



data 2012

EMTA barometer

European Metropolitan Transport Authorities

2012

Foreword

The 8th edition of the Barometer of the association of European Metropolitan Transport Authorities (EMTA) lies before you, comprising data of 26 of Europe's metropolitan regions and by Montreal (Canada). Barometer figures show the key characteristics of the transport networks by delivering cross-over views, intertwining economic indicators from stakeholders with mobility outcome, earning capacity (GDP) with car ownership and ticket fares.

From this a perspective emerges on local strategies for mobility needs, supply and demand and the potential for sustainable development for cycling, walking and public transport.

The Barometer reflects how organizing authorities perform and how their economic and social development was affected by prices, running costs and investments in the transport system.

The Barometer also displays the extent up to what level the public transport sector has been impacted by the economic recession. Indicators reflect urban transport policies achievements and can be input for scenario thinking.

Without prejudice to the variety of specific contexts a comparison between urban areas facing similar challenges provides a source of information for decision makers to benchmark their strategies.

Metropolitan Transport authorities are usually well equipped to find alternative ways for recovery, by investing in an integrated and innovative mobility planning. Gathering data on mobility patterns can prove instrumental to their knowledge and trigger more efficiency and sustainability of urban transport networks.

Improved data compilation requires orientation on to new sources and a methodical review of collection. EMTA will therefore continue to collect Barometer data albeit in a more concise scope. The aim is to benefit from new digital sources to tap into urban mobility data sources.

Opportunities for collaboration with peer stakeholders to expand the scope and quality of urban transport data collection are welcomed, provided they bring added value.

Changes over the previous edition (2011) show:

- > Populations tend to densify in the metropolitan areas, at the same time several transport authorities enlarge their territorial scope (metropolitan areas of Hamburg, Helsinki, Prague and Seville);
- > the modal share in favour of public transport is still high in the main cities (30%), and soft modes such as walking and cycling show a tendency to increase (41%), shifting from private car (32%) and public transport;
- > the demand for public transport is above one trip per inhabitant every working day, although in several metropolitan areas a decrease has been noticed due to the economic crisis;
- > Resources from fare revenues in 2012 amount on average to 48.2% of the operational costs across the metropolitan areas surveyed whereas the public subsidies amount to 45.6%. This shows an increase of fare revenues and other revenues (renting, advertising, etc.) compared to 2011.

Gathering performance data on mobility and on passenger demand will remain instrumental to transport authorities core businesses

The Barometer is produced by CRTM Madrid.



8th edition presentation

> 28 areas are listed in this leaflet, which means a record in participation since the first issue of this publication (25 cities in 2011),



Description of the PTA⁽¹⁾ areas surveyed

	Authority responsible	Population PTA 2012 (inhabitants)	PTA area surface (km ²)	Urbanised surface (km ²)	Density (inhabitants/km ²)	Annual GDP per capita (€)	Population main city 2012 (inhabitants)
Stadsregio Amsterdam	Stadsregio	1,437,720	1,003	517	1,433	31,360	790,044
Barcelona Metropolitan Region	ATM	5,052,000	3,239	597	1,560	26,460	1,621,000
Berlin-Brandenburg	VBB	5,824,733	30,376	3,343	192	27,705	3,375,222
Bilbao	CTB	1,153,351	2,217	241	520	28,859	350,558
West Midlands (Birmingham)	Centro	2,762,700	899	634	3,073	29,279 ⁽³⁾	1,085,400
Brussels Metropolitan	MRBC	3,270,178	4,300	1,200	761	41,000 ⁽⁴⁾	1,138,854
Central Hungarian Region (Budapest) ⁽²⁾	BKK	1,727,495	525	358	3,290	21,821	1,727,495
Cadiz Bay	CMTBC	783,847	3,072	80	255	na	123,948
Greater Copenhagen	Movia	2,507,620	9,176	1,979	273	45,479	661,469
Frankfurt Rhein-Main	RMV	5,000,000	14,000	na	357	34,291 ⁽⁵⁾	687,775
Hamburg	HVV	3,426,000	8,616	747	398	50,300	1,813,000
Helsinki	HSL	1,165,811	1,507	na	774	54,966	603,968
Greater London	TfL	8,200,000	1,572	1,042	5,216	43,949	8,200,000
Lyon Urban Community	SYTRAL	1,300,000	613	360	2,121	42,830	490,000
Madrid Community	CRTM	6,498,560	8,026	1,037	810	30,345	3,233,527
Greater Montreal	AMT	3,918,340	3,980	na	985	34,760	1,981,672
Oslo Region	Ruter	1,169,539	5,005	417	234	69,512	623,966
Paris Ile-de-France	STIF	11,914,812	12,012	2,534	992	51,118	2,256,239
Middle Bohemia Region (Prague)	ROPID	1,891,698	5,880	296	322	24,809	1,268,796
Metropolitan Area Rotterdam-Den Haag	MRDH (Rotterdam) MRDH (Den Haag)	2,200,000	990	440	2,222	36,500	616,528 502,802
Metropolitan Area of Seville	CTAS	1,468,009	4,221	337	348	17,587 ⁽⁶⁾	703,021
South Yorkshire (Sheffield)	SYTE	1,352,144	1,552	326	871	20,953 ⁽⁷⁾	557,382
County of Stockholm	SL	2,127,006	6,526	na	326	56,615	881,235
Stuttgart Region	VRS	2,455,759	3,012	718	815	39,721	618,431
Turin Metropolitan Area	AMMT	1,515,786	837	246	1,811	21,056 ⁽⁶⁾	872,091
VOR Region (Vienna)	VOR	2,533,889	6,457	415	392	44,300 ⁽⁵⁾	1,757,353
Vilnius	MESP	806,111	9,731	449	83	10,884	533,279
Warsaw	ZTM	2,466,202	2,510	na	983	25,000	1,715,517

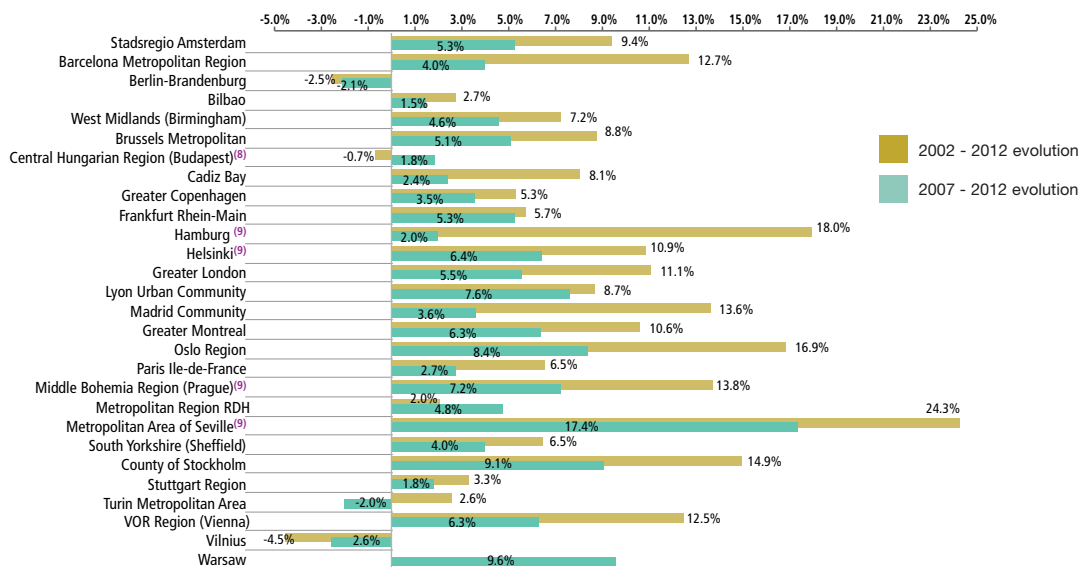
⁽¹⁾ PTA: Public Transport Authority. ⁽²⁾ PTA area is main city. ⁽³⁾ GDP for whole UK. ⁽⁴⁾ GDP estimation. ⁽⁵⁾ GDP for main city. ⁽⁶⁾ GDP province data. ⁽⁷⁾ GVA instead GDP.

> 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 2002-2012. The average growth rate is around 8% for the cities that have provided data. Some metropolitan areas have seen its population increase due to the extension of their PTA area (Hamburg, Helsinki, Prague and Seville). Others have a net increase in population over 13% like Madrid, Oslo and Stockholm. Only Vilnius has a decrease in population (-4.5%) over the last 10 year period, together with Berlin-Brandenburg (-2.5%) and Budapest (-0.7%).

The weight of the main city within the whole metropolitan area is roughly a 43% of total population with large differences illustrating the diverse administrative frameworks and histories of the cities.

Evolution of Population: decade 2002-2012 compared to 5 years span 2007-2012



⁽⁸⁾ PTA area has decreased in surface, thus in population. ⁽⁹⁾ Extension of PTA area.

> Car ownership rates are twice as high in some cities as in others (750 cars per 1,000 inhabitants in Prague vs 310 in Amsterdam and 326 in London and Copenhagen). Different groups can be observed and it seems that several wealthy metropolitan areas have a relatively low car ownership ratio (under 450 cars/1,000 inhabitants), and lower use of private car. 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.

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.

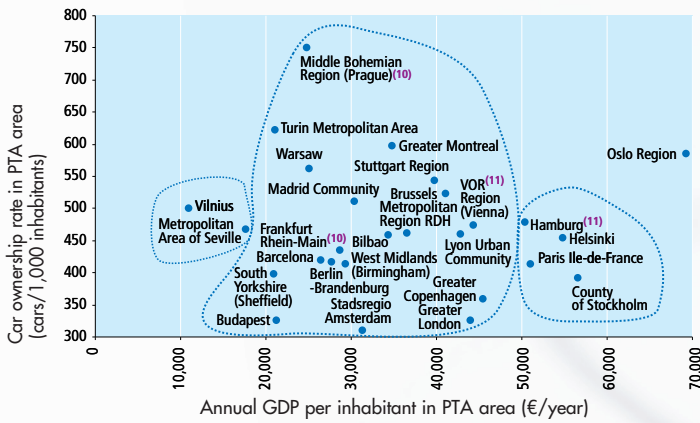
> **Public transport accounts for more than 28% of all trips (46% considering only motorised trips) in the densest parts of most European metropolitan areas (in the main cities)**, illustrating its fundamental economic, social and environmental role in large urban territories. Soft modes (walking and cycling) account for 41% and the motorised modes (mainly private car) for 32%. Compared to 2011, figures show that a light shift from private car and public transport has occurred in favour of soft modes.

Most of the **main cities** achieve more than 60% of modal share for what we can consider as "sustainable mobility" (as sum of public transport and soft modes). Amsterdam, Barcelona, Bilbao, Copenhagen, Madrid, Paris, Stockholm, Vienna and Warsaw stand out with a rate over 70%, illustrating the very dense public transport systems irrigating the heart of those capital cities, and the deep-rooted habit of walking and/or biking in the European cities.

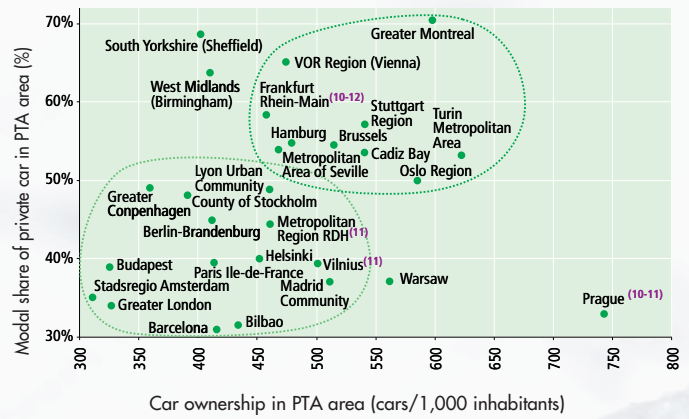
The **metropolitan areas** of these cities mentioned above together with Budapest, Greater London, Berlin-Brandenburg, Lyon, Oslo and Helsinki have a clear predominance of sustainable modes over the private car. Greater London and Budapest are the metropolitan areas among those surveyed, where public transport accounts for the highest modal shares of all trips (between 40% and 50%).

There is a gap between modal share in the main city and modal share in the whole metropolitan area where public transport accounts, in average, for 20% of all trips. This figure rather stable as monitored over the past years, embodies one of the main challenges facing public transport authorities and operating companies in the coming years: developing public transport in the suburbs and the less dense parts of the metropolitan areas.

Car ownership rate versus annual GDP per capita

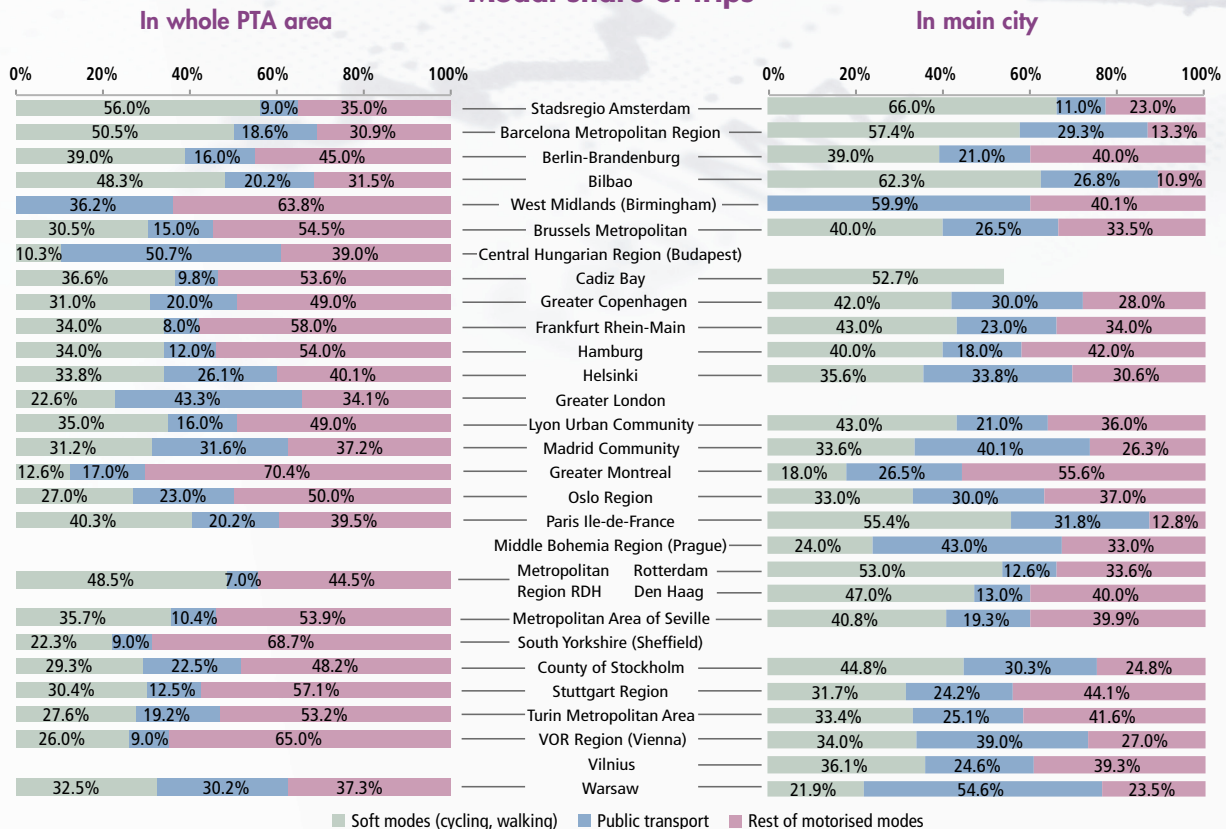


Modal share of private car versus car ownership rate



⁽¹⁰⁾ Car ownership figure for main city ⁽¹¹⁾ GDP and modal share figures for main city ⁽¹²⁾ Figures for modal share correspond to whole Germany

Modal share of trips

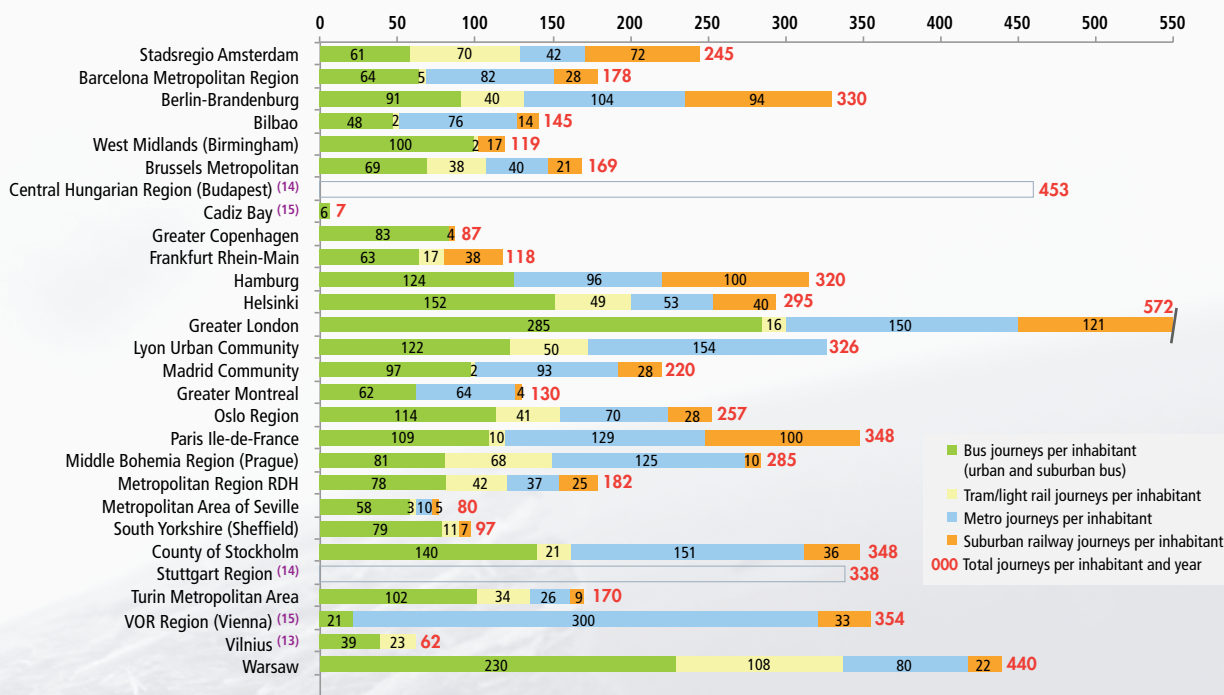




> Regarding the public transport demand, each inhabitant does more than 246 journeys (vs 244 in 2011) per year on public transport, more than one trip every working day. In some cases the total demand is over 400 journeys as in Budapest, Greater London and Warsaw. In half of the metropolitan areas, the share of the bus mode is still dominant.

Over the years the increase in public transport demand reflects 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 System) technologies to guarantee reliability and safety in the operation, and real time information and contactless tickets to the user to promote the public transport use and make it more competitive compared to the private vehicle.

Public transport demand per inhabitant (Journeys in PT per mode and inhabitant in 2012)



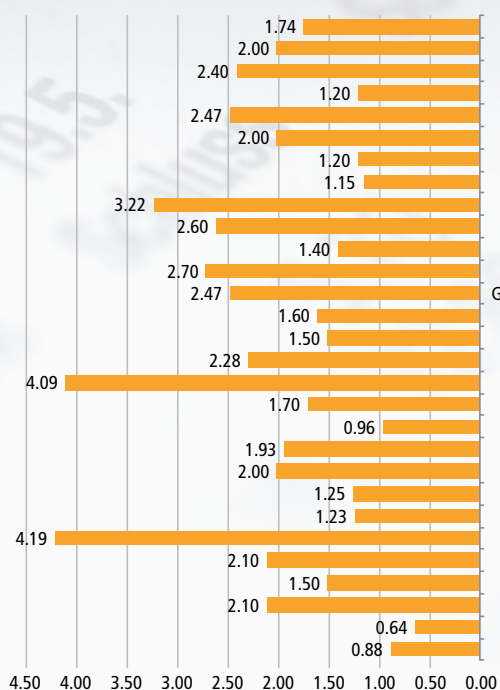
(13) Green figure refers only to urban bus, and yellow figure to trolleybuses

(14) Figure includes all modes

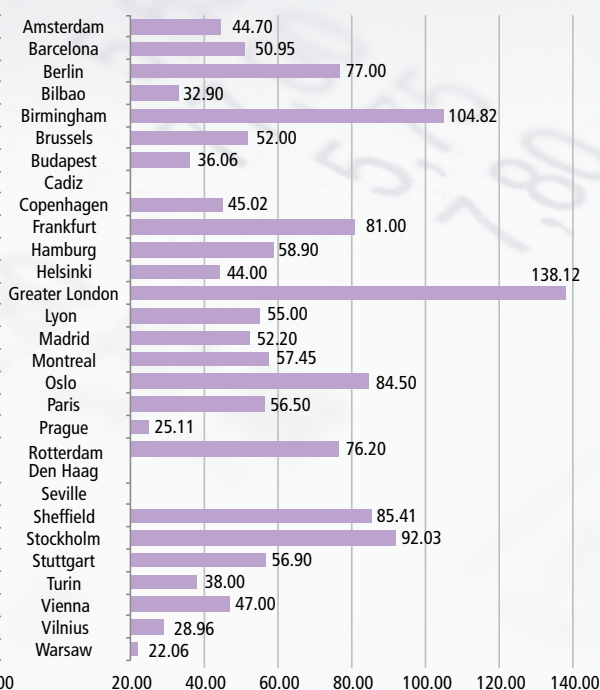
(15) Green figure refers to regional buses, and blue figure includes all urban modes (bus, tram and metro)

> 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 €0.64 up to €4.19. The monthly pass varies from €22.06 to €138.12. However, these figures make no difference with the size and economic features of the metropolitan areas.

Single ticket price for the main city (€)



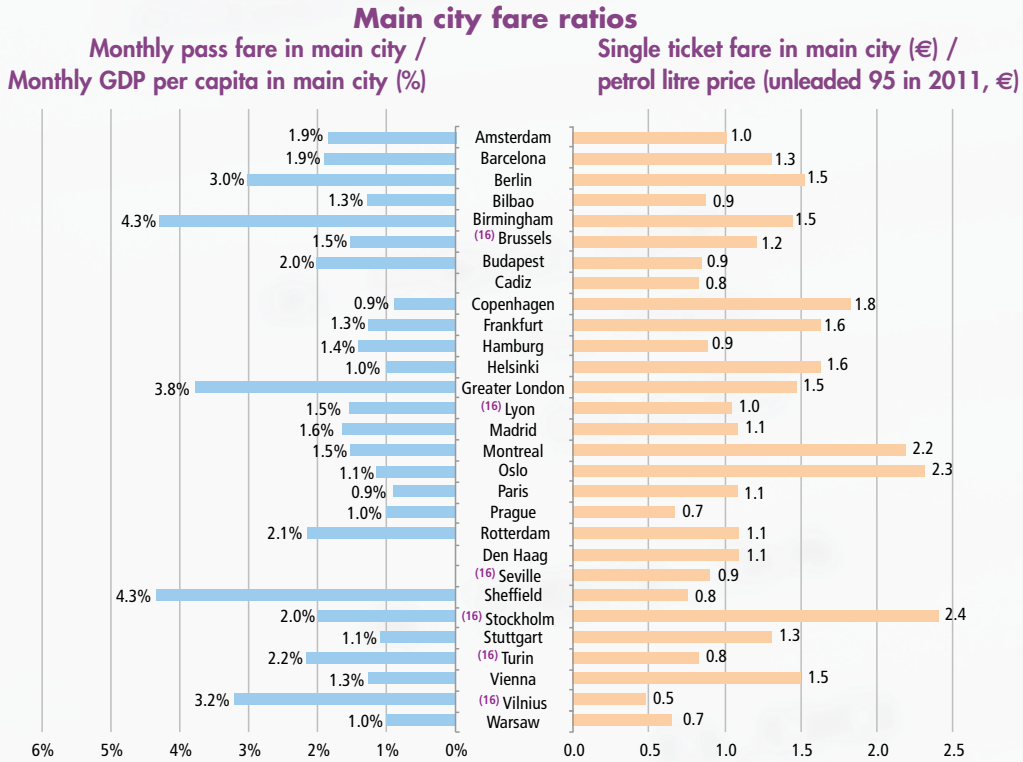
Monthly pass price for main city (€)





The monthly pass fare in main city compared to GDP per capita (annual GDP in city divided by 12) gives a ratio of 1.9%. The cheapest monthly passes are in Helsinki, Copenhagen, Paris, Prague and Warsaw (1%) while the highest prices are in Sheffield (4.3%), Birmingham (4.3%) and London (3.8%), all situated in the United Kingdom.

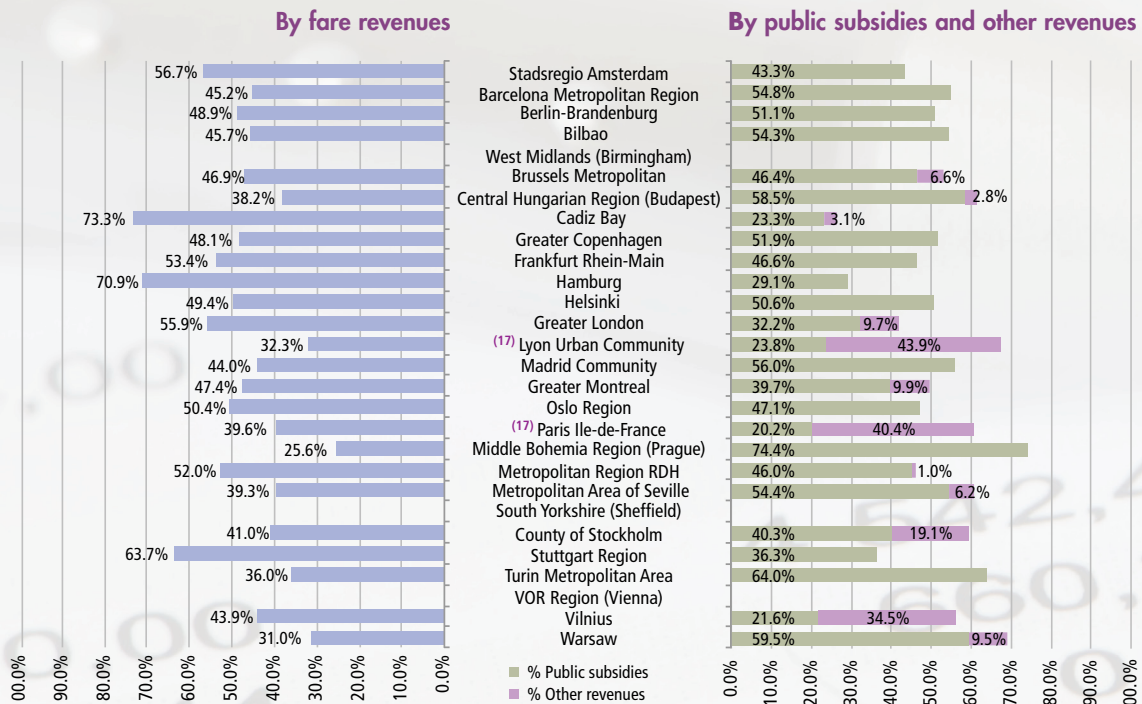
If we compare the single ticket with the petrol litre price (unleaded 95) we observe that lower ratio (0.4-0.9) should contribute to the use of public transport, while on the other hand higher ratios (over 1.5) indicate high level of welfare (Copenhagen, Frankfurt, Helsinki, Montreal, Oslo, Stockholm) or costly public transport systems.



⁽¹⁶⁾ GDP figure corresponds to PTA area value

> The rates of coverage of operational cost by fare revenues are also varying greatly, some cities cover more than 50% of operational cost with fare revenues but others are far from it. In average among those metropolitan areas surveyed, the operational costs of public transport in 2012 are covered 48.2% by fare revenues and 45.6% by subsidies, which shows an increase of fare revenues and other revenues compared to last edition (2011).

Coverage of operational costs



⁽¹⁷⁾ In French metropolitan areas (Lyon Urban Community and Paris Ile-de-France) the percentage of "Other revenues" refer to the transport tax (Versement Transport), covering 43.9% and 40.4% of operational costs respectively.



MEMBERS AS OF 1ST JANUARY 2014

PTA	City	Web Site
STADSREGIO	AMSTERDAM	www.stadsregioamsterdam.nl
ATM	BARCELONA <i>MoB*</i>	www.atm.cat
VBB	BERLIN-BRANDENBURG	www.vbb.de
CTB	BILBAO	www.cotrabi.com
CENTRO	BIRMINGHAM <i>President</i>	www.centro.org.uk
MRBC	BRUSSELS-CAPITALE REGION	www.bruxellesmobilite.irisnet.be
BKK	BUDAPEST <i>MoB*</i>	www.bkk.hu
CMTBC	CADIZ BAY	www.cmtbc.es
MOVIA	COPENHAGUE	www.movia.dk
RMV	FRANKFURT	www.rmv.de
HVV	HAMBURG	www.hvv.de
HSL	HELSINKI <i>MoB*</i>	www.hsl.fi
TfL	LONDON	www.tfl.gov.uk
SYTRAL	LYON	www.sytral.fr
CRTM	MADRID <i>Vice President</i>	www.crtm.es
AMT	MONTREAL	www.amt.qc.ca
RUTER	OSLO	www.ruter.no
STIF	PARIS ILE-DE-FRANCE <i>Vice President</i>	www.stif.info
ROPID	PRAGUE	www.ropid.cz
MRDH	ROTTERDAM - DEN HAAG	www.mrdh.nl / www.haaglanden.nl
CTAS	SEVILLA	www.consorciotransportes-sevilla.com
SYPTÉ	SHEFFIELD <i>(resigned from membership on March 2013)</i>	www.sypte.co.uk
SL	STOCKHOLM <i>Treasurer</i>	www.sl.se
VRS	STUTTGART	www.region-stuttgart.org
AMMT	TORINO	www.mtm.torino.it
VOR	VIENNA <i>MoB*</i>	www.vor.at
MESP	VILNIUS	www.vilniustransport.lt
ZTM	WARSAW	www.ztm.waw.pl

*MoB**: Member of the Board