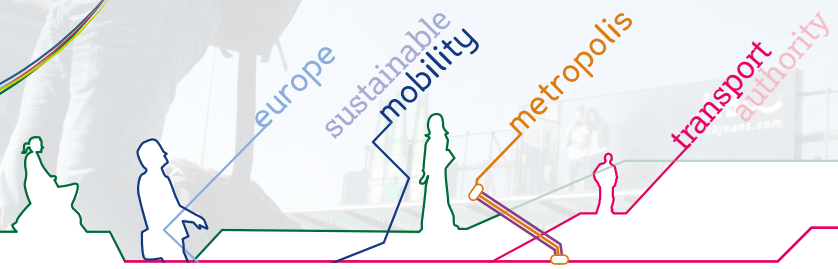


# EMTA



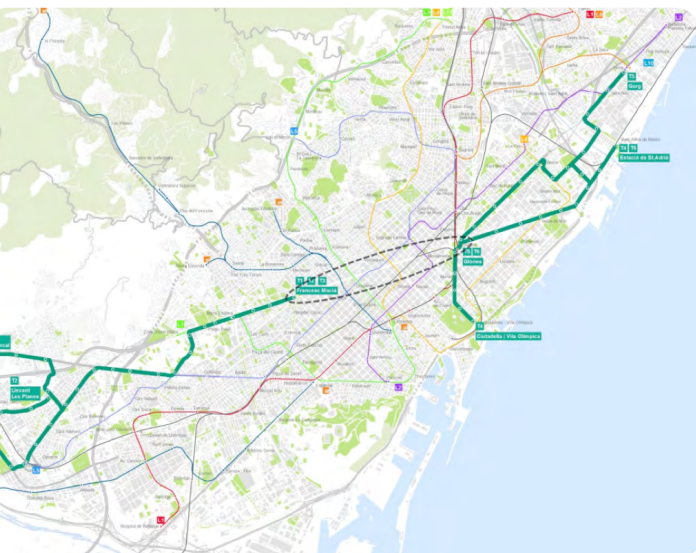
## News from the cities

### Preliminary study to connect both tramway networks in Barcelona



In March 2016, the Generalitat de Catalunya – Catalonia’s regional government – and

Barcelona City Hall, signed a collaboration protocol to start a study on the feasibility of interlinking the two existing tramway networks and make it into one unified network. The 4 to 4,6 km-long connection includes 5 to 6 stops depending on the different alternatives, and is a strategic operation to enlarge the benefits for the metropolitan’s public transport capacity. The unification of the two existing branches is a spearhead of the Public Transportation Infrastructure Plan of 2011-2020, and it combines with the new orthogonal bus network already implemented in Barcelona.



### EMTA GENERAL MEETING MANCHESTER

Mr. Andy Burnham, the new elected Mayor of Greater Manchester, has invited members of EMTA to come over to Manchester from 12 to 14 November and take part in the 40st general meeting of the EMTA association. The organising team of Transport for Greater Manchester has put together a comprehensive 2-day programme with many interesting topics for all tastes with a foursome of areas that touch on the core responsibilities of urban transport authorities. Online registration is open until **October 13, 2017**. Please make sure to reserve your hotel soon. Should you not have received the link to register and still want to take part in the Manchester meeting, please email TfGM: [Joshua.Kay@tfgm.com](mailto:Joshua.Kay@tfgm.com).

The two networks that came into service in 2004, have identical technical characteristics, and include 6 (3+3) tram lines, 29,2 km of railway (sharing common sections in both networks) and a total of 56 stations. In 2016 it served 26,8 million passengers, its highest demand since it came into service. The project proposes linking both networks via a central section without catenary, as it harbours many buildings of great architectural value.

The Preliminary Study, passed in June 2017, analyses four connection alternatives for which by a Cost-Benefit Analysis was made.

#### Alternatives and study results

Route alternatives 1, 2 and 4 have a similar route, through the Diagonal Avenue, while the third alternative analyses a different route through the Eixample district. In all cases, the connection with public transport is projected segregating public transport from private cars, although in some points the bus and the tram share the space. In alternatives 1, 2 and 4 there are 2 lanes taken out of a total 6 on the Diagonal Avenue for private vehicles, while alternative 3 goes through a street that shall be transformed into a traffic calming zone.

Means of transport: Alternatives 1, 2 and 3 propose the tramway, while the 4th analyses is based on operation by electrical buses.



The main issues that have been taken into account when defining the alternatives have been: passenger transport demand, as with the connection the daily demand will double (from 105,000 to 227,000); the minimum level of service, proposing a frequency interval of 4 minutes using double units (with a capacity for 440 users); the mid-run and long-run evolution of the network; and technical constraints such as the presence of single-track sections, restrictions in traffic light cycles and limited space in the station of Glòries.

- Alternative 1 (figure below), on surface during the whole connection, would have positive social, economic and environmental impacts, which would yield a good social return, given that its IRR (9,9%) is vastly superior to its social discount rate (SDR). This option is valued at 8,91 out of 10, and is hence considered to be the best of the alternatives.



- Alternative 2, including a tunnel across the most congested section, would yield positive socioeconomic impacts, although less so than Alternative 1, as its IRR<sup>1</sup> (3,4%) is a mere 4 decimals above the social discount rate. Its NPV<sup>2</sup> is also low given it's a considerable initial investment, twice that of Alternative 1. The higher investment would not be compensated by its higher demand nor by higher time savings. Its greater impact on the local environment during construction must also be recognized as a negative aspect.
- The other two alternatives yield negative returns. Alternative 3, longer than Alternative 1, would have higher investment, maintenance and operational costs, and would also require to maintain some of the bus lines that Alternative 1 would remove. As for Alternative 4 (electric buses), it would imply one fourth (25%) of the cost, but its demand would also be significantly lower. Also, the forced transfers from bus to tram at the end of the line penalise demand.

The following table shows the main results for each alternative:

Alternatives	CAPEX (total investment 2018-2052 without inflation. Includes rolling stock)	Potential demand (2024)	Captured demand from private transport (2024)	IRR	NPV
Alternative 1	414 M€	227.394 pax/day	14.970 pax/day	9,9%	158,5 M€
Alternative 2	602 M€	241.831 pax/day	14.717 pax/day	3,4%	15,8 M€
Alternative 3	427 M€	193.619 pax/day	11.611 pax/day	-7,3%	-180,9 M€
Alternative 4	52 M€	53.059 pax/day	2.123 pax/day	-	-91,1 M€

At present, the document is in a period of public information. Politicians, the public and social entities can present allegations to the document and thus choose the alternative which fits best to Barcelona's needs, considering technical, social, environmental, urban integrity and mobility aspects while remaining compliant with the urban mobility plan.

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<sup>1</sup> Interest Rate of Return  
<sup>2</sup> Net Present Value

## Mayoral visit marks project ramp-up



The next phase in Midland Metro Alliance's £149m work to expand the tram network in the West Midlands got underway on Tuesday 5 September when the MMA moved one of Birmingham's most iconic sculptures – Iron: Man – out of Victoria Square.



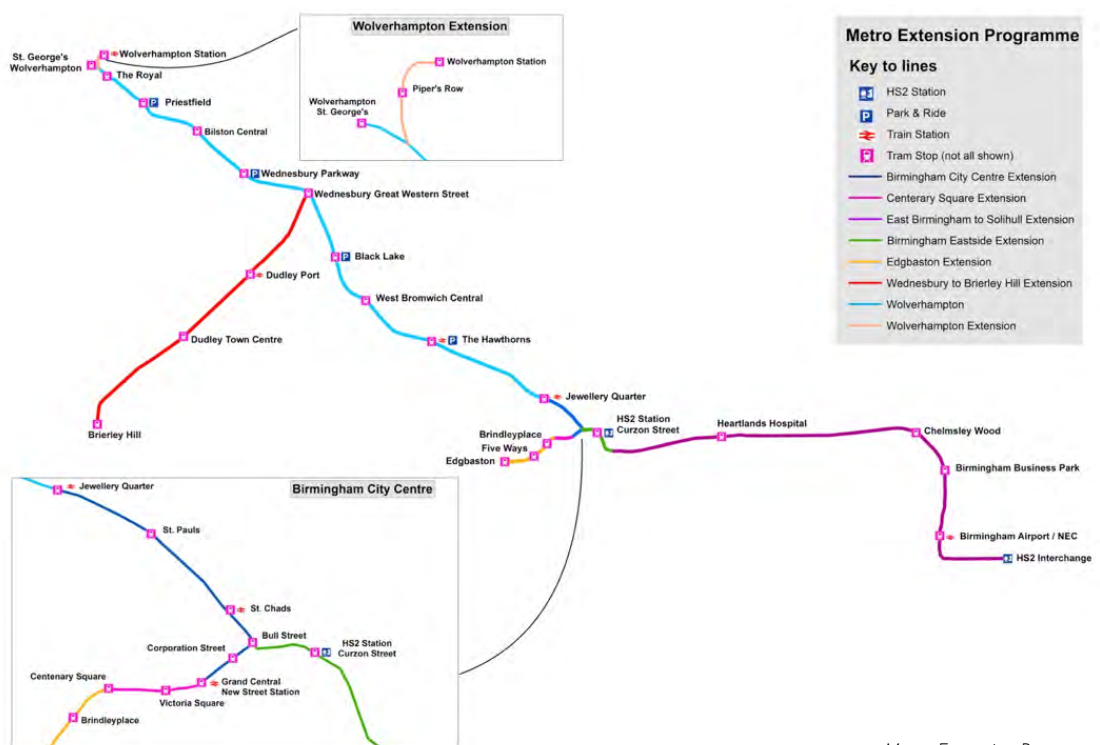
Mayor of the West Midlands, Andy Street, joining the team assisting in the removal of the city's iconic Iron Man, which marked the kick-off of tram extension works in Birmingham.

The Mayor of the West Midlands, Andy Street, joined onlookers as two cranes raised the six ton metal sculpture out of the ground revealing his feet for the first time since 1993.

Iron: Man was the second piece of public art to be moved by the Midland Metro Alliance during the summer, with the golden Boulton, Watt and Murdoch sculpture raised out of Centenary Square on Wednesday 23 August as work progressed along Broad Street, home to the city's famous nightlife. Both will be assessed by conservation specialists and put into storage by Birmingham Museums Trust. The statues are due to return to the city's streets in 2018.

The sculpture removals mark the beginning of the extension to the westside of Birmingham, which will see trams run from New Street Station, through Victoria Square and a redeveloped Paradise Circus, past Centenary Square, along Broad Street and to Five Ways before stopping in Hagley Road, Edgbaston.

This project is part of Midland Metro Alliance's ten-year tram expansion programme, which includes new routes through Birmingham, Solihull, Wolverhampton, Dudley and Sandwell. The work in the city is getting underway shortly after the announcement from the government that they will provide nearly £60 million towards the cost of the programme.



Metro Extension Program

The Midland Metro Alliance includes the West Midlands Combined Authority, who owns the Midland Metro, a consortium of design experts from Egis, Tony Gee and Pell Frischmann and rail construction specialists Colas Rail, along with its sub-alliance partners Colas Ltd, Barhale, Bouygues UK and Auctus Management Group.

Later on 5 September, the Mayor visited the Midland Metro Alliance's new offices in Alpha Tower to thank the team for the work already completed and share his thoughts on why the tram is at the heart of his transport plans for the region.

In a question and answer session, Andy said: "Extending the Metro through the city centre to New Street station has already proved a tremendous success. People like the trams and want more of them. That's why we will be tripling the size of the network over the coming decade so our towns and cities are better connected to each other. This will help create a transport network that can underpin economic growth and jobs and bring greater prosperity for everyone in the West Midlands."

Alejandro Moreno, Director of the Midland Metro Alliance, added: "Andy Street has already been a great supporter of us since his election victory in the spring. We're very eager to show that his faith in us was well-placed and deliver our projects on-time and within budget."

The Midland Metro Alliance's westside tram extensions are due to open in two phases; firstly to Centenary Square in 2019/2020 and to Edgbaston in 2021. More information on further projects being completed by the MMA can be found by visiting [www.metroalliance.co.uk](http://www.metroalliance.co.uk) or you can get in touch with the team by emailing [communications@metroalliance.co.uk](mailto:communications@metroalliance.co.uk).

## An electric bicycle (e-bike) rental service



Île-de-France Mobilités will launch a regional electric bicycle rental service for a period of one month

**to one year.** This summer it launched a call for bids to make 20,000 e-bikes available to the inhabitants of Paris for a period of at least 6 months. Fifty percent of this service, to be provided for a monthly fee of up to €40, will be reimbursed by the employer (in cases of intermodal travel).



It will supplement self-service rental services, including Vélib' and Vélo2. The service would be launched with a fleet of 10,000 e-bikes (which may increase up to 20,000 depending on the number of users) and could be tested from 2019 onwards.

This new service will be coupled with a **change in the Véligo parking policy**: removal of the subsidy ceiling, acceleration of station deployment, possibility of using the Véligo subscription at all stations with real time monitoring of use to increase completion of instructions, etc.



## Testing of autonomous shuttles



Innovative public transport solutions will be gradually added to the existing offer, including the testing of autonomous vehicles on the Paris Esplanade in La Défense from June 29 to December 31, 2017, for the last kilometer of users' commutes, where conventional buses cannot circulate.

To carry out this testing in partnership with Defacto, a Public Institution for the Management of the La Défense business district, Île-de-France Mobility has chosen Keolis as an operator, in association with the French designer of autonomous shuttles Navya.

The objective is to propose and test a new public transport solution for the first and last kilometers of the daily commutes of users in the La Défense business district. This site, which is closed to traffic, receives 500,000 visitors daily.



## A large number of new low-emission buses introduced on hsl bus routes

Since August 2017, 52 brand new buses have been operating on the HSL bus routes network, an unusually high number of buses to introduce all at once. New vehicles allow bus companies to replace the older, more pollutant buses.



The new buses are diesel vehicles that meet the Euro-6 emissions standards with a specific focus on reducing pollutant emissions from nitrogen dioxide (NO<sub>x</sub>) and particulate matter (PM10). Euro-6 standards cut NO<sub>x</sub> emissions by 20% from the Euro 5 engine standards. All new buses have USB plugs for charging cell phones and mobile devices. In addition, the vehicles provide spaces for three prams, one more than in the older buses. The new buses are equipped with automatic air conditioning.

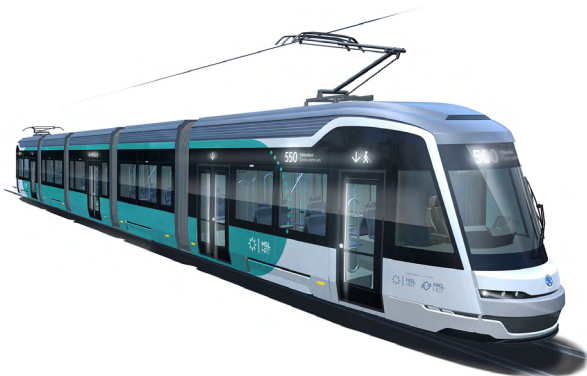
For more information:  
Tero Anttila [petri.saari@hsl.fi](mailto:petri.saari@hsl.fi)

## Accessible rolling stock for the first Helsinki regional light rail line



The first light-rail line in the Helsinki region will be completed in the 2020s between Itäkeskus, Helsinki and Keilaniemi, Espoo. The first designed concept for the Artic XL cars to run on the line has been created (see picture).

The design particularly addresses the needs of families with children and people with impaired mobility and sensory limitations. To ensure accessibility, Helsinki Region Transport (HSL) and Helsinki City Transport (HKL) have tested the vehicle together with representatives of the Council of Disability and disability organizations. The vehicle tested is a mock-up of the actual vehicle to be designed and Artic XL doesn't run on the tracks yet.



Artic XL is fully low-floor. The vehicle has dedicated spaces for wheelchairs and guide dogs. More of the seats are located on the ground level than in current trams. There is also more space for standing passengers than in the existing fleet. Improved accessibility benefits all passengers.

As boarding and alighting is easy the time loss of the light rail vehicles at stops can be minimized.

For more information:  
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## The regional transport consortium of Madrid launches the multi card, the new contactless non-personal public transport card

The new transport card is a prepaid multi-person card that single tickets of Metro network and Light Rail can be charged, as well as Metrobus 10-trips tickets or suburban buses.



On 7th July 2017 came into operation the Multi Card, the new prepaid contactless and non-personal public transport card launched by the Regional Transport Consortium of Madrid (CRTM). This card will progressively replace the current paper magnetic coupons.

The Multi Card is a multi-person prepaid contactless public transport card, that can contain non-personal tickets from the fare system: single tickets of Metro network and Light Rail, 10-trips Metrobus tickets, and 10-trips tickets of the urban and suburban buses operators.

At an early stage of implementation, the Multi Card will contain simultaneously one single ticket or a 10-trips ticket of the Metro network and Light Rail, as well as a 10-trips ticket of urban and suburban buses. Besides, the tourist tickets can be charged on this new card. Nevertheless, the single tickets from urban and suburban buses will be still purchased on board at the time of the trip.



The Multi Card is already available at the automatic ticket machines of Metro de Madrid as well as in the licensed selling points network at retail price of 2.50 euro. This price includes issue expenses, selling and management of the Multi Card, and VAT. The Multi Card has a two-year warranty from the date of issue, and a ten-year validity, with no limits for recharges during this period. The Multi Card can be loaded at the Metro automatic ticket machines, in the licensed tobacco shops or the indicated ATMs.

### ISSUING MULTI CARD FOR FREE DURING THE 100 FIRST DAYS

To facilitate the access to this new ticket support and its prompt implementation, the CRTM has made available a channel to apply for the card and its free shipment to user's home, through the web address [www.tarjetamulti.crtm.es](http://www.tarjetamulti.crtm.es). This promotional action has 100-day application term, until next 14th of October, with a maximum of two Multi Cards for home address and just one for each user, all around the Madrid Region.

During the first months, the current paper magnetic tickets (single tickets, metrobuses and 10-trips tickets) will continue available and in use, so that customers will be adapted little by little to the new card in a simple and gradual manner.

### DISCOUNTS FOR LARGE FAMILIES AND PERSONS WITH DISABILITIES

Discounts in single and 10-trips tickets regarding large families and disabled people can be also implemented in this new Multi Card. Since 2009, these discounts from 20 to 50 per cent have already applied to their personal transport travel pass.

## One billion journeys made by contactless payment on London's transport network

London's transport network recently celebrated its billionth pay as you go journey made with a contactless payment card. On average, two million journeys in London are made using contactless every day. In total, 40 per cent of all pay as you go journeys are made using contactless, up from 25 per cent in early 2016. Of these, almost one in 10 contactless transactions are now made using mobile devices, with more than 31 million journeys made specifically using mobile phones in London in the last 12 months.



Transport for London's contactless payment system was first launched on London's buses in December 2012 and expanded to cover Tube and rail services in London in September 2014. The system automatically calculates the best value fare based on the customer's specific journey history and then charges them at the end of the day – ensuring they always pay the lowest fare in the easiest and most convenient way. This means that customers could save money compared to buying a Travelcard, helping them to travel around London more affordably. Customers from more than 100 countries have now used contactless payment cards and mobile devices to make journeys on London's public transport network.



Contactless payment is increasingly being adopted in transport systems. In July Cubic Transportation Systems announced its participation in the first transport open payment trial in Australia with Transport for New South Wales using technology similar to that used in London.

*For more information:*  
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Transport for London [stevenewsome@tfl.gov.uk](mailto:stevenewsome@tfl.gov.uk)

## Touristic ticket offer in amsterdam region extended



With the introduction of the Amsterdam & Region Travel Ticket (A&RTT) visitors in the Amsterdam metropolitan region will be enabled to easily move around the region using one single ticket on all modes of transport. This unique and user-friendly product should contribute to a more even spreading of visitors from Amsterdam city centre to other parts of the surrounding area. With this ticket a full array of public transport for tourists is offered that will better meet the travel demands of the international visitors.

The uptake of this multimodal ticket has results from a unique collaboration among various transport operators on interurban, local and regional level (Dutch Railways, GVB, Connexion/Transdev, EBS) together with public agencies and the regional transport authority (Vervoerregio Amsterdam).



### Balancing the growth

One of the objectives from the Strategic Agenda on Tourism 2025 of the Metropolitan Region Amsterdam is to facilitate tourism in by creating a balance between the needs of inhabitants, visitors and enterprises. With this new travel proposition international visitors can move around quite easily through the region and call on attractions both in and outside Amsterdam city center. This travel tool should help to foster a positive outcome for the city and the surrounding area alike.

### Comprehensive offer of PT tourist tickets

Three different types of tickets are made available: a ticket to use PT to and through the city, another for covering the PT in the whole metropolitan region and a ticket that is valid for the whole of The Netherlands. Those are valid to travel by train, bus tram metro and ferry services.



### Amsterdam Travel Ticket (ATT)

The visitor using the ATT can travel either one, two or three days limitlessly in public transport in Amsterdam (GVB) and go to and from Schiphol Airport by train or bus (line 197 Amsterdam Airport Express).

With the [A&RTT](#) ticket the visitor can also use public transport in the whole Metropolitan area of Amsterdam, using all operator's services.

Available is also the [Holland Travel Ticket \(HTT\)](#) offer, enabling the visitor to travel one day public transport across the Netherlands. An off-peak variant is available valid during quiet hours (before 06:30 am and after 09:00 am on weekdays and unlimited during weekend days).

At Schiphol airport luggage handling and on Schiphol Plaza recently special 'Travel Ticket-vending machines' are installed where arriving passengers can purchase their ticket. Also on Amsterdam Central station the first vending machine is installed in the Service shop at the waterfront (backside) entrance. Soon four additional vending machines will be placed at the escalators to the bus station.



The “I amsterdam City Card” already provided the right of free access or discount on the entry to museums and attractions in the Metropolitan Area Amsterdam with unlimited use of transport of the Amsterdam local transport operator (GVB).



Last July Amsterdam Marketing started a pilot to amalgamate and embed the A&RTT within the 72 hours version of the I Amsterdam City Card enabling international visitors to make use without limitations of the entire public transport network of the Metropolitan region Amsterdam including access to touristic attractions at favourable conditions. The pilot encompasses 2 months and if proven successful could result in the launch of an integrated card by 2018.

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## From private cars to public transport



Like most European capitals Vilnius city is facing congestion problems. It looks for solutions on how to save the

time of the citizens and how to control the constantly rising private car use and pollution from traffic. A few innovations recently adopted by Vilnius city council are aimed to encourage citizens to switch from private cars to public transport to help combat congestion.

The city this summer decided to start encouraging people to leave their cars on Park and Ride-lots in the outskirts at locations where the clogging of traffic usually starts to continue their journey into the city with public transport. From the beginning of July three Park and Ride lots were opened in Vilnius. The main purpose of Park and Ride lots is to seduce citizens to switch from their private car to rapid buses when entering the city center. This should reduce pressure on the limited capacity of parking lots in the city center, reduce congestion, and emission of pollutants. It would help private car users by saving their time from traffic jams and search time for free parking space and save money for paid parking. A Park and Ride ticket costs 2 Euro and for this amount the car is safely parked and it's valid for the use of public transport.





New buses will be comfortable and modern and will meet all needs of Vilnius citizens. All vehicles are equipped with wireless internet, outlets, air-conditioning and wheelchair ramps making them easy accessible passengers with impaired mobility. Buses not only will be modern, it also will be one of the main elements of Vilnius city design as every bus will be red, which is city's brand color. The vehicles will increase the quality and comfort of travelling significantly and hopefully attract more car users to switch to public transport.

The Park and Ride sites are located next to the main access arteries leading into the city center and nearby to stops of the rapid bus network. The roads have special lanes dedicated for public transport only thus enabling the bus passengers to reach their destinations faster than the private cars. In near future the aim is to open more Park and Ride locations around Vilnius city center and to encourage drivers to change their habits, which will benefit both the accessibility and livability of the city and its citizens.

Moreover, Kiss and Ride-stops are being reserved and increasingly used in Vilnius. Currently 80 Kiss and Ride stops are reserved on the streets. Another 190 of such stops are planned to be available this Autumn. Kiss and Ride spots enable parents to drop off their children safely and pick them up after school. Such stops have a positive impact on congestion and helps to avoid chaotic driving and short parking in the morning and after school. It has a positive impact to avoid congestion and contributes to pupils' safety on busy roads.

Last but not least, Vilnius is renewing its bus fleet with 250 new vehicles. More than 10 years ago the bus fleet was renewed for the last time: in 2006 90 new buses (Euro VI, Isuzu Citybus) were put into service on the streets of Vilnius. Currently the average age of a bus is 14 years, therefore influx of 250 new buses is a huge improvement. Once the 250 new vehicles will run, more than 60 percent of the bus fleet shall be new. The replacement of the buses will be done step by step. The first 60 new vehicles we expect to start running in the streets of Vilnius city by the end of this year.



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## New public transport fares and cleaner air in Warsaw



PUBLIC TRANSPORT AUTHORITY  
OF WARSAW

Warsaw has changed its public transport fares considerably in 2017. The biggest novelty was a large reduction of the prices of travel cards valid in both zones and introduction of free rides for students of primary schools and junior high schools in Warsaw. The city demonstrates in more than one sense that public transport is an important priority to make mobility for her inhabitants better and sustainable.

Every day nearly a million passenger cars cross the borders of Warsaw – they enter and leave the capital city. The share of transit, i.e. cars that are not part of the agglomeration traffic, in this traffic is less than 7 percent.

Thinking about the people who live outside Warsaw and work in the capital city, ticket prices have been reduced by 17 % for 30-day travel card and 14% for the 90-day travel card. The new fares should encourage passengers from the suburbs to leave their cars and choose public transport, to reduce the number of cars entering Warsaw every day from the nearby communes and improve the quality of air in the capital city. It is estimated that consequently the number of passengers using public transport services will go up gradually by 10.000 people per year.



### Schoolchildren ride for free

As of September 1, students of primary schools and junior high schools and pupils residing in Warsaw who attend primary schools and junior high schools outside Warsaw are entitled to free rides. This prerogative is encoded on special personal City Cards - Student Cards - for the duration of a pupil's school period (4 years) that are valid in zone 1 and 2.

The authorities in Warsaw aim to increase the share of public transport in the city traffic from 56.9 to 65 per cent, reduce the number of private cars and limit emissions of pollutants. Research has shown that parents driving their children to school are prone to switch to public transport themselves once their children can ride for free.

Special Student Cards shape positive transport habits from childhood and make children accustomed to using public transport. Passengers who are children now will in future also support green public transport.



### New tickets in a fare

A single reduced fare transfer group ticket for up to 10 people that costs PLN 22 (c. EUR 5) has been added to our previous ticket offer. It will facilitate getting around for school groups and their chaperones.

Visitors coming to the capital city can buy a ticket for PLN 36 (c. EUR 9 - zone 1) or PLN 57 (c. EUR 14 - zone 1 and 2) valid for 72 hours. Organisers of conferences, congresses, cultural or sports events will have the possibility of purchasing tickets – so called conference tickets (encoded on city cards for a selected number of days).

### Modern and competitive

Public transport is currently the most popular means of transport - it accounts for nearly 46.8% of the trips in Warsaw. In 2016 1,136 million passengers used public transport services (by over 5 million more than in 2015). Buses carried the biggest number of passengers (573 million i.e. 50.5%), followed by trams (272 million – 24%) and the underground (229 million – 20.3%).

Warsaw wants to make its public transport more attractive than car transport. It keeps developing and improving its offer by modernising its rolling stock, building the second line of the underground, opening new tram routes and P+R parking lots, introducing tram and bus priority on the roads and improving the quality of services provided by its carriers.

Warsaw authorities have been cooperating successfully for many years with the nearby communes on creating a common transport system (covering 33 communes). More and more passengers use metropolitan transport – their number has increased by 20% over the past few years.

For more information:  
[h.rakowska@ztm.waw.pl](mailto:h.rakowska@ztm.waw.pl)

## Warsaw:

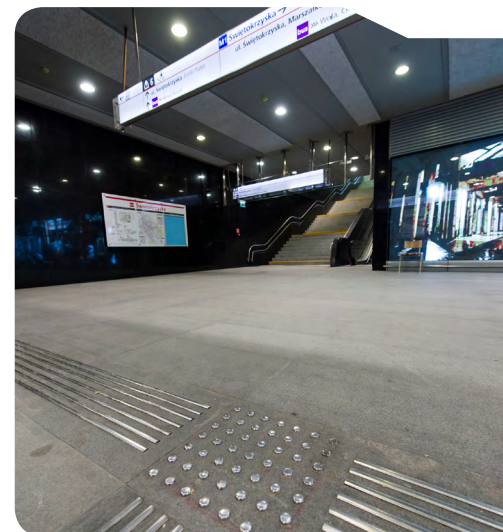
### Transport without barriers

The Warsaw authorities strive to make public transport safe,



PUBLIC TRANSPORT AUTHORITY  
OF WARSAW

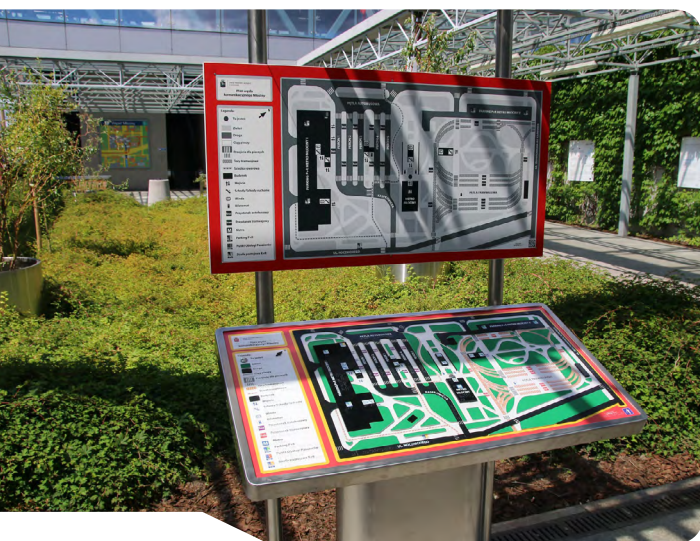
comfortable and accessible. For many years, the needs of people with disabilities and passengers with reduced mobility have been matched. Actions facilitating their travel around the city include wheelchair users, but also the elderly, persons using crutches, visual or hearing impaired, pregnant women or parents with toddlers in prams and buggies.



At present, all buses, metro, the SKM (Urban Rapid Rail), and approx. 60 percent of trams are adapted service persons with disability. Buses and low-floor trams are equipped with a platform to facilitate a wheelchair into the vehicle at the second door from the front. Low-floor buses also have the possibility to kneel the entrance threshold to reduce the vertical gap between platform and the bus floor.



Stops are also being upgraded with anti-slip tiles at the curbs along with a strip of yellow tiles with tabs which can easily be sensed by feet. In addition, elements such as lamps or electrical boxes are distanced 1.5 meters from the platform edge. At the same time, the Passenger Information System is progressively expanded at popular stops. In addition to information on timetables and electronic signage, blind people can use the voice recognition feature.



Travelling is much easier if all passengers are well informed. That is why new vehicles are equipped with electronic displays and voice information on routes and stops. Moreover, the white font is used on external displays in buses. This makes the line number and destination better visible to visually impaired and for other passengers on sunny days. Buttons with Braille inscriptions are present in vehicles.

Modern trams and buses provide voice and route information, calling the name of the current stop and after departure, the name of the next stop. The line number and direction are displayed on the outside. In timetables, the courses of low-floor vehicles are marked with a frame around the departure time. Owing to many years of financial expenditure in public transport modern low-floor vehicles operate on most lines.

In Warsaw metro at each station an elevator allows access for disabled passengers to get directly onto the platform. Stations and platforms have a marking guiding the blind.

Passengers with disabilities and reduced mobility may receive assistance from trained staff at the largest interchanges. Whereas the support when travelling is ensured by carriers operating a given line.

Properly equipped rolling stock and adapted infrastructure make it easier for people with disabilities to access and use public transport. Well placed information is essential. The main source of information is the website [www.ztm.waw.pl](http://www.ztm.waw.pl), prepared to be also used by the disabled.

For the blind, the graphic menu of the page has been replaced by text. Owing to this, it is visible in high contrast mode, and readers can easily “read” the bookmarks. The deaf can use subpages translated into sign language. The translated information relates to the most important issues on urban transport, such as prices, types of tickets, discount requirements and ticket sales networks. At the seat of the ZTM (Public Transport Authority) there is also a Passenger Service Centre providing services to the deaf, with an on-line sign language translator stand.

Soon it will be 10 years since the City Transport of Persons with Disabilities has been functioning in the city: 15 specialized cars provide people with disabilities access to treatment or rehabilitation in a door-to-door system. On average, 2,000 rides are performed monthly, used by some 4,000 clients. The aim is to enable impaired mobility inhabitants of the capital to go beyond the proverbial four walls and ensure a minimum of mobility.

For more information:  
[h.rakowska@ztm.waw.pl](mailto:h.rakowska@ztm.waw.pl)

## Bolton Interchange is open for business



Transport for Greater Manchester Bolton Interchange, a new transport hub in a town of Greater Manchester, opened its doors to the public on Sunday 3 September. It replaces the old Bolton Bus Station on Moor Lane and marks an important milestone for the town, supporting wider regeneration in the area.

The interchange marks the final TfGM project to be financed through the Greater Manchester Transport Fund (GMTF). Other successful GMTF projects prior to this include the construction of Altrincham, Rochdale and Wythenshawe Interchanges, as well as the 'Phase 3' Metrolink expansion programme, which has trebled the size of the original network.



Bolton Interchange is a truly multi-modal facility, with a 'Skylink' bridge to the nearby Bolton rail station offering easy transfer between bus and trains. A new 48-space Cycle Hub outside the main interchange entrance on Great Moor Street offers secure storage for bikes. It also links passengers to upgraded pedestrian facilities throughout the town centre.

Bolton Interchange offers an improvement in quality for passengers, including better customer information and enhanced waiting and ticketing facilities in a light, bright and safe environment. The concourse features a café, convenience store, cash machine and free Wi-Fi.

Councillor Morris, Leader of Bolton Council, commented: "It's fantastic to see the completion of this exciting development. The interchange brings Bolton's transport facilities firmly into the 21st century. It's a magnificent new gateway to our town and an important part of our masterplan for the town centre."

TfGM consulted its Design Disability Reference Group (DDRG) throughout the delivery of the interchange. DDRG members have a range of disabilities and provide valuable insights into the challenges experienced by disabled people using public transport, ensuring TfGM takes their views into account wherever possible.

Addressing Greater Manchester's wider environmental obligations has also been a key consideration during the interchange's development.



The roof of the interchange is designed to reduce energy consumption. Ethylene Tetrafluoroethylene (ETFE) is a lightweight alternative to glass, which enables natural light to penetrate into the centre of the building and reduces the requirement for artificial lighting. The same material was used for the roofs on interchanges at Rochdale and Altrincham, as well as at the Eden Project in Cornwall.

While Bolton Interchange is the final project to be funded through the Greater Manchester Transport Fund, Growth Deal Funding will continue to support the development of Greater Manchester's transport infrastructure.

Construction of a new Wigan Bus Station got under way in July 2017, and Tameside Interchange and Stockport Interchange will follow. Bringing together a number of different public transport options will ultimately make travel easier for passengers.

For further information on Bolton Interchange, please visit [www.tfgm.com/bolton-interchange](http://www.tfgm.com/bolton-interchange)

Media contact:  
0161 244 1055 or email [mediarelations@tfgm.com](mailto:mediarelations@tfgm.com)

## Calendar of events and conferences (september – 31 december 2017)

### 19 September 2017 9.00-10.30

Polis office: Rue du Trône 98, 1050 Brussels  
POLIS Urban Mobility Breakfast: Mobility as a Service:  
Implications for urban and regional transport?  
<https://www.polisnetwork.eu/Breakfast> or join the  
debate on the role of local governments at  
<https://www.linkedin.com/feed/update/urn:li:activity:6310411995426496512/>

### 21-22 September

Tallinn (Estonia): Connecting Europe Facility (CEF),  
identification of policy actions and financial solutions to  
invest in the Transport sector from the perspective of  
the post-2020 financial framework;  
<http://www.connectingeu.eu/index.html>

### 27-28 September

Amsterdam: Citti Transport and Traffic Innovation  
Conference, Marriot Hotel.  
<https://www.citticonference.co.uk/>

### 27-29 September

Civitas Forum Annual Conference; Forum Torres  
Vedras (Portugal)  
European network geared to improve sustainable  
urban mobility;  
<http://civitas.eu/forum2017>

### 4-6 October

45th European Transport Conference, Barcelona,  
Casa Convalescència,  
<http://www.etcbookings.org/booking-form/>

### October 9-12

European Week of Cities and Regions, Brussel:  
Exchange of good practices and training between  
practitioners and high end topical debates.  
<https://10times.com/open-days-brussels>  
[http://ec.europa.eu/regional\\_policy/regions-and-cities/2017/register.cfm](http://ec.europa.eu/regional_policy/regions-and-cities/2017/register.cfm)

### October 10

Smart Cities in Europe Brussels  
Roundtable Achieving Social, Environmental and  
Economic Sustainability for our Cities  
<http://smartcities.parlicentre.org/index.php>

### October 29 - November 2

Montréal, Canada ITS World Congress  
<http://itsworldcongress2017.org>

### October 31

Intelligent Transport 2017 Conference, QEII,  
Westminster, London; latest developments in the  
Intelligent Transport industry, touching on 4 streams;  
Harnessing Passenger Data, Mobility as a Service, Smart  
Ticketing and Payments and Real-Time Passenger  
Information.  
<https://www.intelligenttransport.com>

### November 8-10

Tallinn: Digital transport Days; explore the potential  
and to address challenges of digitalisation of transport  
and mobility both for passengers and freight.  
<http://www.digitaltransportdays.eu/>

### November 12-14,

EMTA general Meeting, TfGM Manchester  
<http://www.emta.com/spip.php?article1172>

### November 15-17

Venice (IT): International Conference on competition  
and financing systems in local public transport  
(Asstra - UITP)  
[asstraservice@asstra.it](mailto:asstraservice@asstra.it) [Registration by this link](#)

### December 3-7

POLIS Annual meeting, Brussels  
Transport innovation for sustainable cities and regions  
<http://www.polisnetwork.eu/2017conference>

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