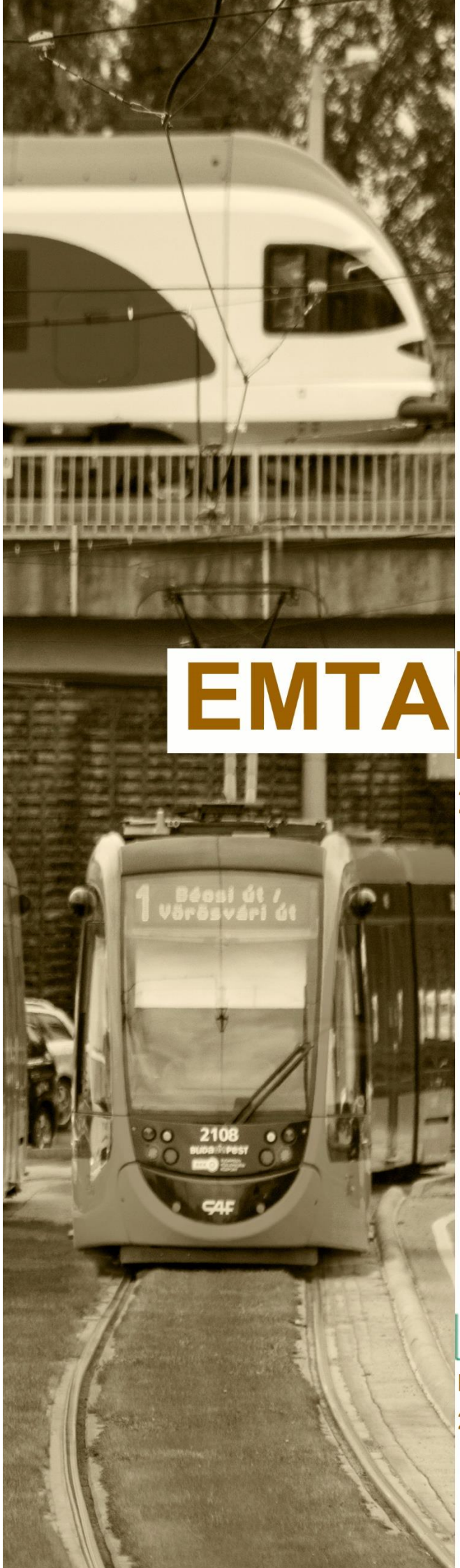

EMTA Barometer

2020 - Based on 2018 data

EMTA - European Metropolitan Transport Authorities

2020 edition

The EMTA Barometer is produced by Consorcio Transportes Madrid

Public transport authorities´ partners

Vervoerregio Amsterdam (VRA)

Autoritat del Transport Metropolità (ATM) Barcelona

Verkehrsverbund Berlin-Brandenburg (VBB)

Consorcio de Transportes de Bizkaia (CTB) Bilbao

West Midlands Integrated Transport Authority (WMITA) Birmingham

Budapesti Közlekedési Központ (BKK) Budapest

Trafikselskabet Movia Copenhagen

Rhein-Main Verkehrsverbund Frankfurt

Helsingin Seudun Liikenne Helsinki

Zarzad Transportu Publicznego w Krakowie

Transport for London

Syndicat Mixte des Transports pour le Rhône et l'Agglomération Lyonnaise

Consorcio Regional de Transportes de Madrid (CRTM)

Consorci Transports Mallorca

Transport for Greater Manchester (TFGM)

Autorité régionale de transport métropolitain de Montreal (ARTM)

RUTER Oslo

Ile-de-France Mobilités Paris & Ile-de-France

Área metropolitana do Porto

Regional Organizer of Prague Integrated Transport (ROPID)

Metropoolregio Rotterdam Den Haag (MRDH)

Stockholms Lokaltrafik AB Stockholm(SL)

Verband Region Stuttgart (VRS)

Transport Authority of Thessaloniki SA (TheTA)

Agenzia della mobilità piemontese (AMP) Torino

Autoritat de Transport Metropolità de València (ATMV)

Verkehrsverbund Ost-Region Wien (VOR)

Susisiekimo Paslaugos (MESP) Vilnius

Zarzad Transportu MiejKiego Warszawie (ZTM) Warsaw

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FOREWORD

"Never waste a good crisis"
(Winston Churchill)

These are unprecedented times that impact our daily lives in many ways. A change in mobility habits seems inevitable both in short term and potentially even in the longer run. What does not change, though, is our need for knowledge transfer and cooperation that EMTA seeks to facilitate for its member community. The sharing of key indicators in the barometers is part of that effort. Whilst looking at figures on what transport authorities have performed in the recent past might seem trivial, the reverse could be true. Outcomes could prove insightful points of reference to mark a year back when transport demand and supply were uncompromised. Therefore, it's with pleasure that I present this EMTA Barometer 2020 leaflet containing the 2018 data.

Our transport authorities once more went to great length to collect key performance indicators on geography, demography, mobility demand, supply, and on their financial performance and fares. Our association represents the catchment areas of 93 million inhabitants in the joint metropolitan areas. Positive indeed to see that EMTA was recently joined by authorities from the metropolitan areas of Porto, Thessaloniki and Krakow, growing EMTA into 29 members from 19 different countries.

As true Europeans, continental members dreaded possible ramifications of Brexit and its aftermath. However, all three metropolitan authorities from the United Kingdom reassured me to prolong collaboration in EMTA, irrespective the outcome of a negotiated deal. Reversely, EMTA is happy to continue the relationship with our British members on the same foot.

The present situation should not question the capability of authorities to adjust to disruptive economic and social circumstances. The "normal times of 2018" poses the right context from which this Barometer document is to be observed.

From todays' - Spring 2020 - perspective it appears that it will take a while until public transport operation will return at the levels of 2018. However, public transport has proven an important catalyst for economic development in a social cohesive manner. That's why the EMTA board reminded the presidents of the European institutions of the power tool for Europe's recovery already at their disposal: public transport. EMTA and its members are committed to play their part, making public transport one of the symbols for recovery the continent is in dire need for.

Whilst incomes from ridership dwindle, demands grow to protect the health of passengers and driving staff, causing public transport authorities to face challenges they never witnessed before.

I am convinced EMTA members are capable to meet the challenges. Public transport is a main lever in helping to revitalize local economies in the post-Corona era.

Stay strong and be confident. And in the process, keep learning from one another, so in the end lessons in terms of transport system resilience and planning strategies may emerge.
I wish you all the best and take care.

Ruud van der Ploeg.
EMTA Secretary general

EMTA
European Metropolitan Transport Authorities

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GRAPHICS AND ILLUSTRATIONS

BAROMETER TERMINOLOGY

Within this section, definitions are presented for different terminology used within the current document. Focus lie son those terminologies that require a specific definition in order to enhance comparability between countries.

CONCEPT	DEFINITION
Average number of trips per person / per day	The average number of trips made by a person from the reference population on an average day (Eurostat).
Car ownership rate	Number of privately owned automobiles in the main city divided by the number of inhabitants of the main city and multiplied with 1000.
Daily journey	The average number of journeys undertaken by an inhabitant of the main city on an average day (total amount of journeys in the main city on an average day divided by the number of inhabitants of the main city)
Dedicated surface infrastructure	Stretches where tram, bus or both operate on infrastructure that is separated from individual motor vehicle traffic (Shared use with taxis is possible in this category) e.g. dedicated bus lanes. The manner of separation is irrelevant (e.g. lanes simply drawn, separated pathways, elevated pathways, etc.)
EMTA	European metropolitan transport authorities https://www.emta.com/
EUROSTAT	European Statistical Office is a Directorate-General of the European Commission. Its main responsibilities are to provide statistical information to the institutions of the European Union (EU) and to promote the harmonisation of statistical methods across its member states and candidates for accession as well as EFTA countries http://eurostat.com/
Fuel type	The type of fuel (energy carrier) used in a vehicle: petrol, diesel, petrol-hybrid, diesel-hybrid, electric vehicle, LPG, CNG, Hydrogen, other (Eurostat).
GDP	Gross domestic product (GDP) is a monetary measure of the market value of all the final goods and services produced in a period of time, often annually
Journey	The sum of trips that enable the movement from a meaningful origin (e.g. home) to a specific destination for a meaningful (e.g. office) with a single purpose (e.g. going to work). A journey ends when an activity takes place that fulfils a different purpose (e.g. grocery shopping). A stop for grocery shopping concerns a meaningful activity on the way home from the office and splits the movement from the office to home into two journeys (Office-Store and Store-Home) The various trips that compile a journey can each be carried out by a different mode of transportation each.
Light rail	Light rail, light rail transit (LRT), or fast tram is a form of urban rail transit using rolling stock similar to a tramway, but operating at a higher capacity, and often on an exclusive right-of-way

Main city	Most significant city in the PTA area (usually the most populated city; may also be the economically most predominant city)
Main travel mode (motorized vehicles, walking, cycling, …)	The travel mode that is identified as the main mode as a result for the longest distance: passenger car (total, as driver, as passenger), taxi (as passenger), van/lorry, motorcycle/moped, bus/coach, tram/metro, train (split up for total, high-speed rail, regular train and urban rail), aviation (total), waterways (total), cycling, walking, as well as the category other (Eurostat).
Metro	Is a type of high-capacity public transport generally found in urban areas. Unlike buses or trams, rapid transit systems are electric railways that operate on an exclusive right-of-way, which cannot be accessed by pedestrians or other vehicles of any sort, and which is often grade separated in tunnels or on elevated railways
Modal share of PT	Percentage of journeys in the main city that include at least one trip on a mode of public transportation (in connection with other modes, if applicable)
Monthly pass	Price of a monthly subscription for adults that allows unrestricted travel in the main city (covering the entire or at least vast majority of the main city)
Network length	Length of the network per mode. If several lines of the same mode of transport run on the same stretch of infrastructure for a particular section, this section of the network may only be counted once in this calculation.
Passenger kilometres per mode per year	Annual distance travelled by passengers per mode. In cases where more than a 20% proportion of a line extends beyond the PTA's jurisdiction, only trips made in entirely in the PTA area are considered here.
Place-km	Place kilometres produced in commercial service (excluding deadhead runs from and to depots). Places are fixed seats (not including folding seats) and the space for standing passengers with one square metre representing space for four standing passengers (4 passengers/m²)
PT	Public transport
PTA	Public transport authority
PTA area	The area of competence for which the PTA carries the key responsibilities
Seats-km	Seat kilometres produced in commercial service (excluding deadhead runs from and to depots). Seats thereby only consider fixed seats, not including folding seats.
Single ticket price	Price of a single ticket as offered in vending machines (not considering travel card fares) for travel in the main city. (It is thereby not significant whether this ticket is valid for one journey or a certain time period).
Soft modes	It refers to walking and cycling
Stage	Is an uninterrupted movement making use of one transport mode, including any waiting time directly before or during the movement (Eurostat).

Sustainable transport mode	It refers to walking, cycling and public transport
Total amount of other revenues	Other revenues are considered revenues apart from public subsidies or fare revenues. These include: taxes (i.e. versement transport), advertisements, land revenues, rent income.
Total cost of operation	Annual service operation cost of public transport in the PTA area of all services under the jurisdiction of the PTA. Operating costs include expenditure on staff (including social security contributions and pensions), energy expenditure, purchases of external goods and services (including subcontracting), vehicle maintenance expenditure, miscellaneous costs (e.g. rental), financial costs, depreciation expenditure, taxes and duties. Please not include special maintenance or investment programs for infrastructure and vehicles but rather the express the cost connected to the creation of the public transport supply.
Total public subsidy	Annual amount of subsidy provided for Public Transport service provision in the PTA area (service operation related subsidy only)
Total revenue from ticket sales	Annual revenue from ticket sales in the PTA area from all services under the jurisdiction of the PTA.
Travel mode	All general modes of transport used during a trip or journey: air, rail, road and water.
Travel time	The time spent travelling from the moment of departure to the moment of arrival. The travel time includes the time spent waiting between two successive stages (Eurostat).
Trip	A displacement making use of a single transport mode, including any waiting time directly before the movement. Eurostat: “A trip is defined as change in location made in one or a series of stages. The change of location is not based on the start and end point being different, but on leaving the starting point for a certain amount of time”.
Vehicle kilometres	Total distance covered by vehicles of each mode in commercial service annually (excluding deadhead runs from and to depots)


Madrid Central
Camina Madrid
BBVA
BICIMAD MADRID
0816
EMT

EMTA Barometer

The EMTA Barometer is an initiative of the European Metropolitan Transport Authorities, https://www.emta.com/ as a reflection exercise on the mobility generated in the metropolitan areas associated with this organization. A group of 29 European public transport authorities, together with Greater Montreal, annually share more than 200 indicators.

EMTA Barometer analyzes annually the most important indicators in terms of mobility in the associated metropolitan areas, assessing the general trends that are presented annually based on the investments made or the changes in mobility behaviors. In particular, 217 indicators are analyzed, distributed as follows:

- General urban information: 12
- Mobility: 14
- Transport supply: 72
- Transport demand: 32
- Service quality: 32
- Transport fleet: 40
- Other indicators: 2
- Public transport fares: 9
- Financial: 4

For the realization of this report with 2018 data has been provided in a disinterested way by the different transport authorities. In the set of the 29 metropolitan areas there are more than 90 million people (93,067,358).

The set of metropolitan areas move close to 24,000 million passengers per year in all the metropolitan areas. In a disaggregated way, buses move 41% of total mobility; metro 30%; train 16%; tram 10%; light rail 2%; and other modes 1%.

About financial terms, the total cost of the transport system exceeds 38,000 million euros; of which the 50% are recovered with the rates; and 37% are contributed by the public administrations.

The report is structured in nine chapters. The first one is an introductory one of the demographic and urbanistic situation of the metropolitan associated areas and the following ones gather the main data of mobility, supply, trips, service quality, transport fleet, other indicators, fares and finance.

You can check all the reports made on the EMTA website **https://www.emta.com/ .**

GENERAL INFORMATION

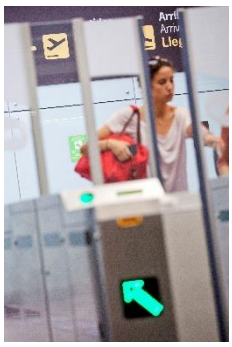
1. Public transport authorities´ partners

Vervoerregio Amsterdam
Amsterdam
www.vervoerregio.nl


© Wiebke Wilting; VRA

Vervoerregio Amsterdam is the name of the Transport Authority Amsterdam. As a partnership of 15 municipalities it is the legal entity responsible for commissioning public transport (bus, tram and metro) in the entire Amsterdam area. The organisation continues to work on improving connectivity and multimodal accessibility of the Amsterdam metropolitan region and its inhabitants, to enable quality of life, housing, leisure and employability. Strong focus is put on regional transport and traffic including planning and financing of public infrastructure for all modes on road safety and on smart mobility. Collaboration and co-creation with private and public stakeholders, improving sustainability as well as customer-centric working are key.

Autoritat del Transport Metropolità (ATM) Barcelona
www.atm.cat


© ATM

The Metropolitan Transport Authority (Autoritat del Transport Metropolità) – ATM – is the territorial mobility authority for the metropolitan area of Barcelona. Its mission is to offer citizens an accessible, sustainable and safe mobility system, through co-operation among the administrations that belong to the consortium. Its principal functions are Financing of the system, Planning (Infrastructure planning, Mobility Master Plan) and the Integrated Fare System in 346 municipalities (Management and common technology) among others. 2016 data: 955,2 million trips per year in public transport services in a network-length of more than 16,000 km.

Verkehrsverbund Berlin-Brandenburg (VBB) Berlin

www.vbb.de

© VBB

The Verkehrsverbund Berlin-Brandenburg is the public transport authority covering the federal states of Berlin and Brandenburg – the capital area of Germany. The VBB can trace back its roots as far as to the German Unification Contract in 1990. Feeling the necessity to reconnect Berlin to the surrounding Brandenburg and to create a high-quality public transport were the reasons for introducing the VBB as a common public transport authority. The main tasks of VBB are the co-ordination of the services of around 40 public transport companies and their better connections, the introduction and development of a common fare system and the improvement and quality control of public transport services. Also, the VBB assists the authorities in charge of public transport in planning, tendering and management of regional railway services.

Consorcio de Transportes de Bizkaia (CTB) Bilbao

www.cotrabi.eus

©CTB

It was founded in 1975 as a local entity with its own legal identity and independent of the entities within the consortium. It is made up by the Basque Government, the Biscay Provincial Government, the Bilbao City Council, and other city councils that control areas through which the Bilbao Metropolitan Railway runs. Its work was initially begun with the fundamental objective of building the Bilbao Metro and to manage public transport in Biscay after starting up the underground rail service. For the operation of the Bilbao Metropolitan Railway, the company Metro Bilbao (Bilbao Underground) – a company fully owned by CTB – was created. After the opening of the Underground, the Consortium began to develop its work as coordinator of public transport in the province of Biscay, and especially of the fare integration policy with zonal unification, common tickets, homogeneous fares and uniformity and technological progress in all transport environments, with the creation of the *Barik Card* being an important milestone. The *Barik Card* is valid for all transport modes in Biscay. Likewise, the CTB is the guarantor of the harmonization of public transport customer service and is responsible for the integral network of public transport offices.

West Midlands Integrated Transport Authority (WMITA)
Birmingham
www.wmita.org.uk


© TfWM

Transport is a key area the Mayor of the West Midlands, Andy Street, has powers and is a lead influence over on behalf of the West Midlands Combined Authority (WMCA).As a result Transport for West Midlands (TfWM) has been set up as part of the WMCA to co-ordinate investment to improve the region's transport infrastructure and create a fully integrated, safe and secure network. It is also responsible for assessing and planning the region's future transport needs so the network can meet the demands of businesses and a growing population. Working in partnership with bus and train operators, TfWM develops integrated and smart ticketing while providing free fares for the elderly and disabled and half price travel for children. Funding is also used to support the Ring and Ride service and provide socially necessary bus services on those routes or at those times that are not commercially viable for the private bus companies.

Budapesti Közlekedési Központ (BKK)
Budapest
www.bkk.hu

Budapesti Közlekedési Központ (Centre for Budapest Transport) was established by a ruling of the General Assembly of the Municipality of Budapest on the 27th of October, 2010. The main objectives are: prepares and implements the Budapest transport strategy, incorporates sustainability and equality considerations in the operation and development of transport in Budapest; integrates the management and supervision of the Budapest transport sectors, particularly in public and road transport; orders and finances the public services of public and road transport; improves urban transport; supports, enables and assists the proliferation of pedestrian and bicycle transport; creates a balance between the development and operation of the transport system; operates a standard financing scheme; supervises the public and road transport service companies owned by the capital; co-ordinates all investments which involve public and road transport, including those undertaken by local governments or public utilities; and plays an active role in regional transport cooperation.

Trafikselskabet Movia
Copenhagen
www.moviatrafik.dk


© MOVIA

Movia is Denmark's largest public traffic authority owned by 45 municipalities and 2 regions on the island of Zealand. We offer more than 400 bus lines, 9 local railway lines and 5 FlexTrafik on-demand responsive services. We advise on and plan public transport, supporting the visions for growth and mobility of our owners. Movia wants public transport to be an attractive, green and friendly option. In accordance with the UN sustainable development goals, we focus on acting to combat climate change and its consequences. One of the solutions being to make it easy for people to travel together with affordable, sustainable and efficient public transport.

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Rhein-Main Verkehrsverbund
Frankfurt
www.rmv.de


©RMV/Helmut Vogler

Rhein-Main-Verkehrsverbund (RMV or Rhine/Main Regional Transport Association) is one of the biggest transport associations in Germany. It coordinates and organizes regional bus and rail transport services across an area of around 14,000 square kilometers. That's around two-thirds of the area of the Federal State of Hesse. With around 2,5 Million passenger per day (around 788 Million per year), RMV is a key contributor to the development of the Rhine/Main area as a pulsating metropolitan region. In RMV applies: one ticket, one tariff, one timetable. In 1995 a uniform tariff system was created from over 100 different tariffs. Transfers between means of transport are possible with one single ticket and because travel times are matched as optimally as possible.

Helsingin Seudun Liikenne
Helsinki
www.hsl.fi


© HSL-Lauri Eriksson

Helsinki Regional Transport (HSL) is a joint local authority with 7 member municipalities and 1.2 million population. HSL is responsible for the planning and organizing of the public transport in the metropolitan area, and it procures bus, tram, metro, ferry, and commuter train services. HSL also plays a key role in regional transport system planning.

Zarzad Transportu Publicznego w Krakowie
Krakow
http://kmkrakow.pl/

Public Transport Authority in Krakow (ZTP Kraków) is responsible for tram and bus services in city of Krakow and 17 communes near Krakow. For this metropolitan area ZTP is coordinating, planning and managing public transport including control quality of transport services, tariff integration, tickets distributions, transport analysis (e.g. development of transport network), mobility management. ZTP is focused on mobility management thus also responsible for pedestrian and cyclist management in the city of Krakow.

©

Transport for London
London
www.tfl.gov.uk


© TfL-Michael Garnett

Transport for London (TfL) is part of the Greater London Authority family led by Mayor of London Sadiq Khan. TfL is the integrated transport authority responsible for delivering the Mayor's aims for transport. It has a key role in shaping what life is like in London, helping to realise the Mayor's vision for a 'City for All Londoners'. TfL manages the city's red route strategic roads and most of London's public transport services, including the London Underground, London Buses, the Docklands Light Railway, London Overground, TfL Rail, London Trams, London River Services, London Dial-a-Ride, Victoria Coach Station, Santander Cycles and the Emirates Air Line. The quality and accessibility of these services is fundamental to Londoners' quality of life. By improving and expanding public transport, TfL can make people's lives easier and increase the appeal of sustainable travel over private car use.

Syndicat Mixte des Transports pour le Rhône et l'Agglomération Lyonnaise
Lyon
www.sytral.fr

The major objective of the SYTRAL is to provide the best offer transportation for the inhabitants of the department developing the TCL network, cars of the Rhone and Dragonfly and the Optibus Rhôn Express and services. His political development of urban and interurban transport is based on the mesh of the territory and the link between different clusters. The main objectives are: explore the possibilities of implementation, identify new equipment requirements and create new lines represent the major activities of SYTRAL and its teams. In time client, projects undertaken by the SYTRAL have a threefold purpose: rebalance modes of travel within the PTU; develop efficient public transportation and clean energy; and develop the space for social cohesion and socio-economic development.

Consorcio Regional de Transportes de Madrid (CRTM)
Madrid
www.crtm.es

©CRTM

The Consorcio Regional de Transportes de Madrid (CRTM) is the Public Transport Authority of the Region of Madrid., CRTM is responsible for providing and managing all public passenger transport services attached to the Madrid Regional Government and to all the municipal councils in the region. Within the scope of the law by which it was created, its principal functions and objectives are as follows: Planning public transport infrastructures, with a particular emphasis on the migration to modal integration; creating an integrated fare system for all transport modes; establishing a stable financing framework; planning services and coordinating the operating programs of all transport modes; controlling and monitoring the financial management of the different operators; and creating a global image for the public transport system by creating a closer relationship with the users.

Consorcio Transportes de Mallorca (CTM-TIB)
Mallorca
www.tib.org


© CTM-tib

CTM (Mallorca Transport Consortium) is Majorca's regional public transport authority, which coordinates the economic, technical and administrative aspects of the service. The main objectives are: planning, setting up and maintaining a common transport system in Majorca by coordinating and interconnecting the different transport operators and services; boosting the use of public transport; setting up an integrated fare system; increasing transport efficiency. Tib is the trademark of the public transport network for all interurban public transport in the Balearic Islands (buses, trains and metro).

Transport for Greater Manchester (TFGM)
Manchester
www.tfgm.com


© TfGM

Transport for Greater Manchester is the new name for the organization responsible for implementing local transport policies that affect the ten districts of Greater Manchester. Transport for Greater Manchester is responsible for investments in improving transport services and facilities. It is the executive arm of the Transport for Greater Manchester Committee (the Greater Manchester Passenger Transport Authority between 1974 and 2011) which funds and makes policies for TfGM. The authority is made up of 33 councilors appointed from the ten Greater Manchester districts.

Autorité régionale de transport métropolitain de Montreal (ARTM)
Montreal
www.artm.quebec

The Autorité régionale de transport métropolitain (ARTM; English: Metropolitan Regional Transportation Authority) is an umbrella organization that manages and integrates road transport and public transportation in Greater Montreal in Quebec, Canada.
The organization was created by the Government of Quebec on June 1, 2017, replacing the AMT's former mandate of planning. The ARTM was formerly known as the Agence métropolitaine de transport, which was founded in 1996. The new agency, which has the mandate to plan and integrate public transit in Greater Montreal, was created, along with Exo (public transit), its operating branch, following the disbanding of the AMT.
(ARTM is a EMTA valued partner).

RUTER
Oslo
www.ruter.no


©RUTER

Ruter as is the public transport authority for Oslo and Akershus, Norway. The company, organized as a limited company is responsible for managing, but not operating, public transport in the two counties, including bus, the Oslo Metro, the Oslo Tramway and ferries. It also holds agreements with the Norwegian State Railways for price regulation on commuter trains operating within these two counties. Ruter is responsible for administrating, funding and marketing public transport in Oslo and Akershus. It is owned by the City of Oslo (60%) and Akershus County Municipality (40%), and organized as a limited company.

Ile-de-France Mobilités
Paris & Ile-de-France
www.iledefrance-mobilites.fr


©IdFM

Ile-de-France Mobilités designs, organises and finances the public transport used by residents all across the Greater Paris Region. Ile-de-France Mobilités brings together stakeholders from all over the Greater Paris Region transport system in order to improve the service provided to passengers. Ile-de-France Mobilités defines and drives development and modernisation projects for all modes of transport and outsource operations to transport operators. Ile-de-France Mobilités which encompasses the Greater Paris Region, and the eight departments in the Île-de-France region, thus makes the vision for all public transport in the Greater Paris Region reality. Ile-de-France Mobilités jointly funds infrastructure upgrades to roads and rail, as well as the renovation and purchase of rolling stock. Ile-de-France Mobilités is responsible for the keeping the overall transport costs in the Greater Paris Region in balance and manages an operating budget of some 10 billion euros. Finally, Ile-de-France Mobilités creates and determines price passenger tickets.

Área Metropolitana do Porto
Porto
www.amp.pt

©

The Metropolitan Area of PORTO (AMP) is the sub regional authority of public transports, actively participating in the definition of planning policies, management of the economic development strategy, social and environmental planning, particularly in transport and mobility. AMP is responsible for launching the process of new public transport lines for private operators and is currently developing an action plan for sustainable urban mobility.

Regional Organizer of Prague Integrated Transport (ROPID)
Prague
www.ropid.cz

©ROPID

Prazska Integrovaná Doprava (Prague Integrated Transport), PID, is a transport system including metro, trams, railways, city and suburban bus lines, funicular and ferry. This system is gradually integrated by common transport and tariff conditions and by a unified transport solution including coordination of schedules. It is built with the objective to ensure good quality servicing of the territory supporting competitiveness of public transport against individual transport. PID is being coordinated by ROPID (Regional Organizer of Prague Integrated Transport) a specialized organization, responsible for the operation of Prague Integrated Transport, was uncharged by creation and development of the system of Prague Integrated Transport. Its task is organizational and checking. It is responsible for its work towards bodies of the municipality and state authorities, that uncharged it by organization of the transport.

Metropoolregio Rotterdam Den Haag (MRDH)
Rotterdam-The Hague
www.mrdh.nl

© MRDH

In the southern Randstad (the urban agglomeration of Western Holland) 23 local authorities bundle their forces in the Metropolitan region Rotterdam The Hague (MRDH). The local authorities work together to improve accessibility and strengthen the economic business climate. The MRDH has an approved policy framework for European cooperation and is working on a Roadmap for the implementation of the set-up goals. MRDH has internal working group for preparing policy documents and screening opportunities, and a regional knowledge exchange platform with the 23 municipalities for sharing experience and coordinated actions.

Stockholms Lokaltrafik AB (SL)
Stockholm
www.sl.se


©Hans Geijer/Johnér

The Stockholm County Public Transport Administration is the organisation behind Stockholm Public Transport (SL), Waxholmsbolaget and special transport service brands in Stockholm County.SL is the umbrella brand for all our public transport services in the Greater Stockholm area. Our transport contractors operate the services by commission. A specific element of our public transport mission is the special transport service. Special transport services are a supplement for people who are unable to travel on regular public transport. In order for residents and visitors to travel easily between the many archipelago islands and the mainland, Waxholmsbolaget operates public water transport services as well as commuter ferries for shorter routes. We work to build, develop and manage sustainable, modern and accessible public transportation for nearly 2.3 million inhabitants on land and on water. Public transport in Stockholm County should be easily accessible, reliable and environmentally friendly. We collaborate with our transport contractors to make public transportation the obvious choice for the residents of Stockholm County.

Verband Region Stuttgart (VRS)
Stuttgart
www.region-stuttgart.de

The Verband Region Stuttgart provides a framework for regional co-operation between the capital of the federal state of Baden-Württemberg, the city of Stuttgart, and the surrounding administrative districts of Böblingen, Esslingen, Göppingen, Ludwigsburg, and Rems-Murr-Kreis. Founded in 1994, the Verband Region Stuttgart is the political entity for the Stuttgart Region with its own parliament. The aim is to promote diversity, a high standard of living, mobility, and economic strength. Important responsibilities of the organization are spatial planning, economic development, and public transportation. In this sector, the Verband Region Stuttgart is responsible the suburban railway system, the new express bus services, as well as the Park & Ride system and regional traffic management. All means of public transport can be used by. The new “polygo” travel card has extended this services by including car sharing, e-mobiltiy, and bike rentals.

Transport Authority of Thessaloniki SA (TheTA)
Thessaloniki
http://oseth.com.gr/

©TheTA

Transport Authority of Thessaloniki SA (TheTA) is a decentralized integrated public transport authority that has the responsibility for decision making on urban public passenger transport matters within the geographical area of the Metropolitan Unit of Thessaloniki. It is supervised by the Ministry of Infrastructure, Transport and Networks.

Agenzia della mobilità piemontese (AMP)
Torino
www.mtm.torino.it

© AMP

The AMP is the public authority in charge of public transport in the Piedmont Region and in the Turin metropolitan area that aims to improve sustainable mobility by optimizing public transportation service by means of targeted projects aimed at specific passenger needs: planning mobility strategies; improvements in public transportation (infrastructure, rolling stock and fleet monitoring technologies quantity and quality of service, funding for operations, both new and existing and targeted investment); administration of the tariff system; funding mechanisms from the Consortium members; service contracts with the transport operators; publicity; and information to citizens. On November 12th 2015, AMMT changed its name to AMP (Agenzia della mobilità piemontese) and the PTA area was enlarged to the entire Piedmont Region. The number of municipalities changed from 32 to 1.206 while the population changed from 1,5 to more than 4 million inhabitants and the surface changed from 130 to 25.300 square km.

Autoritat de Transport Metropolità de València (ATMV)
Valencia

© ATMV

L'Autoritat de Transport Metropolità de València (ATMV) is a transport authority that covers 60 municipialities of the metropolitan area of València with a population of 1.8 million inhabitants. It was created under Law 13/2016 as a independent body of the Regional Government in order to achieve institutional cooperation and coordinated management of the competencies related to interurban and urban regular public passengers transport.
The main tasks of ATMV are related to planning infrastructures and networks for public transport, development, control and assessment of Mobility Plans, control and management of public service transport contracts, design and approval of the fare system and promotion and information dissemination about sustainable mobility.

Verkehrsverbund Ost-Region (VOR)
Vienna
www.vor.at


©Theo Kust

Austria's Eastern Region Travel Association (Verkehrsverbund Ost-Region Gesellschaft m.b.H., VOR) offers a coordinated range of public transport options in Austria's eastern region (Vienna, Lower Austria and Burgenland). At the intersection between passengers, transport companies, regional authorities and political bodies, VOR ensures that all current mobility requirements, both in urban and rural areas, are met systematically and with a high standard of quality. As Austria's oldest and largest transport association, VOR has been uniting rail transport operators and bus companies into a transport association for more than 3.8 million inhabitants since 1984. The VOR network comprises about 900 lines with roughly 11,300 stops in Vienna, Lower Austria and Burgenland. In 2018, more than 1,08 billion passengers used the public transport services in Austria's eastern region. At the intersection between passengers, transport companies, regional authorities and political bodies, VOR pursues the advancement of the region's mobility services, well beyond the mere organization of public transport. Comprehensive and intermodal mobility as well as efficient and sustainable planning of public transport are among VOR's principal concerns and pursuits. To ensure a wide range of public transport services within the region, VOR orders and appoints, within the scope of public tenders, the necessary bus connections. VOR thereby acts as the principal client of most public transport companies in Vienna, Lower Austria and Burgenland and as the clearing house for the revenue breakdown between VOR partners.

Susisiekimo Paslaugos (MESP)
Vilnius
www.vilniustransport.lt


©MESP

Savivaldybės įmonė "Susisiekimo Paslaugos" (Municipal Enterprise Connection Services), commonly referred to as SĮSP, was founded on July 15, 1998, by the decision of Vilnius City Council. It is a local public transport authority responsible for organizing overall public transport in the city and provision of numerous services: maintenance of route network, scheduling, issuing and selling of public transport tickets, ticket inspection, provision of information for passengers, gathering and analysing relevant data, management of parking system, operating a centralized traffic management centre, etc.
The enterprise has been closely working with Vilnius City Administration, and has recently established for itself several pretty ambitious, such as: becoming a regional transport agency, promoting non-polluting modes of transport, increasing usage of public transport as well as creating favourable services for car sharing, cycling, and e-mobility.

PUBLIC TRANSPORT AUTHORITY OF WARSAW

Zarzad Transportu Miejskiego w Warszawie (ZTM) Warsaw

www.ztm.waw.pl

©ZTM

Public Transport Authority of Warsaw came into being on the 1st of January 1992 by virtue of resolution of the Council of the Capital City of Warsaw. Its main goals are stated in charter and include organization, management and supervising of Public Transport in the urban complex of Warsaw. More than 25 years of experience with public transport organization as well as cooperation with executive organs related to local transport in major European metropolis resulted in creating an offer which is still expanding and fully meets the passengers' needs. In 2018 was established the Warszawski Transportu Publiczny (WTP) brand (Warsaw Public Transport). The goal was to standardize Public Transport identification throughout the agglomeration.

BUDAPEST

BKK BUDAPESTI KÖZLEKEDÉSI KÖZPONT

2. Description of the PTA (1) area surveyed

	Authority responsible	Main city population	PTA area population	PTA surface (km²)	PTA urbanised surface (km²)	PTA urban density (inhabitants /km²)	Annual PTA GDP per capita (€)
VRA	Amsterdam	862.965	**1.548.891**	1.025	850	1.822	34.000 €
ATM	Barcelona	1.620.343	**5.571.822**	8.810	3.307	1.685	31.207 €
VBB	Berlin	3.644.826	**6.156.743**	30.546	3.447	1.786	35.860 €
CTB	Bilbao	1.142.853	**1.142.853**	2.215	235	4.863	32.986 €
TfWM	Birmingham	1.141.374	**2.916.458**	902	680	4.288	30.367 €
BKK	Budapest	1.752.286	**1.752.286**	525			
MOVIA	Copenhagen	727.364	**2.632.638**	9.195	1.713	1.537	55.663 €
RMV	Frankfurt	746.878	**5.191.970**	13.585	2.446	2.123	46.719 €
HSL	Helsinki	648.042	**1.310.435**	1.968	543	2.413	59.058 €
ZTP	Krakow	771.069	**1.089.729**	1.472			
TfL	London	8.600.000	**8.600.000**	1.579	1.042	8.253	52.059 €
SYTRAL	Lyon	664.846	**1.381.249**	746	360	3.837	57.384 €
CRTM	Madrid	3.223.334	**6.578.079**	8.028	921	7.142	34.916 €
CTM	Mallorca	409.661	**880.113**	3.636	214	4.113	
TfGM	Manchester	547.627	**2.812.569**	1.272	959	2.933	
ARMT	Montreal	2.029.379	**4.255.541**	4.402	1.607	2.648	29.868 €
RUTER	Oslo	681.071	**1.305.126**	5.005	327	3.991	67.271 €
IdFM	Paris	2.174.052	**12.210.524**	12.000	2.728	4.476	55.227 €
AMP	Porto	215.284	**1.722.374**	2.041	510	3.376	
ROPID	Prague	1.309.000	**2.507.000**	7.383			29.229 €
MRDH	Rott/Hague	638.712	**2.347.331**	1.256	969	2.422	
SL	Stockholm	962.154	**2.344.124**	6.524	903	2.596	63.060 €
VRS	Stuttgart	634.830	**2.530.471**	3.011	733	3.452	55.797 €
TheTA	Thessaloniki	787.218	**1.104.690**	3.677	397	2.783	27.568 €
AMP	Turin	875.698	**4.356.406**	25.387	1.771	2.460	21.794 €
ATMV	Valencia	795.736	**1.808.177**	1.551	306	5.909	22.659 €
VOR	Vienna	1.897.491	**3.868.466**	23.559	14.421	268	
MESP	Vilnius	549.640	**549.833**	401			23.410 €
ZTM	Warsaw	1.777.972	**2.591.460**	2.575	603	4.298	26.600 €

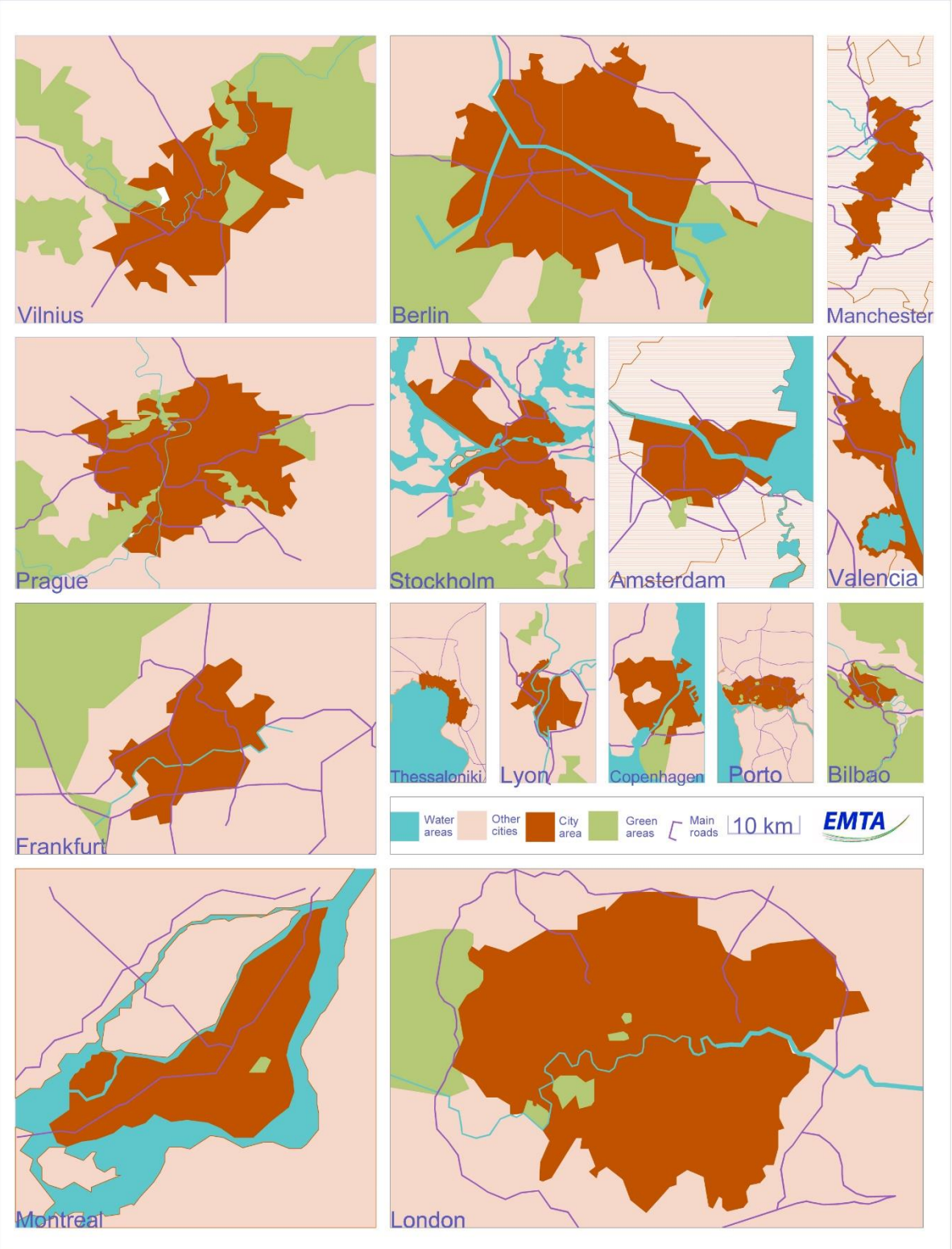
(1) PTA: Public transport authority (2) GDP: Gross domestic product (3) Rotterdam and The Hague have one PTA

T1. *PTA urban description*

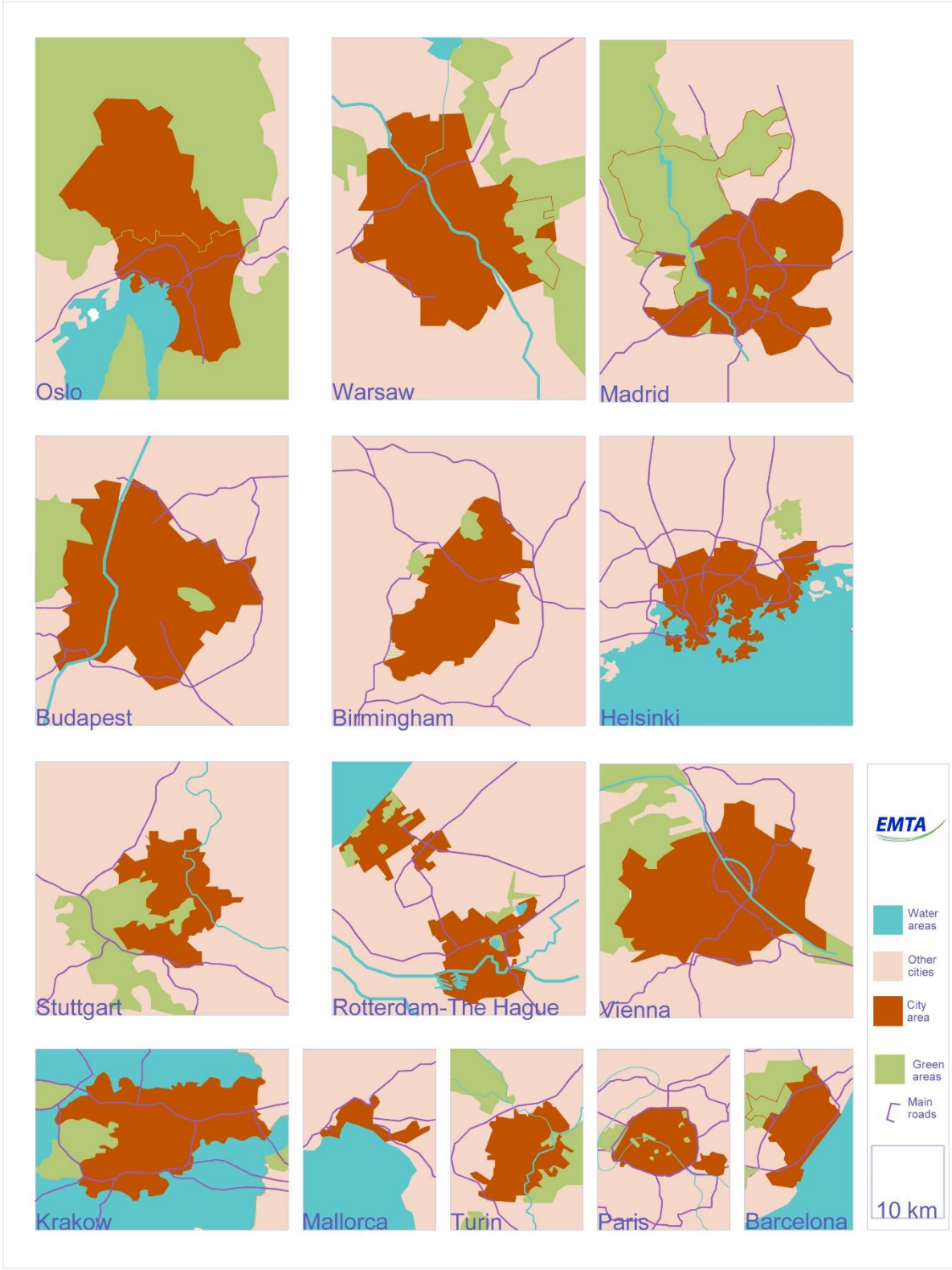
The EMTA Barometer periodically allows a comparison of the public transport system between 29 different European metropolitan transport authorities areas (including Montreal). From the results of this survey, various geographical, demographical, spatial and socio-economic ratios can be drawn that allow us to frame what features of the area might have impacted the mobility in an urban territory. A quick look to authorities as diverse as VBB or AMP with more than 25,000 km² of total PTA surface and MESP or BKK with less than 600 km², showcase the extremes of the smallest and largest of cities and PTA features, without any assessment as to the significance of each urban transport network.

The following maps represents main cities limits and the total administrative area of each PTA to be able to locate and understand the values expressed in the current 2018 data Barometer.

3. PTA´s main city shape

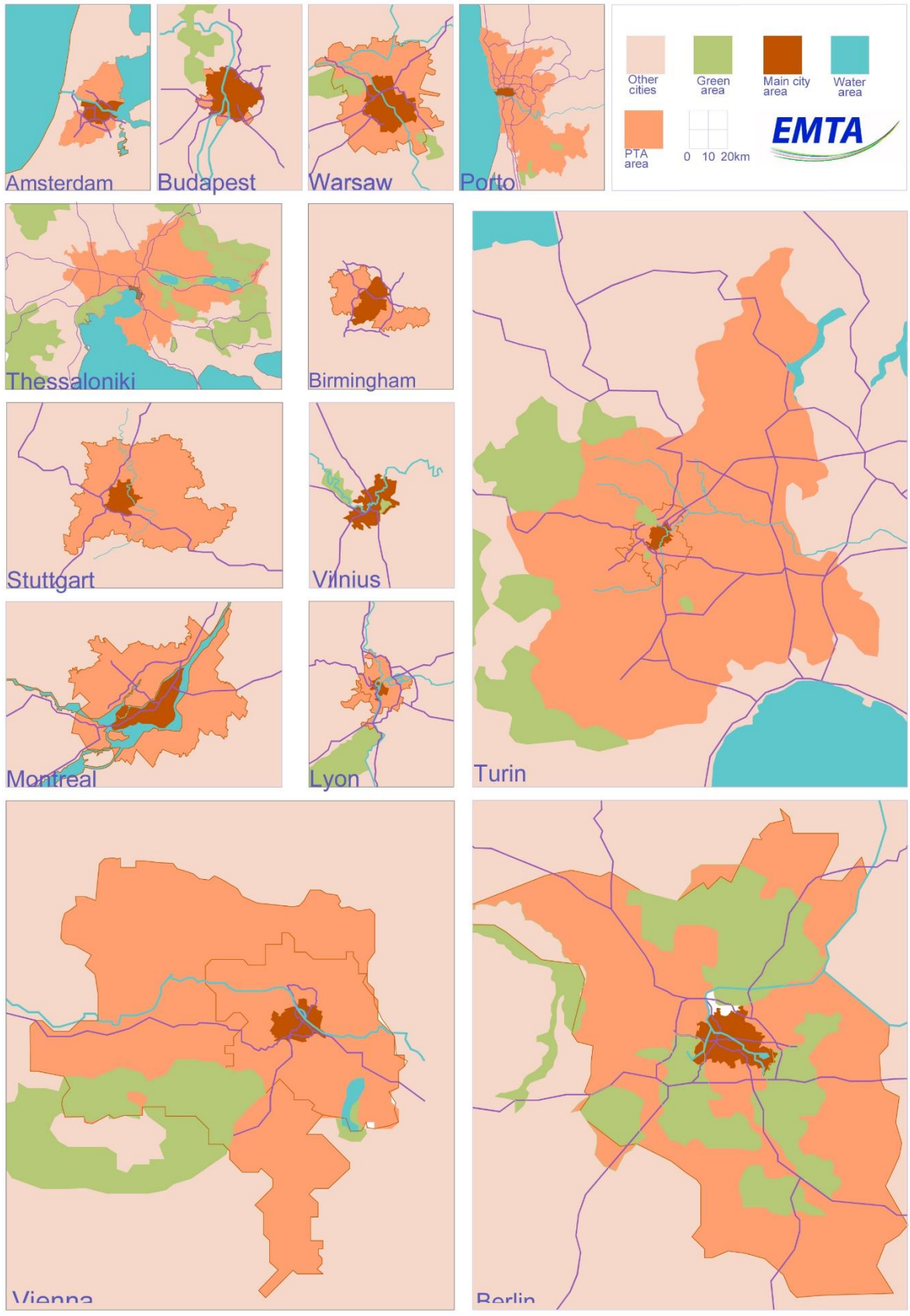


T2. *PTA´s main city shape 1*

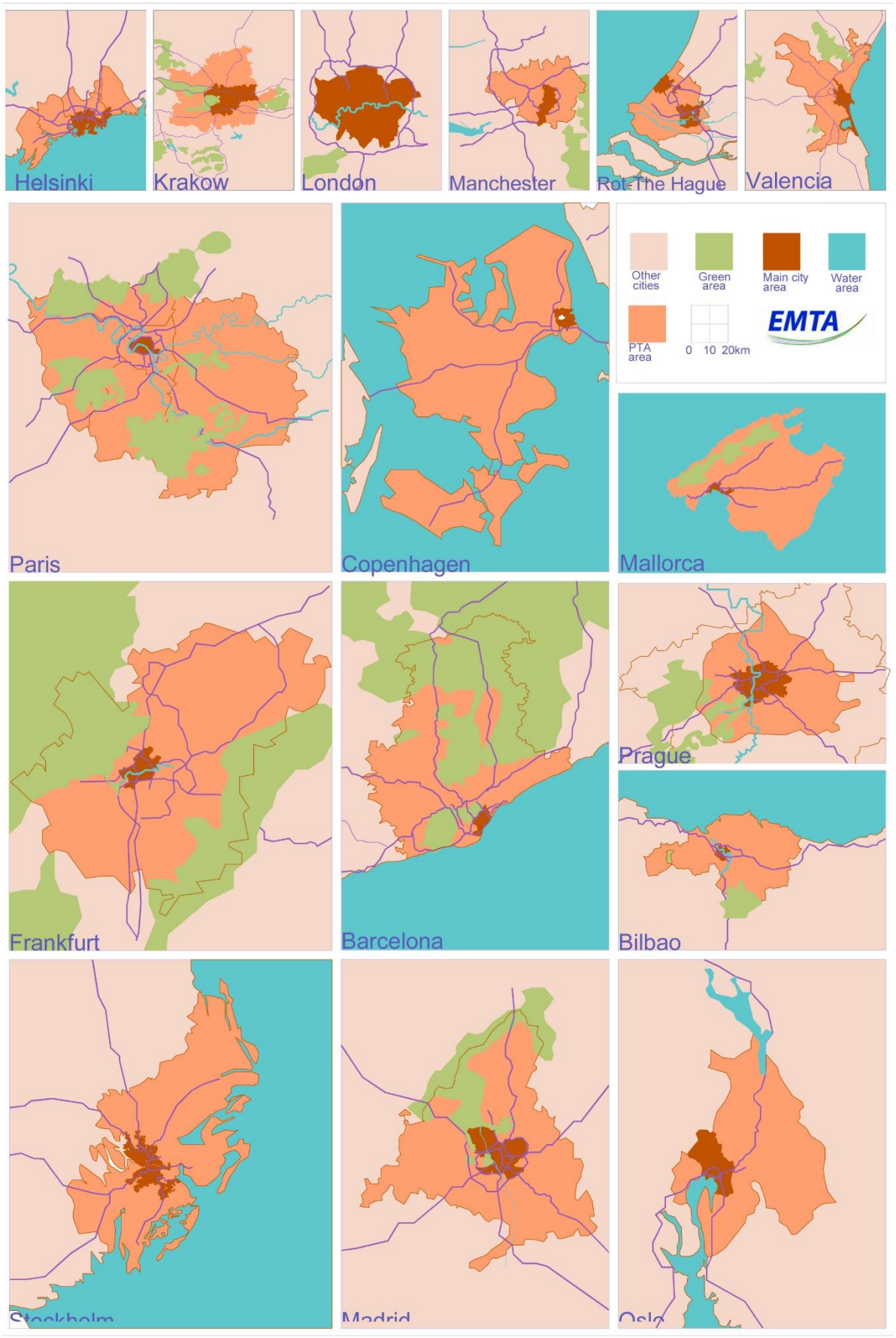


T3. *PTA´s main city shape 2*

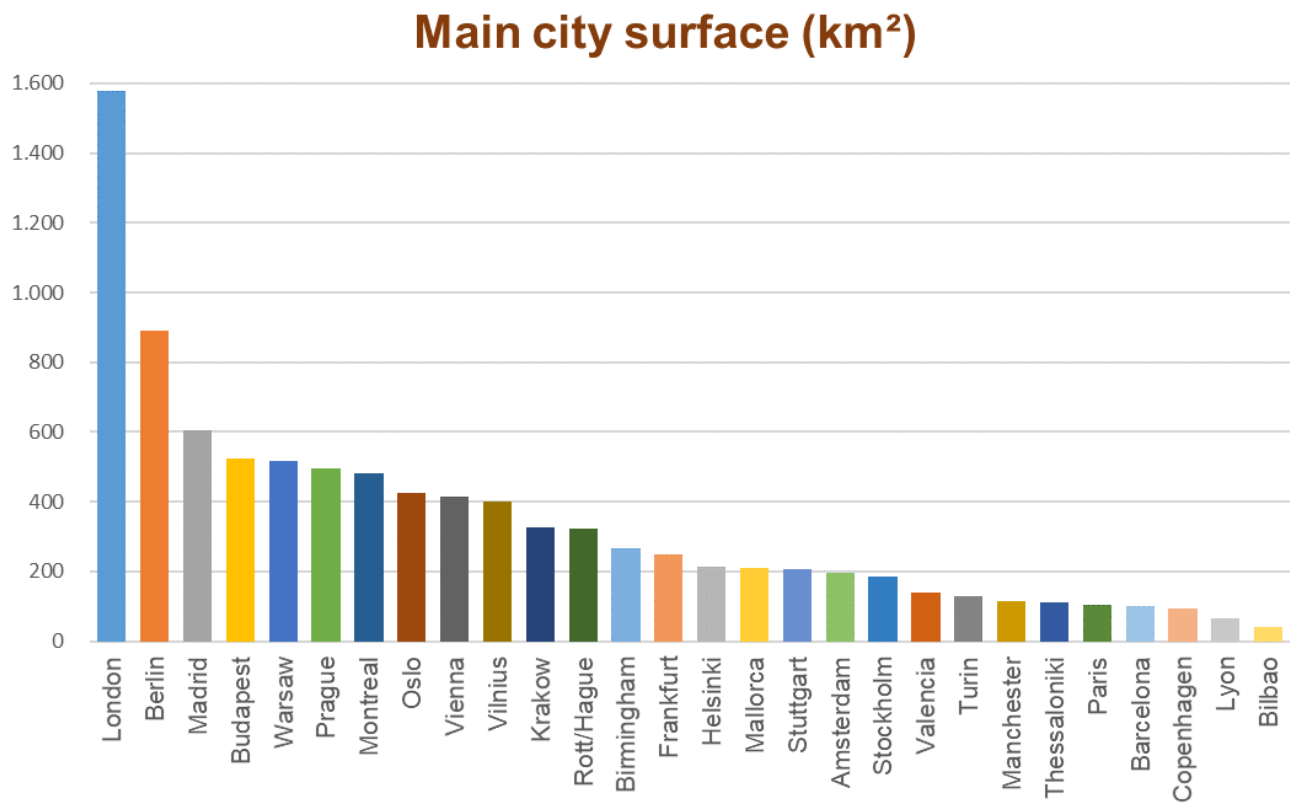
4. PTAs administrative limits



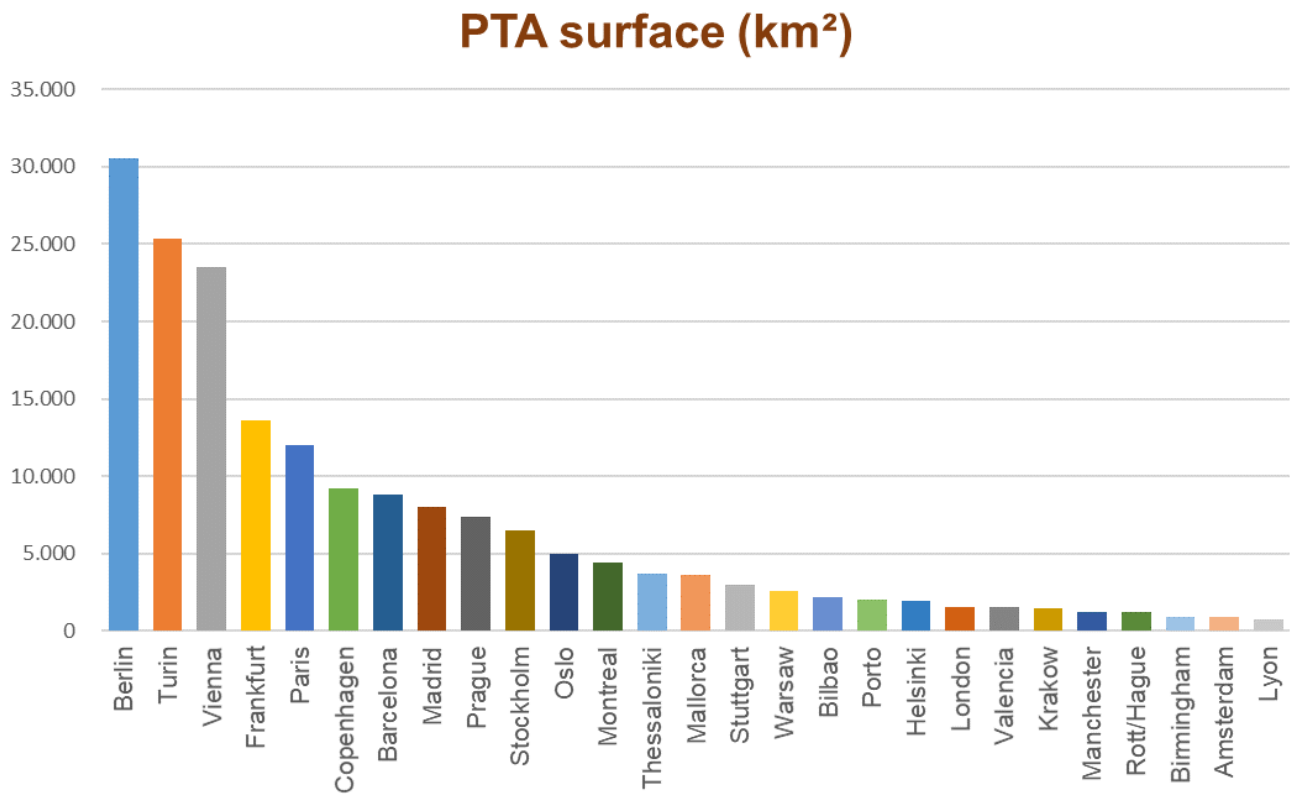
T4. *PTAs administrative limits 1*



T5. *PTAs administrative limits 2*



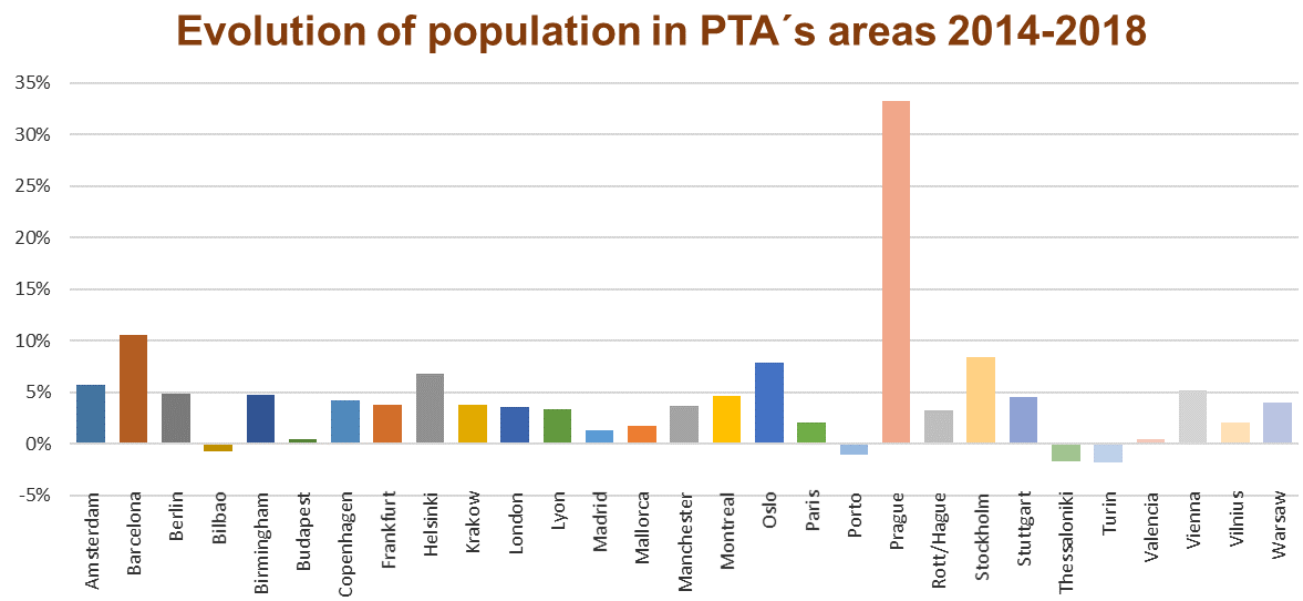
T6. *Main city surface (km²)*



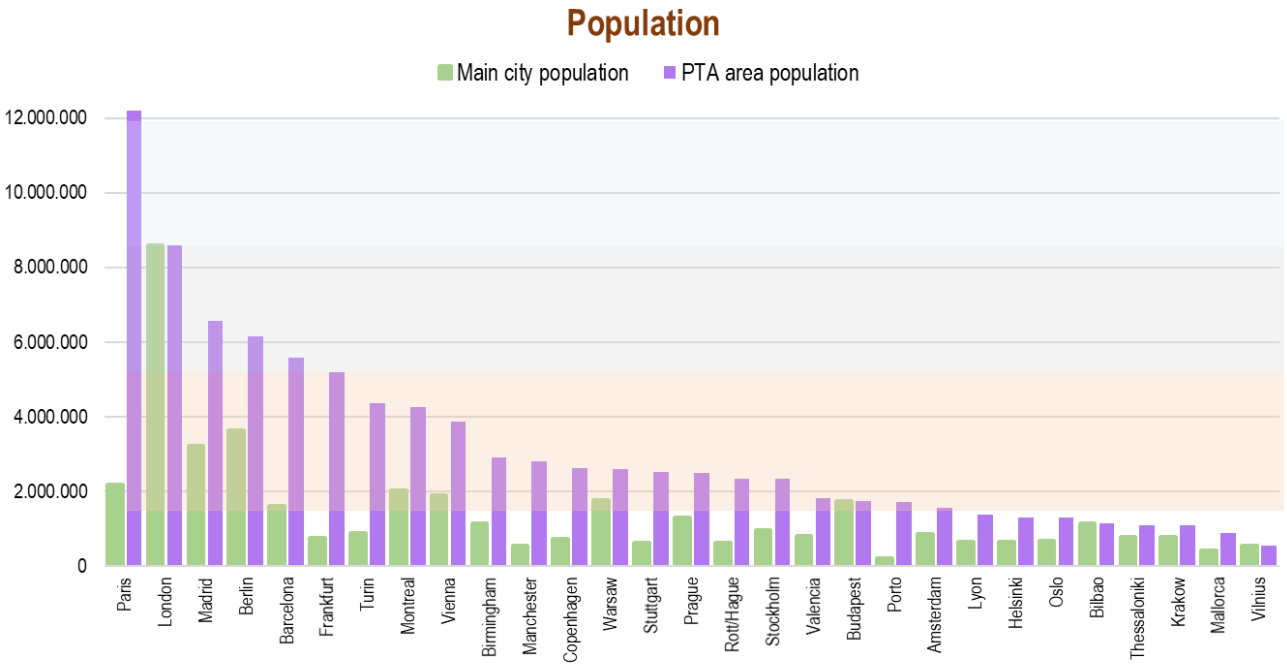
T7. *PTA surface (km²)*

5. Evolution of population in PTA´s areas

In general, all the PTA´s has increased the population except Bilbao, Porto, Thessaloniki and Turin that has decreased in the last five-year period. Prague has the highest growth followed by Barcelona due to the increase of its administrative limits.



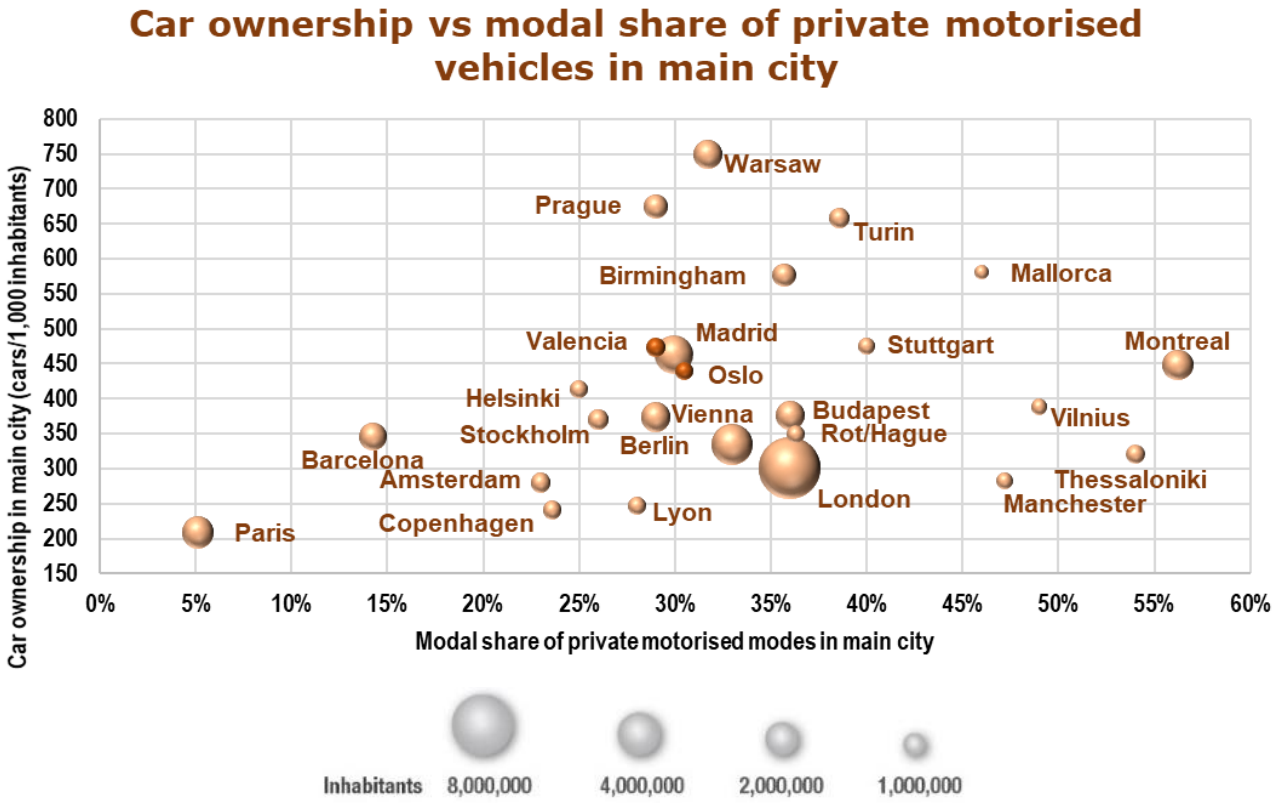
T8. *Evolution of population in PTA´s areas between 2014 to 2018*



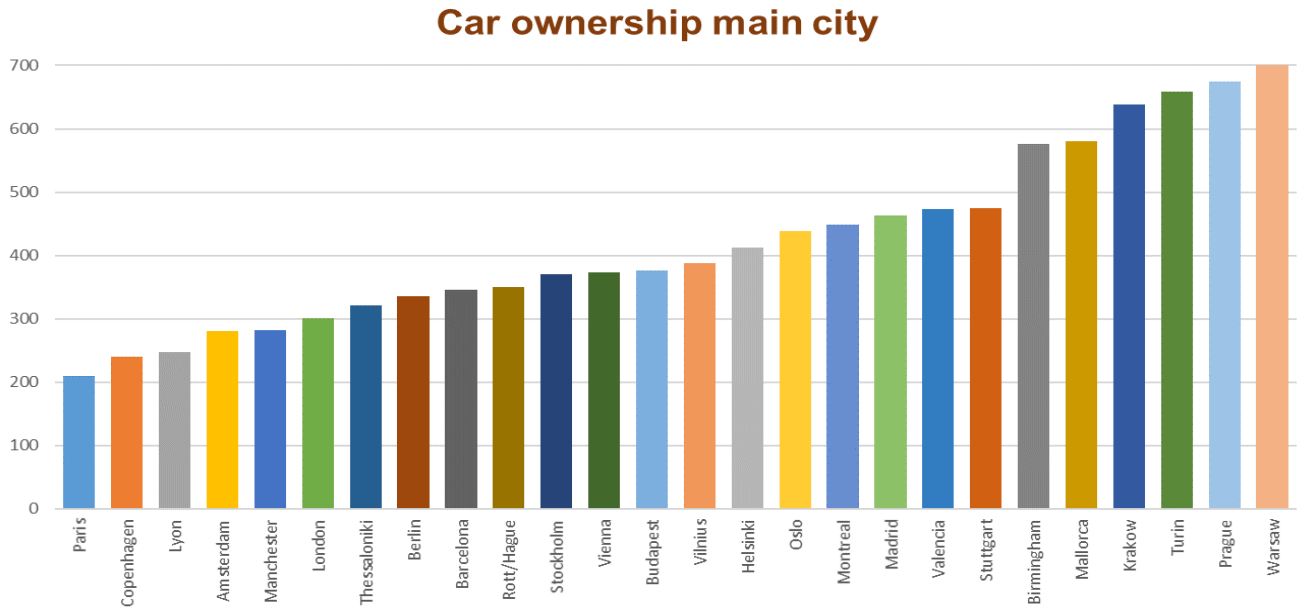
T9. *Population in main cities and PTA´s areas*

6. Car ownership rate

The first image represents the relation between car ownership in main city and modal share of private motorised modes also in the main city. In this graph the size of the balls represents the inhabitants in the main city.

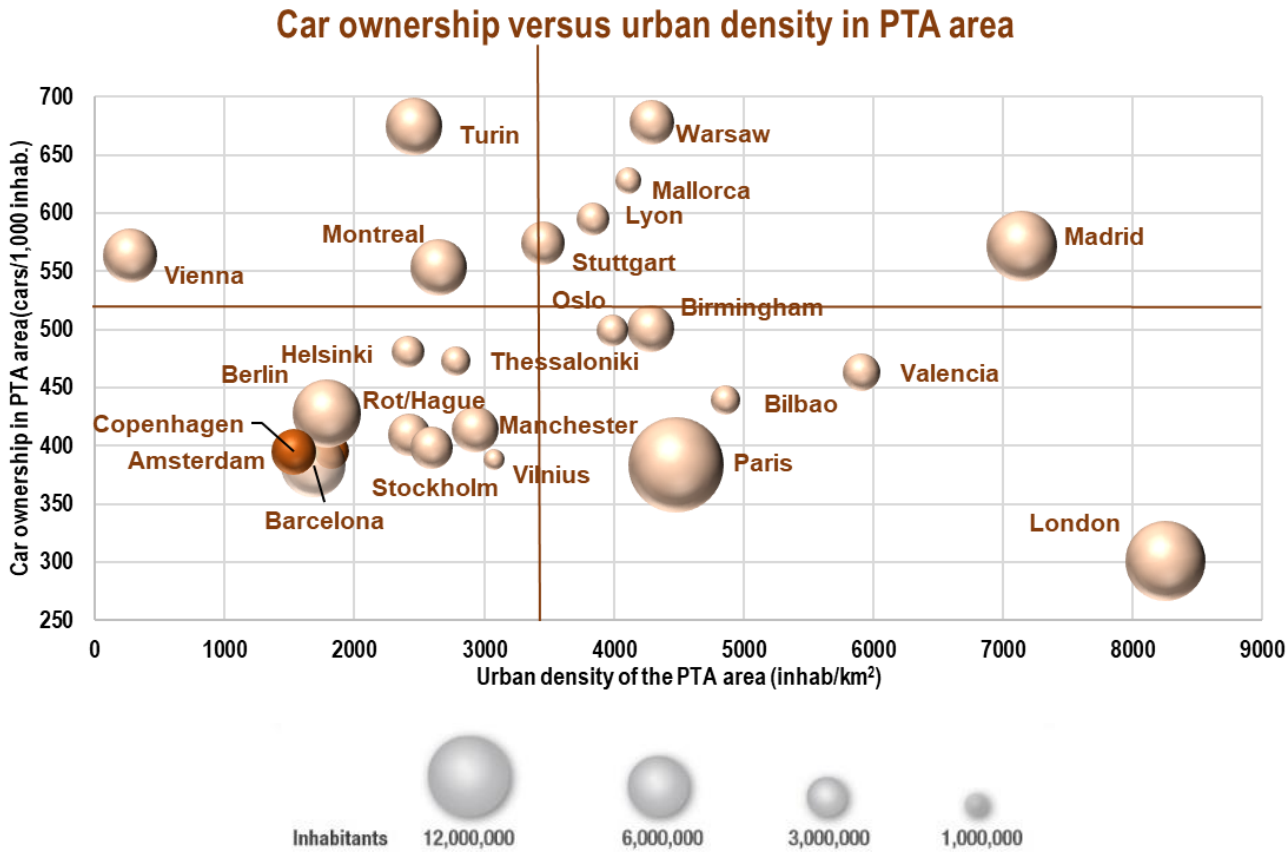


T10. *Car ownership versus modal share of private motorised vehicles in main city*

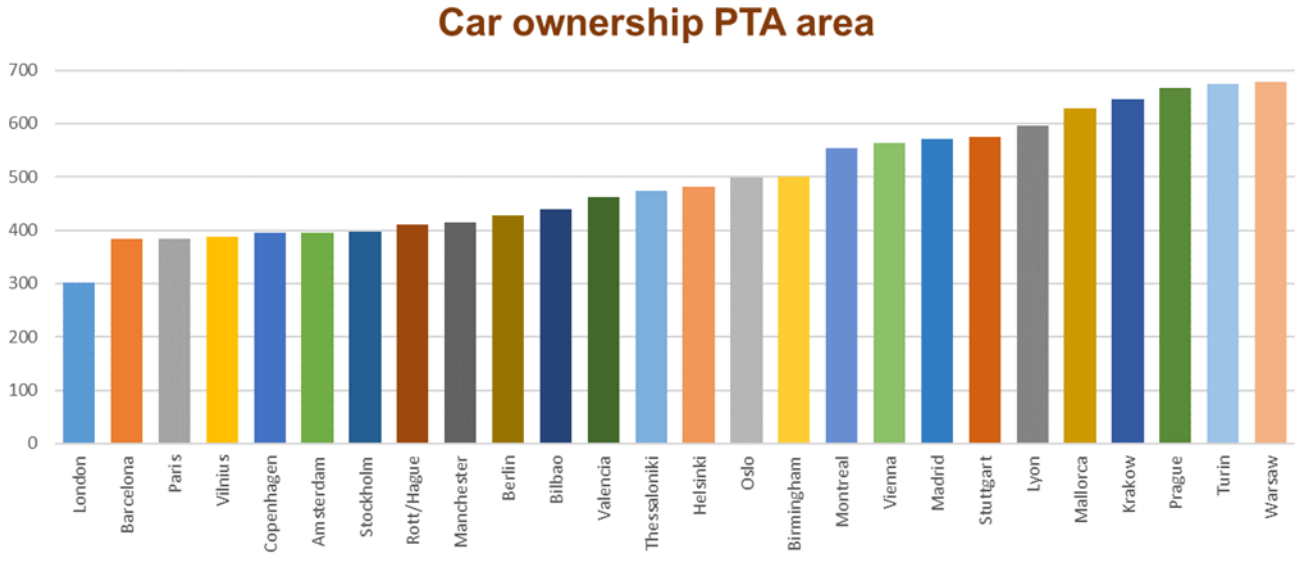


T11. *Car ownership in main city*

In this image is represented the relation between car ownership in the PTA area, expressed as cars per 1,000 inhabitants and urbanized PTA area density. The size of the balls represents the population in the PTA area. Two PTA areas (Madrid and London) harbour more than 7,000 inhabitants/km² (urbanized PTA area/population), having double the density of an average PTA. The highest ratios for cars / 1,000 inhabitants is for Turin and Warsaw that exceed 600 and the lowest London with 301.

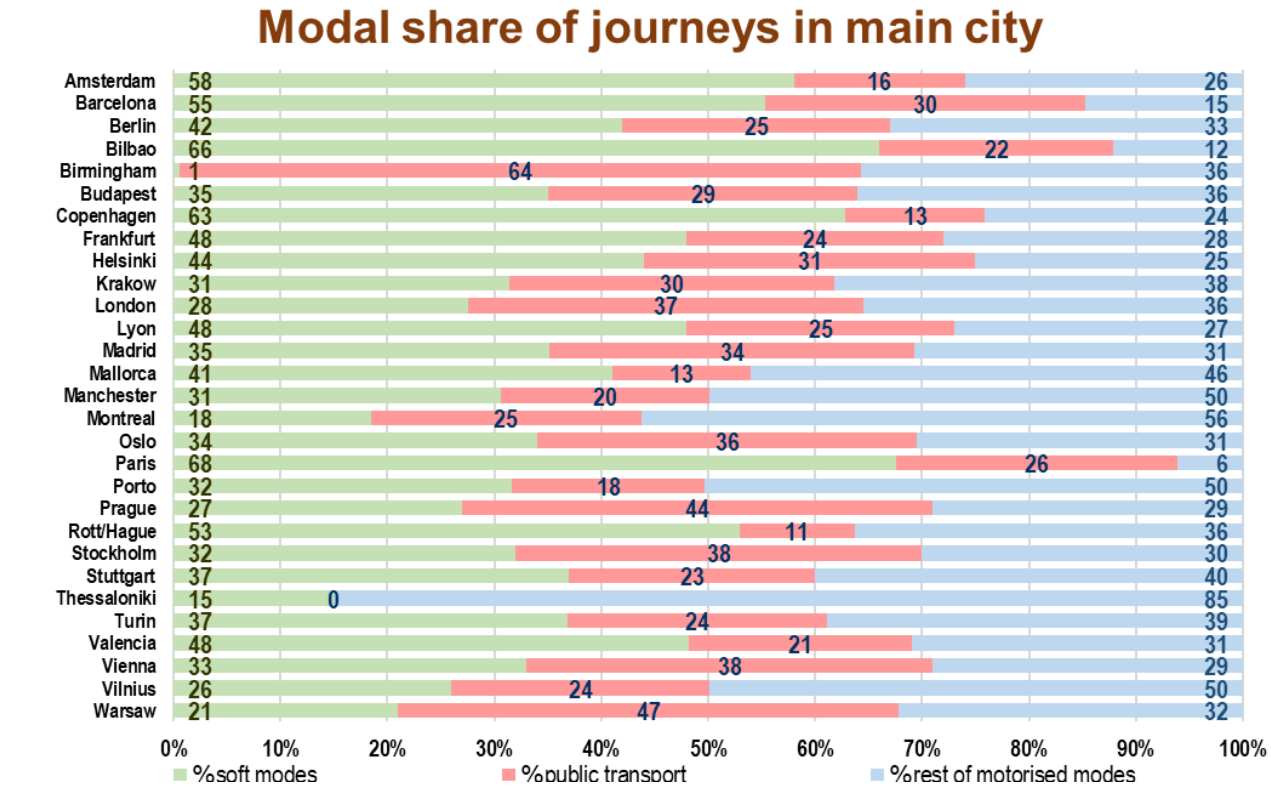


T12. *Car ownership versus urban density in PTA area*

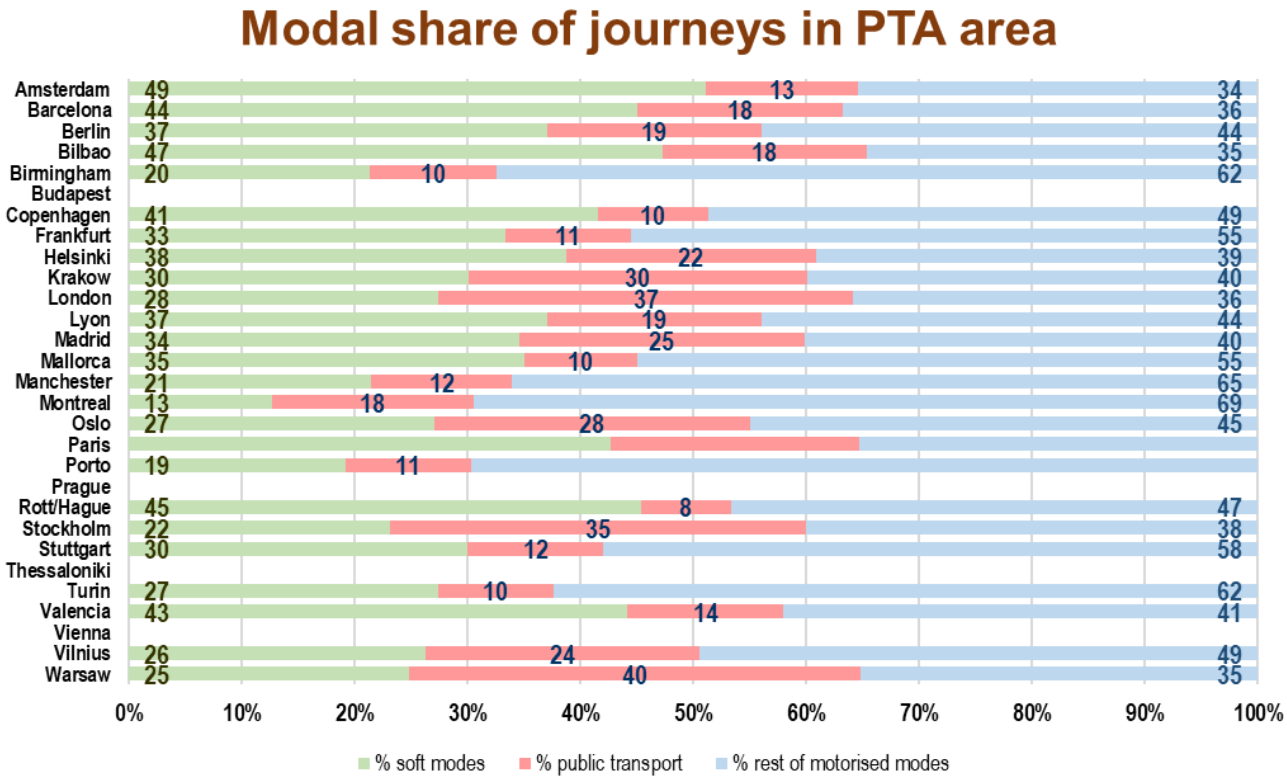


T13. *Car ownership in the PTA area*

7. Modal share in main cities & PTA areas



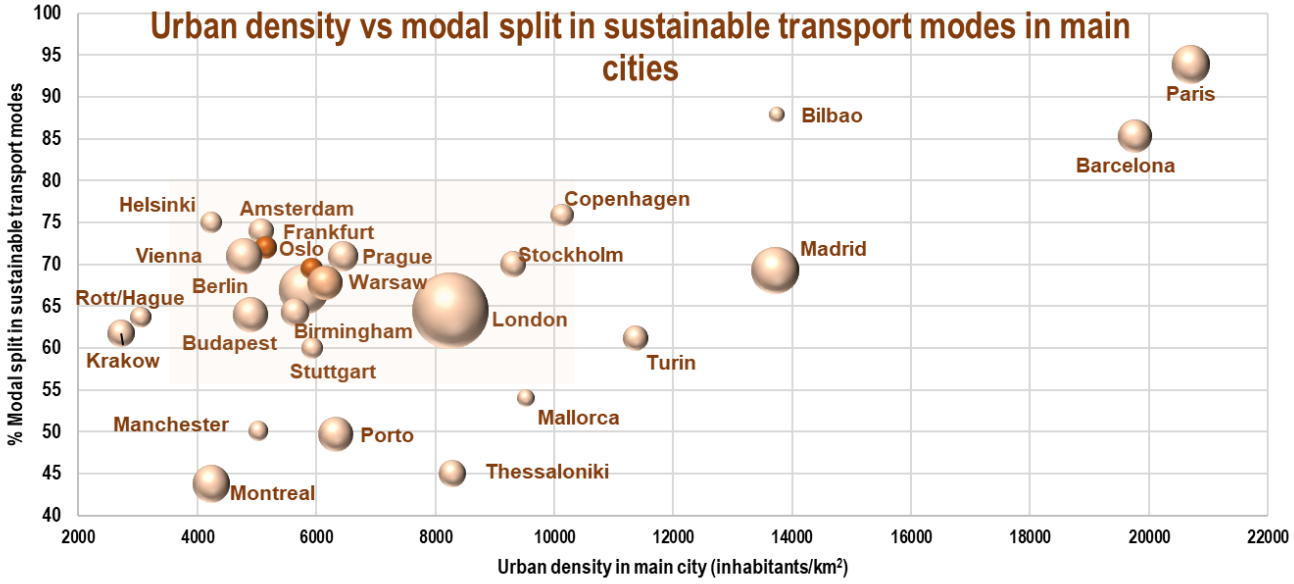
T14. *Modal share of journeys in main city*



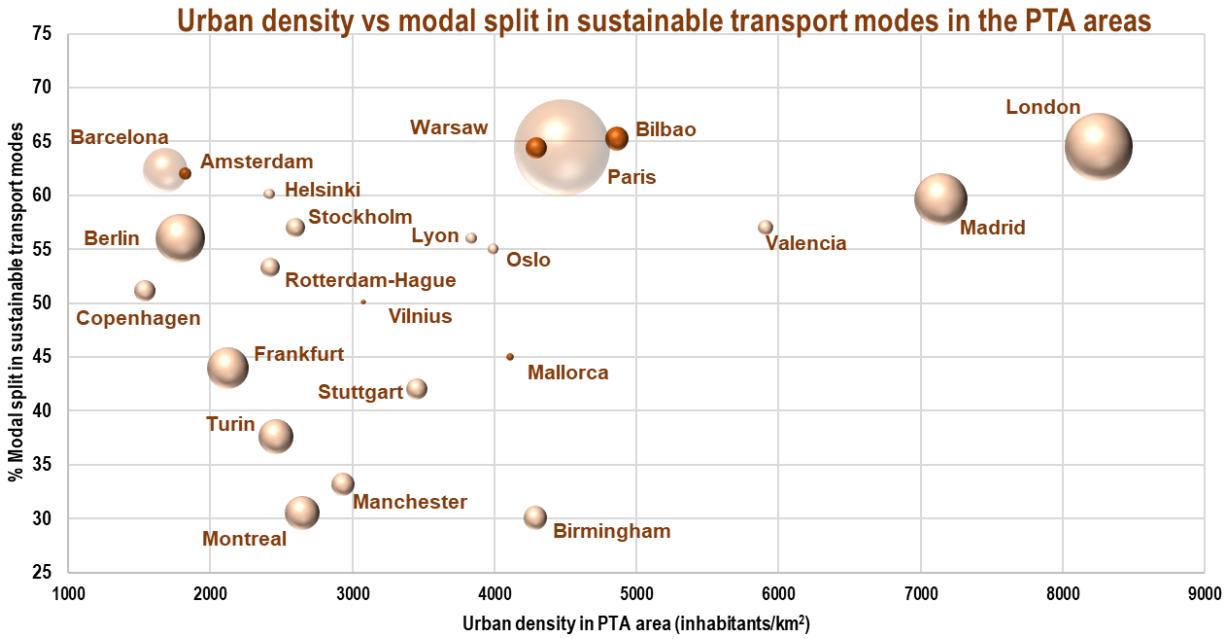
T15. *Modal share of journeys in PTA area*

8. Urban density and modal split in sustainable transport modes

The following graphic displays the share of total daily journeys by sustainable transport modes –walking, cycling and public transport- explained by urban population density (urbanised area). The size of the balls represents as well the main city population in T16 and PTA population in T17.



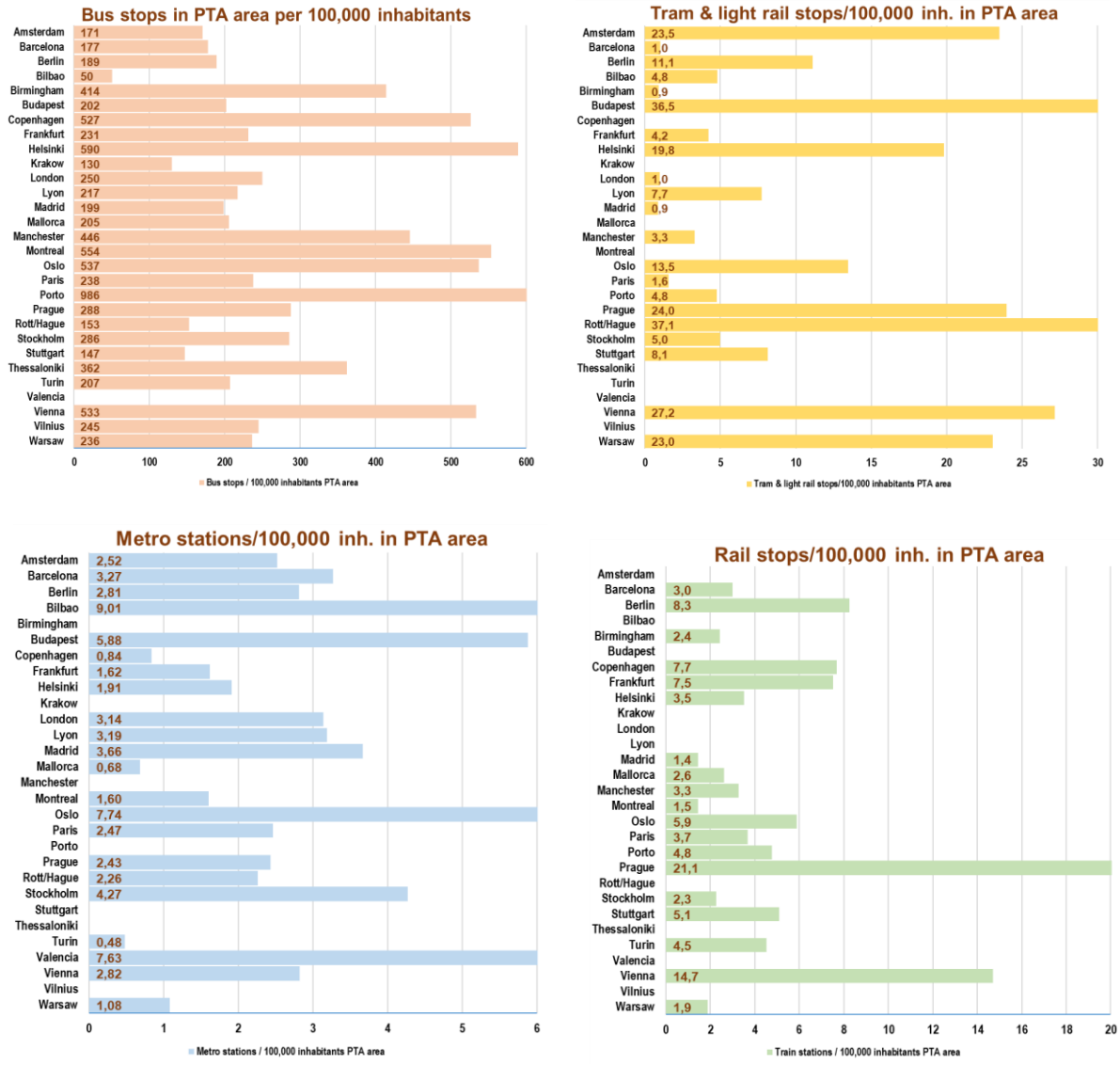
T16. *Urban density vs modal split in sustainable transport modes in main cities*



T17. *Urban density vs modal split in sustainable transport modes in PTA areas*

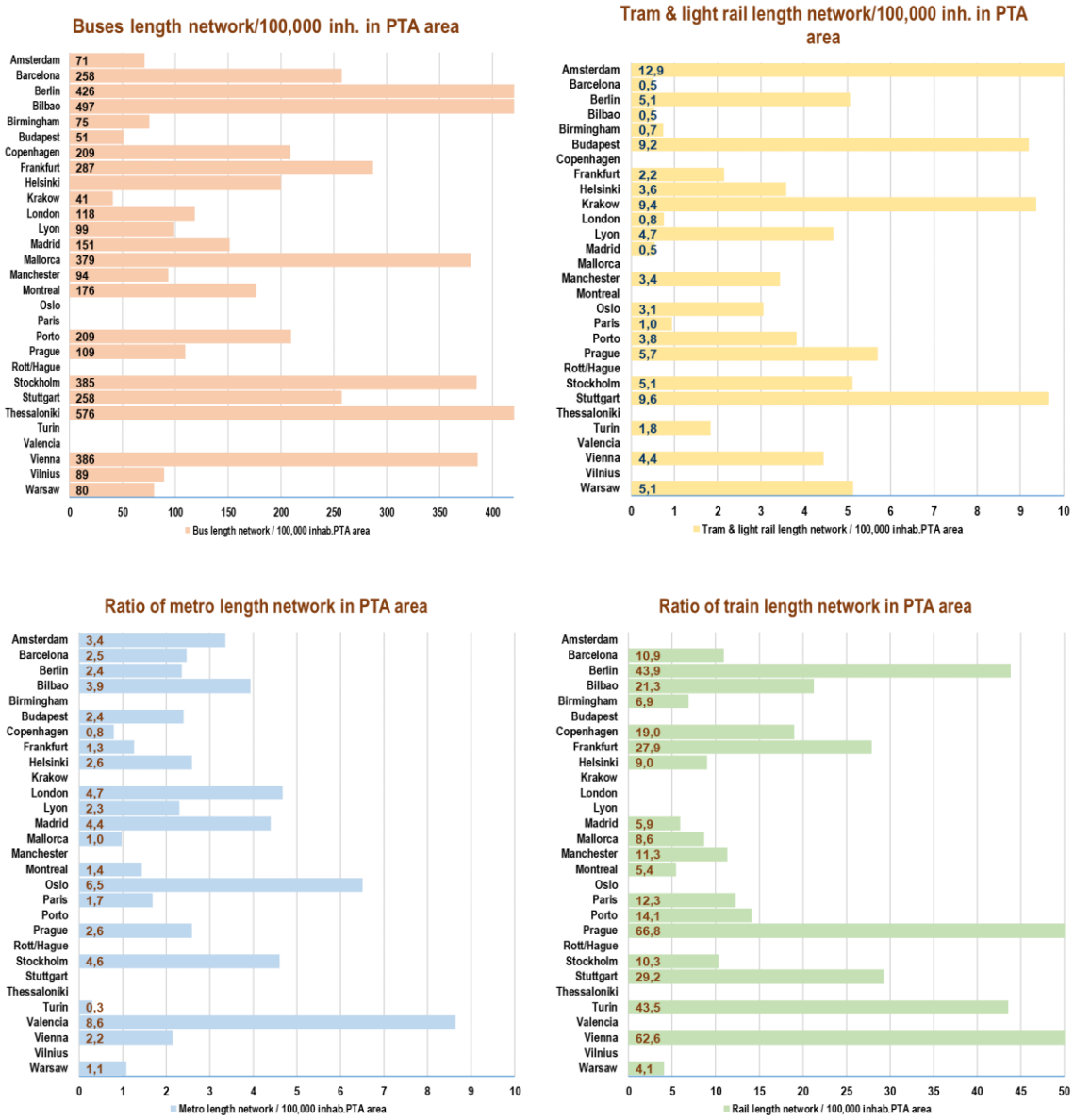
9. Ratio of stops or stations per 100,000 inhabitants in PTA area

The Nordic PTAs (Copenhagen, Helsinki and Oslo) with Montreal have the highest number of bus and tram stops per 1,000 inhabitants (>500).



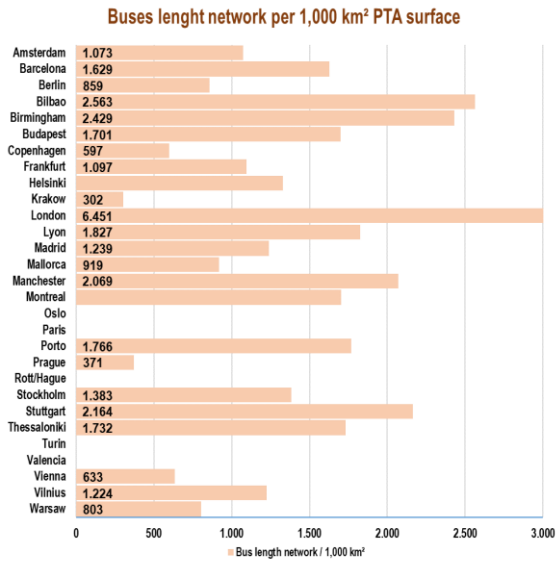
T18. *Ratio of stops or stations in PTA area per transport mode*

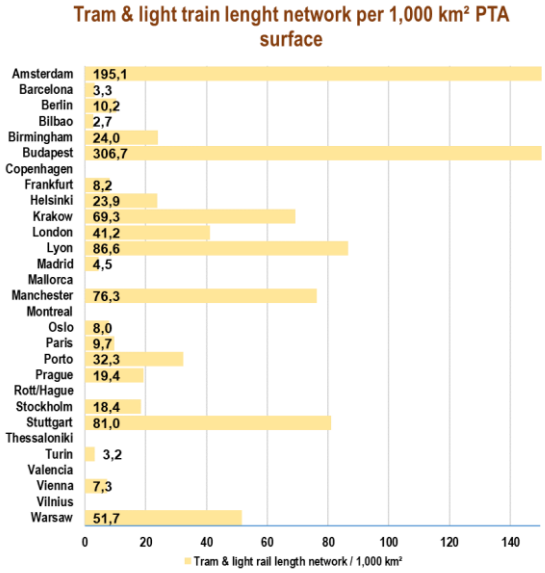
10. Ratio of length network per 100,000 inhabitants in PTA area

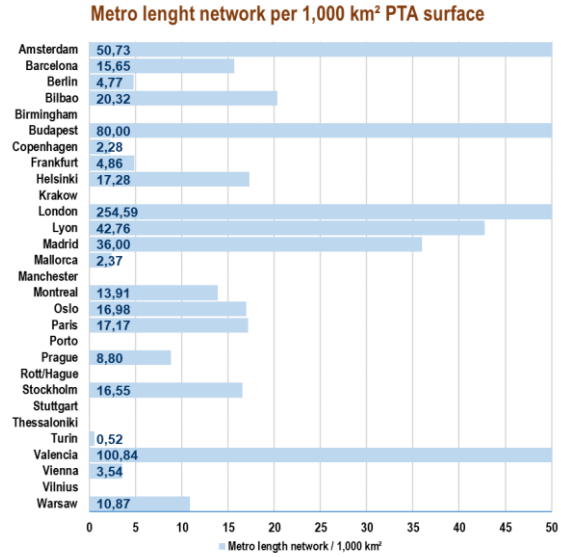


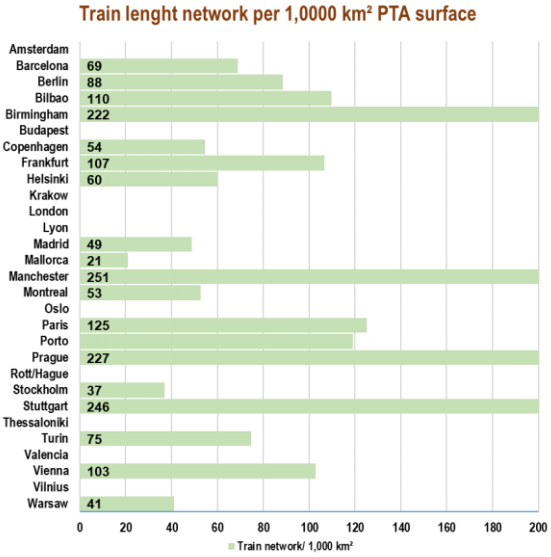
T19. *Ratio of length network per 100,000 inhabitants in PTA area*

11. Ratio of length network per PTA surface





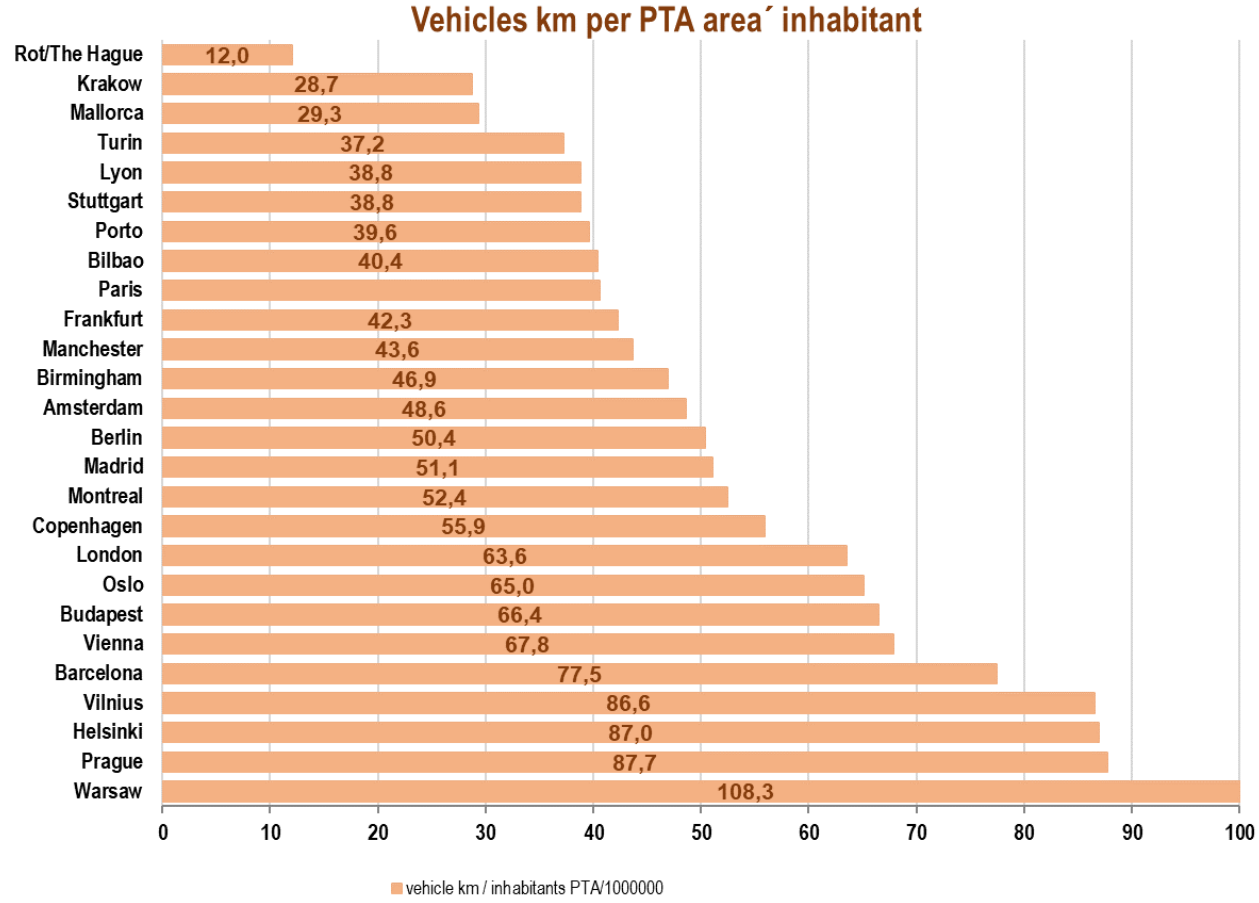




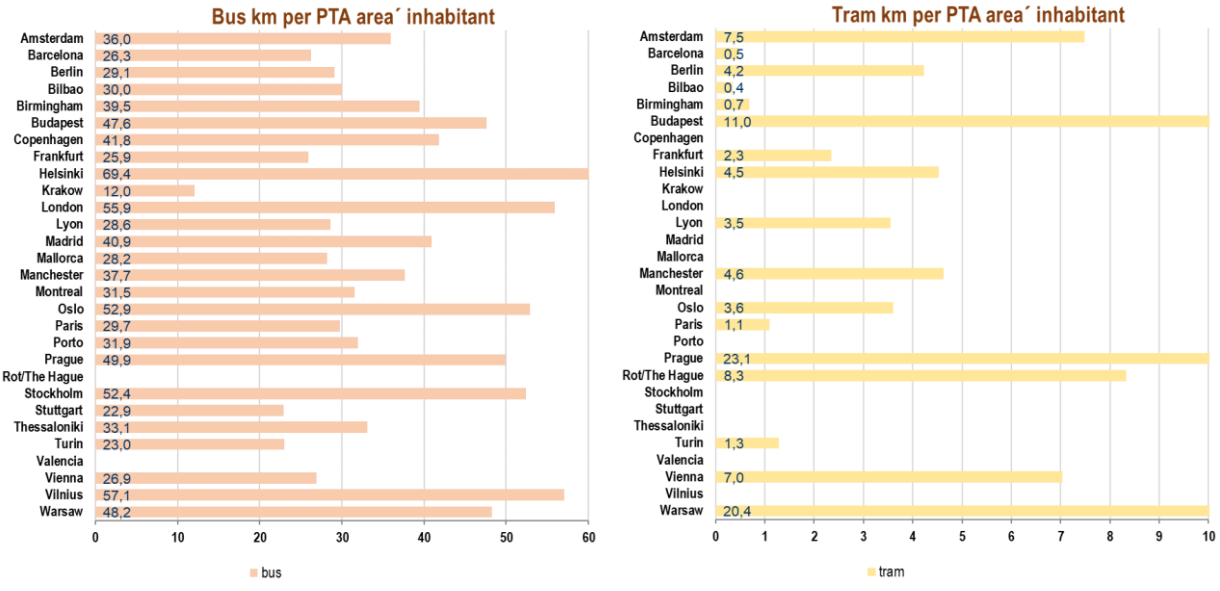
T20. *Ratio of length network per 1,000 km² in PTA area*

12. Vehicles-km per inhabitant and PTA area

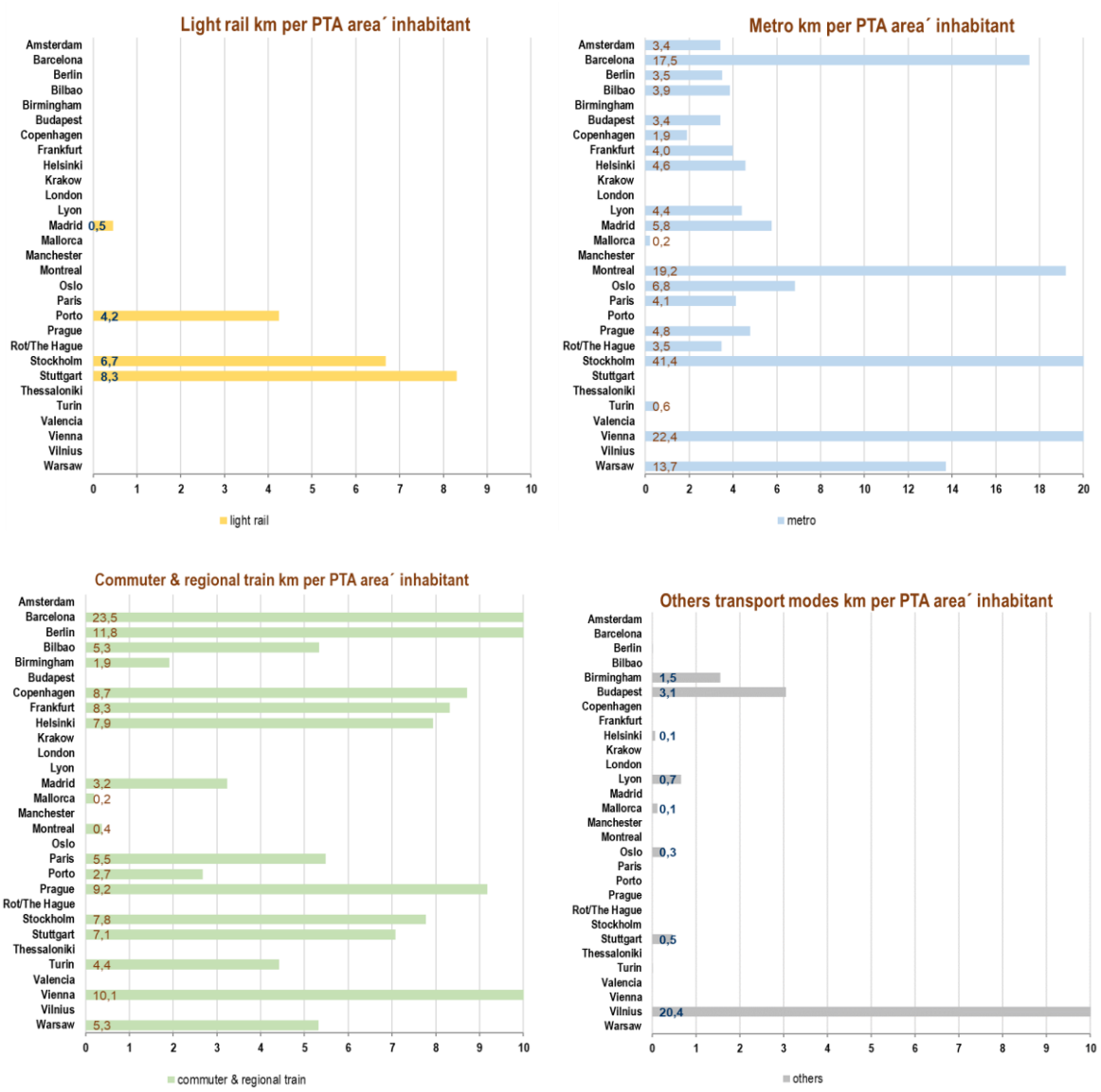
The average number of bus-km per one million inhabitants is 37.4, six times more than the number of tram-km per inhabitant, 6.1. Only Helsinki, London, Oslo, Stockholm and Vilnius are above 50 bus-km per inhabitant.



T21. *Total vehicles km per PTA area´ inhabitant*



T22. *Bus & tram km per PTA area´ inhabitant*



T23. *Rail and others transport modes vehicles km per PTA area´ inhabitant*

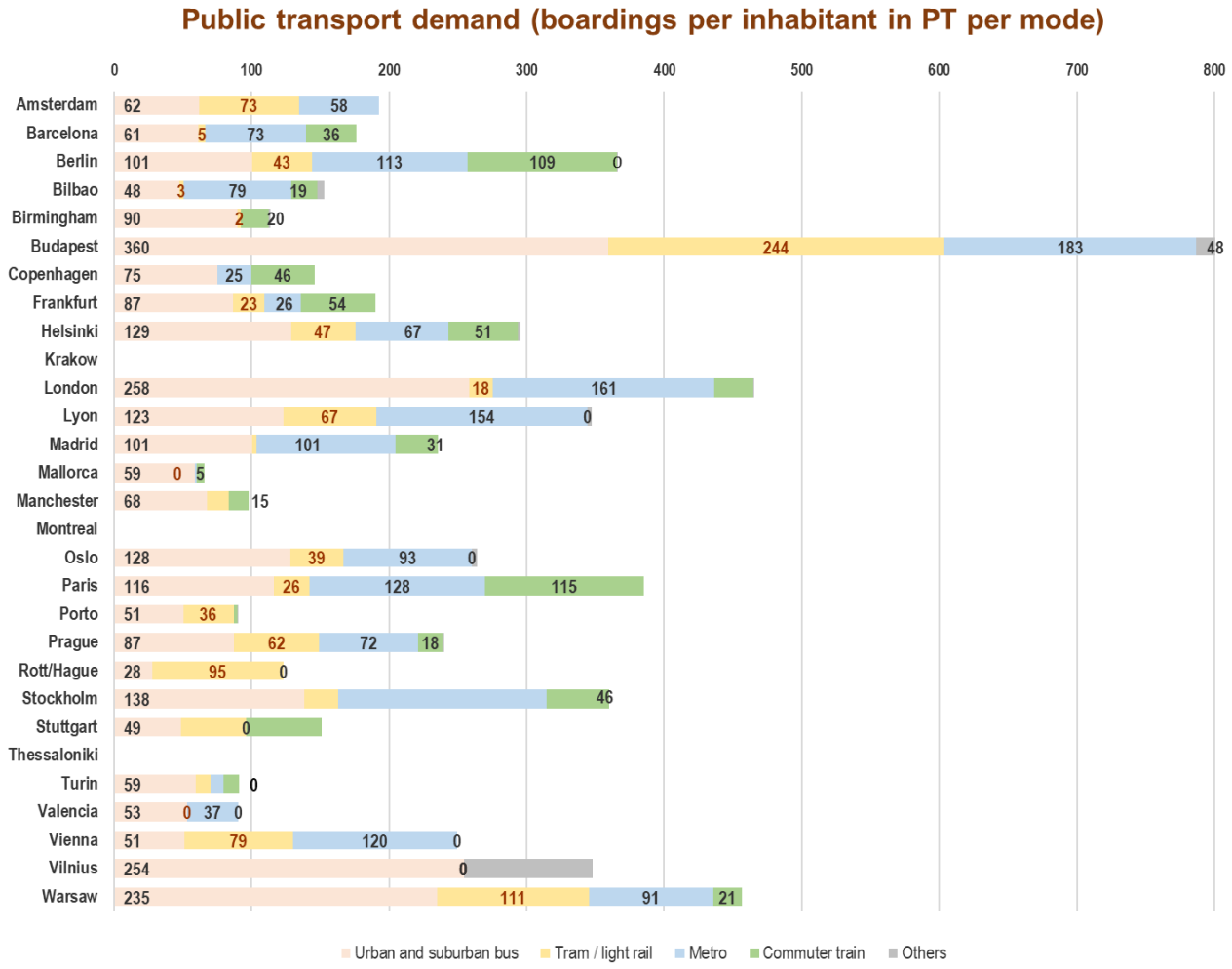
Remarkable is the high ratio of metro that Barcelona, Montreal, Stockholm and Vienna have and that some PTA's have not contributed values for the commuter train service because they lack the legal capacity for planning and operation and do not have data available (*) or in the case of Manchester the value for metro vehicles km is linked to tram and light trains.

Light rails are not relevant in EMTA countries for the moment compared to trams. Only Porto, Stockholm and Stuttgart bet on light rail as transport mode instead of tram. In the case of Birmingham the data for "others" is referred to the airport people mover; trolley for Budapest, Stuttgart and Vilnius; and ferry for Prague.

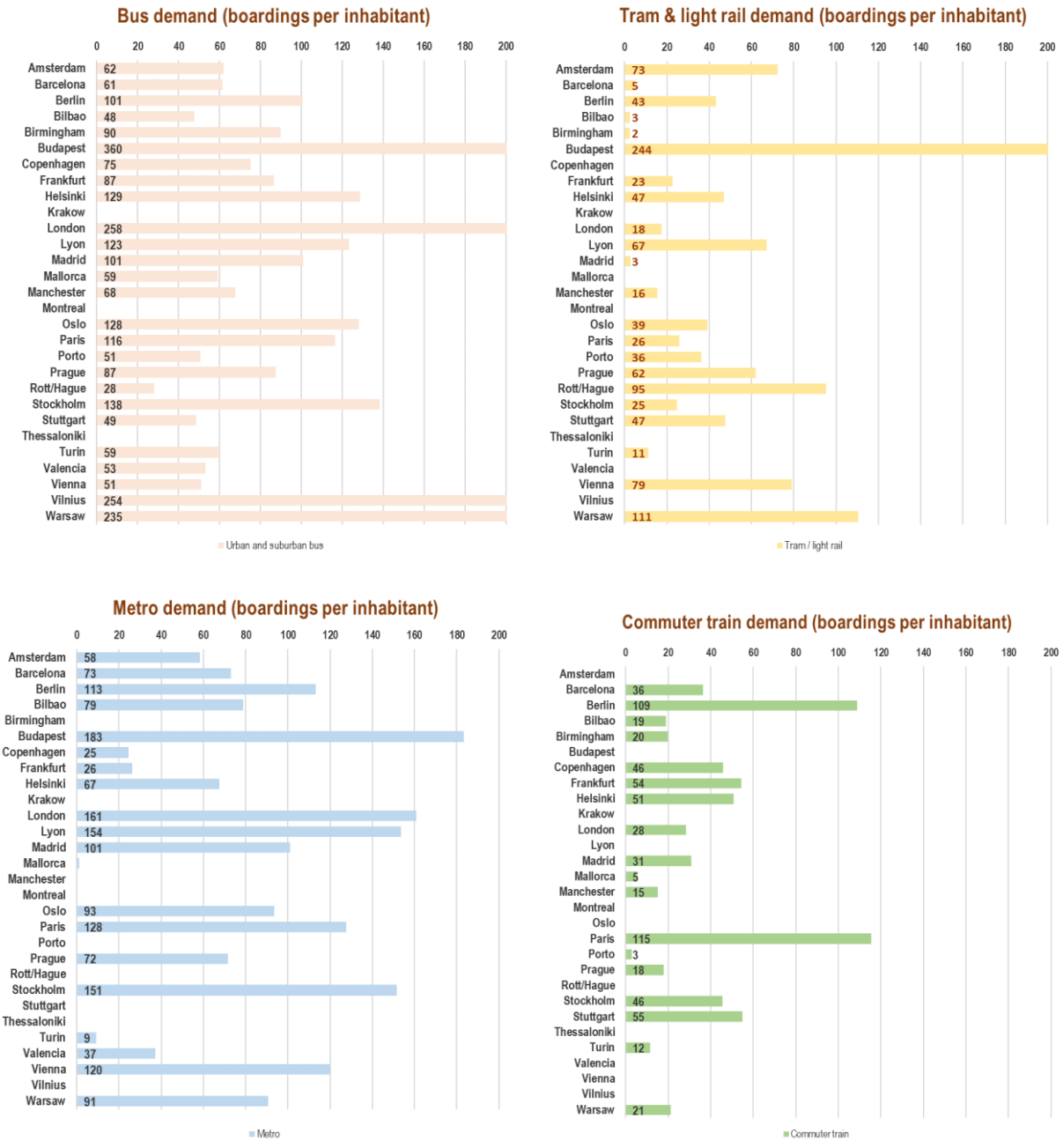

16:20
Dordrecht
2

13. Public transport demand per inhabitant in PTA areas

Regarding the public transport demand, 2018 had practically the same use of PT in comparison with the last years with 339 boardings per inhabitant: in 2014 the average authority was 330; 304 in 2015 324 in 2016; and 346 boardings per inhabitant in 2017 were made. The bus being the most used transport mode (110 boardings per inhabitant, 113 in 2017) followed by the metro (87 boardings per inhabitant, 91 in 2017). In the case of Budapest, the high numbers are due to the fact that BKK is accountable for only PT services within the city borders of Budapest whilst boardings in this figure include both local journeys from citizens on top of commuter trips from outside services into the city. Hence, the city population produces a lower denominator.



T24. *Public transport demand*

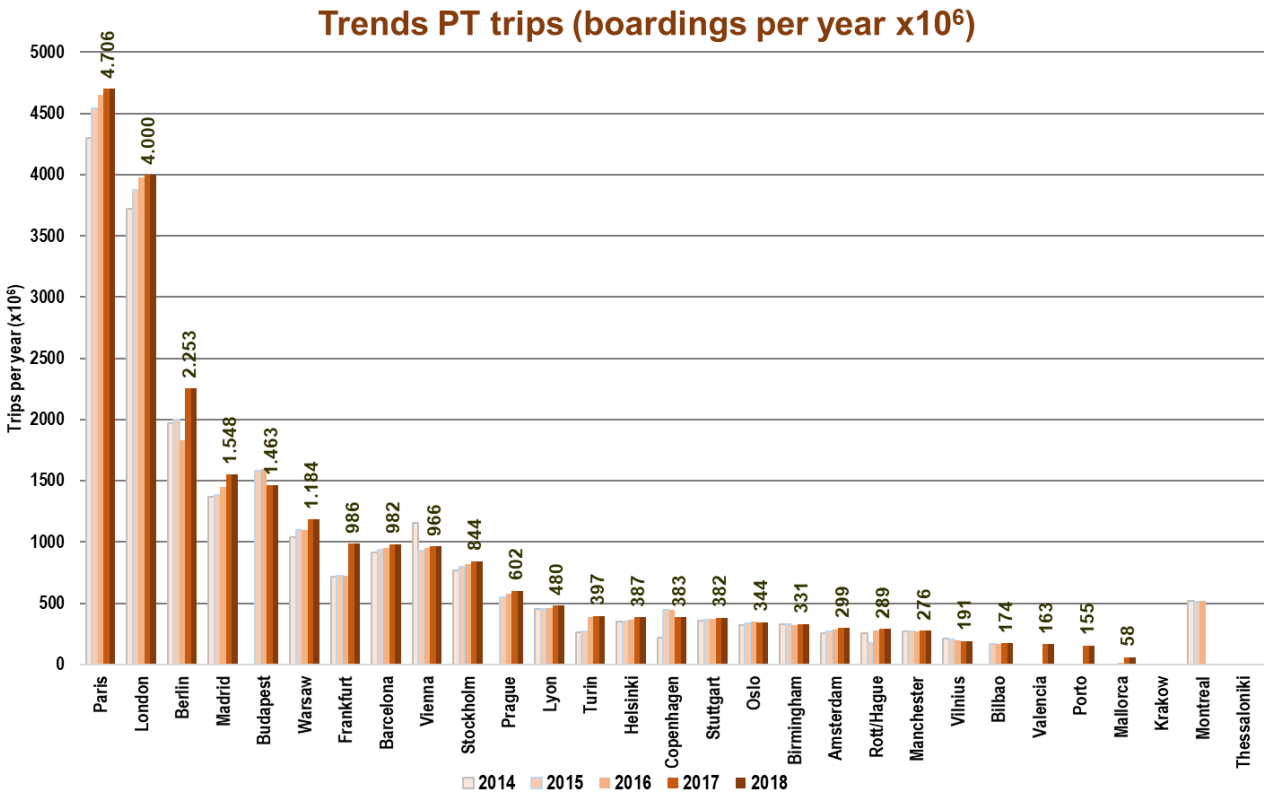


T25. *Number of trips per inhabitant in the public transport*

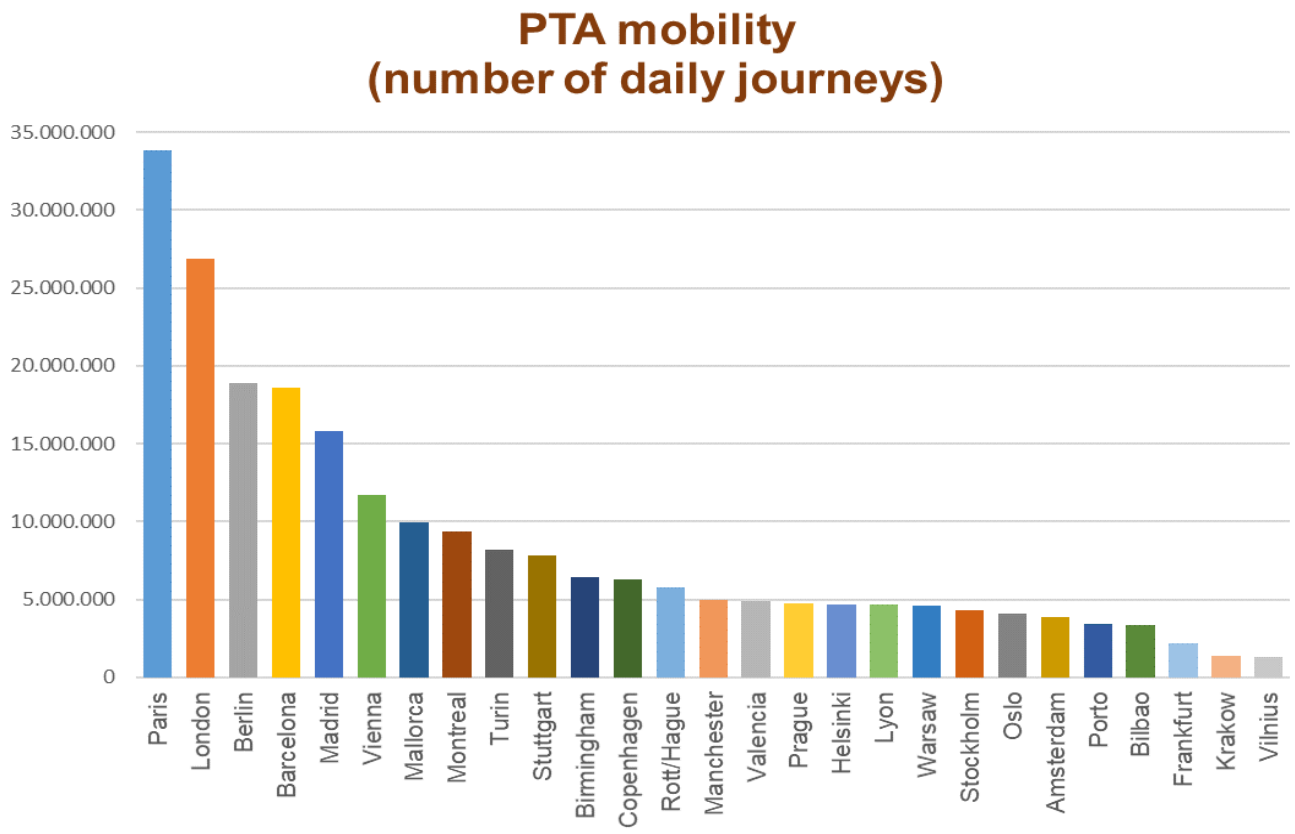
In certain PTAs, as the case of Turin, the value for metro and tram demand is 0 because they have provided a single value for urban bus, metro and tram.

14. Public transport demand trends

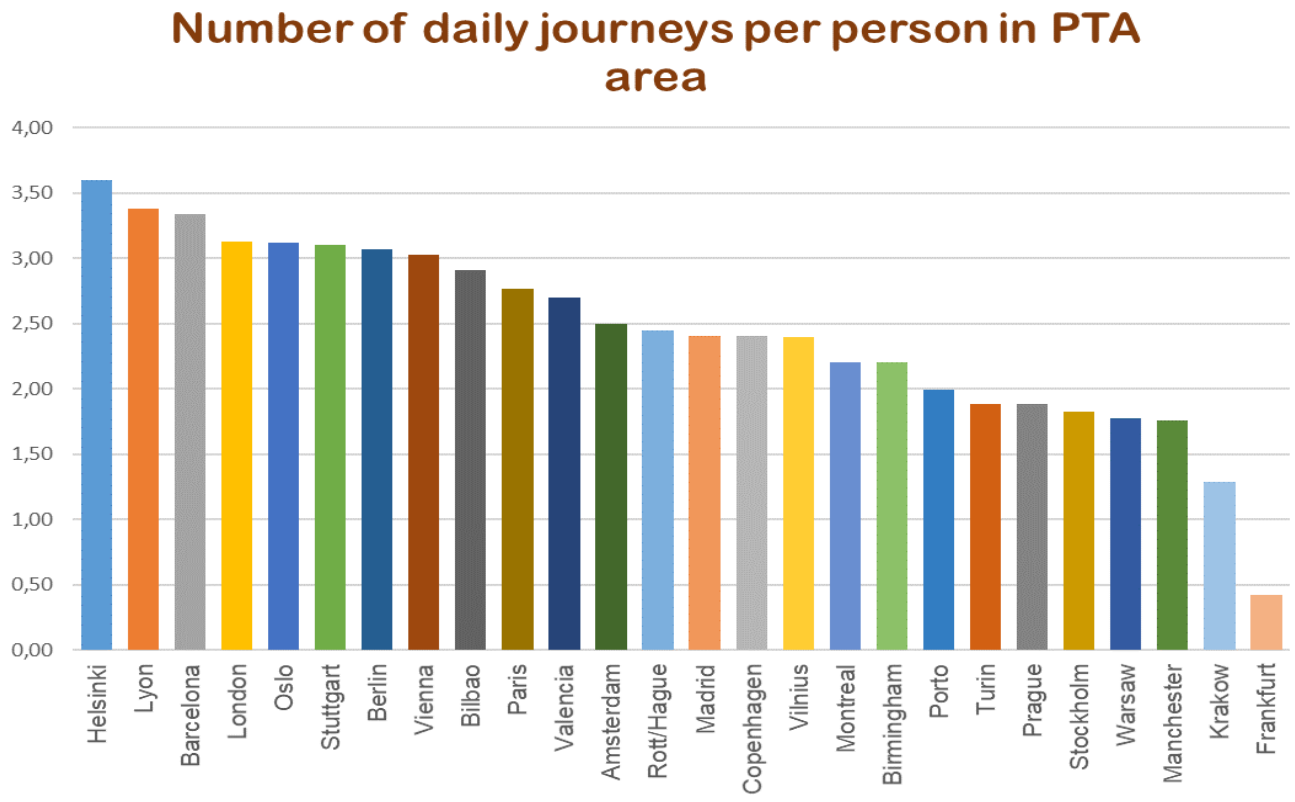
Public transport demand trends have evolved differently over the last years. Overall, in 2018 it shows an increase in public transport demand for all PTA areas. In the graphic below we can distinguish three important groups: more than 2,000 millions trips per year for Berlin, Paris and London; more than 1,000 millions trips per year for Madrid, Budapest and Warsaw; and below 1,000 millions for the rest of the PTAs.



T26. *Trends public transport demand in million boardings per year*



T27. *Number of daily journeys per PTA*

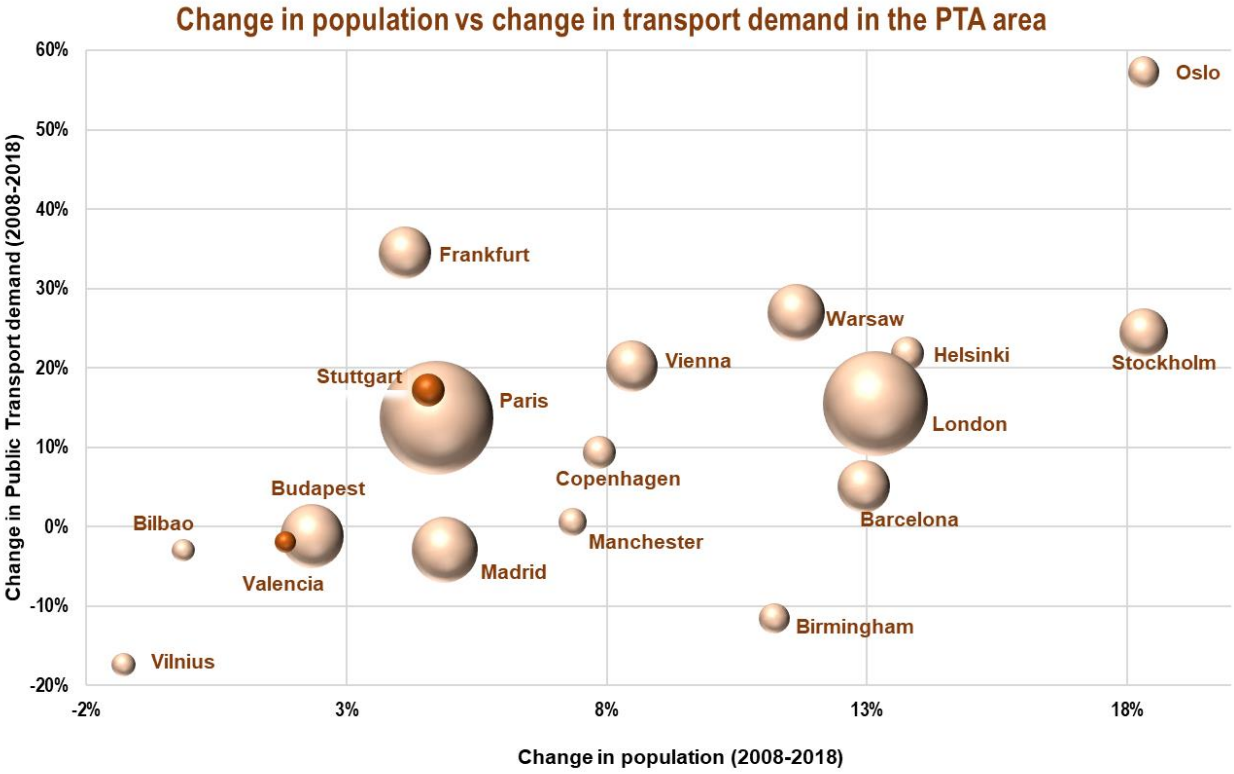


T28. *Number of daily journeys per person*

15. Change in population vs transport demand in PTA area

The following graphic represents the change in the number of inhabitants in the PTA areas between 2009 and 2018 with respect to the change in the number of total journeys undertaken by public transport. The size of the balls represents the total transport demand of each PTA.

As we have seen before, the trend continues upward, most of the PTAs have increased the public transport demand in the last 10 years, The PTA areas studied have increased to an average authority of 12% in public transport demand with only an average authority of 8% growth of population. This means that the number of journeys by public transport increased as relative more than the population in PTA areas.

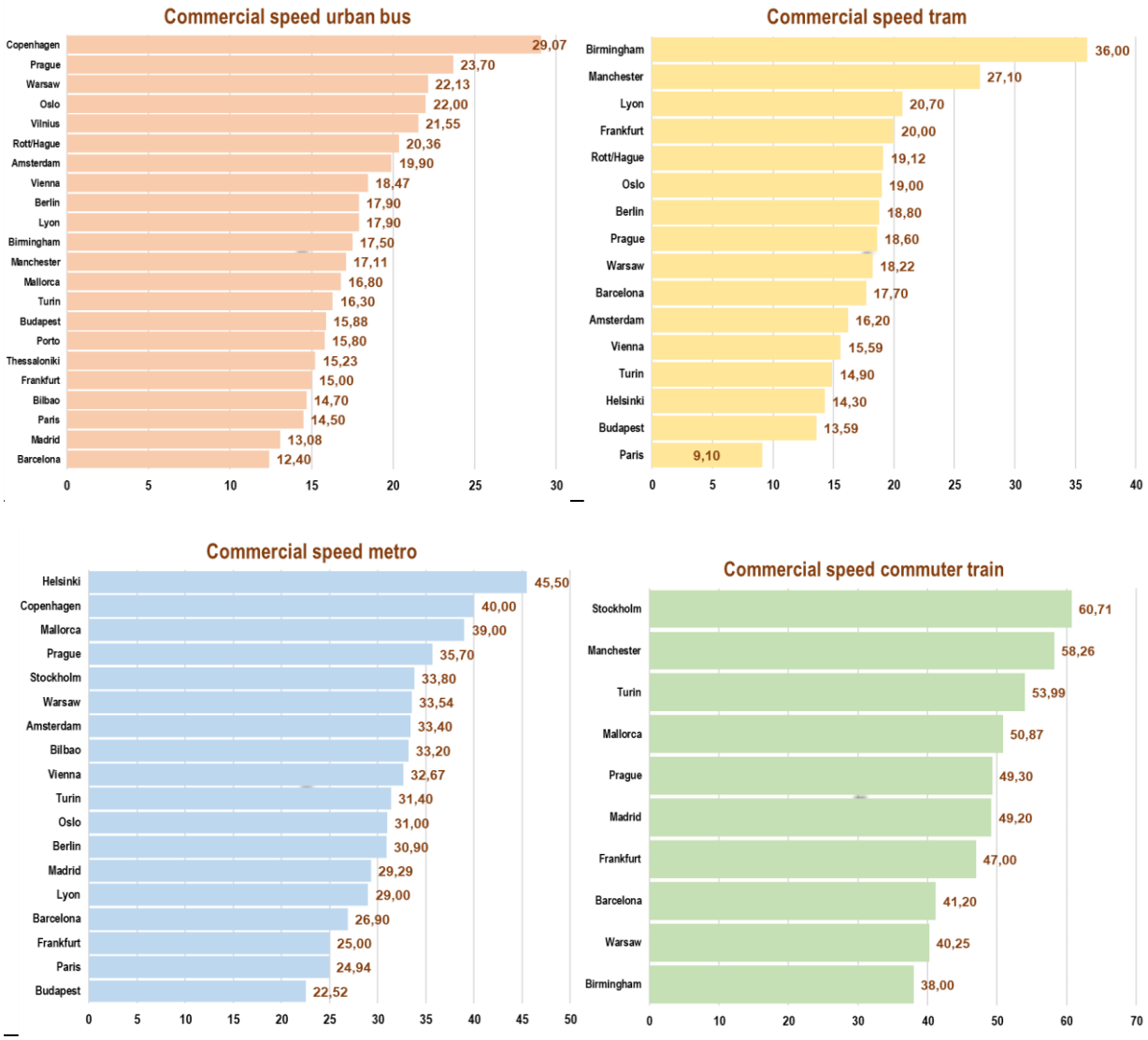


T29. *Change in population vs change in transport demand in the PTA´ area*


BUDAPEST
BKK

16. Commercial speed

The commercial speed for the public transport is one of the main issues that the planners have to deal with it in the urban areas. The average overall speed for the urban bus and the tram is about 18 km/h and for the suburban buses the average has risen to 29 km/h. The same happened with the metro and the commuter train. The metro runs at 32 km/h in average authority, the commuter train has risen to 49 km/h and the regional train to 51 km/h. With growth of traffic and congestion in cities, many of the authorities by investments in bus lanes, bus ways and priority at traffic lights manage to retain or even improve the average speed of bus and trams.

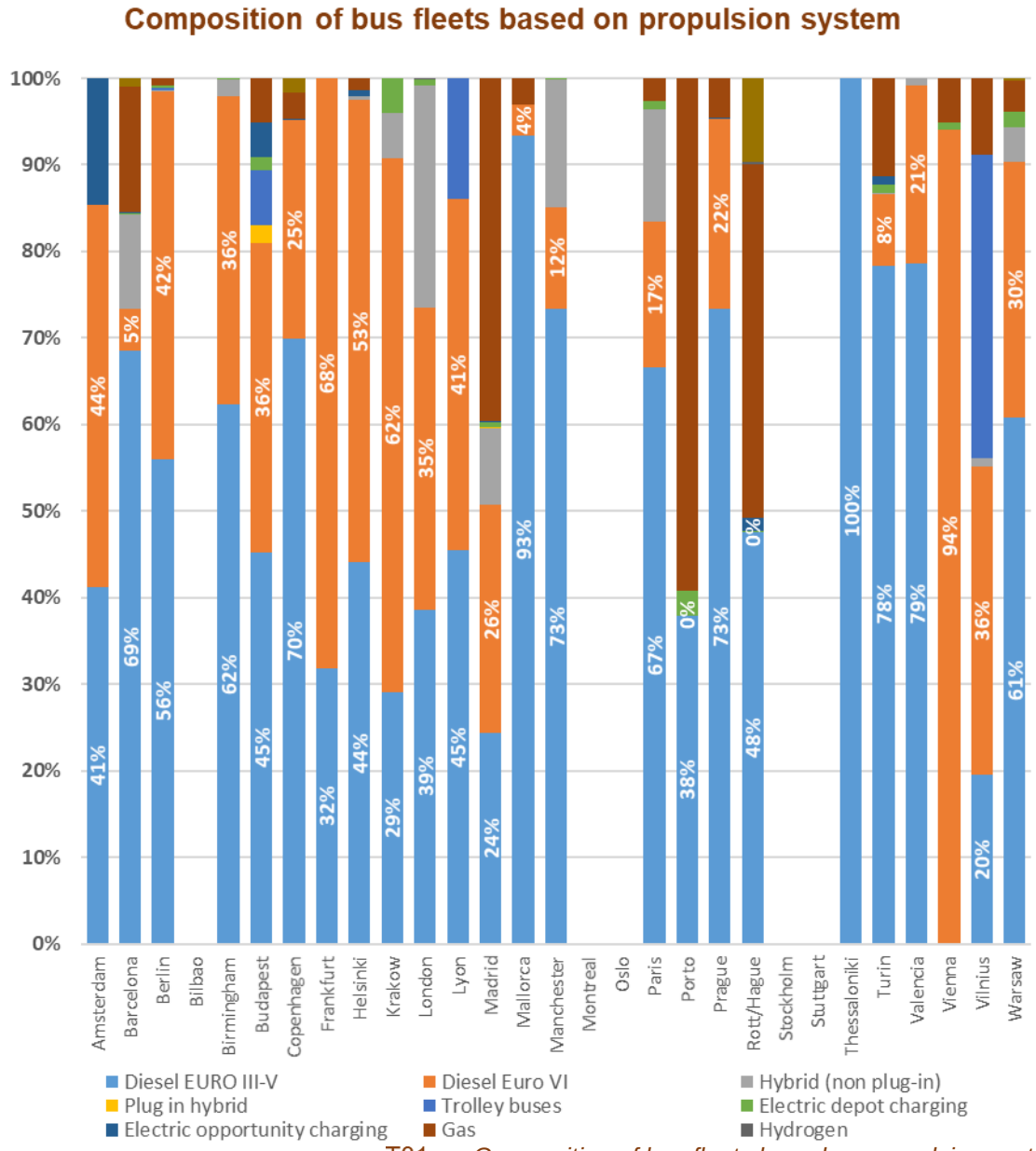


T30. *Commercial speed for transport modes*


22
CARMO
JAMESON

17. Composition of bus fleet based on propulsion system

Figure 31 represents the percentage of urban and suburban buses based on propulsion system with respect to the total urban fleet per each PTA.



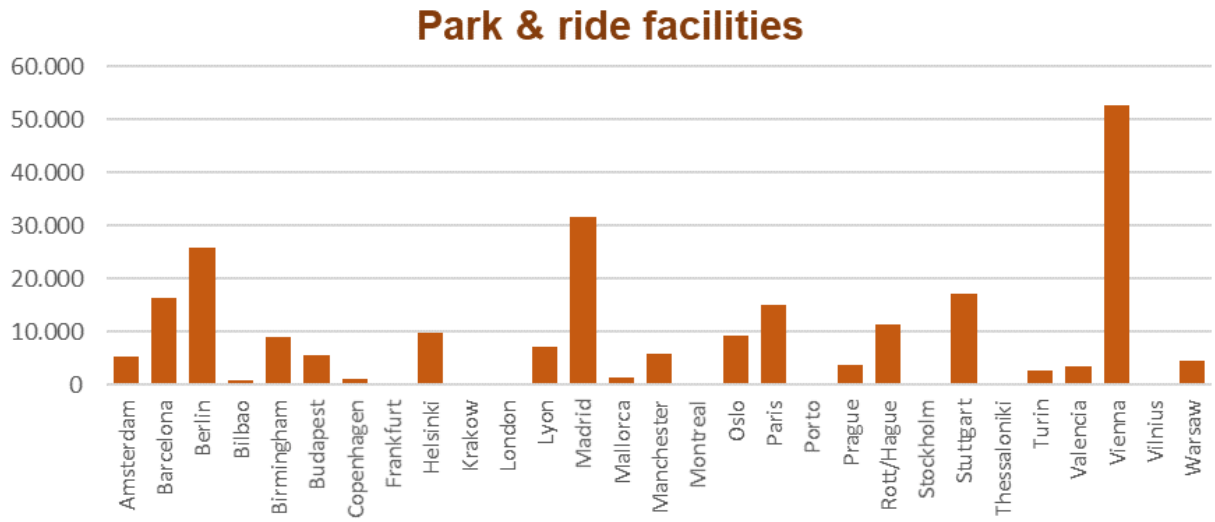
T31. *Composition of bus fleets based on propulsion system*

"Electric depot charging, means that has the full charge in the depot" and "Electric opportunity charging" means that has the charge at the stops or in certain cases is dynamic along the road.


Of. Tarjeta

18. Park & ride facilities

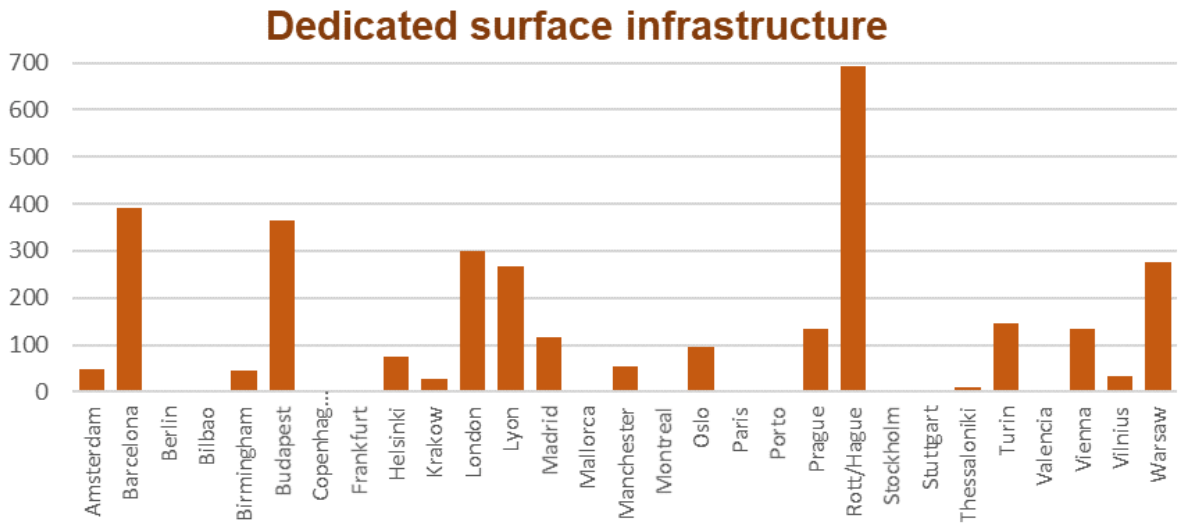
It is important to create a network of modal interchange parking areas where the transfer of the private vehicle to the public transport is allowed. Thus will reduce the access of cars into the cities. Vienna and Madrid has the highest number of park &ride parking spaces.



T32. *Park & ride facilities*

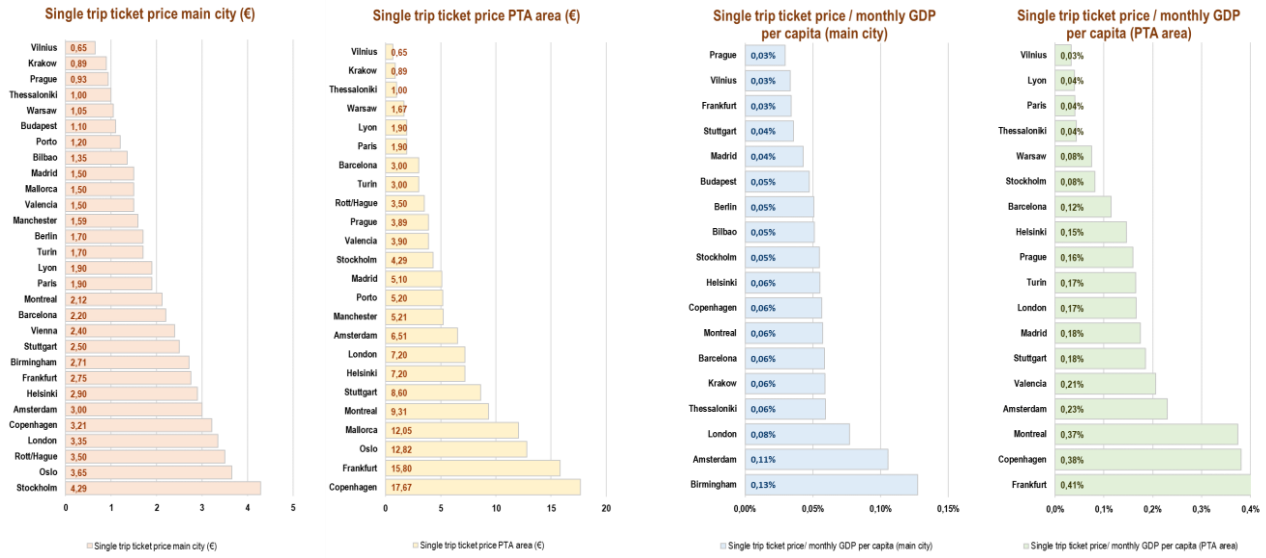
19. Dedicated surface infrastructure

The importance of increasing commercial speed, as well as safety and quality in travel is essential to increase the number of users in public transport. Cities will be more sustainable if we bet on public dedicated public transport surface infrastructure.

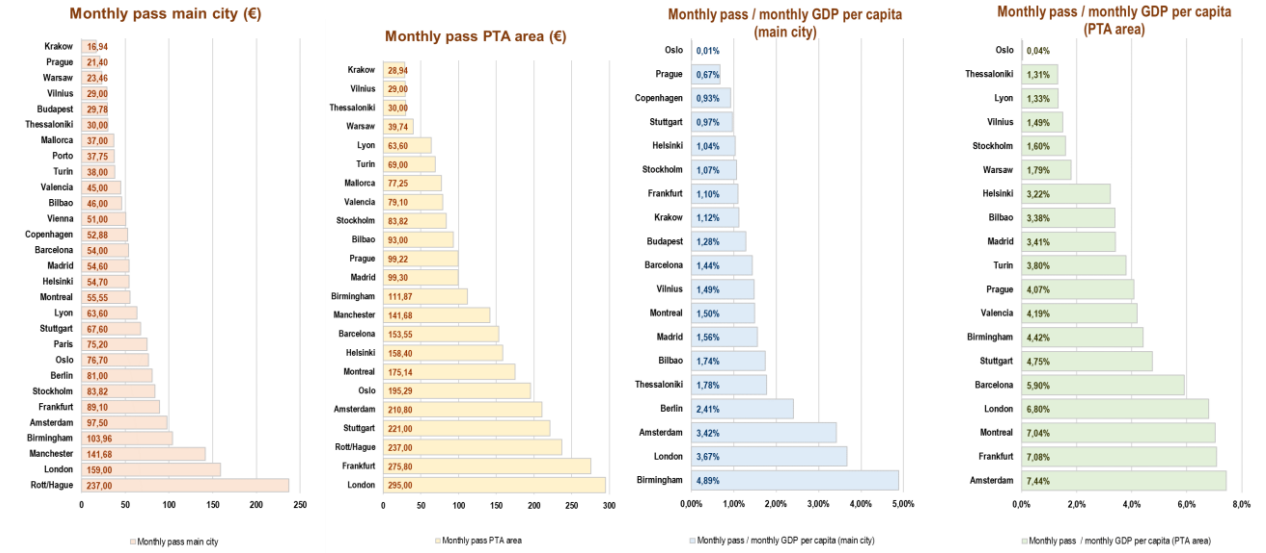


T33. *Dedicated surface infrastructures*

20. Ticket price for the main city and PTA area



T34. *Single trip ticket price (€)*



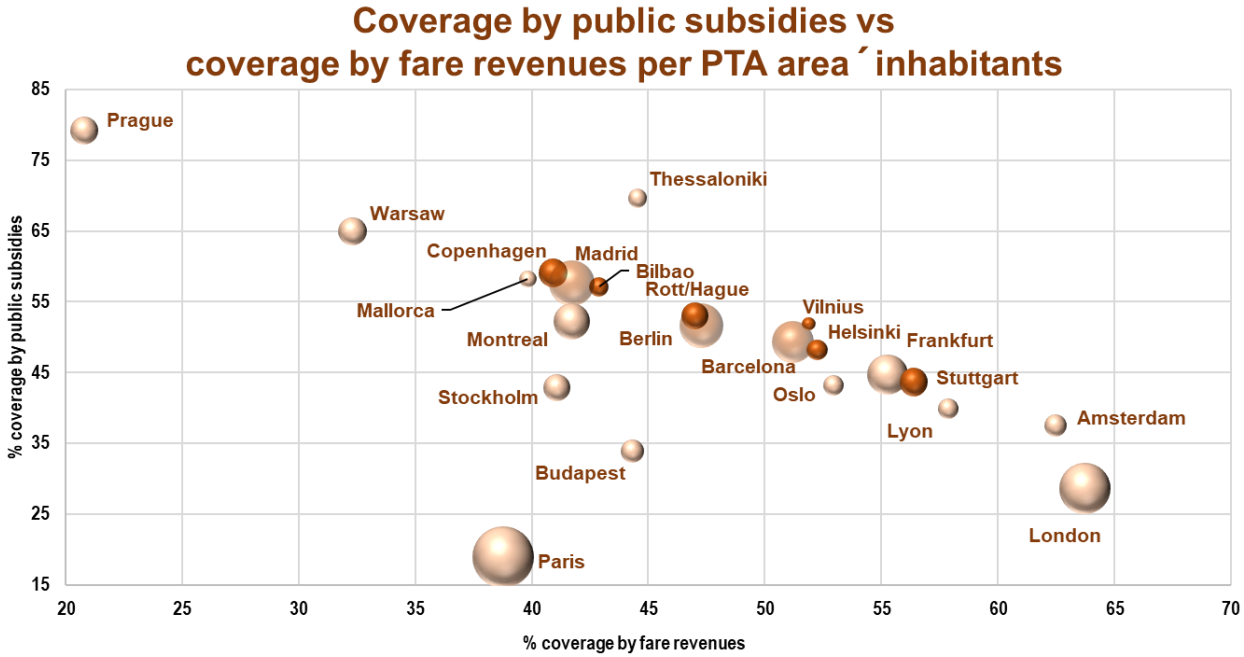
T35. *Monthly pass ticket price (€)*

The average authority price for the single ticket in 2018 is 2,07 € and 4.91 € in the PTA area. For the monthly pass, the average authority fare is 67 € for the main city and 102 € for the PTA area.

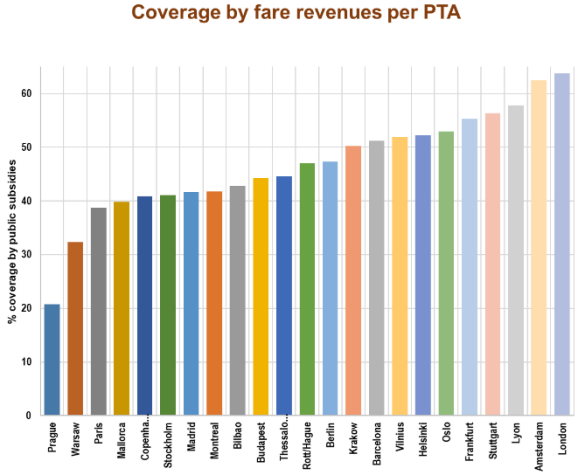

ÖBB

21. Coverage of operational costs

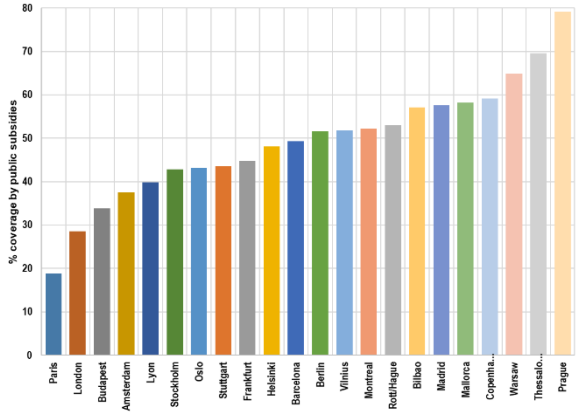
The size of each ball in the diagram below represents the relative volume of the annual cost of operations of public transport divided by the population of the PTA area (costs/total inhabitants). The ratio of the annual operational average authority costs per inhabitant for the PTA areas amounts to around 390 €. The PTAs of Greater London (1,058 €/inhab), Stockholm (843) and Paris Île-de-France (803), have the highest ratio (more than twice the average authority) and Thessaloniki the lowest (92 € per inhabitant per year). Most of the cities have a cost-coverage ratio for fare revenues within a margin of 40 - 60% and a public subsidies coverage ratio of 50% as average authority. Paris Ile de France has the lowest coverage by public subsidies (19%) but Paris has an special coverage of operational costs that partly comes from the "versement transport" (a hypothecated local tax levied on the total gross salaries of all employees of companies larger than 11 employees). Prague have the highest coverage by public subsidies with a 79%, to be partly explained by the fact that in the case of Prague also has the lowest fares of all PTA's (21%).



T36. *Coverage by public subsidies vs coverage by fare revenues*



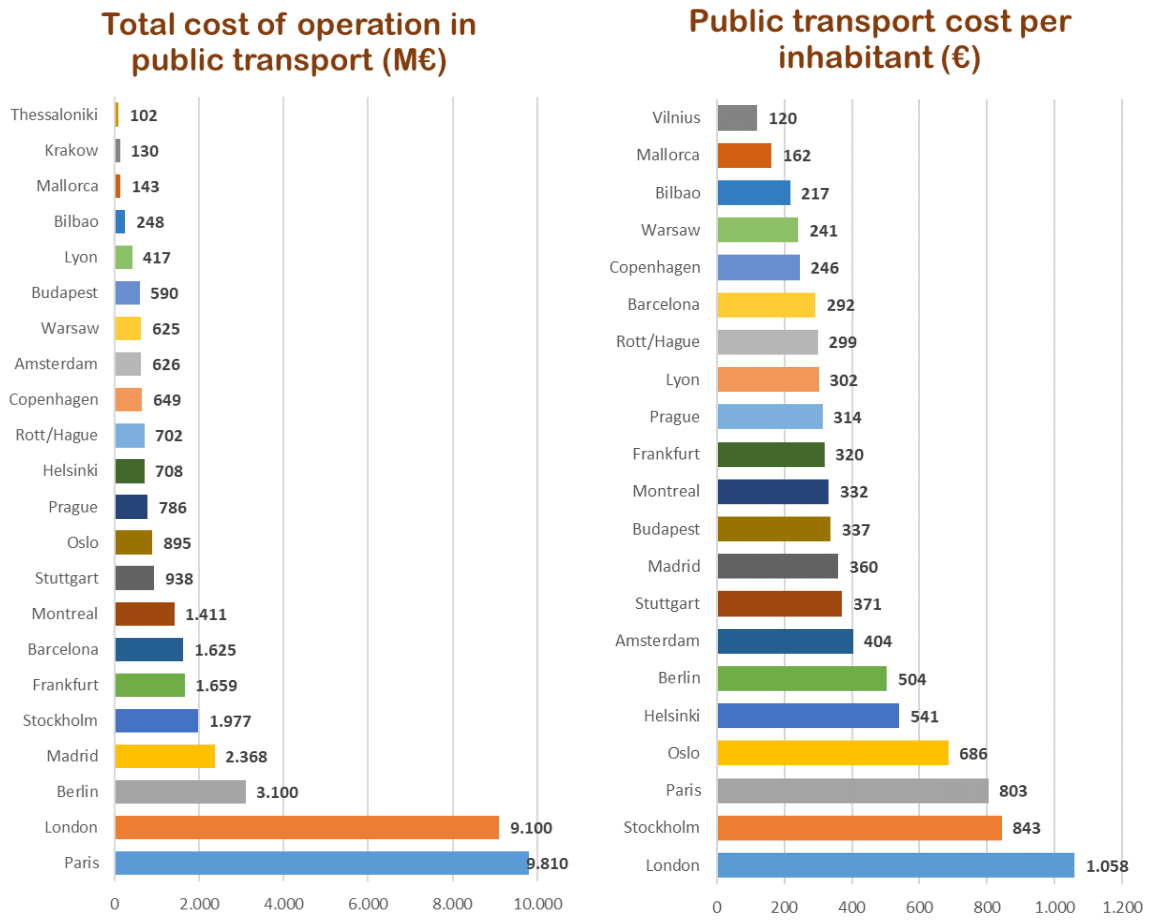
T37. *Coverage by fare*



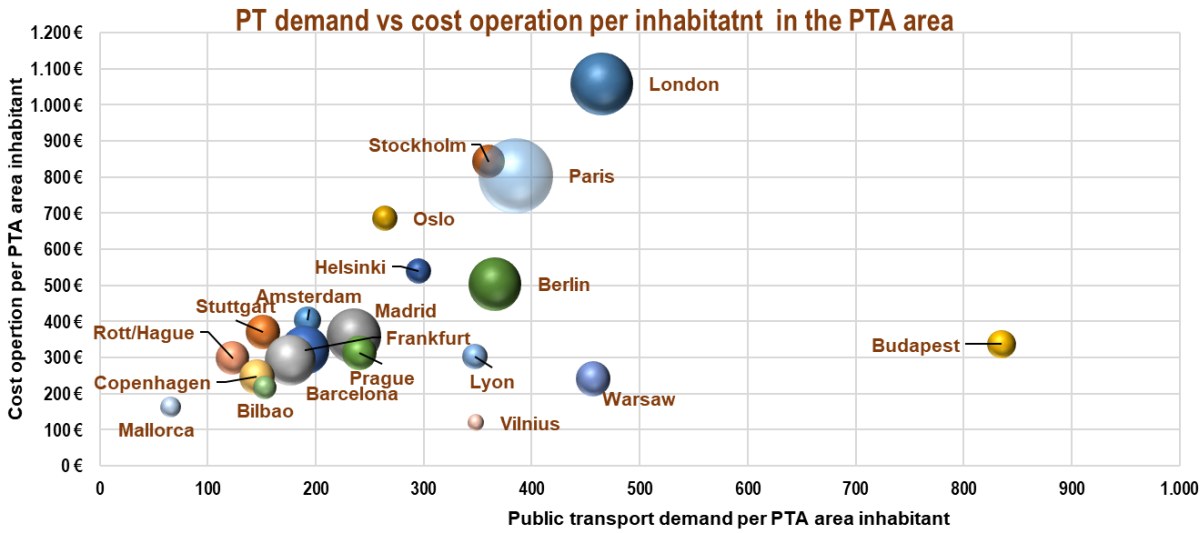
T38. *Coverage public*

22. Cost operation per inhabitant

As we have seen in previous chapters, the EMTA PTAs expenses level for operations oscillates from Mallorca, 120 € per year per inhabitant, to Greater London that needed 1,058 € per year per head for subsidizing the public transport system but we have to sign that in Greater London a 30% from the total number of boardings are done by non-residents users (finance, tourism…).



T39. *Annual total cost of PT operation and per inhabitant*



T40. *Public transport demand vs cost operation per inhabitant in the PTA area*

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The EMTA Barometer is produced by Consorcio Transportes Madrid