's curse

Maximizing Auction Revenue

3. Private value auction

- Sets min bid equal to or higher than value to you of keeping good for future sale
- Protects against loss if bidders are unaware of value
- Increases size of bids by letting bidders think item is valuable
- No sale could make bidders think item is low quality

Bidding and Collusion

- Buyers can allow benefit from collusion
 - Can be done legally through buying groups
 - Can be done illegally through collusive agreements that violate antitrust laws
 - Collusion is not easy because of large incentive to cheat
 - Repeated auctions allow for penalizing participants that break agreement

Bidding and Collusion

- Examples
 1. Collusion among baseball owners to limit their bidding for free agent players in the 1980's
 2. Two of the world's most successful auction houses were found guilty of agreeing to fix prices of commissions
 - Sotheby's and Christie's

Application to LPT

The European Directive

- In recent years many EU-member countries have decided to introduce a competitive tendering procedure in the assignment of franchised monopolies in the regional and local transportation industry, including bus, underground and local trains.
- This process has been generated by the obligation of the member countries to implement the European Directive 1191/69/EU (modified by 1893/91/EU).

The Italian Law

- In order to improve the allocative and productive efficiency of the market, the Italian government introduced a new reform (D.lgs. 422/97 and 400/99) whose main purpose was to create a more market-oriented industry, enhance competition and reduce the huge subsidies to the unprofitable (local and national) transport firms.
- Such a new regulatory framework modifies the institutional organization of the industry, as it follows:
 - It shifts the programming of the services and the management of the subsidies from the national to the regional level,
 - It requires local government and the firm to sign a formal agreement (*service contract*) that clearly defines the rules that the provider of the service must obey and addresses important issues such as reimbursement and risk-sharing schemes.
 - It obliges to assign the service area with competitive tendering procedure for the allotment of service concessions (from January 2004!!)
 - it introduces incentive mechanisms in the allocation of subsidies (e.g., through a *subsidy cap*).

The Italian Law

- However, later legislative interventions changed the institutional framework, introducing normative uncertainty and leaving (maybe too much) discretion to local governments in deciding how to allocate concessions.
- Firstly, with the 448/2001 Law (article 35) the Italian government decided to postpone the obligation to introduce competitive tendering for ten years; however, after strong criticism from the European Commission, the statement was revoked.
- Two years later, the Law 326/2003 (article 14) reintroduced the possibility for Local Governments to give a concession *without* the use of competitive awards, through the so called *in house provision*.

The Italian Law

- After another intervention of the European Council against the *in house provision* and in favour of open and competitive tendering procedures, the Decreto Legislativo 269/04 re-imposed the obligation to of competitive tendering, starting from January 2006, lately postponed to January 2008 and now postponed to January 2009 (!!)
- The degree of normative uncertainty and the opportunism of many local governments that prefer to keep control over their own public transport firms have lead many of them to making use of *in house provisions*, as it happened in many Italian cities like Alessandria, Asti, Bari, Foggia and Roma.

A first comparison

Table 1 – Performance indicators of the local bus industry
(Euros, years 2002-2004)

	Italy	UK	Germany	France	Sweden	Holland	Belgium	<i>Average (excluding Italy)</i>
Public subsidies per km	2,2	0,6	1,5	1,9	0,9	1,5	2,0	<i>1,4</i>
Traffic revenues per km	1,08	1,49	2,39	1,14	1,07	0,98	1,00	<i>1,34</i>
Operating costs per km	3,5	1,8	4,0	2,9	1,9	2,4	3,0	<i>2,7</i>
Revenue/cost ratio %	30,7	84,2	60,5	39,2	55,4	40,0	33,1	<i>52,1</i>
Standard ticket fare	0,84	1,53	1,89	1,26	1,95	1,60	1,40	<i>1,60</i>
1hour ticket in capital cities	0,80	1,13	0,97	1,32	1,76	1,44	1,33	<i>1,33</i>
Monthly pass	30,00	41,33	51,19	45,80	44,02	47,20	32,54	<i>43,68</i>
Labour cost per km	2,3	0,8	2,1	1,6	1,1	1,7	2,0	<i>1,6</i>
Average product (km) per employee	17060	20592	17761	20506	23423	18275	10018	<i>19763</i>

Source: Earchimede (2005)

Competitive tendering for LPT services: properties and aims

Competitive bidding in LPT: the aims

- Increase efficiency (*coverage ratio* Italy : at least 35%)
 - Subsidy reduction
- Increase quality
- Increase environmental quality
 - Reduction in emission and overall pollution \Rightarrow increase the average age of bus
- Increase the public traffic vs. private cars
- Introduce competition and increase firms' dimension
- (employment???)

- Mix of economic and technical issues How to evaluate them all??

Competitive bidding in LPT: the aims

- How to deal with all these issues?
- How to implement competitive bidding in LPT?
- Several dimension:
 - The contract type and the intrinsic risk
 - The dimension of service area
 - The award procedure
 - The service design in the assigned area
 - Infrastructure ownership
 - ...

Competitive Bidding in LPT: the contract type

- First, local authority has to define the “object” to be tendered out, i.e. the type of contract to be offered to the winning bidders.
- Following the analysis of Isotope (1997), there are two different types of on-going risks that a supplier of transport services has to face:
 - the *production risk*, associated with the production cost of the services’ provision;
 - and the *revenue (or commercial) risk*, associated with the sale of transport services.

Competitive Bidding in LPT : the contract type

- The allocation of these risks defines a set of different types of contracts that could be tendered:
- *Gross Cost Contract*: the transport firm bears only the production risk while the revenue risk is born by the tendering authority. The firm receives a unit transfer related to an anticipated unit cost. Revenues accrue only to the tendering authority.
- *Net Cost Contract*: both risks are born by the transport firm. It receives a transfer determined in the tendering process, equal to the difference between anticipated total costs and traffic revenues.

Competitive Bidding in LPT : the contract type

- There are other kind of incentive contracts between local authorities and the transport firm:
 - *gross cost contracts with revenue incentive,*
 - *or net cost contracts with shared revenue risk*
- The revenue risk is split between actors.
- Different types of contract entail different incentives to minimize costs and/or to control revenues. Whatever type of contract has to be clearly specified ex ante when designing the tendering procedure.

Competitive Bidding in LPT : the dimension of area service

- The dimension of the service-area is the second but perhaps more important element that local governments should define in a tendering procedure.
- Obviously, at least from an economic point of view, the bigger is the area to award, the lower the number of potential competitors and so the worse may be the result from the point of view of the auctioneer (local government).
- But if economies of scale and density matters ... firms can save money!
- Trade-off between efficiency and contestability

Competitive Bidding in LPT : the dimension of area service

- Alternatives (Cambini and Filippini, 2003):
- *Route-by-route tendering*: it guarantees an efficient production of transport services, as the number of potential bidders can be expected to be high and competition can thus be expected to be fierce. However, route-by-route tendering could increase the planning-costs, since the local authority has to integrate the entire range of services provided by different operators in order to have a suitable network. For this reason, this tendering procedure could more successfully be used to assign inter-city routes than urban ones.

Competitive Bidding in LPT : the dimension of area service

- Alternatives/2 (Cambini and Filippini, 2003):
- *Network tendering*: it consists of a competitive tendering regarding the assignment of services in a whole urban or regional area. Even if this method maintains the integrity of the network, it presents some disadvantages. Firstly, the complexity of the services to be provided increases the organizational costs of the tendering procedure. Moreover, if one applies this procedure to allocate transport services in a large city or a metropolitan area, the potential number of bidders would be relatively low, since it is difficult for a small operator to provide a large quantity of services. The lower the number of bidders the lower the potential benefits from the auction.

Competitive Bidding in LPT : the dimension of area service

- Alternatives/3 (Cambini and Filippini, 2003):
- *Sub-set tendering*: the service-area to be tendered is divided into sub-sets. Each sub-set is made of a bunch of routes to be served by the winning bidder. By reducing the area to be served one can expect that the number of potential bidders increases, hence that the competitive pressure also increases. In addition, the possibility of tendering small units, without loss of integration, permits the local authority to compare operators' performance simultaneously (yardstick competition). The main difficulty with route bunching is defining the single units to be awarded and their size in order to exploit the economies of scale or density and to coordinate and correctly plan the services in the whole area.

Competitive Bidding in LPT : the dimension of area service

- One can say that there is a trade-off in the definition of the size of the bus service area to be assigned through a competitive tendering process.
- On the one hand, the definition of a small service area to be assigned, for instance a bus line, can guarantee a high level of competition because many operators will be able to participate in the tendering process.
- On the other hand, a small service area cannot guarantee the optimal scale of production

Competitive Bidding in LPT : the award criteria

- The selection criteria must take into account both the economic and technical issues of service provision.
- While the economic elements are easily quantified, problems of evaluation emerge from operative issues that are difficult to verify and quantify.
- The possibility of assigning arbitrary weights to different elements of the bid could alter the final result of the award process.

Competitive Bidding in LPT : the service design

- Local Authorities should decide either to accurately design ex ante the assigned area (i.e. to implement a *rigid tender*) or to leave some degrees of freedom to the franchisee in designing the services, in terms of fares, frequencies of buses, bus routes, quality of buses, etc. (*non rigid tender*).
- In order to avoid a quality reduction in the provision of transport services, local authorities usually set penalties in case of unjustified reduction in quality provision.

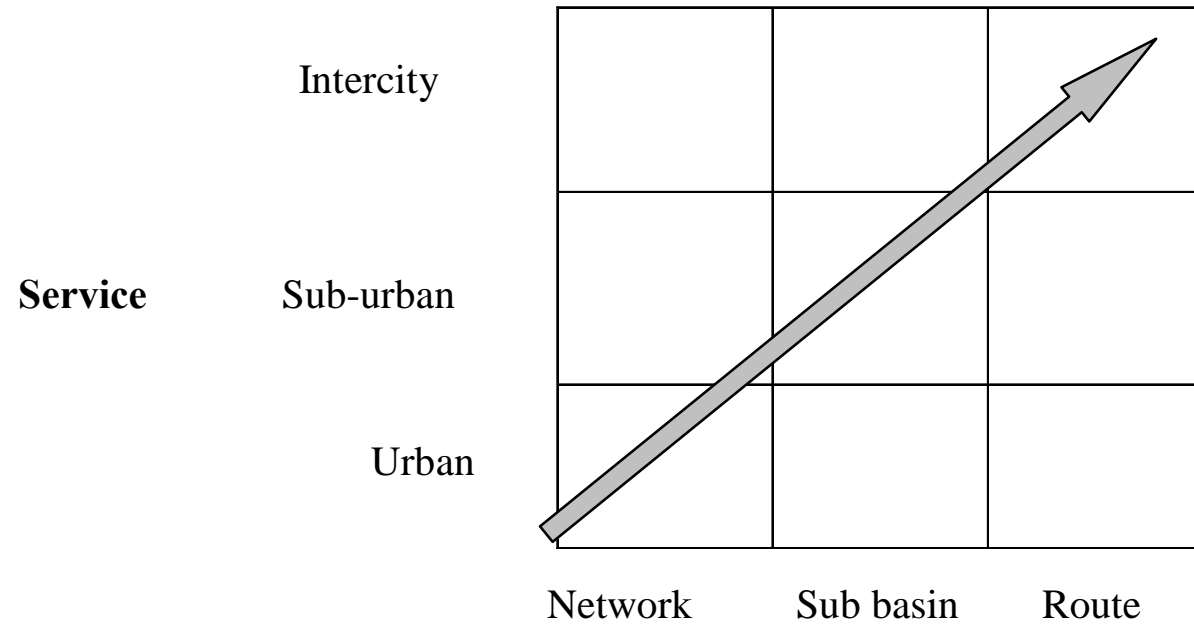
Competitive Bidding in LPT : the service design

Service Plan on the firm side	Service area dimension	
	Route	Network
Low	Rigid tender	Partially flexible
High	Partially flexible	Completely flexible

Competitive Bidding in LPT : infrastructure ownership

- The ownership of buses, depots and other equipment represent a consistent barrier to entry that could prevent new operators from entering the market.
- If the tendering authority owns the infrastructure, then these barriers can be eliminated. But still problem: maintenance? Lease price?
- Otherwise, the tendering authority must oblige the incumbent to transfer the entire infrastructure to the potential new operator, but it has to define how to evaluate the financial value of these capital goods (net value of asset Opportunistic behavior!!).
- This last task is extremely complex due to the information asymmetry existing between the incumbent and the local authority.
- In Italy, the networks are publicly owned but not necessarily the buses, depots

Dimension of service area to award



Award criteria

- Need of flexibility but also clarity in the award procedure
- Multi-dimensional auctions (both economic and technical issues)
 - If it is possible to quantify all the aims of a bidding procedure, complex but reasonable;
 - If some of the criteria are not easily quantifiable, problem of evaluation.

Formal requirements for bid admission

- Technical, administrative and economic/financial requirements
- Professional requirements
- Exclusions
- Possibility of joint-venture (ATI, consortium,)
 - Italian Antitrust : huge risk of collusion!!

Quality provision

- Regularity/punctuality
- Comfort (air conditioning, seats)
- Bus cleaning
- Information to consumers (on journals/TV, at the bus stops, *call center*, ecc.)
- Buses (environmental quality, average age, ecc.)
- Security
- Ticketing (availability, service control, menu of tariffs, ...)

Supervision and Penalties

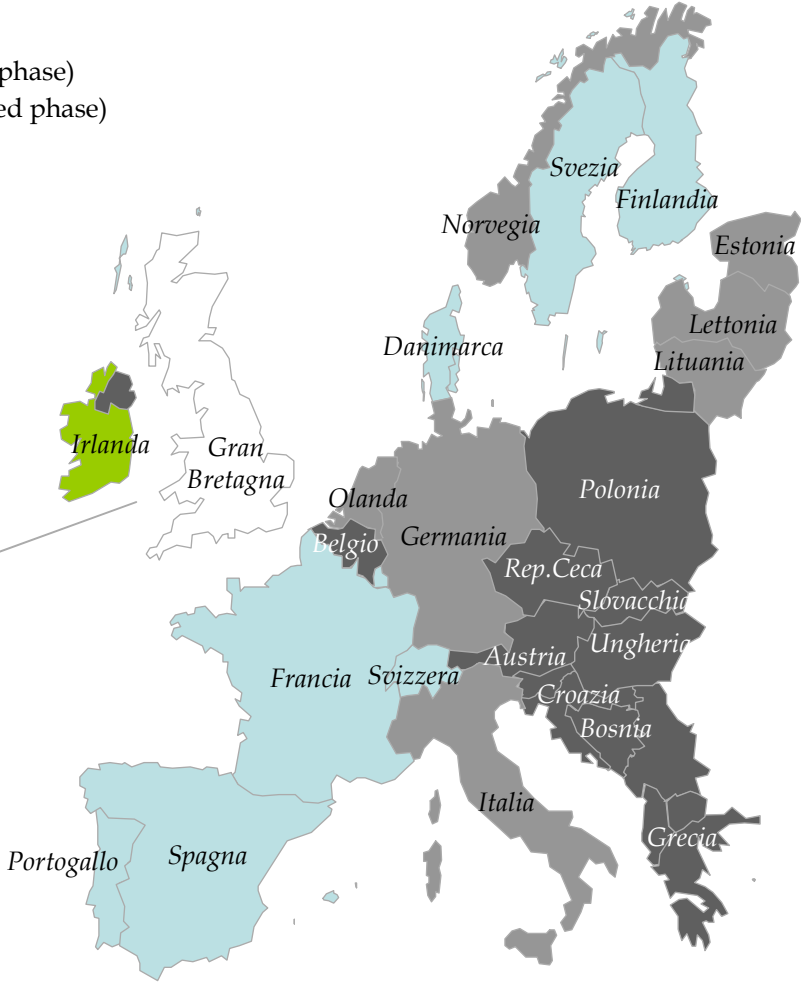
- Performance control (regularity, minimum standard requirements for quality and environment, ecc.)
- Satellite control on punctuality and number of the routes
- Penalties system

The European Experience in tendering for LPT services

Competitive bidding in Europe: intercity services

- In-house concession
- Regulated market (starting phase)
- Regulated market (advanced phase)
- Deregulated market

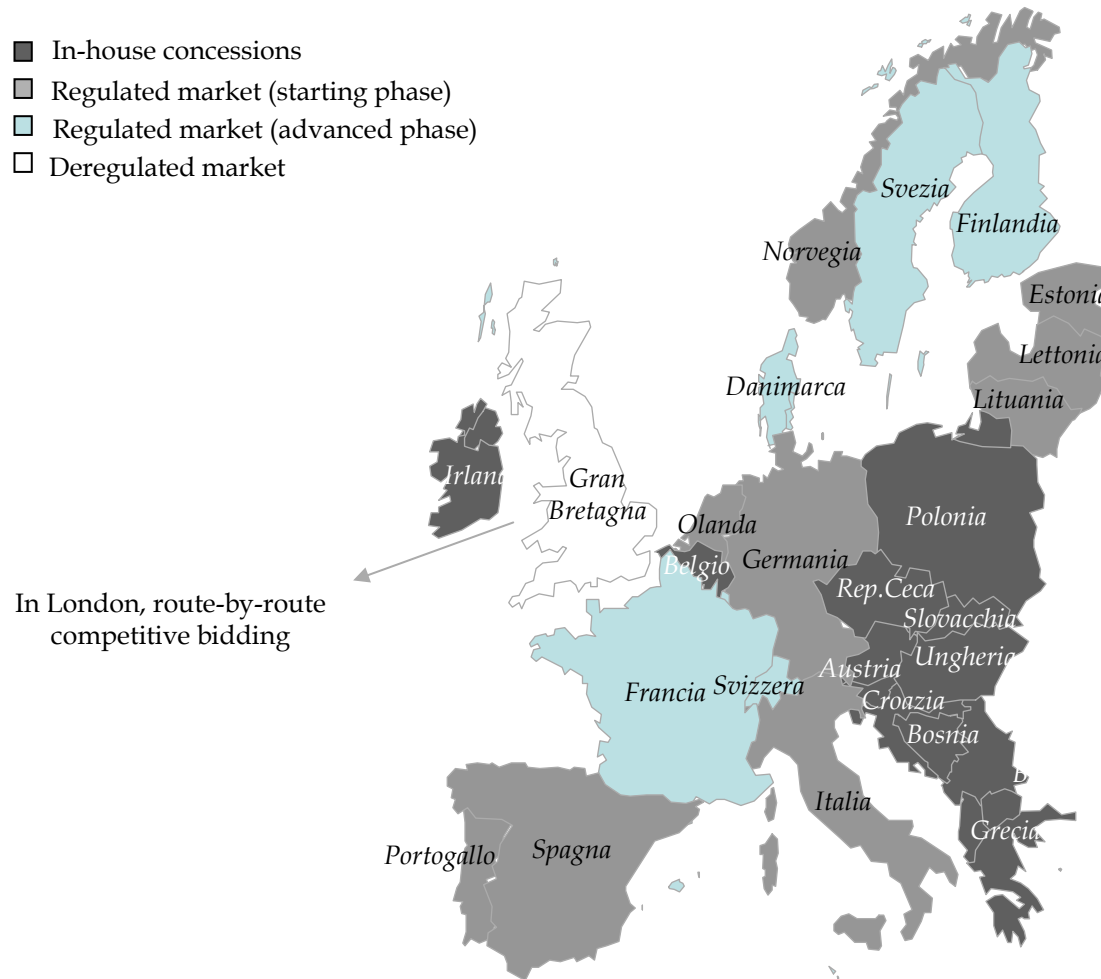
Deregulation only for commercial services (85% of total services).



PAESI	Market reform
United Kingdom	1984
Spain	1987
Sweden	1989
Belgium	1989
Denmark	1990
Finland	1991
France	1993
Germany	1996
ITALIA	1997
AUSTRIA	1999
Netherlands	2000

Competitive bidding in Europe: urban services

- In-house concessions
- Regulated market (starting phase)
- Regulated market (advanced phase)
- Deregulated market



In countries where competitive tendering has been introduced, incumbent operators are the dominant one










<i>Città</i>	<i>Operatore</i>
MADRID	EMT
BERLIN	BVG
AMSTERDAM	GVB
LISBON	CARRIS

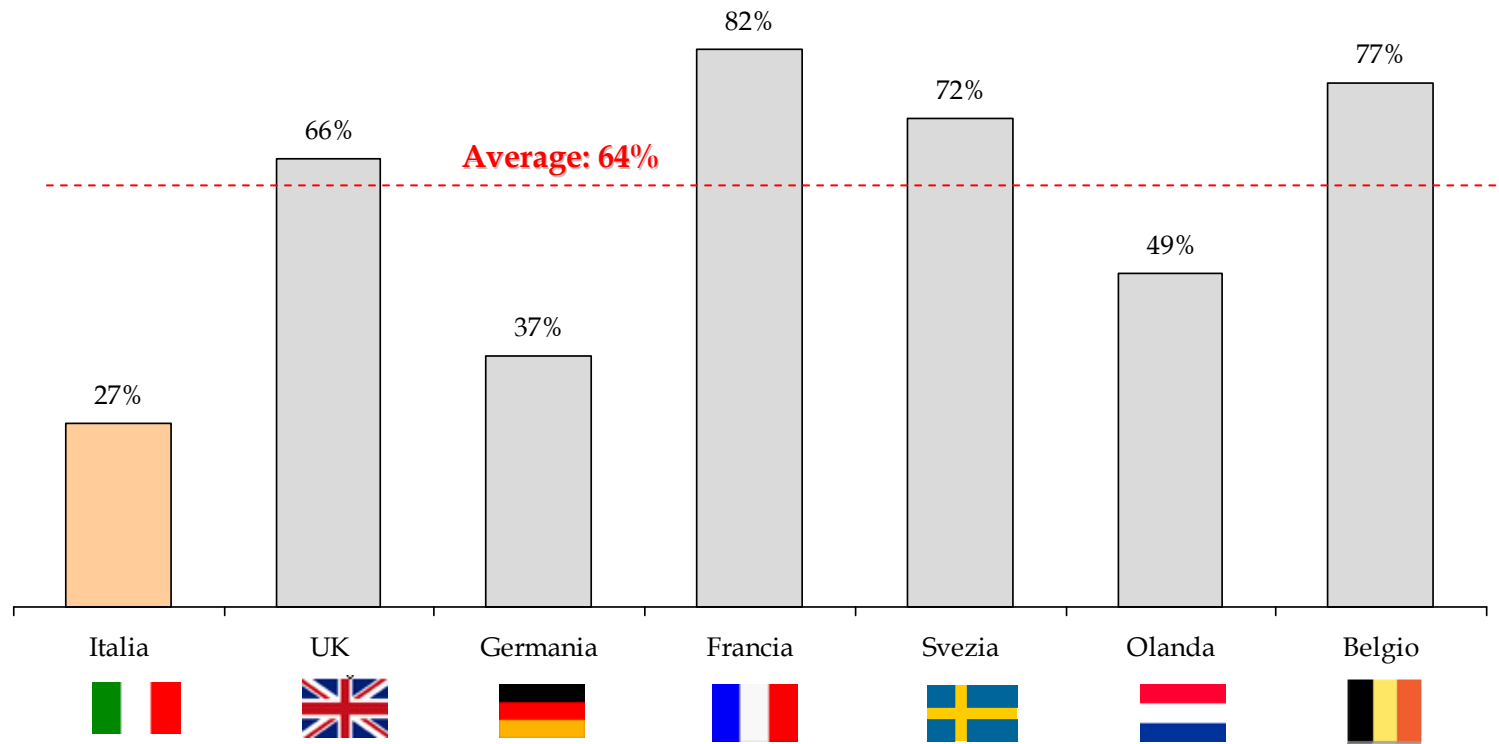
Regulation in Europe

Countries	Service allocation	Regulator	Contract type
ITALIA	In house/competitive bidding	Local Govnt	Net cost
GERMANIA	In house	Local Authority (Verkehr.)	Net cost
<i>Ile de France</i>	In house	Local Authority (Stif)	Net cost
NORVEGIA	In house (98%)	Local Authority (Ca)	Net cost
OLANDA	In house (65%)	Local Authority	Net cost incentivati
BELGIO	In house	Regional Authority	Net cost
SPAGNA	- In house for urban services -Comp. Bidding for intercity services	Regional Authority	Net cost
<i>Londra</i>	Competitive bidding (100%)	Local Authority (TFL)	Gross cost incentivati
SVEZIA	Competitive bidding (98%)	Local Authority (CPTA)	Gross cost incentivati
FRANCIA	Competitive bidding (90%)	Local Authority (Gart)	Contratti per la gestione
INGHILTERRA	Competitive bidding for non commercial serv. -Deregulation for commercial services.	Regional Authority (PTE)	Net cost

– Structural Indicators –

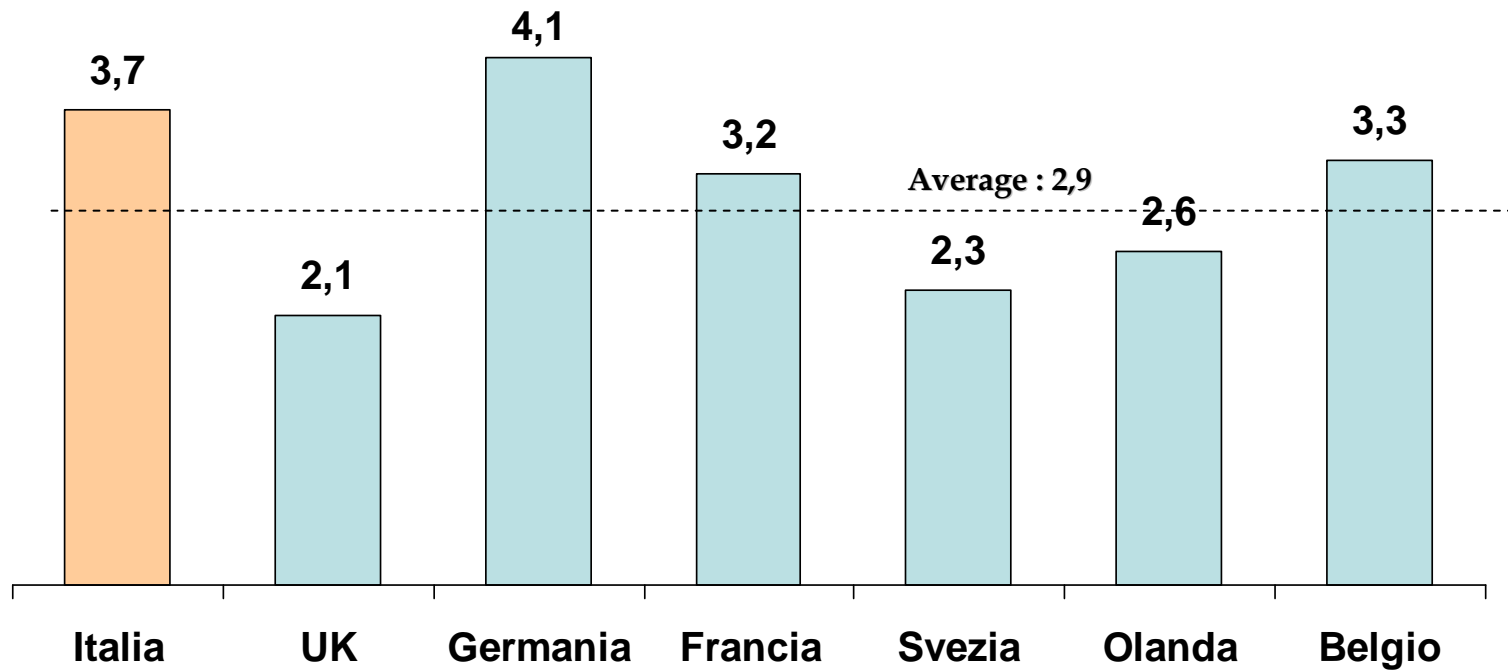
	Italia	UK	Germania	Francia	Svezia	Olanda	Belgio	Media Panel*
Indicatori Strutturali								
Rapporto gomma-ferro								
% passeggeri- Km gomma	65%	48%	47%	45%	50%	45%	58%	49%
% passeggeri- Km ferro	35%	52%	53%	55%	50%	55%	42%	51%
Rapporto urbano-extrurbano (bus)								
% Km urbano	39%	50%	47%	35%	24%	58%	63%	46%
% Km extraurbano	61%	50%	53%	65%	76%	42%	37%	54%
Km x abitante (bus)	30,8	41,3	31,8	26,9	56,0	23,5	22,0	33,6
Km x ab. normalizzato (bus)**	35,4	40,0	35,7	26,4	47,8	24,2	24,1	33,0
Velocità media (km/h) (bus)	20,2	24,0	20,7	23,7	27,3	22,6	21,2	23,2
Caratteristiche degli operatori								
Grado di concentrazione (bus)								
Quota di mercato "Top Five"	27%	66%	37%	82%	72%	49%	77%	64%
Rapporto pubblico-privato (bus)								
% Km operatori pubblici	68%	5%	52%	36%	24%	95%	72%	47%
% Km operatori privati***	32%	95%	48%	64%	76%	5%	28%	53%
Inv. rinnovo mezzi (€ x bus)	4.494	1.937	5.868	6.506	11.538	4.809	5.675	6.055
Età media parco mezzi (anni) (bus)	9,2	8,4	7,1	7,7	6,8	8,1	7,9	7,7

*Market share of "top five" operators
(CR5 %; 2002)*



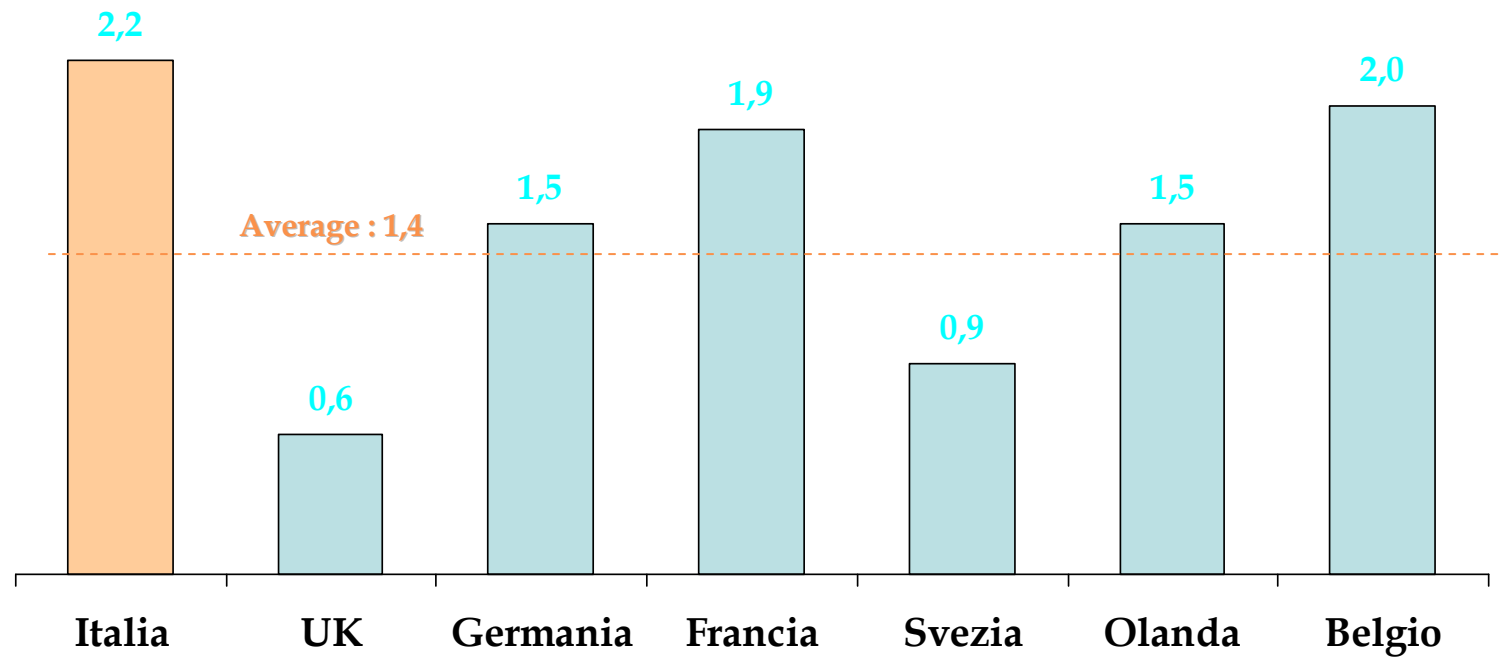
Performance Indicators

Production value per Km
(Euro/Km; 2002)



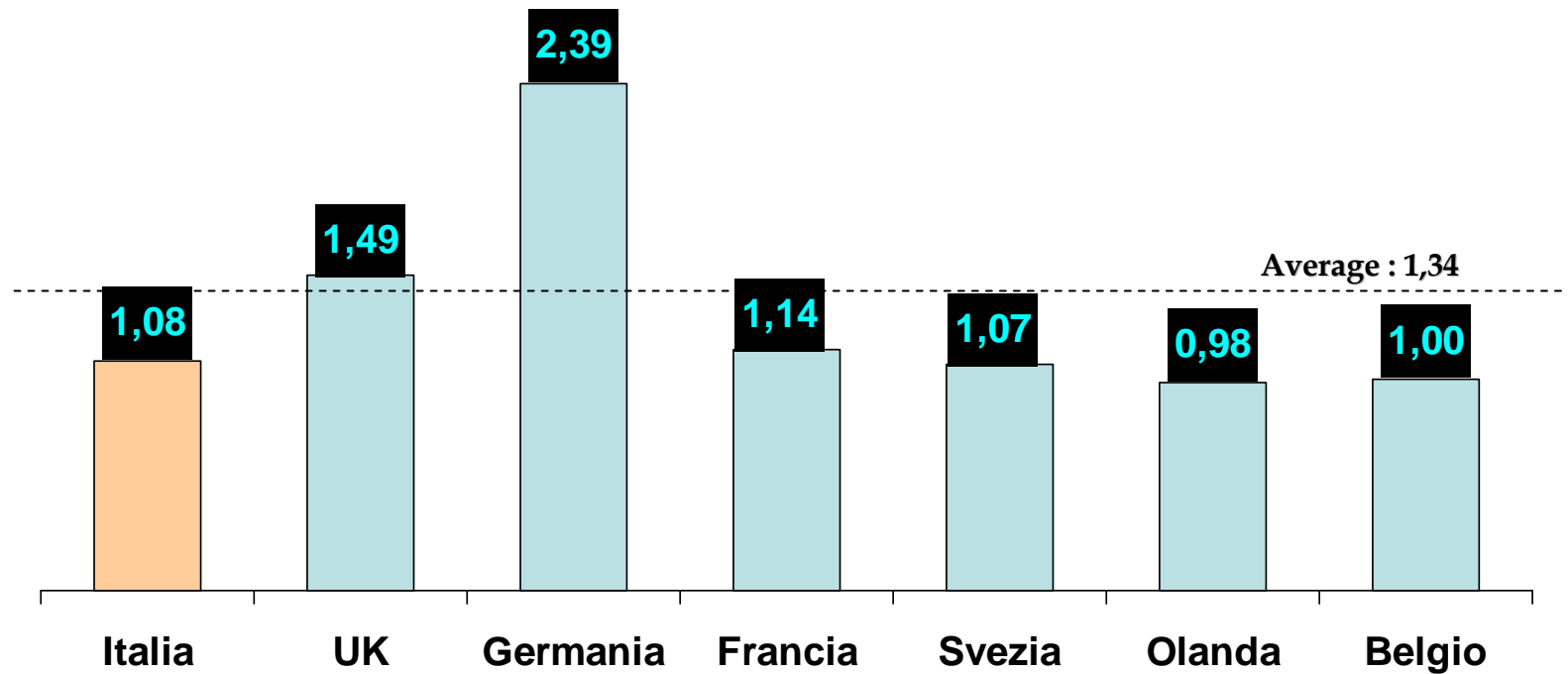
Performance Indicators

Public Subsidies per Km
(Euro/year; 2002)

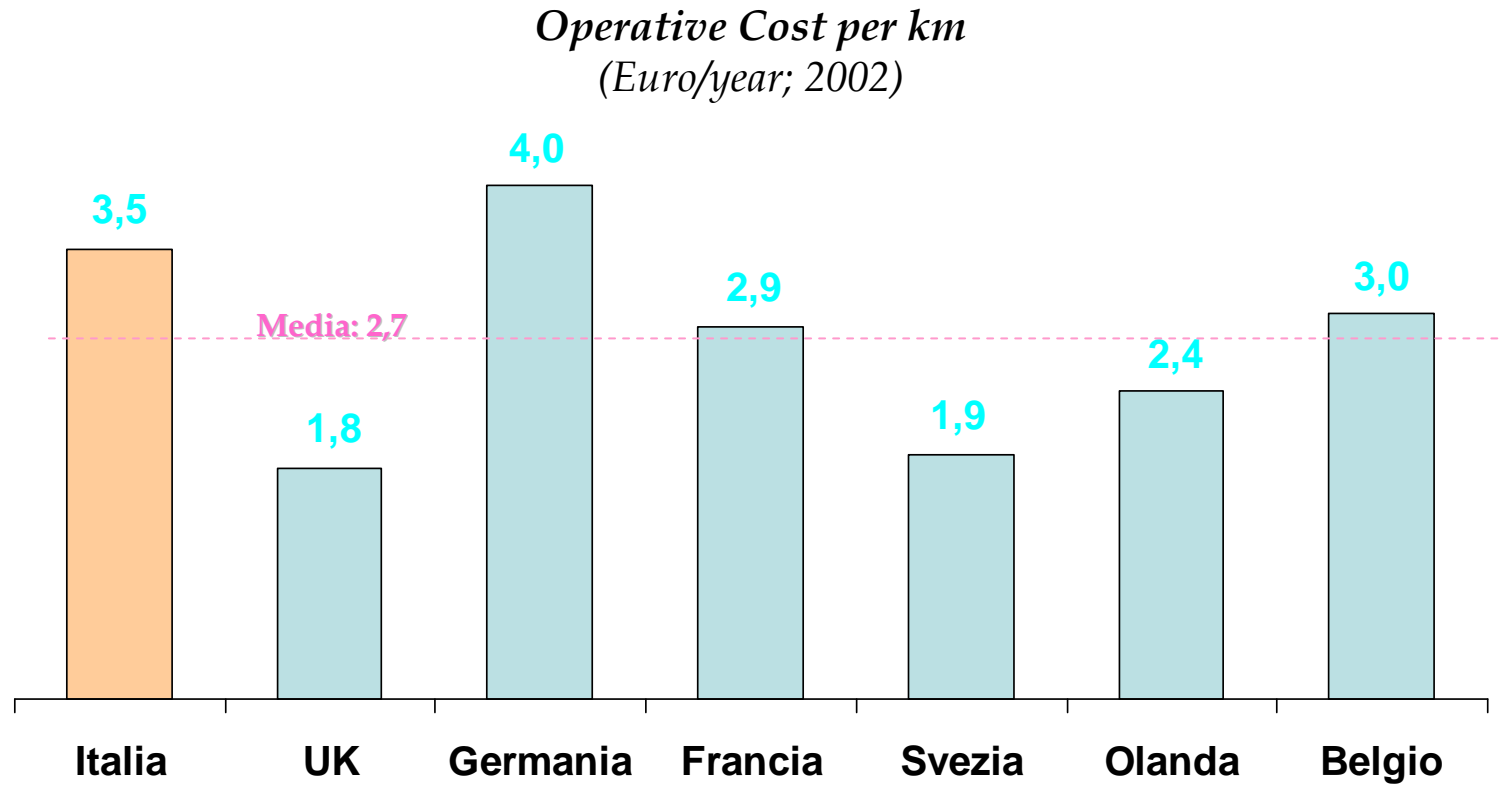


Performance Indicators

*Traffic revenues per km
(Euro/year; 2002)*

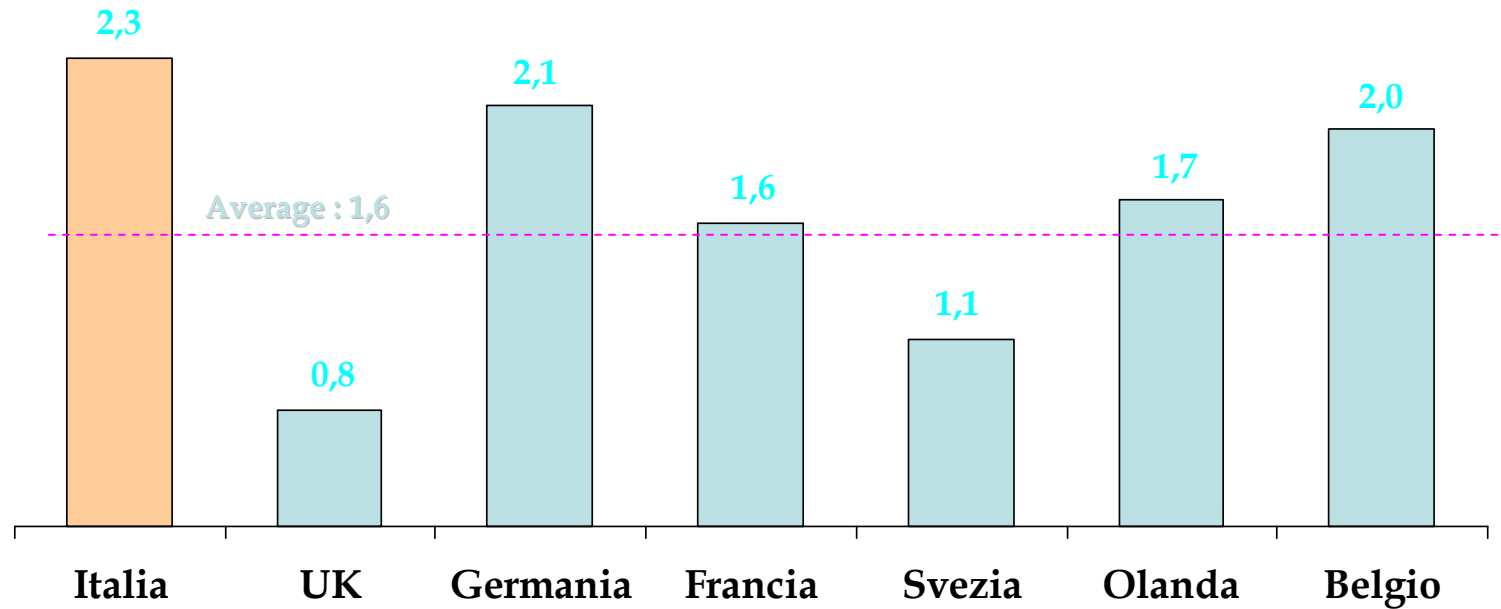


Performance Indicators



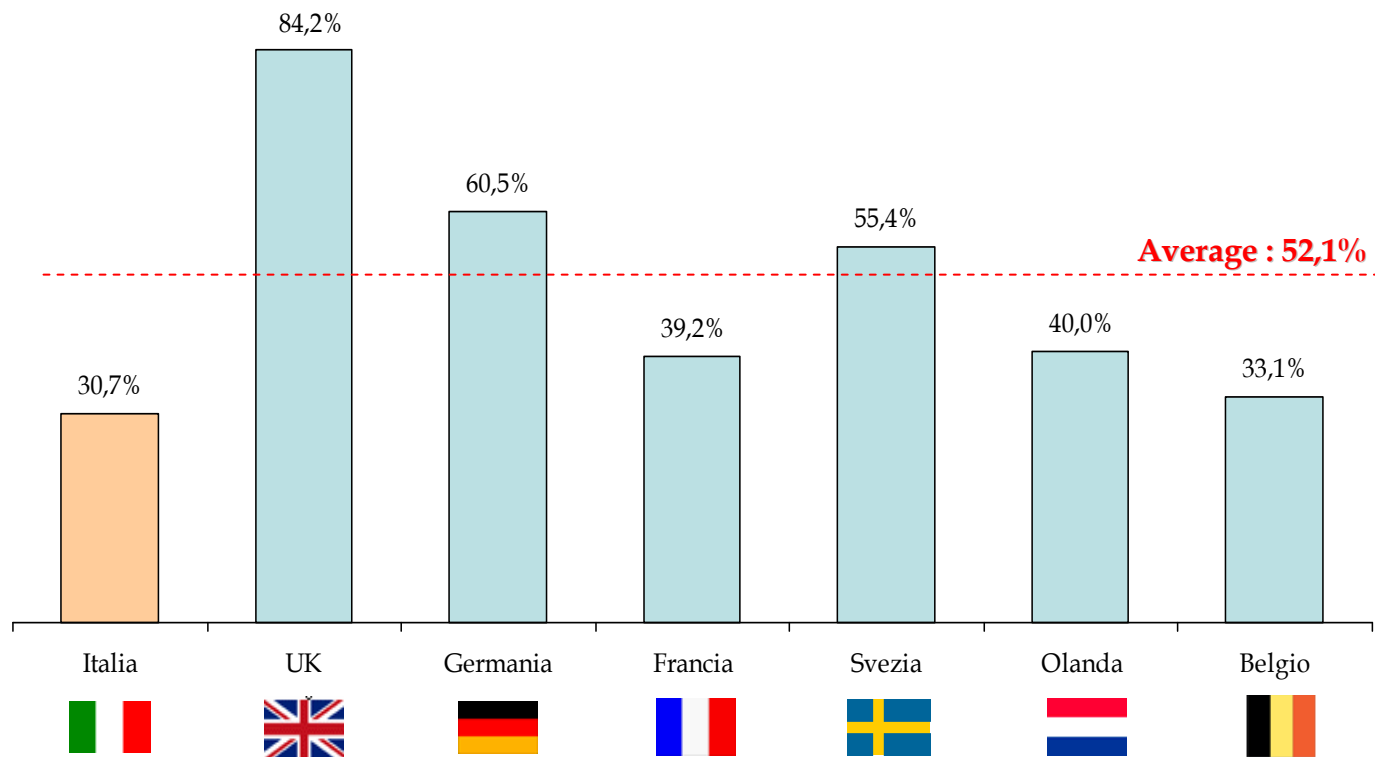
Performance Indicators

Labour Cost per km
(%; 2002)



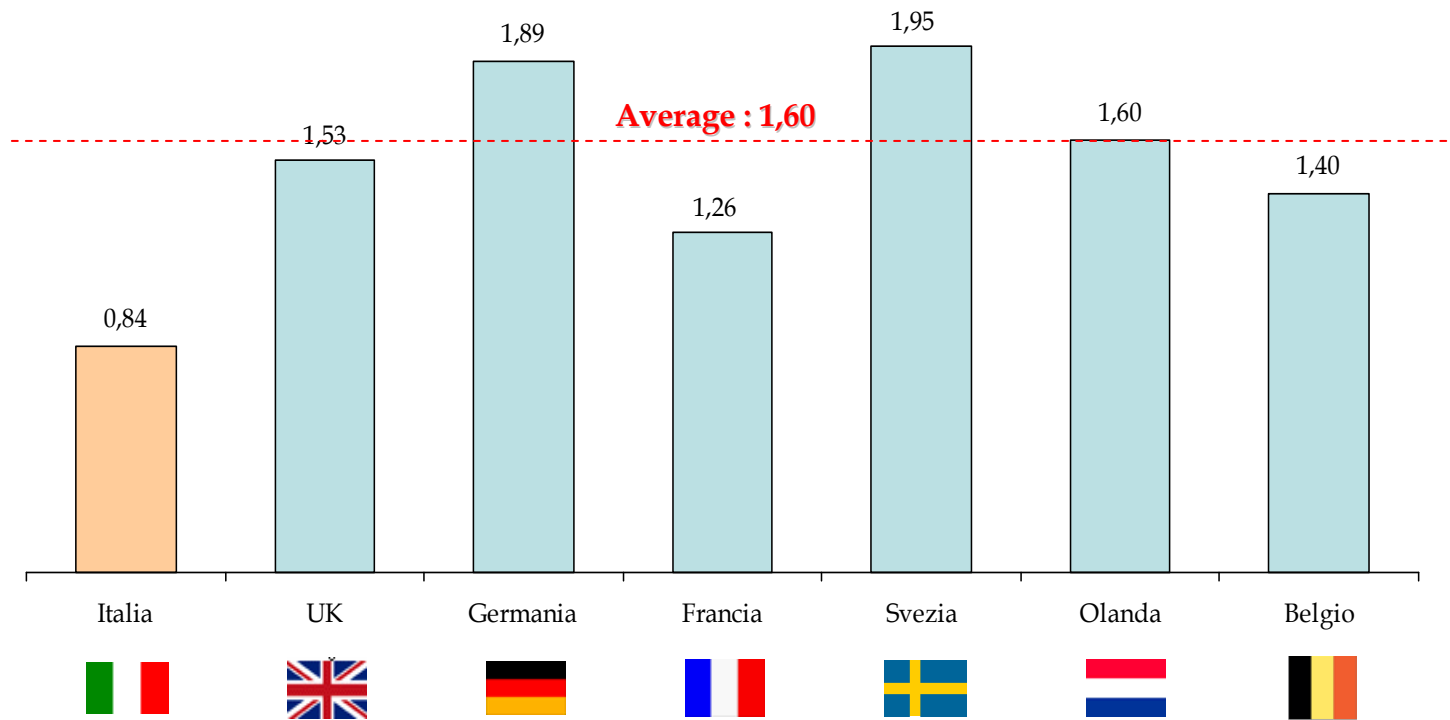
Performance Indicators

Coverage Ratio (traffic revenues / operating cost)
(%; 2002**)

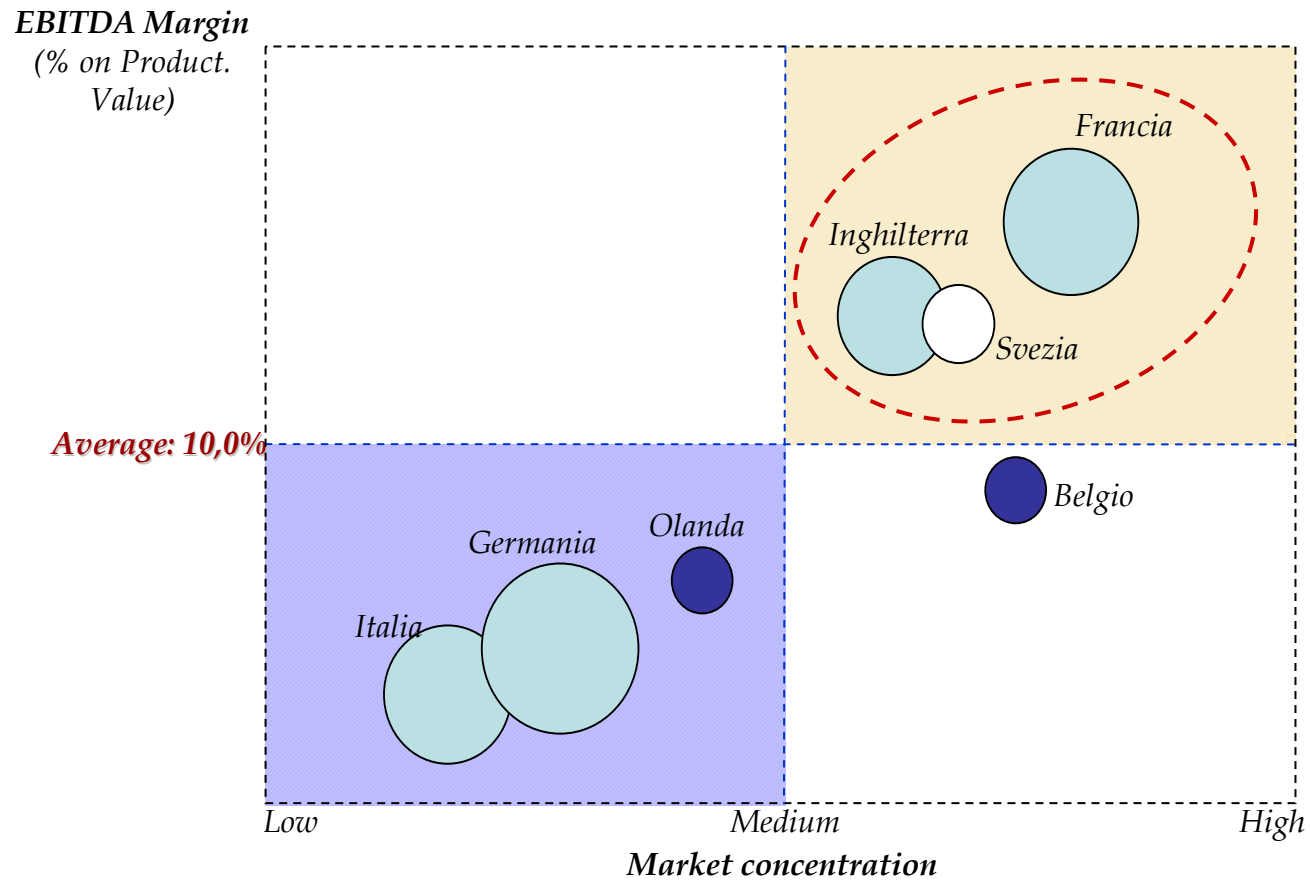


Performance Indicators

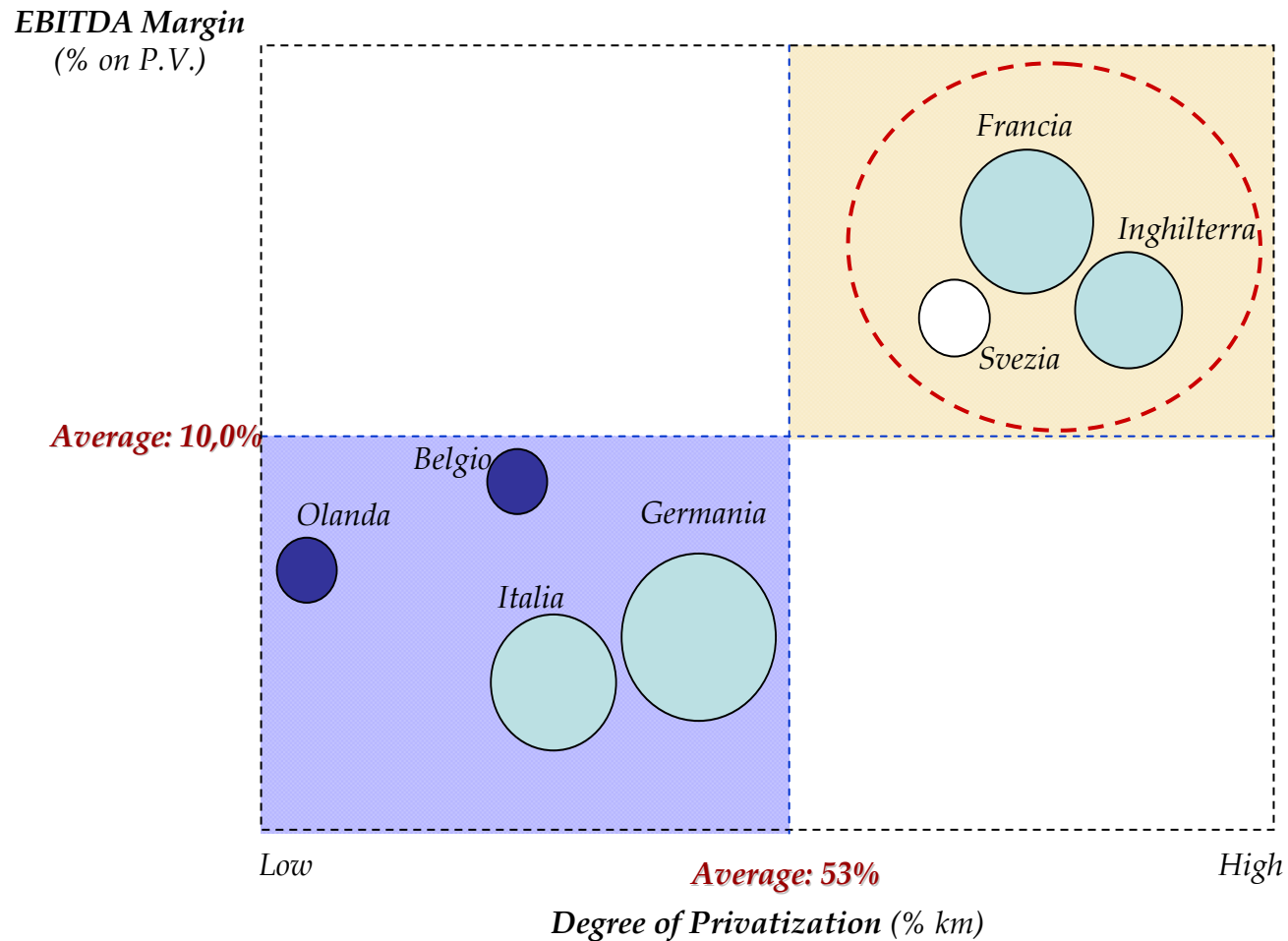
– *Average fares*
(2003, Euro)



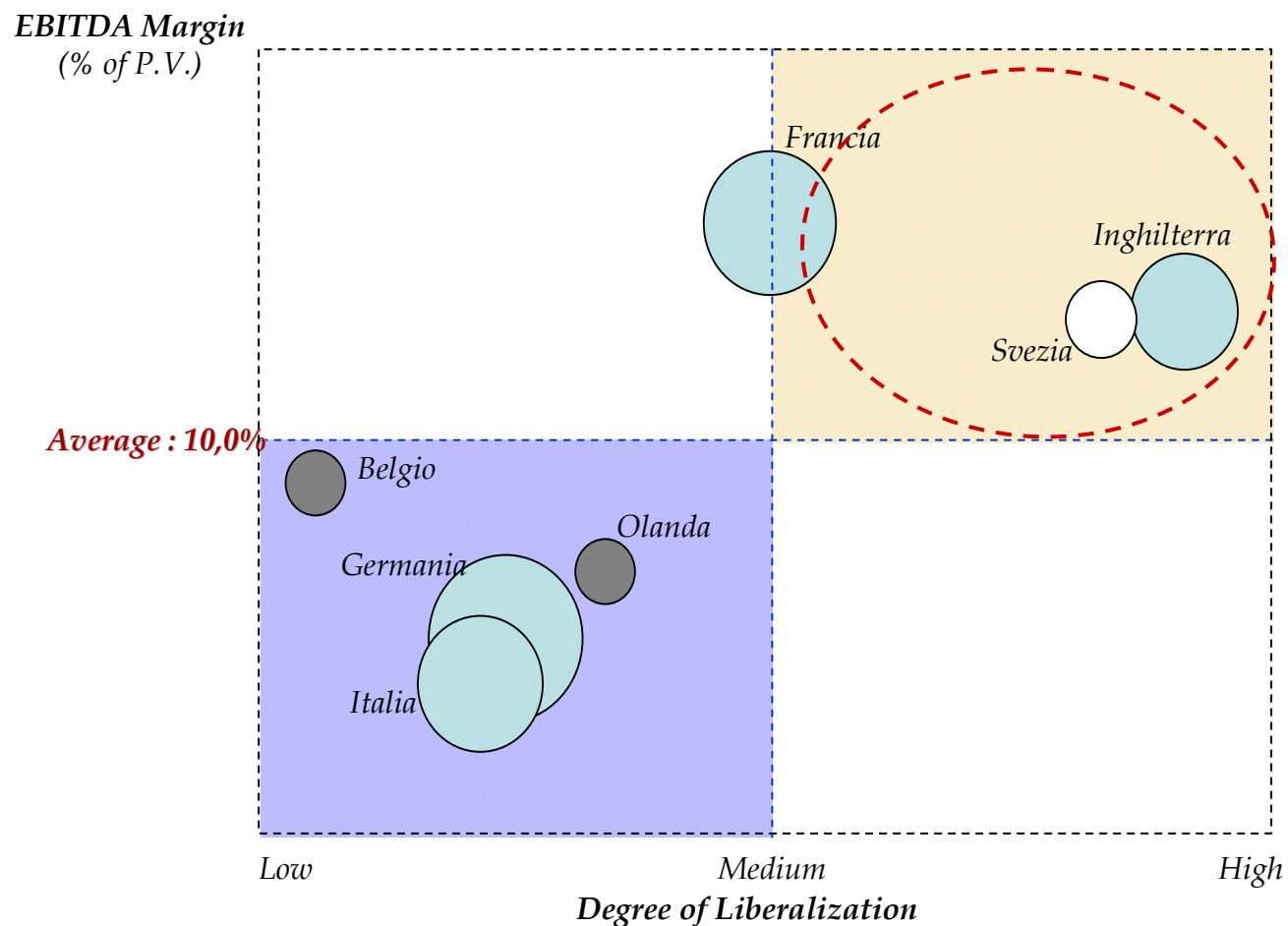
Relationship between Market concentration and service's value



Relationship between Privatization and service's value



Relationship between Liberalization and service's value



Nota: la dimensione del pallogramma è rappresentativa del Valore della Produzione.

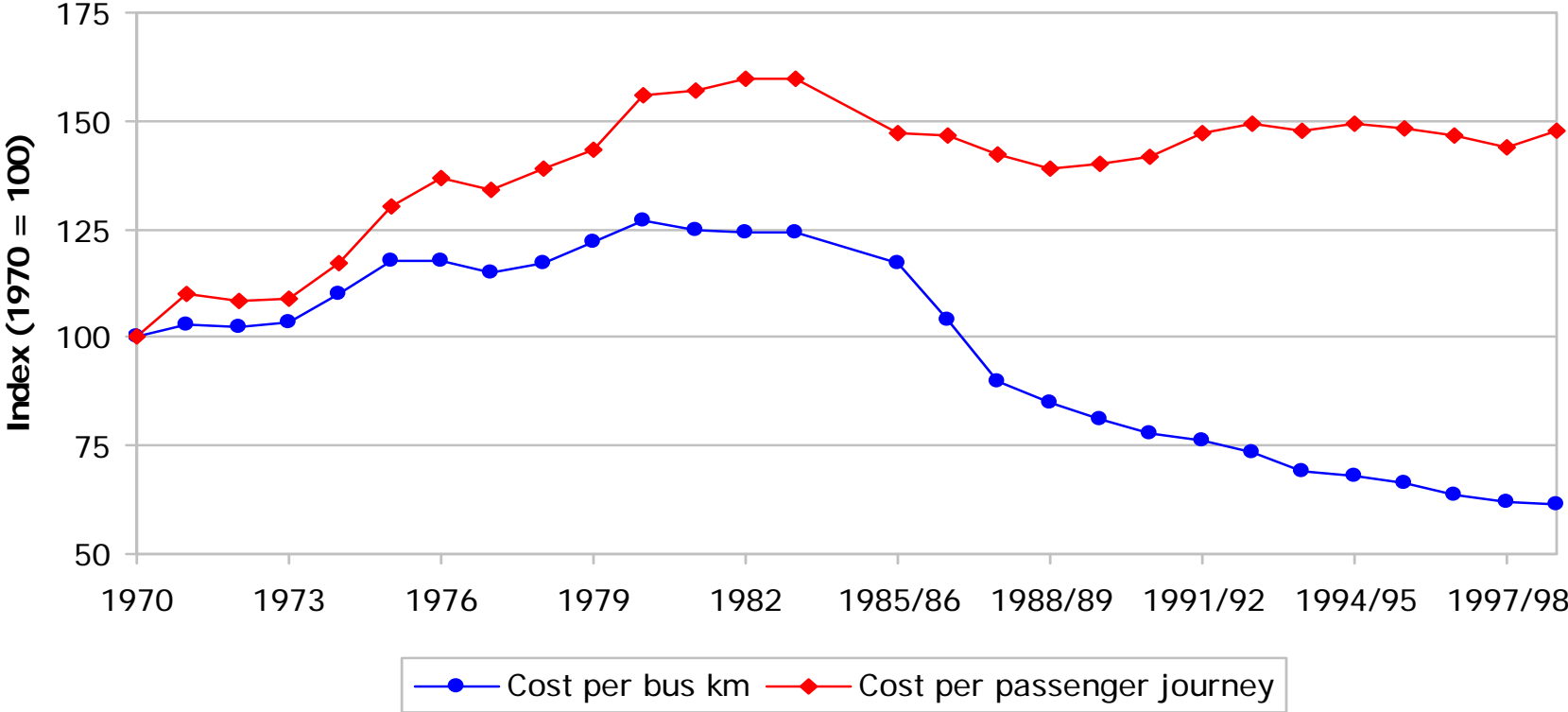
United Kingdom: deregulation

1/2

Deregulation in UK but not in London:

- ↓ public subsidies by 20% in big cities and 10% in others
- ↑ firm's profitability
- ↑ average charges by 20%
- ↑ traffic congestion
- ↓ number of passengers
- ↑ buses' age
 - Frequent changes in the original scheduling
 - No intermodal tariff system (due to complexity)

Local bus services in Great Britain outside London: operating cost



United Kingdom: Competition for the market in London 2/2

(overall dimension, two times the Rome's one:
6.800 bus, 330 mln bus*Km)

Route-by-route tendering (100%), but

Small number of active transport operators

(C5=70%, (Stagecoach Holdings, Go-Ahead, Arriva Group, Firstgroup and National Express Group)

Impact:

- ↓ public subsidies by 35% (savings of 8,4 billion Euro)
- ↑ firm's profitability. *Coverage ratio* up to 95%
- ↑ bus*km (supply) and number of passengers
- ↓ buses' age

Aggregate results form 1984-2001

LONDON & OUTSIDE		
	London	U.K.
<i>Change in total cost</i>	-29,6%	-41,8%
<i>Change in supply (bus-km)</i>	30,8%	26,7%
<i>Ch'ange cost per bus-km</i>	-46,2%	-54,0%
<i>Unit subsidy per passenger</i>	£0,009	£0,087
<i>Change in subsidy (from 1989)</i>	-92,8%	15,3%
<i>Coverage ratio</i>	97,8%	86,1%
<i>Change in passengers</i>	10,0%	-33,9%

London's case results

Year	Bus-km (million)	Operatine costs	Cost /(Bus-km) Unit cost	Passenger per year (mln)
1984/85	268	£886	£3,31	1.160
1990/91	300	£702	£2,34	1.178
1995/96	329	£569	£1,73	1.205
1999/00	354	£577	£1,63	1.296
Δ%	32.2%	-34,9%	-50,8%	11,70%

France: competition among “national champion”

- Obligation to tender (from 1993)
- Network basins
- *Net* and *gross cost* with incentive (70% of total)

Impact:

- ↓ cost and subsidies
- Strong concentration. Three leaders: VIA Transport; CGEA (now Connex), Transdev. A new relevant operator is Keolis, subsidiary of SNCF.
- Strong foreclosure to foreign operators

Finland

- Competitive tender with graduality (from 1991) starting with intercity routes
- Route-by-route tender, *gross cost contract*
- Strong quality and environmental requirements

Impact:

- ↑ quality ↓ pollution and buses' age (from 6.5 to 4.5 years)
- ↓ costs
- ↑ bus*km,
- ↑ employment, but unstable

Finland

Number of tenders	Area	Year	MKm/year	Number of buses	N. service contract	N. firms	N. offer per contract
1	YTV	1994	4,4	55	13	23	7,6
2	YTV	1995	7,2	121	12	16	5,0
3	YTV	1995	8,7	118	15	13	4,6
4	YTV	1996	8,4	141	16	11	3,6
5	YTV	1997	5,0	63	14	10	3,7
6	YTV	1997	9,5	152	21	10	3,9
7	Helsinki	1997	5,1	93	7	8	4,8
8	YTV	1998	5,0	76	8	7	4,4
9	Helsinki	1998	7,8	135	7	6	3,8
10	Espoo	1998	7,8	101	22	8	4,0
11	Vantaa	1999	6,9	87	10	5	4,1
12	Helsinki	1999	7,7	110	9	7	3,7
13	YTV	2000	9,8	163	18	7	3,5
14	YTV	2000	2,2	25	3	4	4,0
15	Helsinki	2000	7,5	101	8	7	3,6
16	YTV	2001	1,1	16	2	6	4,5
17	YTV	2001	7,3	89	13	8	4,7
18	Espoo	2001	3,7	41	9	6	4,4
19	Vantaa	2001	5,4	84	5	5	3,6

... reduction of the number of participants due to increase in market concentration

Sweden

- Graduality (from 1980): from 7% to 70% in 15 years (from 1980 to 1995)

- Route or network basins

- *gross cost contract*

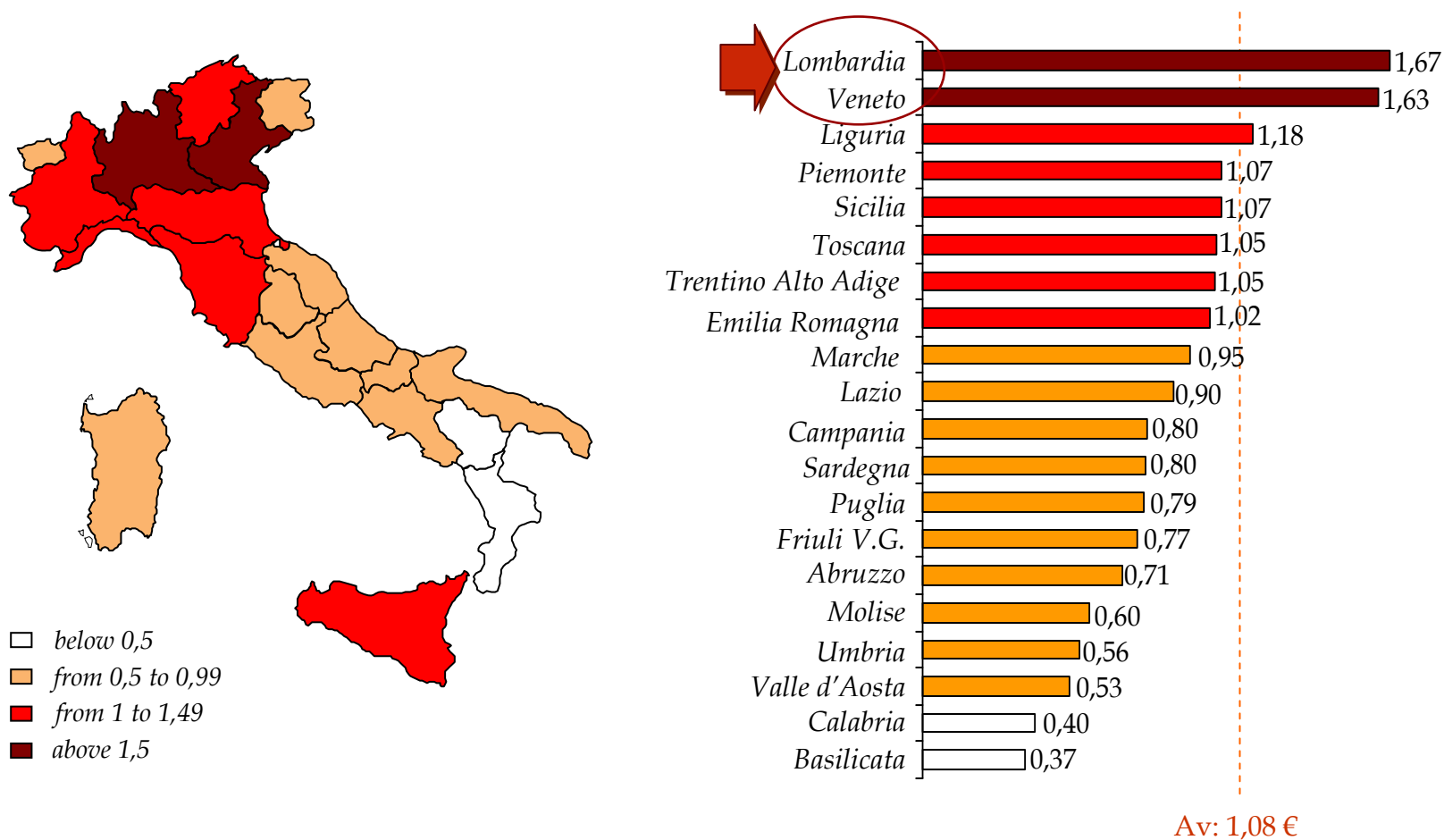
Impact:

- ↓ costs (10-15%) and subsidies
- ↑ bus*Km
- Employment and salary stable
- ↑ concentration and entry of new foreign operators like the french Connex and the english Stagecoach

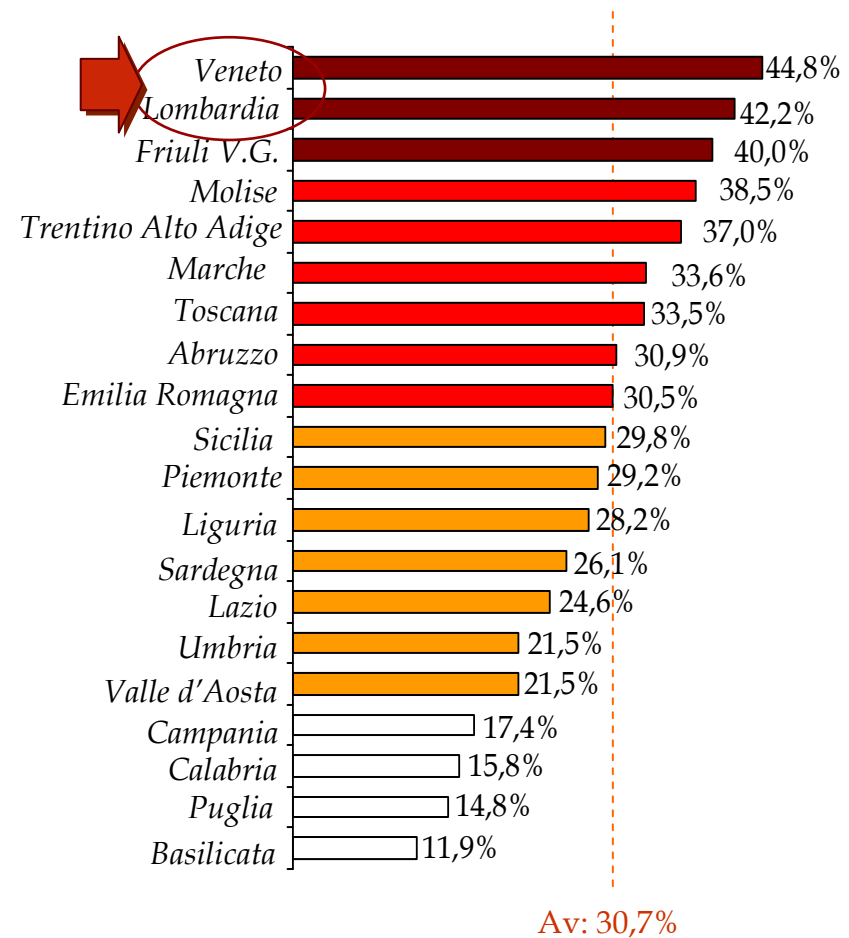
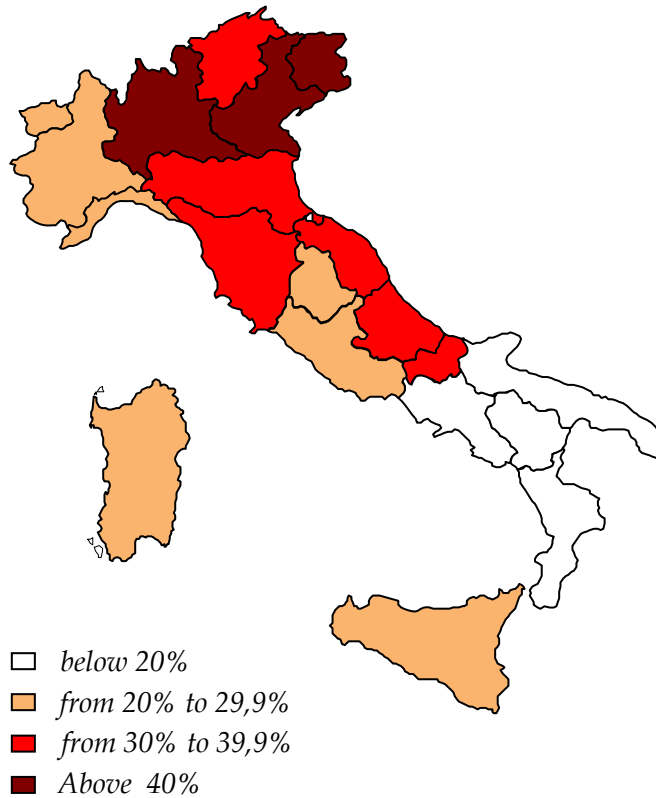
The Italian competitive bidding experience

Traffic revenues

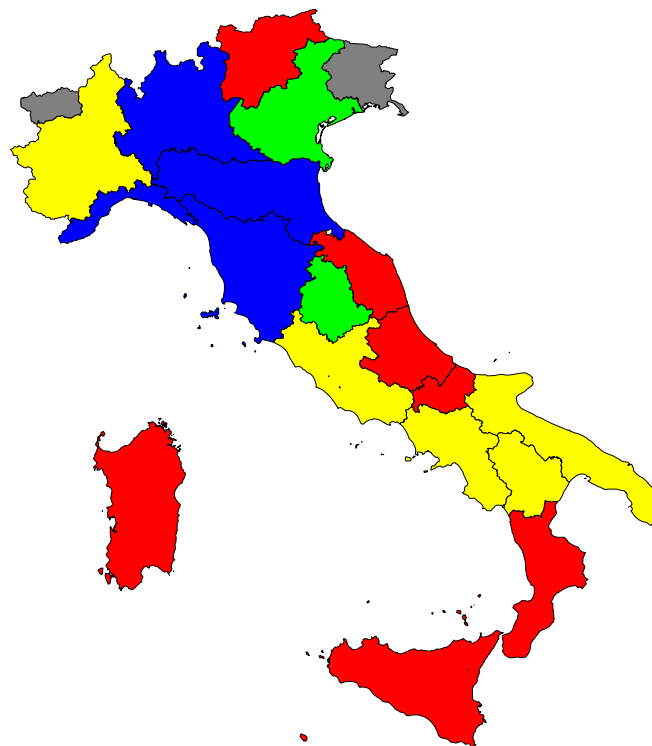
– Traffic revenues per Region –
(2003; Euro per km)



Cost coverage in Italy



The Italian case



Only 6 regions over 20
have awarded a consistent
share of LPT services
through competitive
tendering...

■	Regioni che non hanno pubblicato bandi di gara	(7)
■	Regioni che hanno solo pubblicato bandi di gara	(2)
■	Regioni che hanno affidato mediante gara meno del 20% dei servizi	(5)
■	Regioni che hanno affidato mediante gara più del 20% dei servizi	(4)
■	Regioni che hanno affidato mediante gara tutti i servizi	(2)

Regions	Contractual Form	Contract duration	Total Bus*km in regions (a)	Bus*km in competition though bidding (b)	% (b)/(a)	Bus*km auctioned (c)	% Total Vehicles*km (c)/(a)	% Vehicles*km in competition (c)/(b)
<i>Valle d'Aosta</i>	Net cost	6+3 years	6.545.500	6.545.500	100%	6.545.500	100%	100%
<i>Liguria</i>	Net cost	6 +3 years	69.000.000	53.962.700	78%	14.962.700	22%	28%
<i>Piemonte</i>	Net cost	6 years	120.000.000	2.748.065	0,02%	2.748.065	0,02%	100%
<i>Lombardia</i>	Net cost	7 years	275.379.176	145.884.290	53%	139.307.896	50%	95%
<i>Veneto</i>	-	-	131.549.005	252.000*	0,19%	-	-	-
<i>Friuli Venezia Giulia</i>	Net cost	10 years	41.596.000	41.596.000	100%	41.596.000	100%	100%
<i>Emilia Romagna</i>	Gross and Net cost	From 2 to 8 years	108.000.000	112.006.557	103%	37.181.176	34%	33%
<i>Toscana</i>	Net cost	5 years	117.000.000	120.965.842	103%	120.965.842	100%	100%
<i>Umbria</i>	Net cost	6 years	30.274.724	30.274.724	100%	-	-	-
<i>Marche</i>	-	-	51.800.000	43.000.000	83%	-	-	-
<i>Lazio</i>	Gross cost	3 years	-	22.500.000	<i>Additional services</i>	22.500.000	-	100%
<i>Campania</i>	-	-	158.000.000	2.490.642	1,57%	2.490.642	1,57%	100%
<i>Puglia</i>	-	-	-	33.072.549	-	9.681.678	-	29%
<i>Basilicata</i>	Net cost	5 years	-	28.000.000	-	1.900.000	-	6,79%

* It refers to the urban area of Vicenza. No one had participated in the bidding procedure. The service is still offered by the incumbent

Some results

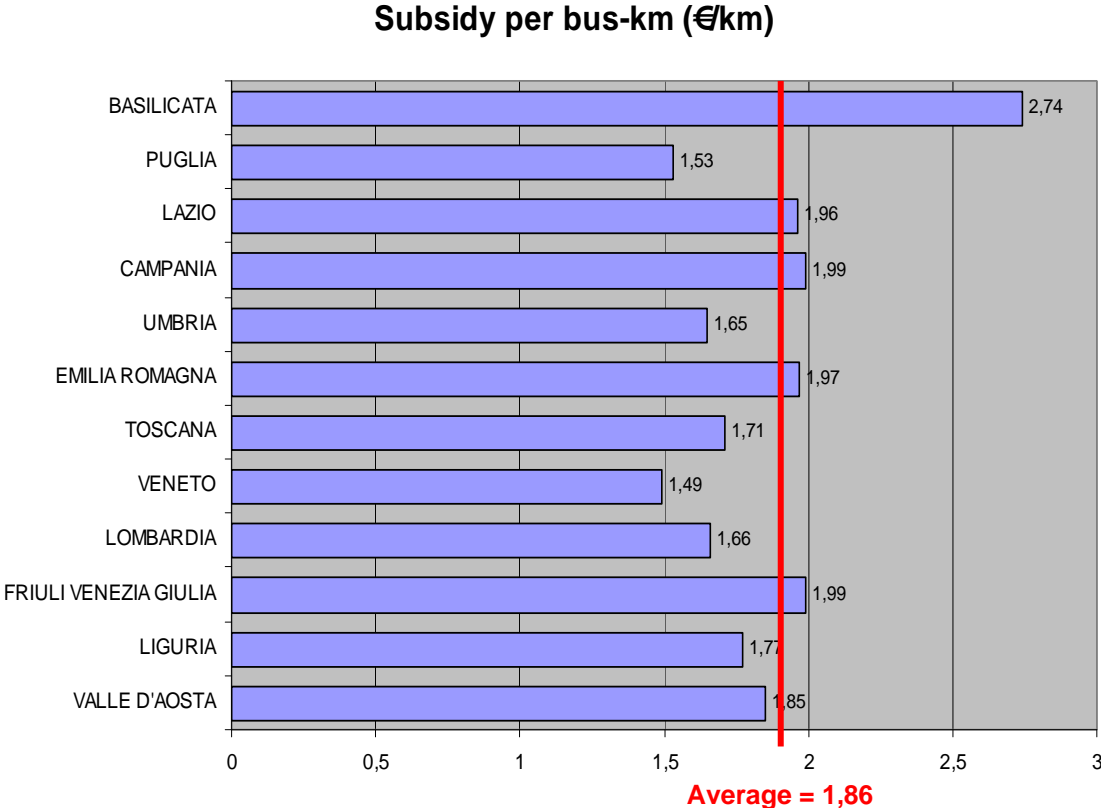
Table 3 – Some results of competitive bidding in Italy

<i>Regions</i>	Average reduction for winning bids	Ex post presence of Incumbent
<i>Valle d'Aosta</i>	4%	100%
<i>Friuli Venezia Giulia</i>	3%	100%
<i>Liguria</i>	n.d	75%*
<i>Lombardia</i>	1%	- <u>urban areas</u> : 90%* - <u>suburban areas</u> : 95,5%
<i>Emilia Romagna</i>	0,5%**	100%
<i>Toscana</i>	0,01%	100%

*The bidding procedures in Como and Albenga, both won by new entrants, were revoked by the Regional Administrative Tribunal (TAR).

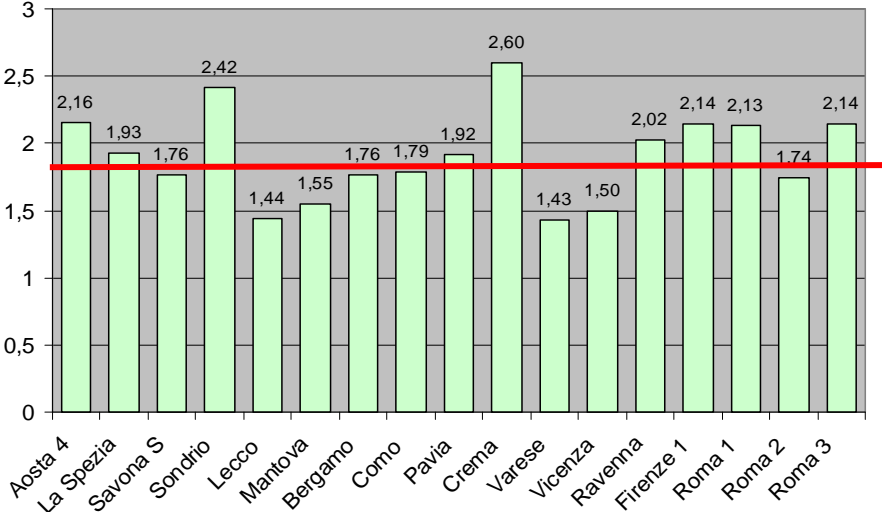
** Only for the area for which official data are available

Comparative analysis



Comparative Analysis

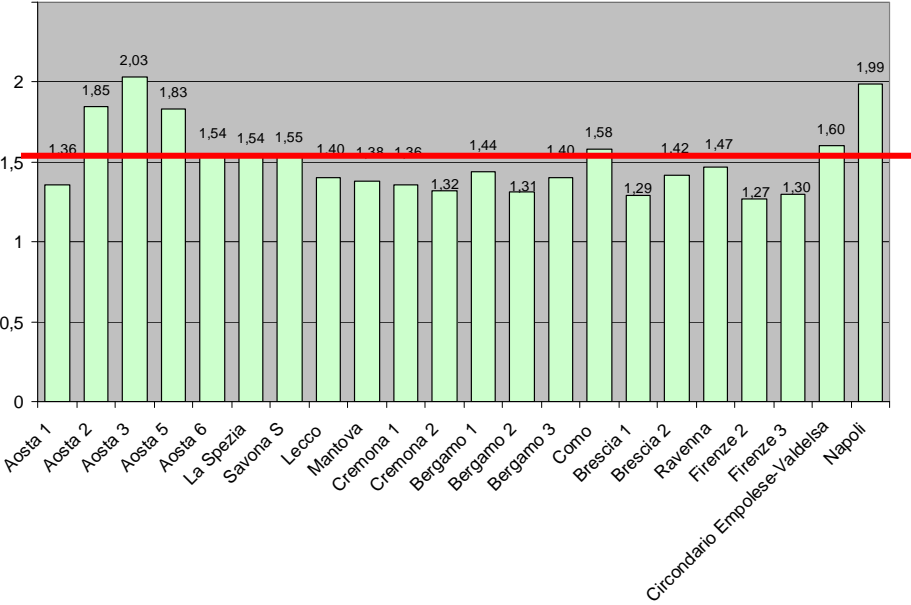
URBAN: subsidy per bus-km (€/km)



Average = 1,91

INTERCITY subsidy per bus-km (€/km)

Average = 1,51



The Rome experience

The first bidding for “additional services” in Rome

Object: 8 mln bus*km of additional services

Reserve price: 2,36€ per bus*km

Competitors: 12, admitted in 7 (5 ATI)

Weight: 55% economic offer, 45% technical offer

Economic criteria?

$$V_e(a^k) = \frac{x_e^k}{x_e^k + 1}$$

Different from the normal Metodo Aggregativo Compensatore. Aim: reduce the impact of the economic offer

Offers	Points tech. offer	Economic rebates %	$W_e V_e(a^k) = \frac{x_e^k}{x_e^k + 1} 5555$	Total points	$W_e V_e(a^k) = \frac{x_e^k}{x_{MAX}} 55$	Hypoteti cal total points
1	44,400	8,23	49,532	93,932	20,556	64,956
2	27,399	6	47,614	75,013	14,984	42,383
3	20,793	22,023	53,137	73,930	55	75,793
4	14,264	7,7	49,165	63,429	19,230	33,494
5	12,903	6,51	48,153	61,056	16,258	29,161
6	2,742	15,121	52,104	54,846	37,763	40,505

- The firm that got the highest quality score won the competition

The winner reduced the reserve price of only 8,23%, obtaining a score of 49 points, 4 less than the firm who presented the highest reduction (22%) !!

The Rome experience

- These new routes integrate bus*km 115 million provided, with a non-tendered concession, by the incumbent operator, the publicly owned Trambus.
- Three competitive bidding procedures for a total of 25 mln bus*km
- A joint venture - lead by Sita (owned by the national railways operator, Ferrovie dello Stato), with some local operators (Arpa - Chieti, Apm – Perugia) and the French company Transdev - was able to win all of the three franchises.
- In the first and second tenders the incumbent operator, Trambus, was not allowed to make an offer in order to favour the entry of new transport operators.
- And also in the last one

The Rome experience

Table – Competitive tendering in Rome for additional services

Service area	Bus*km per year	Annual value (Euro)	Compensation per bus*km (Euro)	Contract duration	Contract form	Reduction	Winning operator
Set 1: Jubilee lines (1999)	7.000.000	13.050.000	2,14	3 years	<i>Gross cost</i>	8,0%	<i>New entrant</i> in ATI: Sita, Atm Perugia, CIPAR
Set 2: additional services (2000)	8.000.000	17.040.000	2,13	3 years	<i>Gross cost</i>	8,23%	ATI: Sita, Apm, Arpa, Transdev, Star ,Cotri
Set 3: additional services (2000)	7.500.000	14.980.000	1,74	3 years	<i>Gross cost</i>	25%	ATI: Sita, Apm, Arpa, Transdev, Star ,Cotri
Set 4: additional services (2005)	26.500.000	62.540.000	2,36	3 years	<i>Gross cost</i>	0,42%	ATI: Sita, Apm, Arpa, Star, Cotri