EMTA barometer 2006

EUROPEAN METROPOLITAN TRANSPORT AUTHORITIES

Foreword

The association of European Metropolitan Transport Authorities (EMTA) brings together the public authorities responsible for planning, co-ordinating and funding the public transport systems of 31 of the European largest metropolitan areas and Montreal (Canada).

A precise knowledge of reality is a prerequisite to define pertinent policie. Decisions on public transport affect the daily lives of millions of people, the investment and operation costs of complex system often amount to millions of Euros if not billions and have a determinant impact on the economic dynamism and environmental quality of urban areas.

In this context, **comparison of data between territories facing the same kind of challenges (benchmarking) is a useful source of information for decision makers.** The EMTA Barometer of public transport in the European metropolitan areas aims to provide such comparative insight.

Where they exist, **public transport authorities are the only organisations with a broad view of mobility issues in large urban contexts.** Metropolitan areas have multi-modal and multi-operator public transport networks. Besides gathering data on mobility patterns and passenger perception is instrumental to their knowledge. Data collection shall therefore be a key responsibility of public transport authorities.

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To achieve this end, it is important to:

- **define pertinent territories,** corresponding to the reality of mobility of people. Analysis should capture the reality of the territory where people do travel beyond administrative boundaries of local authorities or transport companies;
- **determine a set of key indicators** that shall be collected and reviewed regularly so as to have a clear view of the main trends under way;
- **take into account not only public transport, but also mobility in a broader sense,** including of course trips involving private cars, but also taxis, bicycle, and walking.

The well known difficulties and biaises of collecting data call for a process of harmonization of definition at European level. In the meantime, EMTA continues to collect data from the transport authorities of the European largest cities. The present leaflet is a summary of the 4th edition "Barometer 2006" released early 2009.

Changes over the previous edition - "Barometer 2004"- show:

- a denser population over the ten past years in the metropolitan areas, even in places where the population was slightly decreasing in the past five years, the decrease slows down;
- the demand for public transport is buoyant slightly above one trip per inhabitant every working day;
- the monthly passes prove popular even if the range of prices has shifted upward some 15%;
- the coverage of operational costs by fare revenues lies in average 3 percentiles below the level of 2004.

The Barometer is produced by CRTM Madrid.

CONSORCIO TRANSPORTES MADRID

This summary released in 2009 of the Barometer-data 2006 illustrates key findings on the diversity of public transport systems and public transport policies in the European largest cities. Full report at *www.emta.com* publication section.

4th edition presentation

> 24 areas are again listed in the fourth edition of the *EMTA Barometer of public transport* with some changes over the previous edition Barometer 2004. Barometer 2006 includes data from Budapest, Greater Copenhagen, Greater Montreal and Warsaw; while Bilbao, Cadiz Bay, Greater Lyon and Oslo haven't participated.

Description of the metropolitan area surveyed

	Authority responsible	Population 2006 (inhabitants)	Metropolitan area surface (km²)	Urbanized surface (km²)	Family size	Annual GDP per capita (€)
Stadsregio Amsterdam	Stadsregio	1 365 485	1 025		2,2	33 500
Barcelona	ATM	4 857 000	3 239	588	2,7	27 817
Berlin - Brandenburg	VBB	5 951 809	30 371	1 687	2,2	21 551
West Midlands (Birmingham)	Centro	2 591 300	901	435	2,4	24 387
Brussels	MRBC	2 988 029	5 162	1 150	1,9	
Budapest	BKSZ Kht	3 200 000	7 597		2,6	14 070
Greater Copenhagen	Movia	1 831 751	2 868	642	2,1	46 535
Frankfurt Rhein-Main	RMV	5 000 000	14 000		1,8	35 000
Helsinki	YTV	996 000	745	240	2,2	42 857
Greater London	TfL	7 512 400	1 579	1 579	2,4	44 401
Madrid Community	CRTM	6 008 183	8 030	1 049	2,9	28 064
Greater Manchester	GMPTE	2 553 800	1 272	959	2,4	26 031
Greater Montreal	AMT	3 596 000	3 980		2,9	24 024
Paris Ile-de-France	STIF	11 491 000	12 012	2 521	2,3	43 370
Prague	ROPID	1 700 000	3 860			
Seville	CTS	1 250 597	1 741	307	3,1	18 164
South Yorkshire (Sheffield)	SYPTE	1 292 900	1 552		2,4	21 067
Stockholm	SL	1 918 104	6 491		3,5	44 450
Greater Stuttgart	VRS	2 673729	3 654	803	2,2	34 529
Turin	AMMT	1 531 755	837		2,2	22 856
Valencia	ETM	1 732 830	1 415	325	2,6	19 747
Vienna	VOR	2 403 724	6 457			31 089
Vilnius	MESP	848 008	9 731	449	3,2	10 426
Warsaw	ZTM	2 270 585	3 000		2,7	11 569

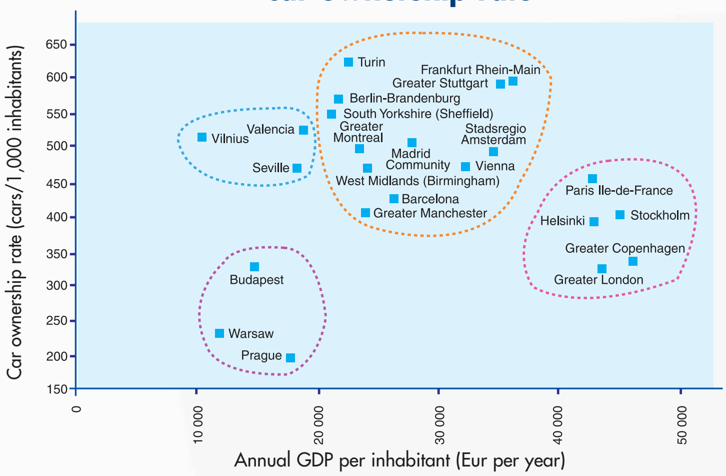
> European metropolitan areas keep growing but have various demographic structures
Most urban areas surveyed have seen an increase of their population over the past ten years 1996-2006. However the average growth rate of around 6% for the cities which have provided data, shows a decrease in the pace (9% in Barometer 2004). Madrid Community ranking first with a growth estimated at 19.6%. Valencia comes second, with a growth of 18%, followed by Prague(+17.2%) and Barcelona (+15%).

The weight of the main city over the whole metropolitan area is roughly a 48% (+ 4% over Barometer 2004) of total population with large differences, illustrating the diverse administrative frameworks and histories of the cities.

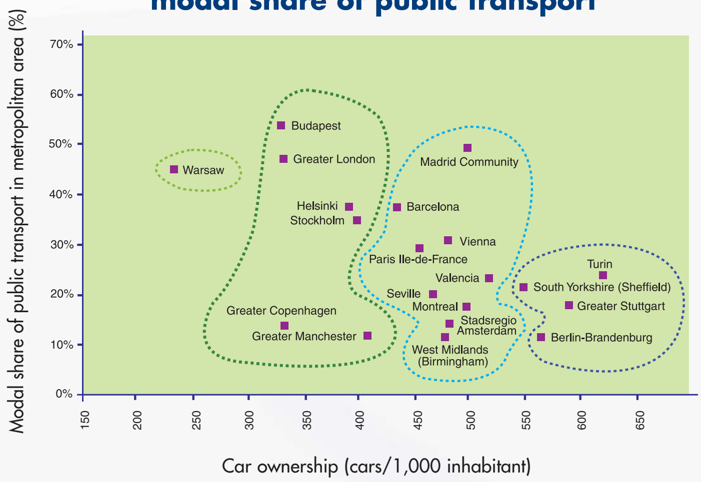
Evolution of Population: decade 1996-2006 compared to 5 years span 2001-2006

> Car ownership rates are thrice as high in some cities as in others (620 cars per 1,000 inhabitants in Turin vs 196 in Prague and 235 in Warsaw). We can observe different groups and it seems that the wealthier metropolitan areas have a car ownership under 450 cars /1000 inhabitants. This suggests that the higher the GDP per in habitant, the lower the car ownership ratio and the higher the use of public transport. In other words, public transport authorities have growing responsibilities in the metropolitan areas to offer attractive public transport services to a less car dependant community.

Link between annual GDP per capita and car ownership rate



Link between car ownership rate and modal share of public transport



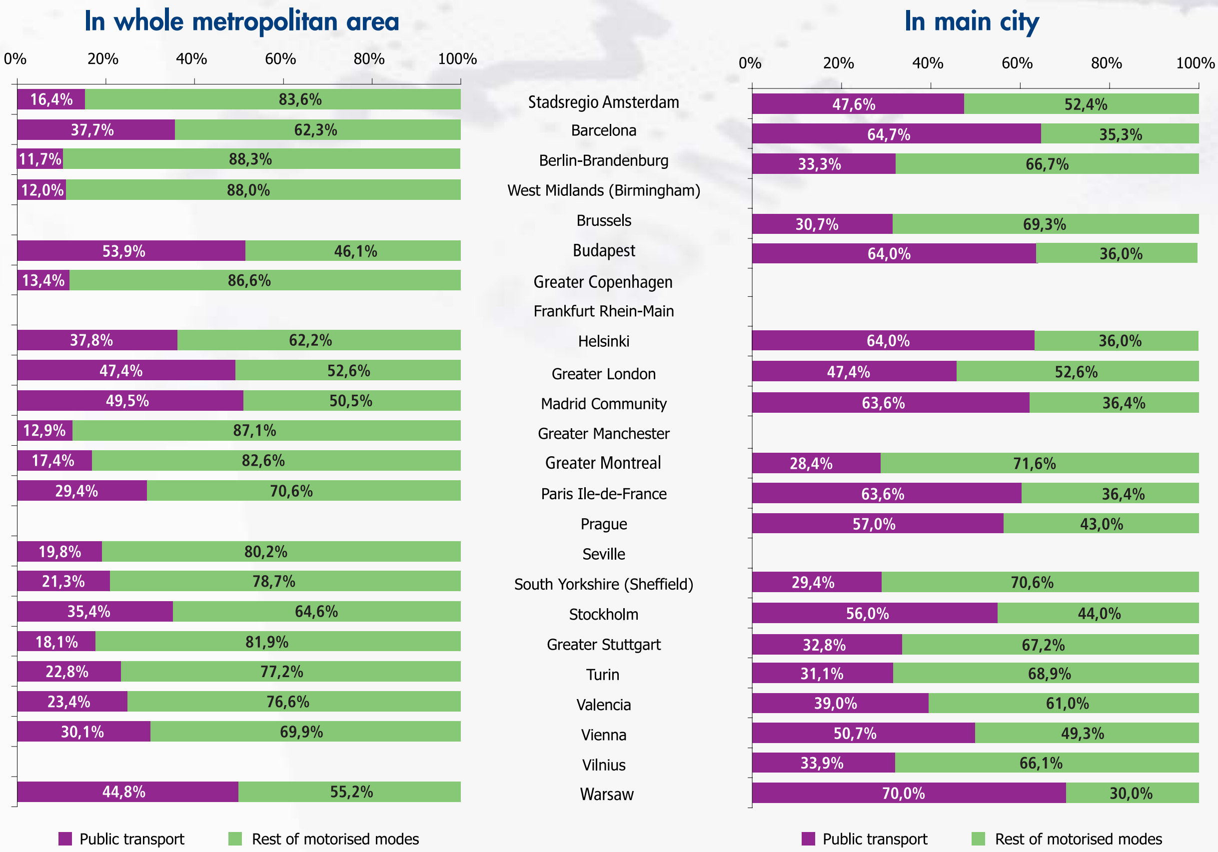
Other factors like urban density, family size, existence of efficient public transport systems, or the cost of using and parking of cars can lead to lower car ownership rates.

> Public transport accounts for more than 48% of all motorised trips (50% in 2004) in the densest parts of most European metropolitan areas (in the main cities), illustrating its fundamental economic, social, and environmental role in large urban territories. Budapest is the European metropolitan area among those surveyed, where public transport accounts with the higher modal share of all motorised trips (53.9%). Other metropolitan areas with more than one third of motorised trips done by public transport include Madrid Community, Greater London, Warsaw, Helsinki, Barcelona and Stockholm.

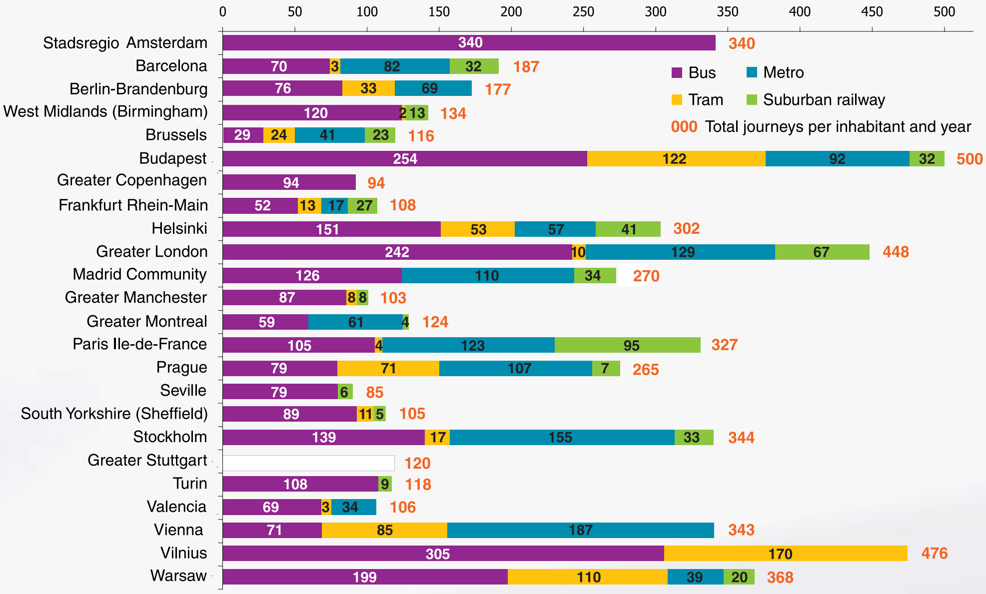
Several main cities achieve, within their metropolitan areas, more than 50% of modal share for public transport. Warsaw, Barcelona, Budapest, Helsinki, Paris and Madrid stand out with a rate over 60% of all motorised trips, illustrating the very dense public transport systems irrigating the heart of those capital cities.

The strong gap between modal share in the main city and modal share in the whole metropolitan area (where public transport accounts, in average, for 28% (-2% vs 2004) of motorized trips. This figure embodies one of the main challenges facing public transport authorities and operating companies in the coming years: develop public transport in the suburbs and the less dense parts of the metropolitan areas.

Modal share of motorized modes



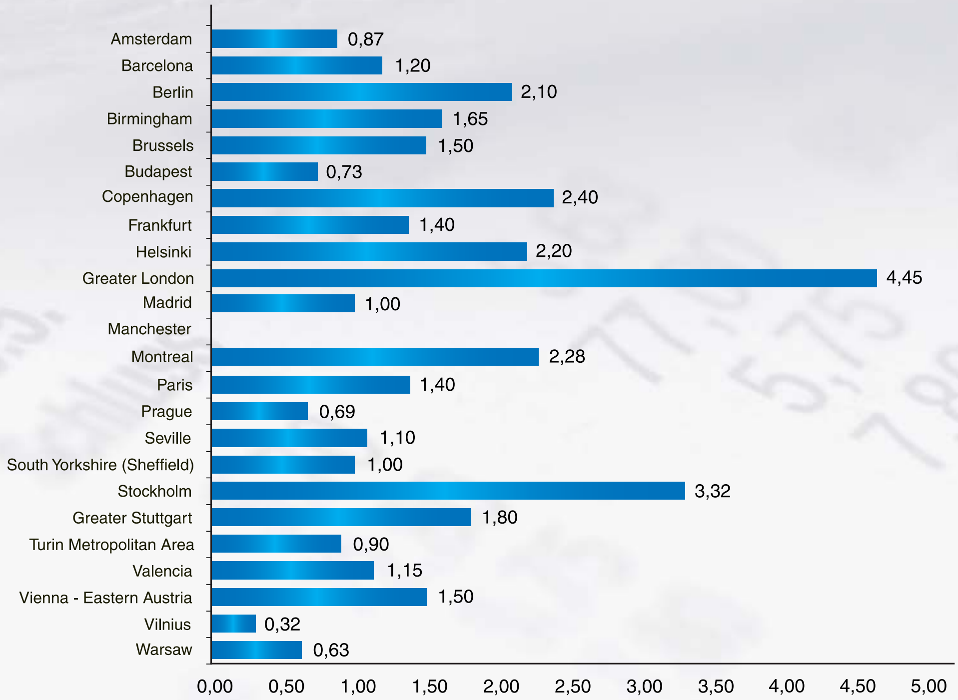
Public transport demand per inhabitant



Regarding the public transport demand, each inhabitant does more than 230 journeys (vs 200 in 2004) per year on public transport, slightly above one trip every working day. In some cases the figure is over 400 journeys as in Budapest, Vilnius (where the score is reached with buses and trolleybuses only) and Greater London. Out of the total demand for transport, half of it is made on buses, which confirms this mode of transport as fundamental in the whole public transport system.

It is also very important to highlight the effort being made by authorities and operators to offer a high quality public transport system, with accessible vehicles and stations, using ITS (Intelligent Transport Systems) technologies to guarantee reliability and safety in the operation, real time information to the user, etc. to promote the public transport use and make it more competitive to stand in front of the private vehicle.

Single ticket price for the main city



> Fare policies and fare levels differ a lot between the different metropolitan areas. The price of a single ticket valid for the main city varies from less than 0.32€ (0.30€ in 2004) up to more than 4€ (3€ in 2004). The saving with the multiple trip ticket is around 25% compared with the single ticket (as opposed to 40% in Barometer 2004). The monthly pass varies from 16.20€ to over 120€ (respectively 14.48€ and 97.53 in 2004), and the students pass is 40% cheaper (vs 50% in 2004) than the same category of conventional pass. However, these figures make no difference with the size and economic features of the metropolitan areas.

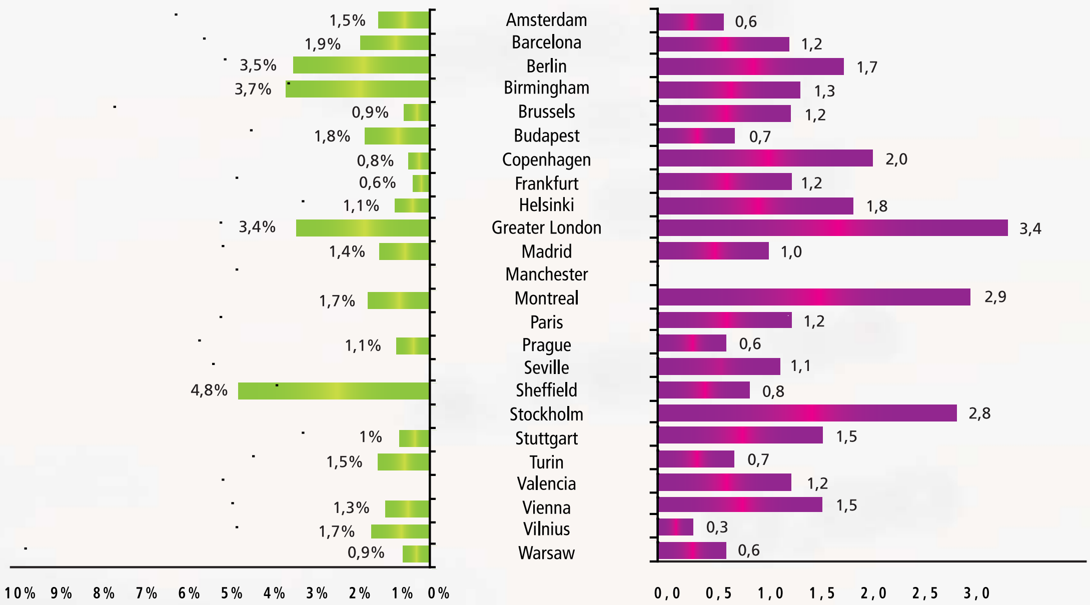
The monthly pass price in main city compared to GDP per capita (annual GDP in city divided by 12) gives a ratio of 1.8%. Especially cheap are monthly passes in Frankfurt (0.6%), Copenhagen (0.8%), Brussels and Warsaw (0.9%) as opposed to the highest prices in Sheffield (4.8%) Birmingham (3.7%) or Berlin (3.5%).

If we compare the single ticket with the petrol litre price (unleaded 95) we observe that lower ratios (0.3-0.6) contribute to the use of public transport, while on the other hand higher ratios (over 2) indicate high level of welfare (London, Stockholm) or costly public transport systems.

Main city fare ratios

Monthly pass fare in main city / Monthly GDP per capita (%)

Single ticket price for the main city / petrol litre price (unleaded 95)

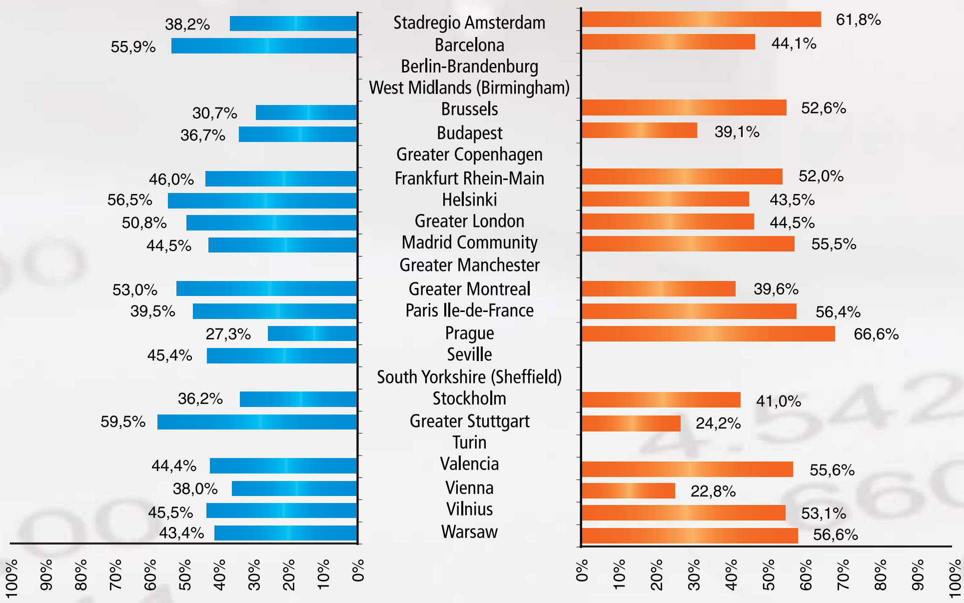


> **The rates of coverage of costs of operation by fare revenues are also varying greatly,** some cities nearing balanced situation, while in others, it is much below 50%. In average among those metropolitan areas surveyed, the operational costs of public transport in 2006 are covered 44% (vs 47% in 2004) by fare revenues and 48% (vs 49.7% in 2004) by subsidies.

Coverage of operational costs

Coverage by revenues

Coverage by subsidies



MEMBERS

PTA	City	Population	Web Site
STADSREGIO	AMSTERDAM	1,365,485	www.stadsregioamsterdam.nl
ATM	BARCELONA	4,857,000	www.atm.cat
CMTBC	BAHIA DE CADIZ	1,194,062	www.cmtbc.es
	in summer season	1,512,750	
VBB	BERLIN *MoB**	5,951,809	www.vbbonline.de
CTB	BILBAO	1,139,863	www.cotrabi.com
CENTRO	BIRMINGHAM	2,591,300	www.centro.org.uk
MRBC	BRUSSELS-CAPITALE REGION *Treasurer*	2,988,029	www.bruxelles.irisnet.be
BKSZ Kht	BUDAPEST	3,200,000	www.bksz.hu
MOVIA	COPENHAGUE	1,831,751	www.movia.dk
DTO	DUBLIN	1,535,000	www.dto.ie
RMV	FRANKFURT	5,000,000	www.rmv.de
HVV	HAMBURG	3,320,000	www.hvv.de
YTV	HELSINKI *President*	996,000	www.ytv.fi
TfL	LONDON	7,512,400	www.tfl.gov.uk
SYTRAL	LYON	1,373,300	www.sytral.fr
CRTM	MADRID *Vice President*	6,008,183	www.ctm-madrid.es
GMPTE	MANCHESTER	2,553,800	www.gmpte.com
ATM	MILAN	3,700,000	www.comune.milano.it
AMT	MONTREAL	3,596,000	www.amt.qc.ca
RUTER	OSLO	840,000	www.ruter.no
STIF	PARIS *Vice President*	11,491,000	www.stif.info
ROPID	PRAGUE	1,700,000	www.ropid.cz
CTAS	SEVILLA	1,250,597	www.consorciotransportes-sevilla.com
SYPTE	SHEFFIELD *MoB**	1,292,900	www.sypte.co.uk
SL	STOCKHOLM *MoB**	1,918,104	www.sl.se
VRS	STUTTGART	2,673,729	www.region-stuttgart.org
AMMT	TORINO *MoB**	1,531,755	www.mtm.torino.it
eTM	VALENCIA	1,732,830	www.etmvalencia.es
VOR	VIENNA	2,403,724	www.vor.at
MESP	VILNIUS *MoB**	848,008	www.vilniustransport.lt
ZTM	WARSAW	2,270,585	www.ztm.waw.at

MoB :* Member of the Board

AML	LISBON *Observer*	2,760,700	www.aml.pt

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