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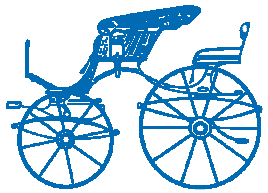

The recent evolution of Public Transport in Europe

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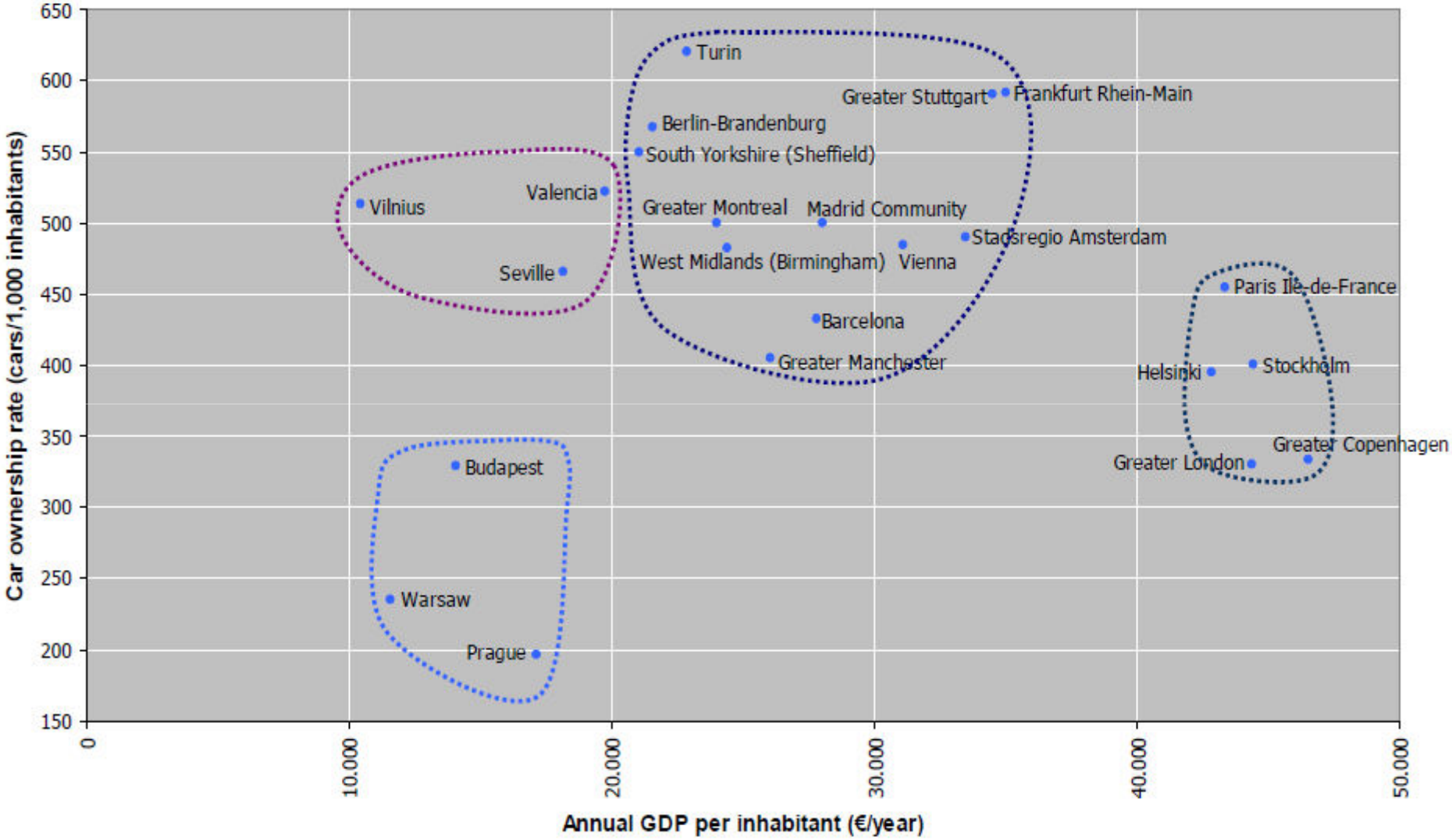
Summary

- General features on Public Transport Systems in Europe (France and other countries)
- The new European Regulation on PT and the opening of the market
- The main stake : PT funding

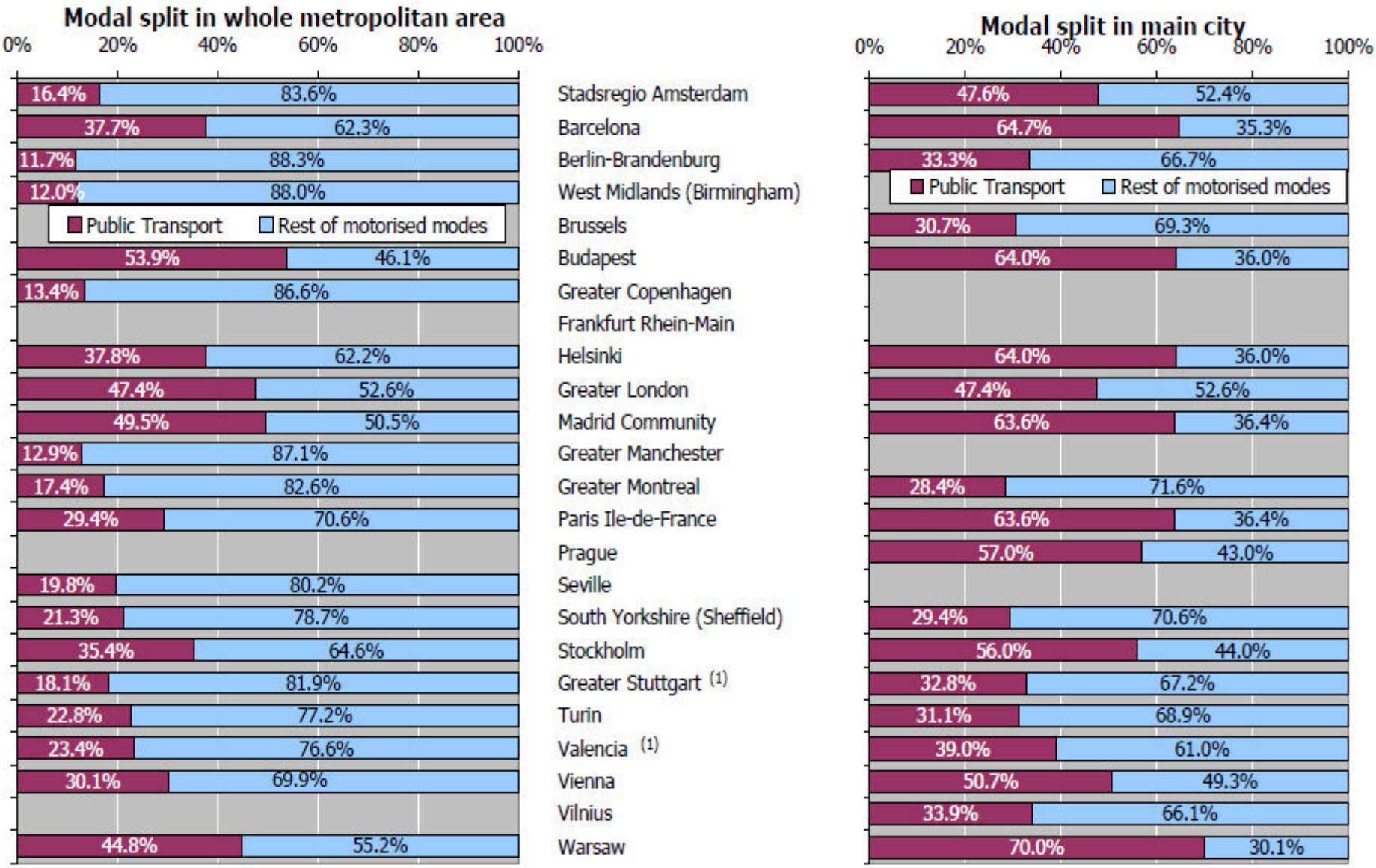
– 1 –
General features on European PT networks

Relation between GDP/inhab and car ownership



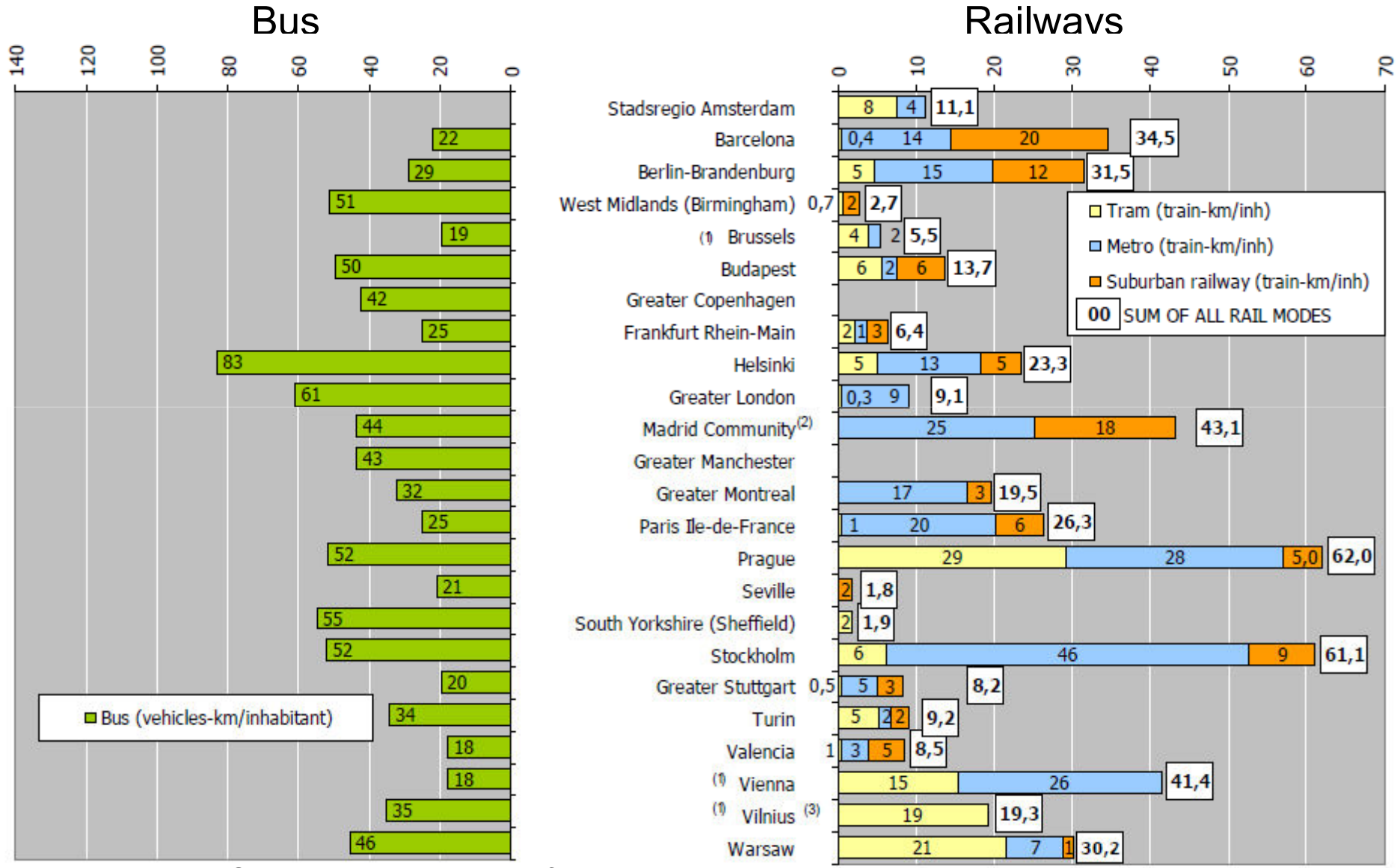
Source : EMTA Barometer of Public Transport in European Metropolitan Areas (2006)

Modal share



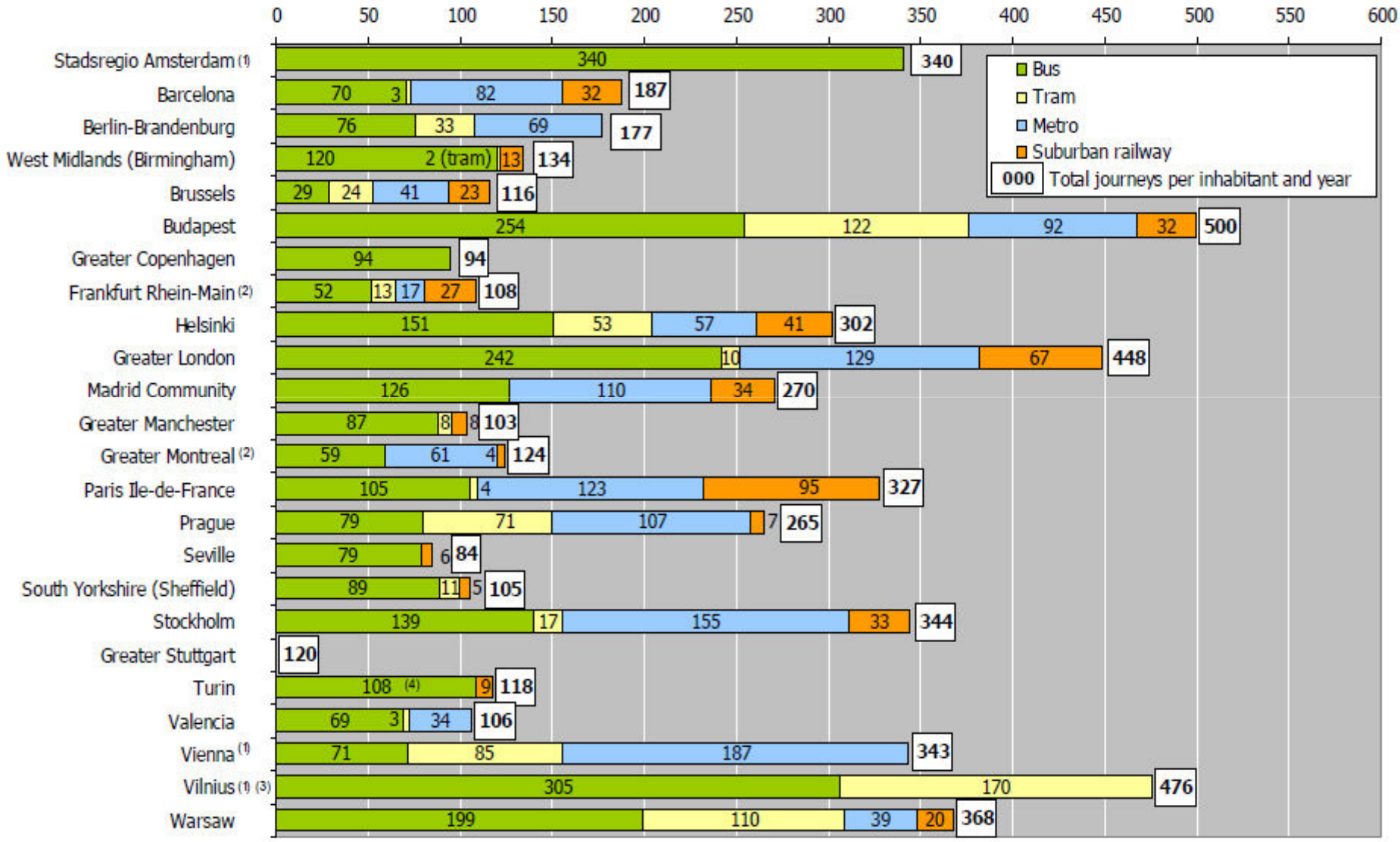
Source : EMTA Barometer of Public Transport in European Metropolitan Areas (2006)

Public transport supply in vehicle-km (or train-km)/inhabitant/year



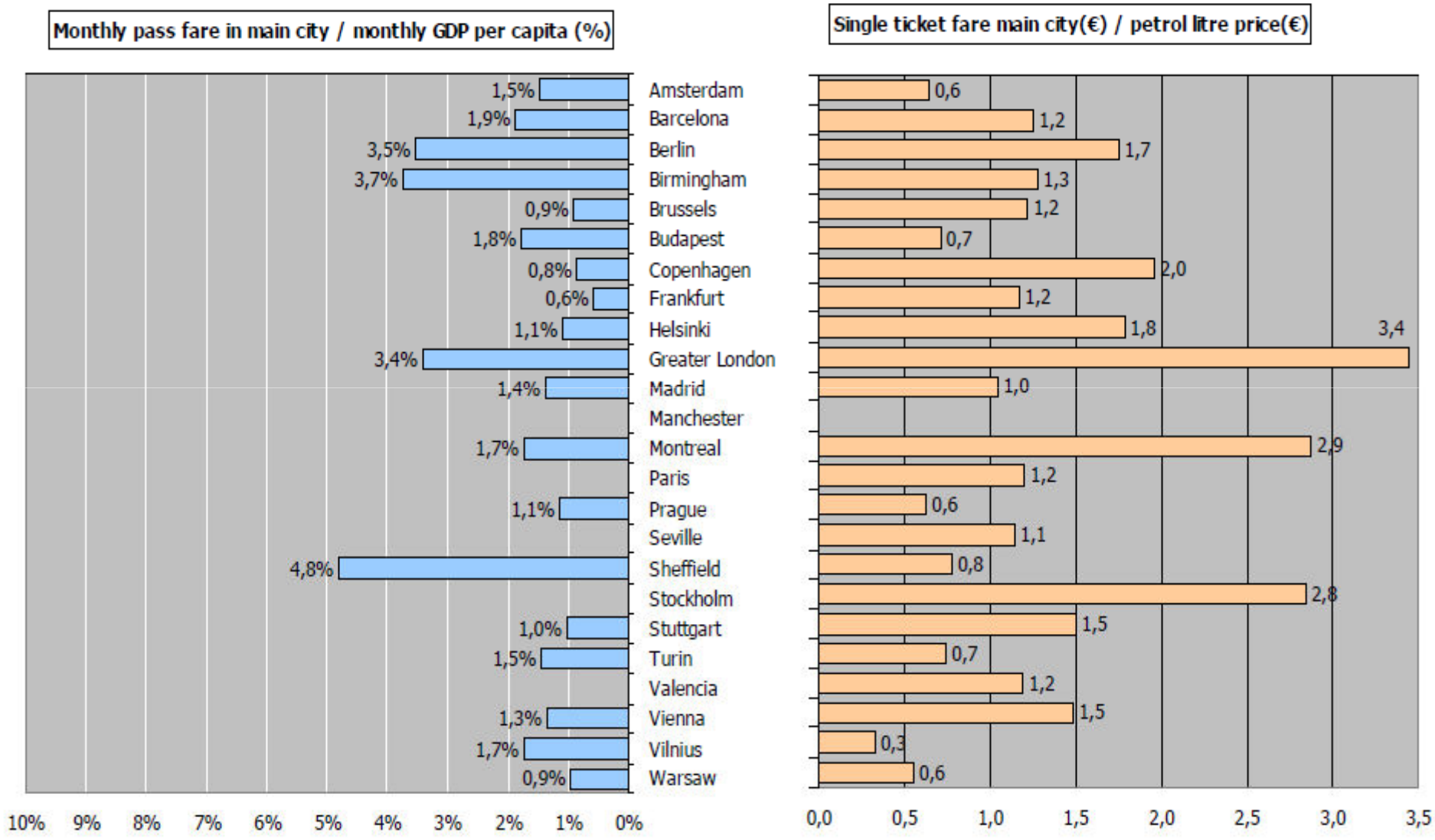
Source : EMTA Barometer of Public Transport in European Metropolitan Areas (2006)

Public transport demand in journeys per inhabitant per year



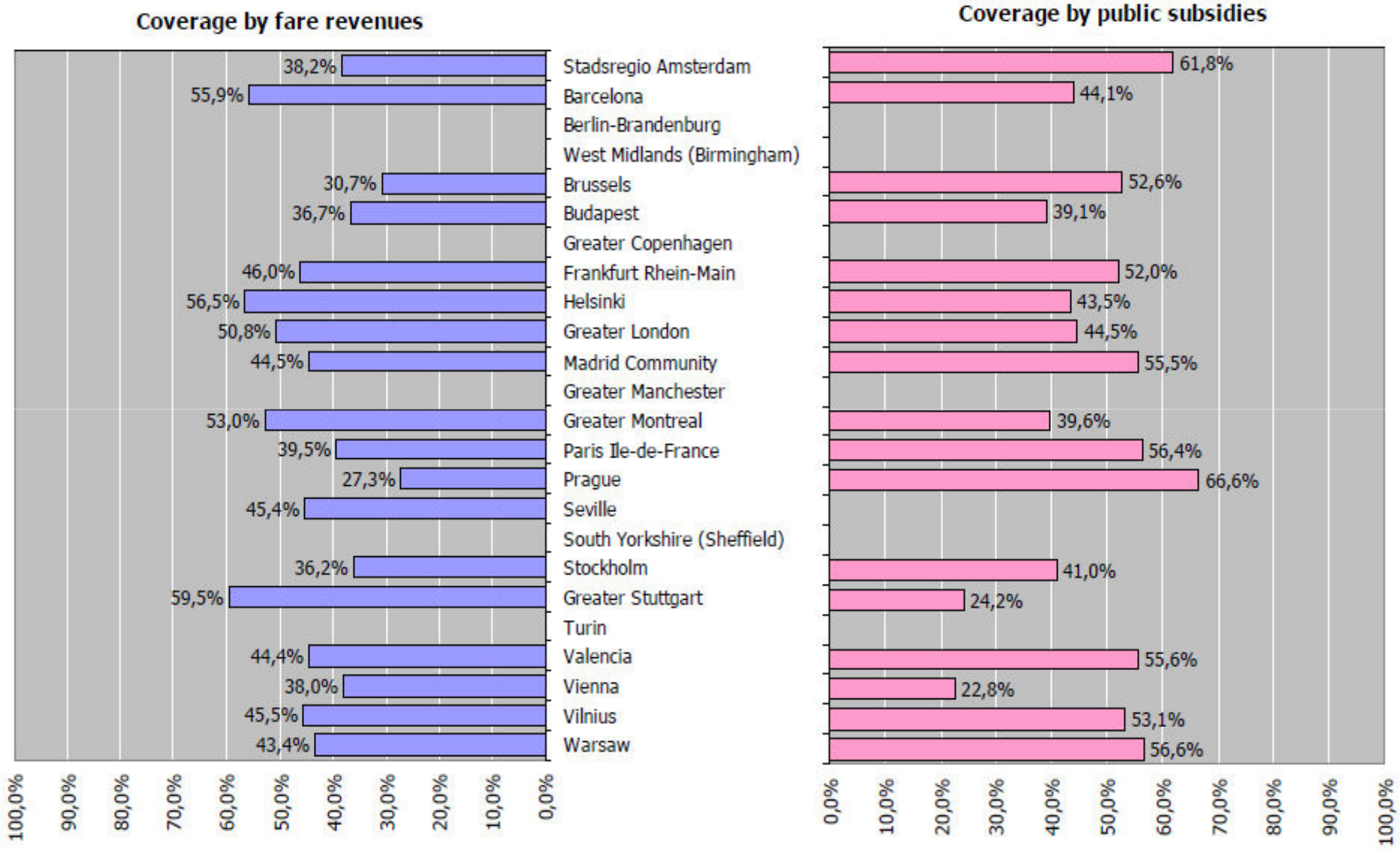
Source : EMTA Barometer of Public Transport in European Metropolitan Areas (2006)

Main city fares ratios



Source : EMTA Barometer of Public Transport in European Metropolitan Areas (2006)

Coverage of operational costs



Source : EMTA Barometer of Public Transport in European Metropolitan Areas (2006)

Main trends

- 3 trips per person per day are done in average in the metropolitan areas surveyed.
  - **40% are commuting trips as home-to-work and home to school.**
- 230 journeys per inhabitant and year on public transport, this means almost one journey every labour day.
- Metro systems are extending
- new concept of tramways on dedicated platform called light rail system.
- commercial speed of 45 km/h for heavy rail, 32 km/h for metro, 23 km/h for bus (considering urban and suburban services) and 21 km/h for tram.
- the bus attracts 15% less passengers than all rail modes together
- operational costs are covered 44% by fares, 48% by public subsidies and 8% by other revenues

– 2 –
The new European Regulation on PT services and the opening of the market

REGULATION (EC) No 1370/2007 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 23 October 2007
on public passenger transport services by rail and by road and repealing Council Regulations (EEC) Nos 1191/69 and 1107/70

The result of a long process of reforms

- The main objectives of the Commission's White Paper of 12 September 2001 'European transport policy for 2010:
- time to decide' are to guarantee safe, efficient and high quality passenger transport services through regulated competition,
- guaranteeing also transparency and performance of public passenger transport services,
- having regard to social, environmental and regional development factors, or to offer specific tariff conditions to certain categories of travelers, such as pensioners,
- and to eliminate the disparities between transport undertakings from different Member States which may give rise to substantial distortions of competition.

Definitions

- **'public service obligation'** means a requirement defined or determined by a competent authority in order to ensure public passenger transport services in the general interest that an operator, if it were considering its own commercial interests, would not assume or would not assume to the same extent or under the same conditions without reward;
- **'exclusive right'** means a right entitling a public service operator to operate certain public passenger transport services on a particular route or network or in a particular area, to the exclusion of any other such operator;
- **'public service compensation'** means any benefit, particularly financial, granted directly or indirectly by a competent authority from public funds during the period of implementation of a public service obligation or in connection with that period;
- **'public service contract'** means one or more legally binding acts confirming the agreement between a competent authority and a public service operator to entrust to that public service operator the management and operation of public passenger transport services subject to public service obligations;

The main rule: a Public Service Contract

- **Public service contracts:**

(a) clearly define the public service obligations and the geographical areas concerned;

(b) establish the compensation payment, and the nature and extent of any exclusive rights granted,

(c) determine the arrangements for the allocation of costs connected with the provision of services (staff, energy, infrastructure charges, maintenance / repair of public transport vehicles, rolling stock and installations, fixed costs and a suitable return on capital).

(d) determine the allocation of revenue from tickets (kept by the public service operator, repaid to the competent authority or shared between the two).

Duration of contracts

- Maximum 10 years for coach and bus services and 15 years for passenger transport services by rail or other track-based modes.
  - contracts relating to several modes of transport shall be limited to 15 years if transport by rail or other track-based modes represents more than 50 % of the value
  - may be extended by a maximum of 50 % if the public service operator provides significant assets (PPP)
  - a competitive tendering procedure
  - direct awarding possible where annual value estimated at less than EUR 1 000 000 or where annual provision of less than 300 000 kilometres (doubled if SME max 23 vehicles).
- Transition period from 3 December 2009. up to 3 December 2019

The main rule: a Public Service Contract

- Local authority may choose to provide its own public passenger transport services or to entrust them to an internal operator without competitive tendering.
  - a competent authority providing its own transport services or an internal operator should be prohibited from taking part in competitive tendering procedures outside the territory of that authority.

- The compensation granted by competent authorities to cover the costs incurred in discharging public service obligations should be calculated in a way that prevents overcompensation.

Germany: Tendering of Mostly DB Stadtverkehr Services Led to a Big Loss in the Number of Batches

Share of Bus Services Before and After Tender Process

Number of batches		before tender		Winner is*		
		abs.	rel.	Subsidiary of DB	Municipal company	Private company
after tender	abs.	Σ 196		58	15	123
	rel.		Σ 100%	29.6%	7.7%	62.8%
Incumbent is subsidiary of DB		92	46.9%	44.6%	1.1%	54.3%
Municipal incumbent		22	11.2%	13.6%	40.9%	45.5%
Private incumbent		82	41.8%	17.1%	6.1%	76.8%

Source: Augustin K., Walter, M., 2009, Operator Changes through Competitive Tendering: Empirical Evidence from German Local Bus Transport, Thredbo 11 Conference, Delft 22nd September 2009

Looking at Volume instead of Batches, the Situation for DB Is even Worse

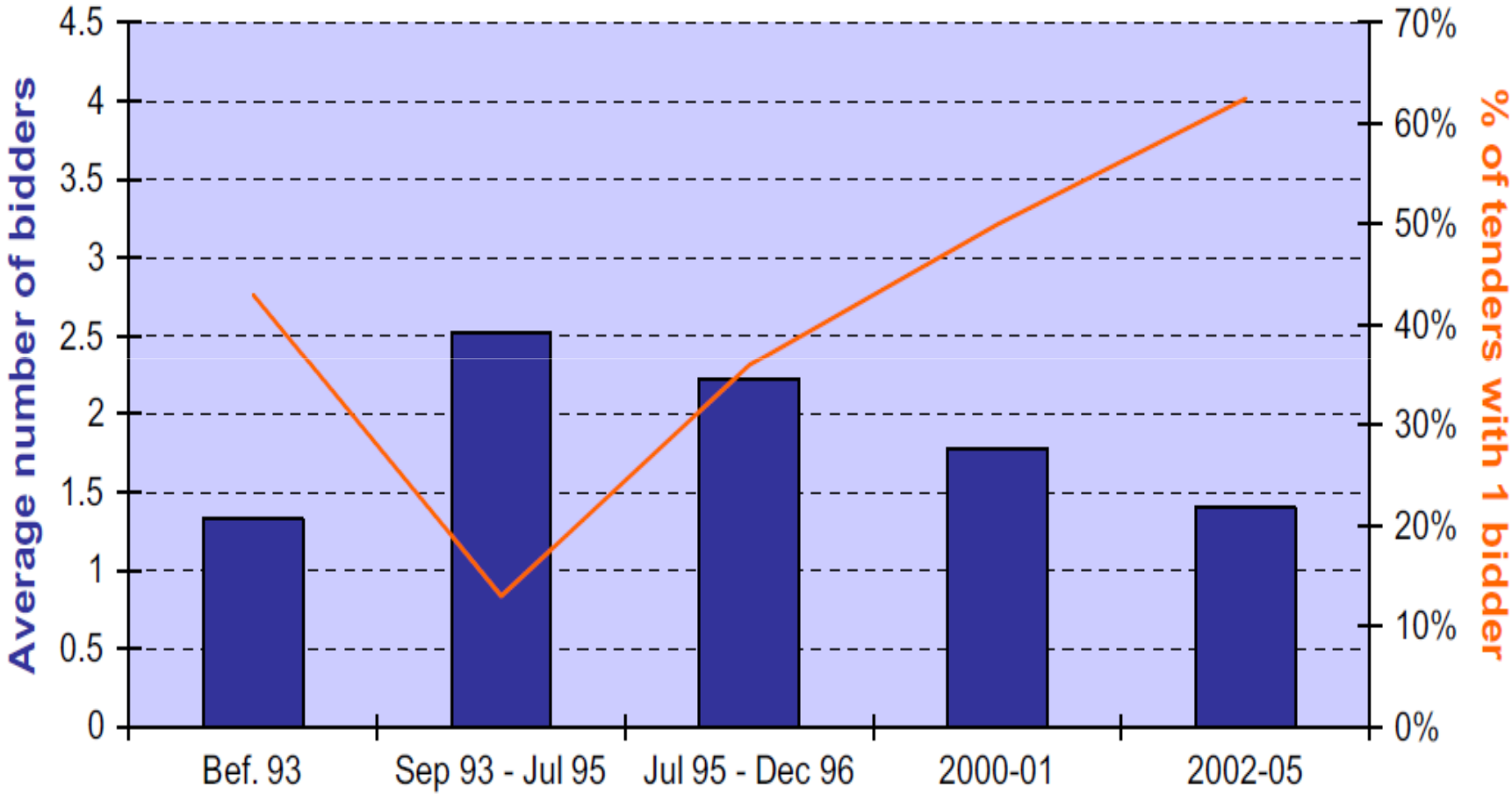
Share of Bus Services Before and After Tender Process

Volume [m vehicle-km]		before tender		Winner is*		
		abs.	rel.	Subsidiary of DB	Municipal company	Private company
after tender	abs.	Σ 111.6		30.2	17.0	64.4
	rel.		Σ 100%	27.1%	15.2%	57.7%
Incumbent is subsidiary of DB		55.1	49.3%	18.7%	1.3%	80.1%
Municipal incumbent		22.4	20.1%	7.9%	56.1%	35.9%
Private incumbent		31.1	30.6%	25.5%	3.3%	71.2%

Source: Augustin K., Walter, M., 2009, Operator Changes through Competitive Tendering: Empirical Evidence from German Local Bus Transport, Thredbo 11 Conference, Delft 22nd September 2009

International Experience, here France, Shows a Decreasing Number of Bidders per Tender since 1995

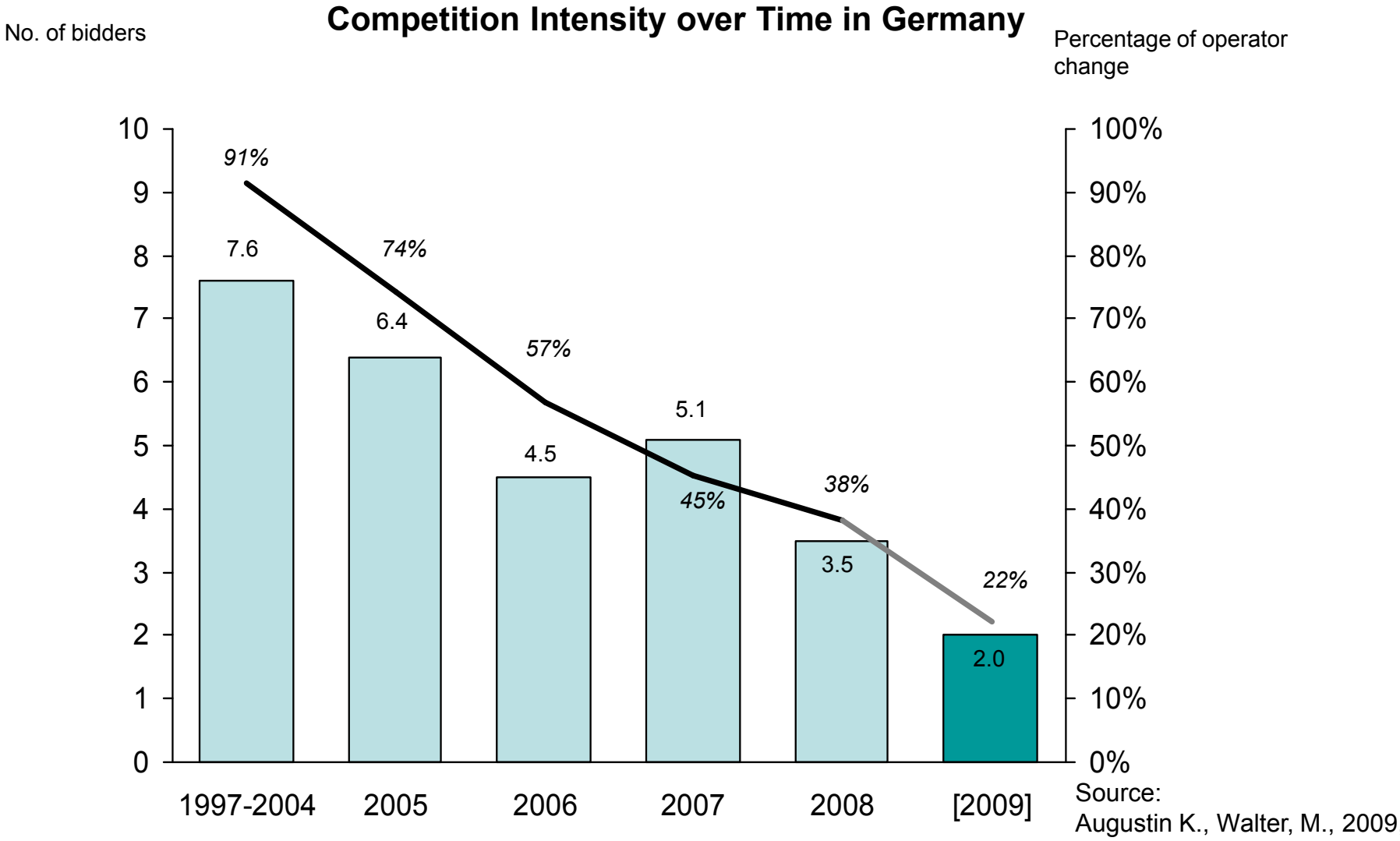
Competition Intensity over Time in France



Source: Augustin K., Walter, M., 2009, Operator Changes through Competitive Tendering: Empirical Evidence from German Local Bus Transport, Thredbo 11 Conference, Delft, 22nd September 2009

Source: Amaral M., Saussier S. & Yvrande-Billon A. (2009)

In Germany, the Number of Bidders and the Percentage of Operator Changes Have Simultaneously Been Decreasing



Source:
Augustin K., Walter, M., 2009,

Germany: Bus Services

- PTA able to realize significant efficiency gains, reducing subsidy payments by -15% to -31% on average.
- Inflation adjusted prices remained stable over almost a decade, while recent results indicate unit costs are increasing.
- Expenses related to the tendering process (allocation, contract management) are relatively low at only ~5% of the efficiency gains or ~2% of the costs of a contract for the full contract period.
- Overall level of competition is high (5-7 bidders). But number of bidders is declining recently
- Quality level of the public transport services has improved considerably: average age of vehicles downed, higher environmental standards.

Source: BECK A., 2009, What are the effects of Competitive Tendering on Bus Services in Germany?, Thredbo 11 Conference, Delft, 22nd September 2009

Sweden: Funding of public transport

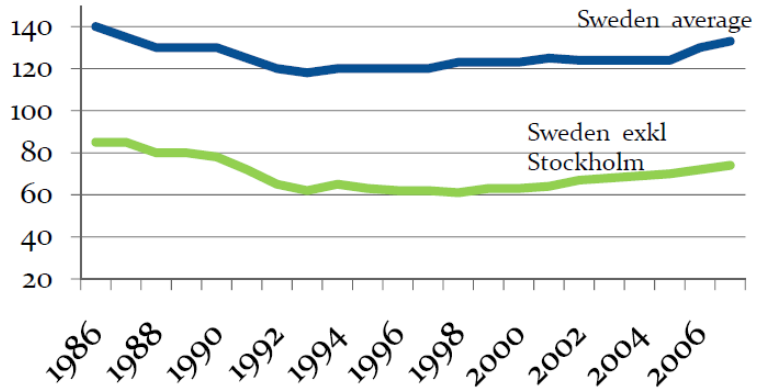
Standard organisation in Sweden
as a result of the Public Transport Act 1978
1989 Act – introduction of competitive tendering

Infrastructure	Vehicles	Operations
National infrastructure by the government	Buses included in contracted services	Regional and Local Public Transport organised by the PTA financed by Municipalities and County/Region
Regional and local infrastructure by the PTA with government grant 0-50 %	Trams/Trains financed by the PTA	Contracted services

Source: S. Ringqvist, RTM Konsult, 2009

Development 1986-2007

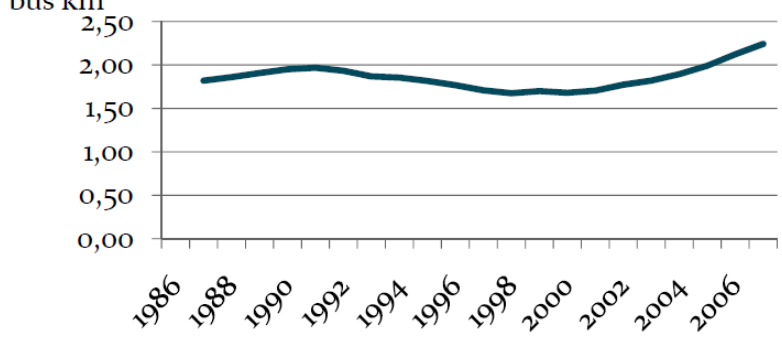
Public transport trips per inh. and year



GART/CEMR Conference, Paris June 17, 2009,
Financing models in Sweden, Stenerik Ringqvist,

Development 1986-2007

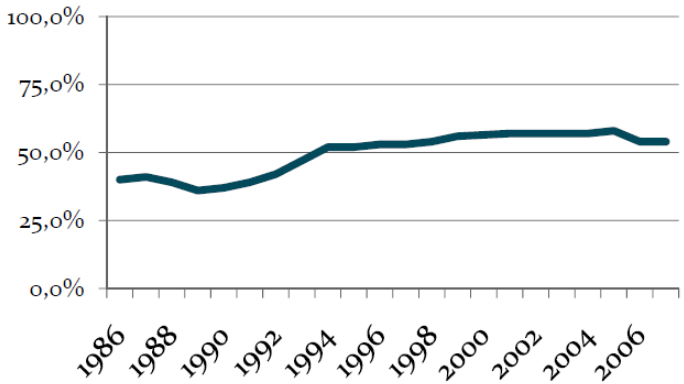
Bus operating cost per veh km
(calculated from statistics)



GART/CEMR Conference, Paris June 17, 2009,
Financing models in Sweden, Stenerik Ringqvist,

Development 1986-2007

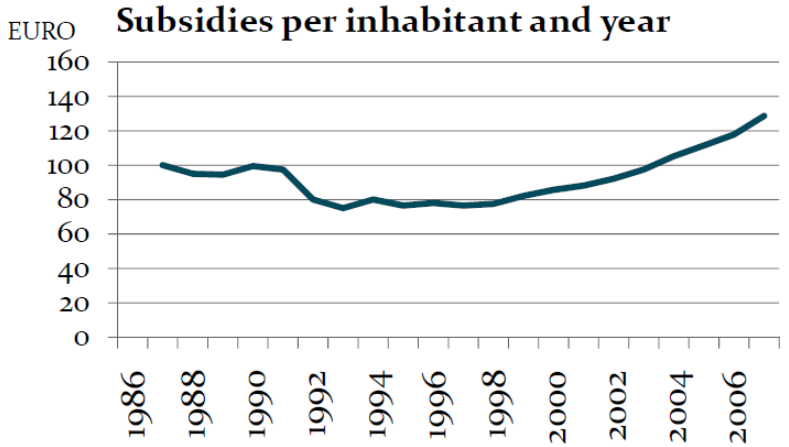
Cost coverage from revenues



GART/CEMR Conference, Paris June 17, 2009,
Financing models in Sweden, Stenerik Ringqvist,

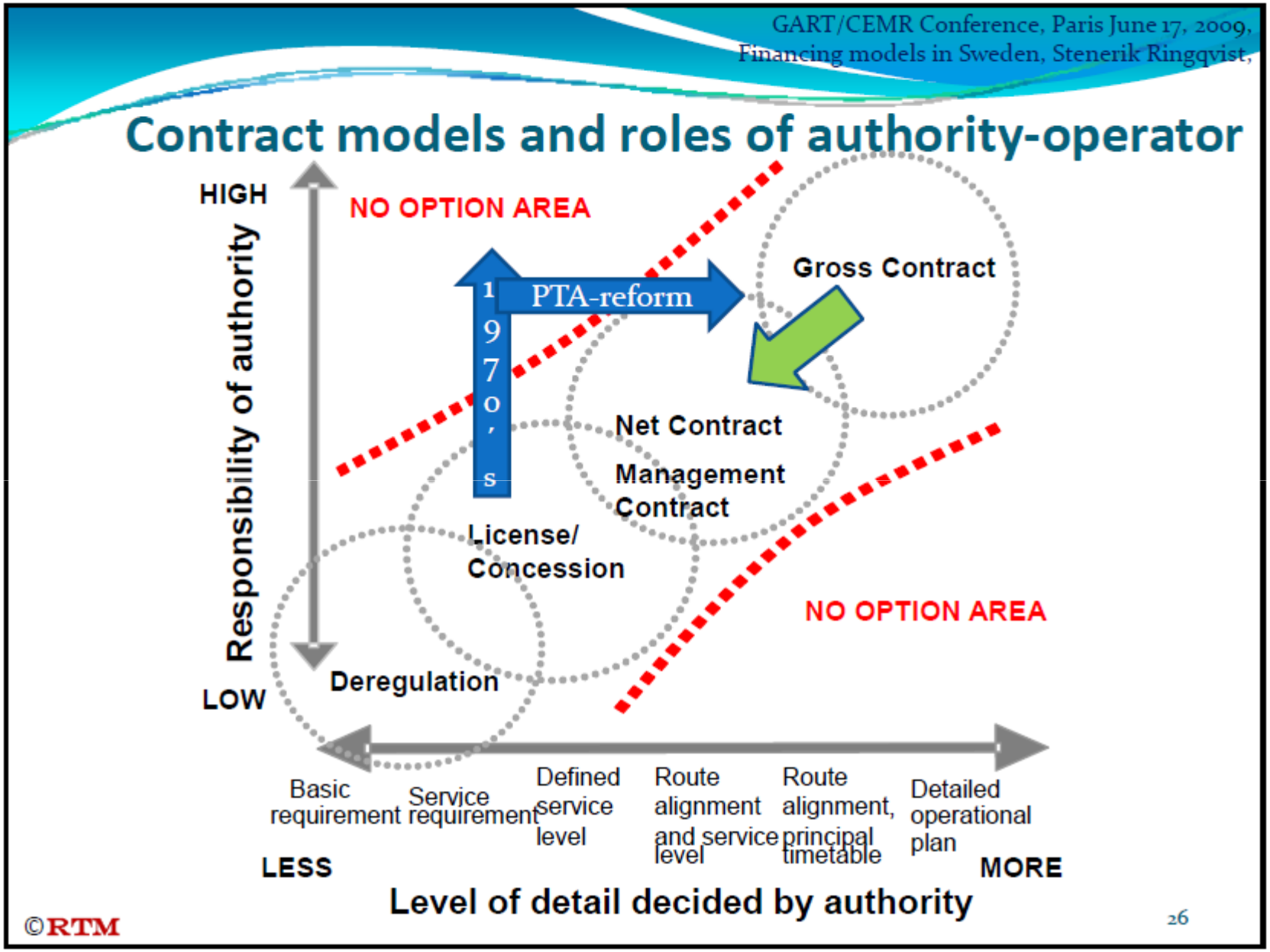
Development 1986-2007

Subsidies per inhabitant and year



Sweden: Responsibilities PTA↔ Operators

- **PTA responsible for operations design, fare system and information**
- **Operators contracted after competitive tendering**
- **Contract models used today**
  - Gross contract models
  - Gross contract models with incentives
  - Quality incentives
  - Revenue incentives
- **……Limited usage of net-contract**


GART/CEMR Conference, Paris June 17, 2009,
Financing models in Sweden, Stenerik Ringqvist,
Contract models and roles of authority-operator
HIGH
NO OPTION AREA
Responsibility of authority
LOW
1970's
PTA-reform
Gross Contract
Net Contract
Management Contract
License/ Concession
Deregulation
NO OPTION AREA
Basic requirement
Service requirement
Defined service level
Route alignment and service level
Route alignment, principal timetable
Detailed operational plan
LESS
MORE
Level of detail decided by authority
©RTM
26

– 3 –
Funding Local Public Transport

Alternative source of funding

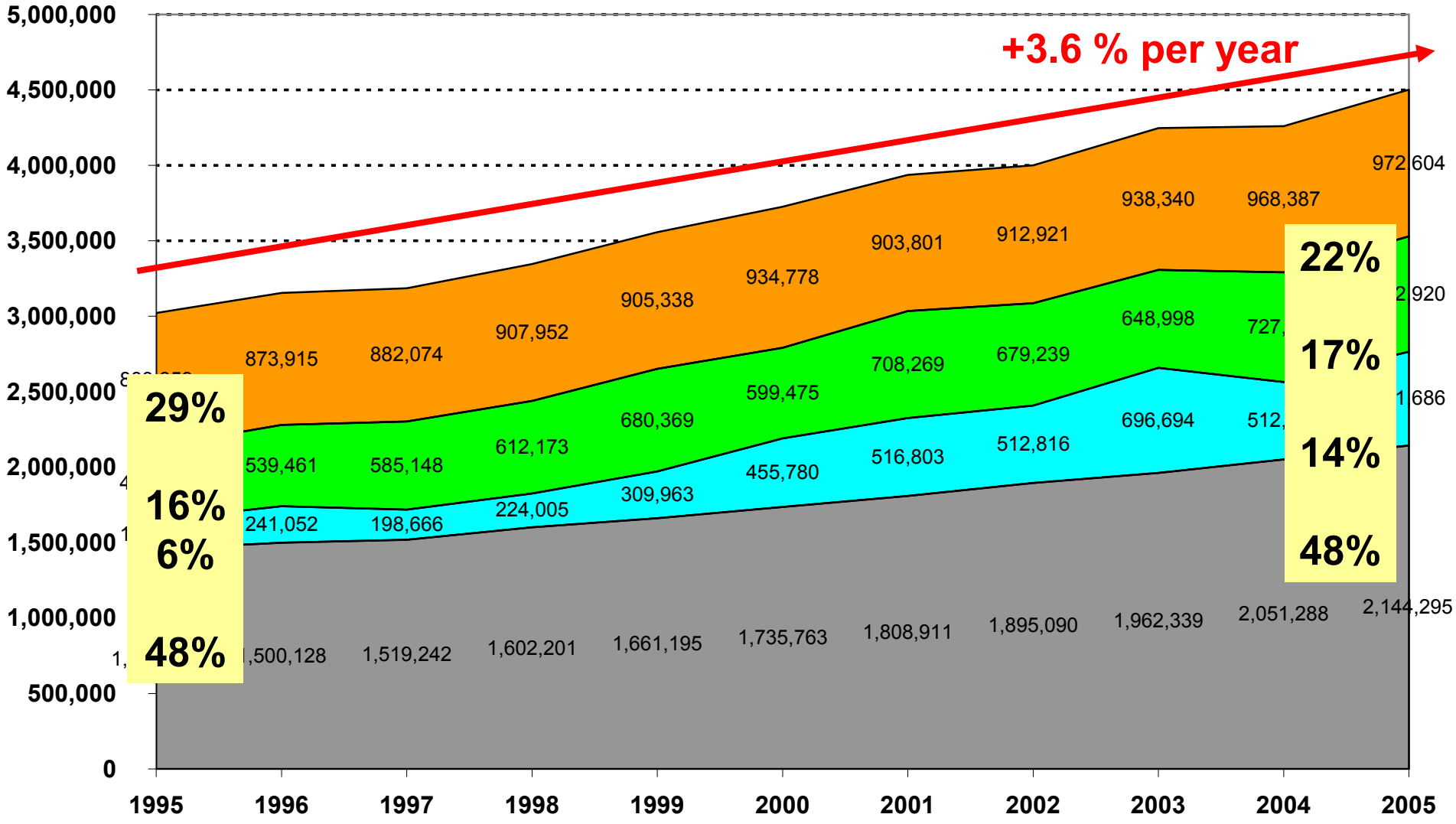
- **Capturing real estate increased value**
  - the London Docklands (Light Rail), the new Orestadt district in Copenhagen (funding the subway: 45% from land sale and 15% from land tax)., the Parla Township in the Madrid suburbs (Tramway)
  - a risk linked to the real estate market…
  - preference for local tax based on property value (long term)
- **Resources from the car sector**
  - Germany: special tax on fuel (3.5 bn € a year to the federal State)
  - Paris region: receipts from the parking rules offences
  - London: the congestion charging scheme (not designed for!)
- **Fare increase**
  - preventing social exclusion?

The French UPT Financing Scheme

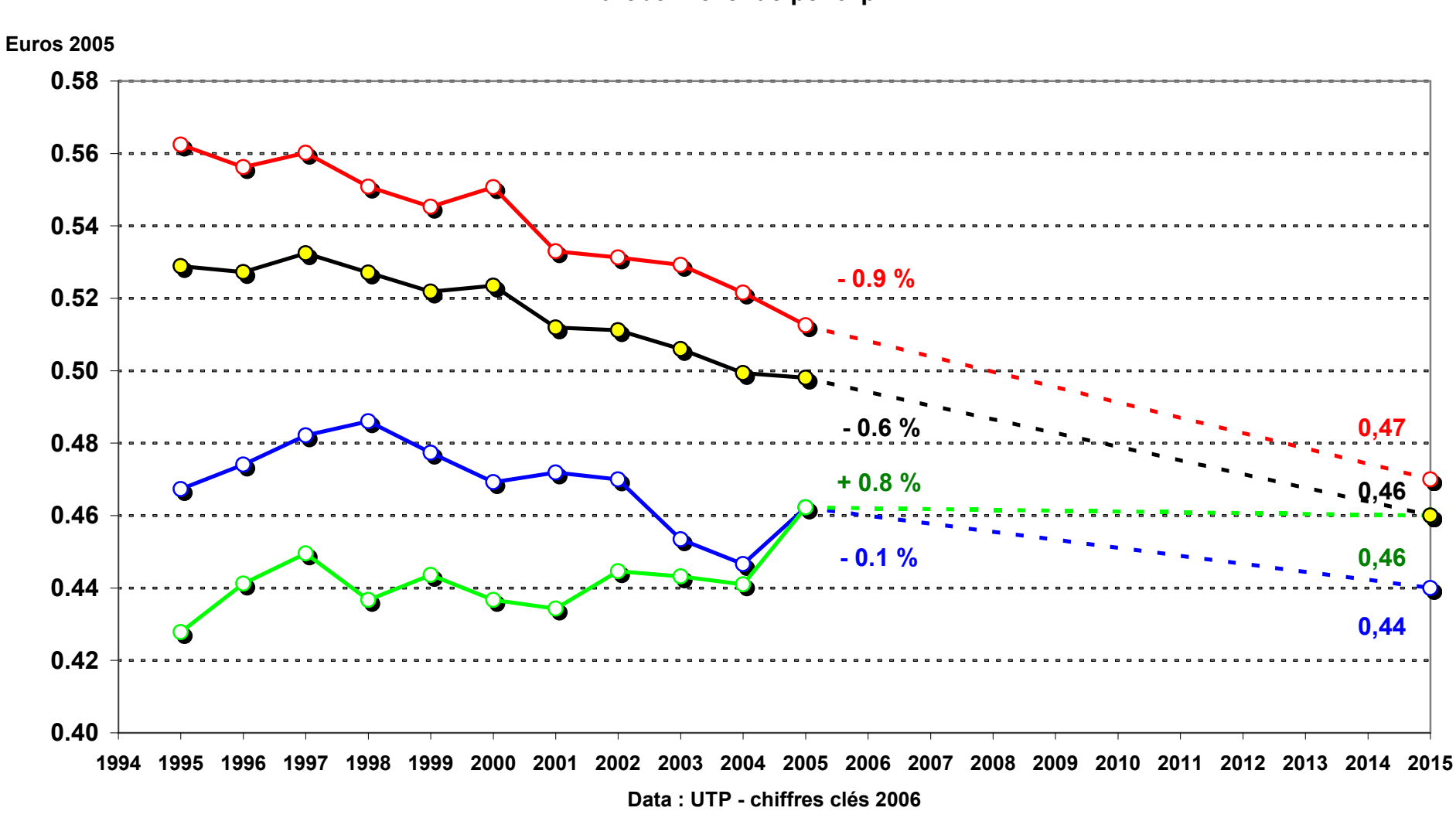
- **Since the 70's, a dedicated Transport Tax**
  - Based on the total wages of public and private companies of more than 9 employees, located within the UPT area
  - From 0.55% to 1.80%, and more in the Paris region
  - A new obligation for companies to reimburse 50% of the PT monthly ticket of employees using the PT network to go to work
  - Companies are the main financial contributor for UPT
- **A breath of fresh air for municipalities …**
  - A strong capacity of investment for PTAs
  - But an easy money which does not encourage for efficiency
  - Fares remain low…
  - PT operators' productivity does not increase

the drift of public contribution

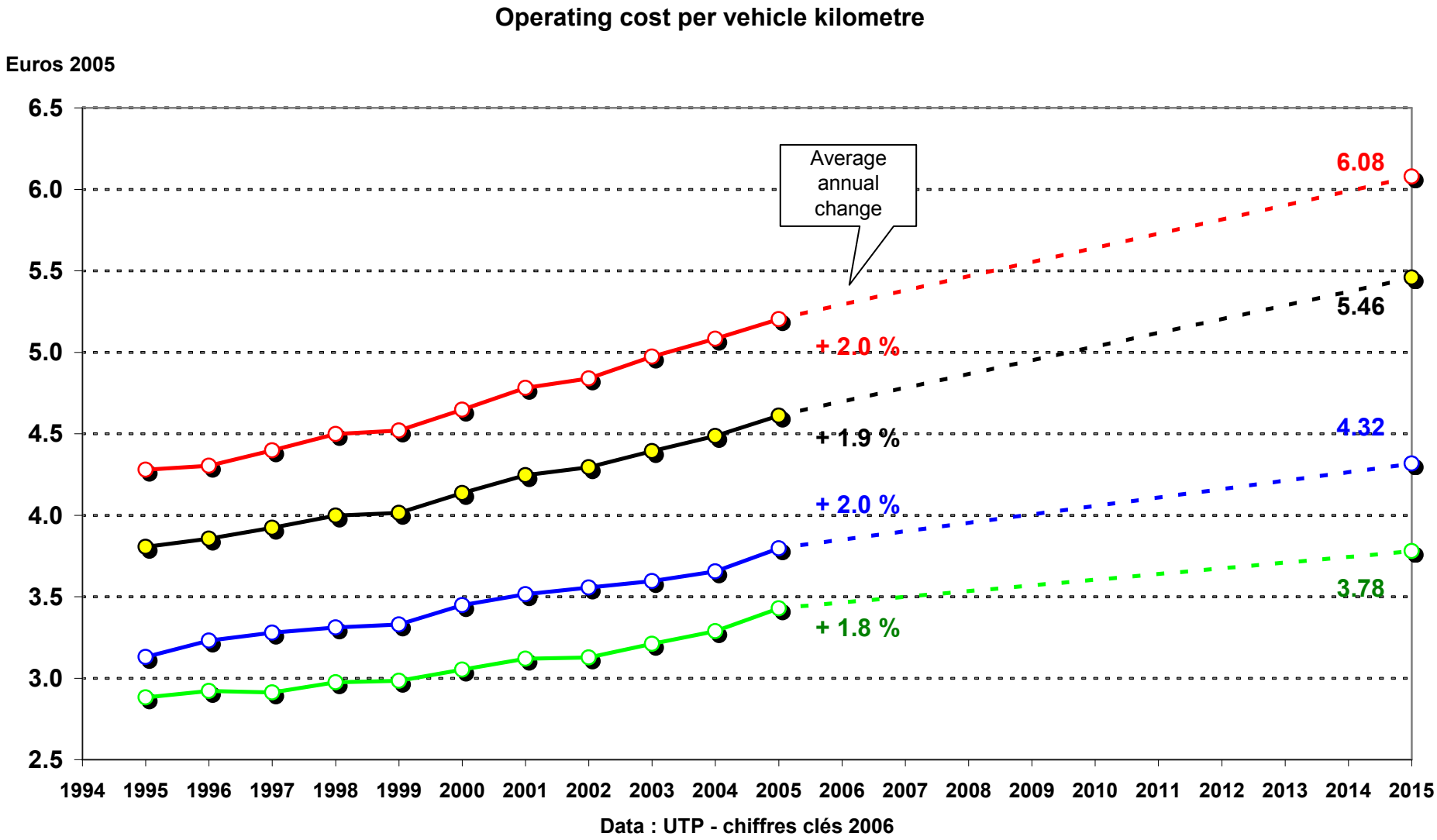
103 PT networks - Euros 2005



A decrease of the farebox revenue per trip



An increase of operating cost per vehicle km



The 1995-2005 evolution (average annual increase rates)

	1995/2000 average annual increase rate			2000/2005 average annual increase rate		
	Vehicles Kilometres	Trips	1995/ 2000 elasticity	Vehicles Kilometres	Trips	2000 / 2005 elasticity
> 250,000 inhabitants [22]	1,40%	1,80%	1,27	1,80%	2,40%	1,36
100 to 250,000 inhabitants [34]	1,80%	0,40%	0,21	1,70%	0,50%	0,29
< 100,000 inhabitants [47]	1,50%	0,00%	0,02	2,30%	0,00%	0,01
Total [103 PT networks]	1,60%	1,30%	0,86	1,80%	1,80%	1

The 1995-2005 evolution (average annual increase rates)

	> 250,000 inhabitants [22]	100 to 250,000 inhabitants [34].	< 100,000 inhabitants [47]	Total [103 networks]
Served population	0.76%	1.28%	1.35%	1.00%
PT supply (veh.km per inhab.)	0.83%	0.48%	0.52%	0.67%
Patronage (Trips/inhab.)	1.34%	-0.83%	-1.31%	0.56%
Load factor (Trips per veh.km)	0.50%	-1.31%	-1.83%	-0.11%
Covering ratio (farebox revenue / operating expenses)	-2.35%	-3.30%	-2.77%	-2.59%
Farebox revenue per trip	-0.92%	-0.11%	0.78%	-0.60%
Farebox revenue per veh.km	-0.43%	-1.42%	-1.06%	-0.70%
Operating expenses per trip	1.46%	3.30%	3.64%	2.05%
Operating expenses per Veh.km	1.97%	1.95%	1.75%	1.94%
Operating deficit per trip	3.55%	5.42%	5.25%	4.11%
Operating deficit per veh.km	4.07%	4.04%	3.33%	4.00%

The 2015 reference scenario: average increase rates

2015/2005 variation	Operating Expenses	Other PTA Expenses	Network Total Cost	Fare Box Revenue	Operating Deficit	Net Transport Tax	Public Contribution
> 250,000 inhabitants	**39%**	**48%**	**43%**	**14%**	**61%**	**37%**	**76%**
100-250,000 inhabitants	**36%**	**47%**	**40%**	**-5%**	**51%**	**40%**	**63%**
< 100,000 inhabitants	**37%**	**42%**	**39%**	**-2%**	**52%**	**39%**	**61%**
Total [103 networks]	**38%**	**47%**	**42%**	**10%**	**57%**	**38%**	**72%**

Public Contribution per inhabitant	2005	2015 Reference scenario	Variation
> 250,000 inhabitants	**97.53 €**	**159.74 €**	**64%**
100 to 250,000 inhabitants	**51.24 €**	**74.55 €**	**45%**
< 100,000 inhabitants	**28.98 €**	**41.84 €**	**44%**

First scenario: *Reducing the 2015 Public Contribution to its 2005 level*

Needs together (compared with the reference trends):

- A 10% reduction of the operating expenses per PT employee (OPTE)
- A 10% reduction of the number of employees per million vehicle kilometre (EVKM)
- A 20% increase of the Fare Box Revenue per Trip (FBRT)
- A 20% increase of the Number of Trips per Vehicle Kilometre (NTVK)

PTAs consider such an objective non realistic…

Scenario 2 : *to stabilise the 'Fare Box Revenue / Operating Expenses' ratio at the 2005 level*

- **Stabilising the Operating Expenses per PT Employee at its 2005 level (OPTE) = a 6% reduction compared with the reference scenario**
- **Stabilising the number of PT Employees per million Vehicle Kilometres (EVKM) = a 11% reduction**
- **A 2% increase of the Number of Trips per Vehicle Kilometre (or a 2% increase of the Fare Box Revenue per Trip)**
- **Leads to a 36% increase of the Public Contribution compared with 2005 (or a 23% reduction compared to the reference situation).**

Scenario 3: *to stabilise the share of Public Contribution in the total of resources*

- **means finding extra 337 M€ (or 29 € per inhabitant), while the Public Contribution still grew by 450 M€ compared with 2005**

- **Needs together:**
- **A 5% increase of the Transport Tax (compared with the reference scenario),**
- **A 12% increase of the Fare Box Revenue per Trip**
- **A 12% increase of the number of Trips per Vehicle Kilometre**

Scenario 4 – 'Sustainable Mobility': *means a 60% increase of the number of trips on PT networks*

- **Hypotheses:**
  - **A 25% increase of the supply (veh.km per inhabitant)**
  - **A 30% increase of the PT Authority's other expenses per Vehicle Kilometre**
  - **A 30% increase of the Number of Trips per Vehicle Kilometer**
  - **A 25% increase of the Fare Box Revenue per Trip**

(Thousands € 2005)	2005	2015 Reference scenario	2015 Scenario 4	Scenario /Reference Variation	2015/2005 Variation
Operating Expenses	1,725	2,400	2,772	**16%**	**61%**
Other PTA Expenses	1,652	2,439	2,878	**18%**	**74%**
Network Total Cost	3,377	4,839	5,650	**17%**	**67%**
Fare Box Revenue	799	907	1,740	**92%**	**118%**
Operating Deficit	926	1,492	1,032	**-31%**	**11%**
Net Transport Tax	1,534	2,098	2,098	**0%**	**37%**
Public Contribution	1,044	1,834	1,812	**-1%**	**74%**

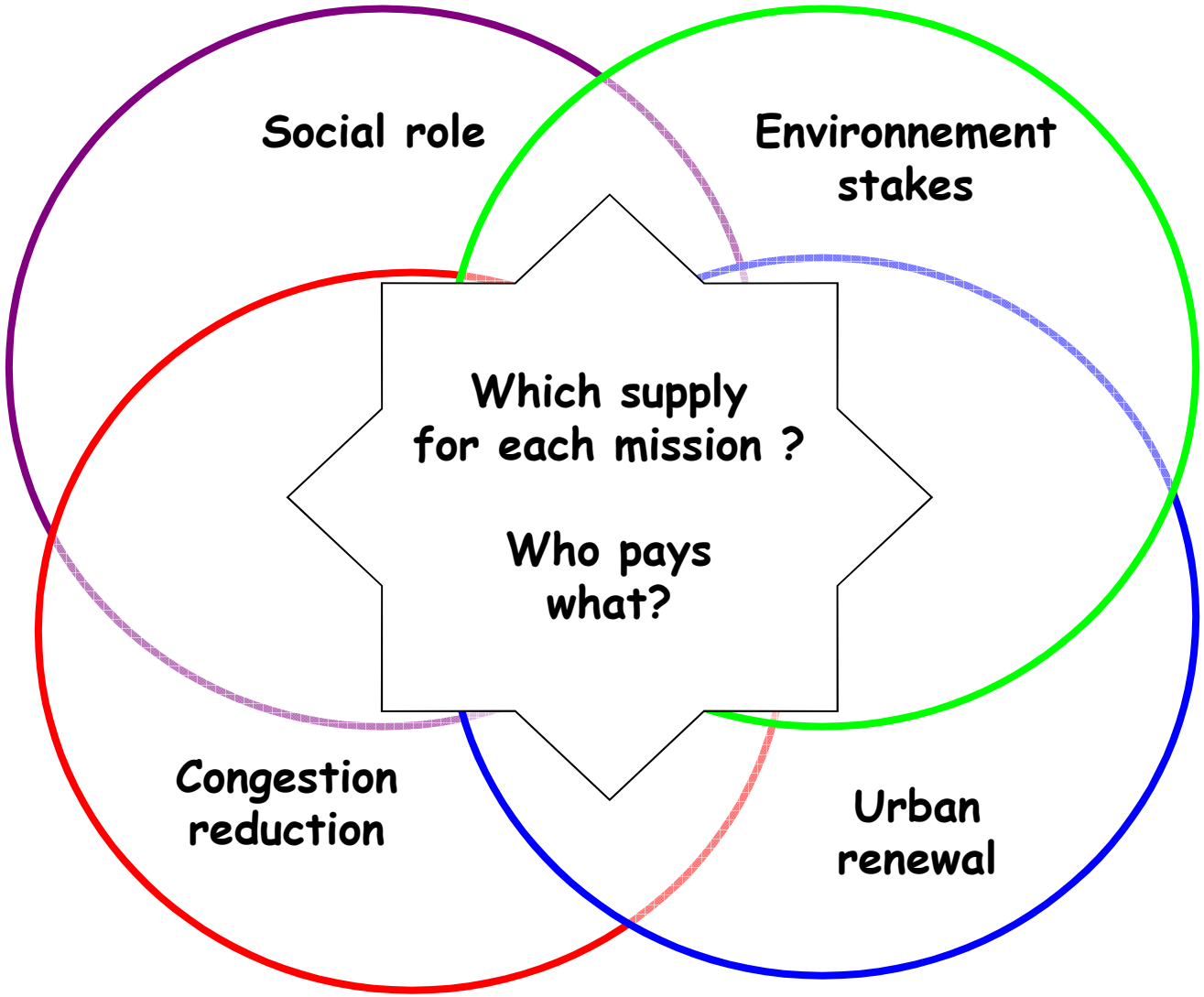
Lessons learnt…

- **Cutting the drift of Public Contribution needs structural changes in the structure of the funding of PT networks**
  - The present economic crisis forces PTAs to savings
- **Fares should be revised in the perspective of 'sustainable mobility'**
  - Newcomers are car drivers with a higher willingness to pay
- **The economic performance of PT network has to be improved**
  - Analyzing the reasons of a low productivity and a weak attractiveness

Some paths to improve PT network performance

- **Reforming the Public Service Contract**
  - Sharing the 'tactical level' with PT operators, to optimize the operation of the network
  - Developing real financial incentives : a performance-based contract
- **Redesigning networks**
  - To a better identification of the 'missions' and the consequent adaptation of the 'level of service' standards
  - Diagnostics to be done at the level of each route
- **Redesigning the fare structure**
  - A more individualized marketing approach
  - Designing new fare products in relation to the targeted customers

A performance linked to the roles of PT



Which "performance"?

- **Productive : output / inputs**
  - Economic efficiency …
- **Contracts Performance: Operator control**
  - Encouraging to productivity and quality
- **Network Performance : « attractiveness »**
  - Design of the network (Trip per kilometer)
- **Service Performance: the 4 roles**
  - Adequacy to the targets
- **Public Policy Performance:**
  - Contribution to Sustainable Mobility

Thank you!