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## News from the cities



### HSL and Helsinki participate in a global initiative to develop intelligent transport

In January 2017, Helsinki was chosen as a participant to a global initiative in which major cities prepare for the emergence of autonomous vehicles. The aim is to use intelligent transport to solve social challenges and improve the lives of urban dwellers.

The initiative has been launched by US-based Bloomberg Philanthropies and the Aspen Institute. In addition to Helsinki, London and Paris in Europe, Austin, Los Angeles, Nashville and Washington D.C. in the United States, and Sao Paulo, Buenos Aires and Tel Aviv are involved in the initiative.

*"HSL is particularly interested in how to best integrate self-driving buses into the public transport system. It would be interesting to study, for example, could autonomous buses provide high-frequency feeder services to trunk routes,"* says HSL's Executive Director, Mrs Suvi Rihtniemi.

HSL hopes the initiative will provide information about how autonomous vehicles and buses could be utilized in sustainable urban transport. The initiative brings together experts from various fields from the participating cities. The objective is to help other cities to utilize the possibilities of intelligent transport.



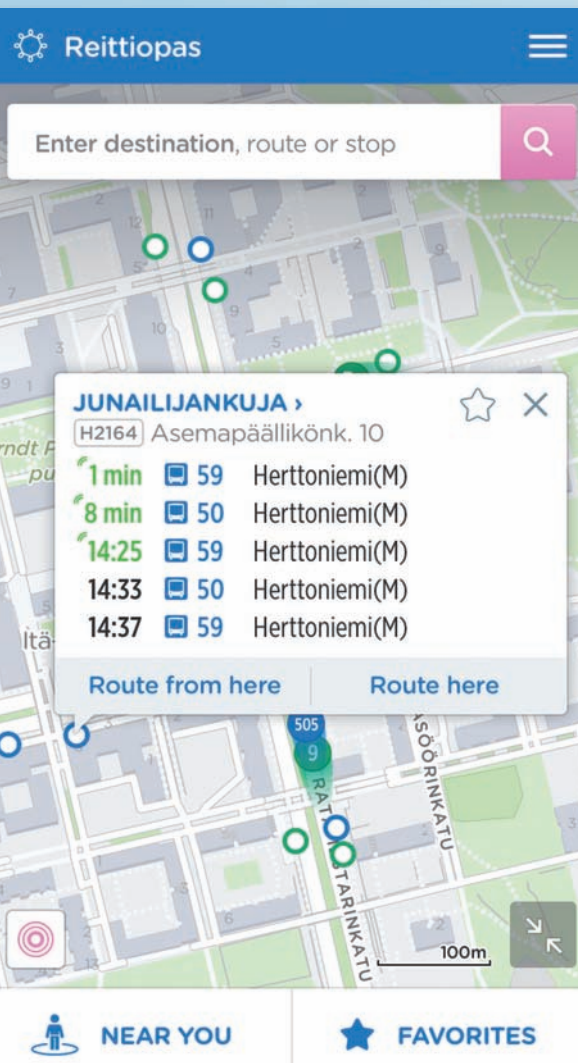
Helsinki also focuses on the utilization of open data and real-time traffic information.

*"HSL will bring to the initiative deep expertise in transport system planning and utilization of open data. For example, the new Journey Planner introduced in February has been designed using open data and open source code in open interfaces. The open source code of the Journey Planner enables anyone to utilize public transport data for new digital mobility services," says Mrs Rihtniemi.*

Bloomberg Philanthropies is a charitable institution established by the former mayor of New York (2002-2013), Michael R. Bloomberg, that promotes initiatives in the fields of environment, public health, education, arts and government innovation, for example, by granting funds. The Aspen Institute is a nonpartisan think tank and research organization focusing on leadership development and social policy.

### **"In the new Helsinki Journey Planner, everything is open-source"**

Six blocks away, the tram is clanking its way towards your stop. You can't yet see or hear it, but on your smart phone you can see its exact location. You notice that you have enough time to purchase and empty a cup of coffee from a kiosk before your ride arrives.



Helsinki Region Transport HSL has published a new Journey Planner, [www.reittipas.fi](http://www.reittipas.fi), which offers passengers real-time status information on all buses, trams, commuter trains and the Metro in the HSL area, in a very mobile-friendly format. It guides users on their journeys and plans routes, accounting for the traffic situation and potential disruptions. Passengers will never miss a vehicle because of not getting information early enough. The routing algorithm is multi-modal.

The new generation Journey Planner was introduced in February 2017.

The functionalities and logic of the service interface as well as the base data used serve both locally and nationally. For example, linking public transport data collected by the Finnish Transport Agency to the Journey Planner makes national routes and transport links available in one click.

The new Journey Planner has many more features in addition to the real-time data.

*"Our goal is to provide not only real-time but also agile and smart services. For example, users have more choice as to their preferred routes. Passengers can include sections of route travelled by bike or car, if they wish" explains Project Manager Jari Honkonen, who is coordinating the development of the new planner at HSL*

The guiding light in the development of the new Journey Planner has been openness: open source code, open data, open interfaces and open development work.

*"The new Journey Planner has been developed using the principles of open data and open code, which means that any private or public actor can use the source code, twist and turn it and create something unheard of. The code can be freely used and improved, provided it is done in such a way that everyone can use the outcome of the work" says Mr Honkonen.*

The Open Street Map system used in the new Journey Planner is based on a map created by volunteers. Likewise, the Open Trip Planner algorithm used for routing was created through international voluntary work

Efficient data interface services are an essential part of HSL's services. We do not only concentrate on end user interfaces. For example, regarding Digitransit, anyone can develop their own applications based on our data using our APIs. In the case of the new Journey Planner, even the source code is freely usable. We communicate our progress as widely as possible at [www.digitransit.fi](http://www.digitransit.fi)

The code of the new Journey Planner is published every time something new has been created and, for example, all Finnish municipalities are welcome to join in the development work.

In Finland, also many Mobility as a Service (MaaS) actors are interested in the new Journey Planner. The Journey Planner platform and open source code allow private and public actors to utilize public transport data without limits to create new digital mobility services.



HSL invites all those interested to learn more about the project at [www.digitransit.fi](http://www.digitransit.fi) and to join the growing developer community.

### Light-rail link to replace HSL's busiest bus route

A 25-km light-rail line is being planned to run between Helsinki and Espoo with 16 km of tracks in Helsinki and the remaining 9 km in the neighboring Espoo. The light-rail line will replace the crosstown bus route 550, which is the busiest bus route in the Helsinki region. The route does not have enough capacity to meet the continuously growing passenger numbers.

The aim is for the light-rail line to begin operating in 2021. The line will be planned and implemented jointly by the cities of Helsinki and Espoo using the alliance model. A project organization has been established to manage the recruitment of alliance partners. The alliance will begin operations at the end of 2017.



It is estimated that in 2040, the new light-rail line will have about 102,000 users on weekdays, while bus route 550 currently has 30,000 passengers a day. In 2050, the Helsinki region is projected to be home to 2 million people and over one million jobs. "The region's population is growing and travel is increasing. Our goal is to direct the increase to sustainable modes of transport, i.e. public transport, walking and cycling," says HSL's Executive Director, Mrs Suvi Rihtniemi.

The light-rail line will mainly run in a dedicated right of way to ensure fast and disruption-free running of trams. The average target travel speed is about 25 km/h. There will be 33 pairs of stops located in current or future housing, employment and service hubs.

In total 29 light-rail vehicles will be purchased to provide service in two directions. The vehicles will be manufactured by Transtech Oy, which is part of Skoda Transportation Group. The overall cost of the purchase is at the most 95.2 million euros. At first, one prototype tram will be ordered and operated in the Helsinki central city area to gain experiences that can be used to finalize the design for mass-production. The prototype tram is scheduled to enter into service in summer 2019.

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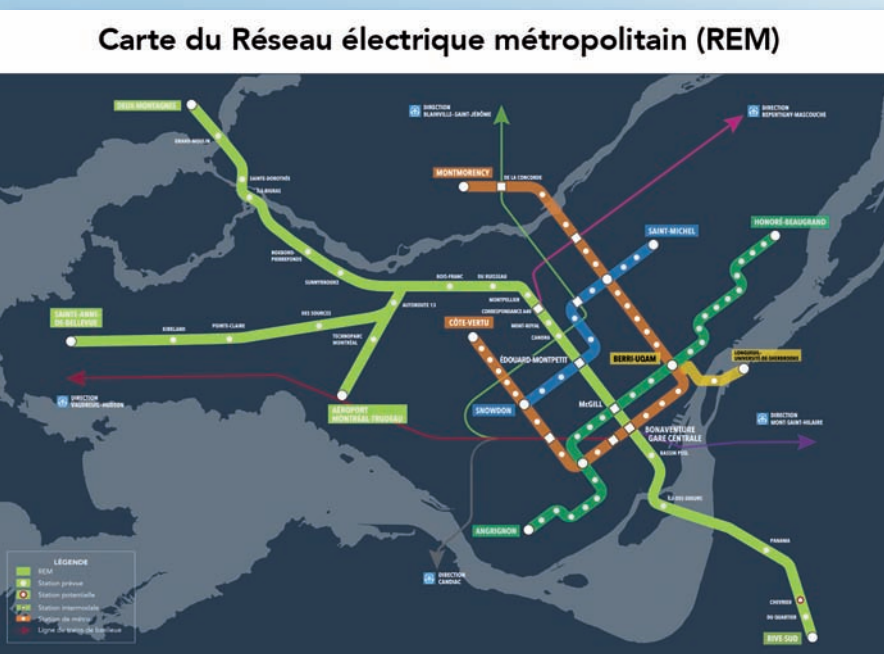


### LRT proposal in Montréal

Montreal is celebrating its 375th anniversary this year and there are numerous actions going on in the field of public transportation. Other than the ongoing change in governance and numerous transportation conferences hosted in and around Montréal, a major public transportation project has been proposed in spring 2016: a 67-km light rail transit (LRT) network linking downtown Montréal, South Shore, West Island, North Shore and the Pierre-Elliott Trudeau International Airport. It includes 27 stations, runs 20 hours a day and 7 days a week. Once completed, the Réseau électrique métropolitain (REM) would be the largest public transportation infrastructure project in Montréal since the construction of the metro system, first inaugurated in 1966, as well as the third largest automated transportation system in the world. The project is notable in several aspects:

- The REM offers a significant upgrade to current public transportation services. It replaces the reserved bus lane on the Champlain Bridge connecting Montréal and the South Shore which is used daily by more than 20,000 commuters during the AM peak. The bus lane, with the downtown bus terminus and its access are currently saturated and cannot accommodate more service. The REM also improves significantly the level of service and coverage in the West Island and North Shore where current commuter rail services are either saturated or cannot increase frequency due to track traffic. The project creates a link with the international airport with a guided mode in an exclusive right-of-way which increases the reliability for travelers and workers alike. The REM will also have many intermodal connections and fare integration with the existing transit network, forming a complete integrated system. Needless to say, the REM will run on clean hydroelectricity, providing frequent, efficient and reliable service.
- The REM constitutes a “public-public” partnership, a first in Québec. The project is financed CDPQ Infra, a subsidiary of Caisse de dépôt et placement du Québec, which is a crown corporation that primarily manages public and parapublic pension and insurance plans in Québec. This innovative solution generates healthy returns by investing in commercially sound projects; maintains the overall strategy and approach of investing in Québec and secures the future retirement of the Quebecers who are themselves the beneficiaries of the infrastructure and service.
- The REM represents an investment of approximately 5.9 billion Canadian dollars (or about 4.2 billion Euro). This project of strategic importance will deliver major economic, social and environmental benefits by creating jobs, reduce greenhouse emission, decrease traffic congestion and allow future development along the route. It will improve the quality of life of Montrealers.

Continual progress in planning, review, negotiation and consultation are currently underway: a comprehensive report has been published; the BAPE (Bureau d’audiences publiques sur l’environnement) report that reviews the REM project has been made public; negotiations among major stakeholders are ongoing and several open houses have been held for the public to learn more about the project and the stations. All of these aim to ensure that the project comes to fruition with the best possible arrangement.



You are encouraged to take a look at the proposed REM project on the CDPQ Infra website  
[http://www.cdpqinfra.com/en/Reseau\\_electrique\\_metropolitain](http://www.cdpqinfra.com/en/Reseau_electrique_metropolitain)

It contains presentation, documentation and renderings of the route and stations, as well as the up-to-date information on the project.

## OPTICITIES helps CRTM to improve mobility management in the Madrid Region



*Consortio Regional de Transportes (CRTM) with the rest of partners of the European project OPTICITIES have published a handbook where they share their experiences within the project on the use of Intelligent Transport Systems for the improvement of sustainable urban mobility.*

The Consorcio Regional de Transportes de Madrid has been one of the main partners of the project OPTICITIES- Enhancing Smart Mobility. This project was part of one of the VII framework program of the European Commission and the activities were developed during 3 years; from 2013 to 2016. Through its public transport innovation and management centre (CITRAM), CRTM has developed strategies and multimodal tools focused on the improvement of the public transport management and the experimentation of innovative ITS services. OPTICITIES project has studied and strengthened the whole mobility information chain: from the collection and process of mobility data to the development of new mobility services for final users including public transport operators and citizens. One of the singularities of the project was the close cooperation between operators and innovative companies who worked together in order to find solutions that could be implemented and commercialized on the upcoming years.

**The results of the project have been a great success!** A summary of them can be found on the handbook developed at the end of the project: **OPTICITIES – Enhancing Smart Mobility. Transferability Handbook**. Within the handbook the reader will find innovative solutions and tools, some of them are already being used on different countries answering necessities on mobility for the partners of the project, while others tackle complex mobility future challenges for the whole Europe.

In the particular case of the public transport system of Madrid Region, CRTM, through its public transport innovation and management centre (CITRAM), has developed a system where multimodal information from public and private operators, as well as, other relevant information for mobility management have been integrated. This system, has made possible to creation of a model of data able to characterised the real situation of the public transport system, reflecting on a clear and simplified way the mobility of all the modes of transport of the region. A real standard that can be replicated on other large metropolitan regions and cities, as has been proved on the project.

CRTM has also developed a decision support tool that helps CITRAM operators on their daily work and improves responsiveness and intervention results of the incident management. The tool has three different modules: Early Warning System that identifies circumstances that may have impact on the public transport system, Decision Engine that support operators on the decision making under different circumstances and the Information Distribution Module that allows sending particularised information to all the involved agents (operators, authorities and citizens) in a quicker and effective way.

CRTM continues working on the improvement of the sustainable mobility through the use of Intelligent Transport System on the **CIVITAS-ECCENTRIC** project where CRTM will develop the basis of the Mobility as a Service concept in Madrid with the creation of an open platform for multimodal mobility information and services.

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## CIPTec - Co-creating collectively the future of Public Transport

**CIPTec** (Collective Innovation for Public Transport in European Cities) is an EU Horizon 2020 project, addressing the challenge for “Smart, Green and Integrated Transport” and a CIVITAS knowledge generating project in the area of “Tackling urban congestion”. The main aim of the project is to bring new thinking and innovative solutions to Public Transport by active civil involvement and through **collective intelligence methods** (crowdsourcing and co-creation) that help to create a favorable environment for the growth of Public Transport. The project started in May 2015 and will run for 36 months.

Since Spring 2016, CIPTec has been exploring the ‘unknown’ through the co-creation of new emerging ideas that might spark new solutions in the field of urban transport by a bottom-up approach. In this context, new, innovative solutions were suggested and evaluated with the aid of eight co-creation workshops which were organized between May and December 2016 in four urban areas – **Thessaloniki, Southern Tuscany, Rotterdam** and **Frankfurt**. The overall scope of CIPTec co-creation workshops was to generate innovative concepts, both services and products that could build on public transport and contribute to its attractiveness and market share (check this **video** for the 1st co-creation workshop in Thessaloniki).

In total, 209 participants with different backgrounds, such as public transport users and non-users, PTAs’ and PTOs’ representatives, as well as experts in the field of public transport and relevant professional sectors, attended the workshops. Eleven co-creation methods were used (e.g. Brainstorming, World Café, Role playing, Dilemma Thinking), while 165 co-creation concepts came up. Finally, the workshops generated 17 main concepts to innovate public transport. In the next phase of the project these concepts will be further assessed e.g. on innovativeness, usefulness and feasibility.

In addition to the co-creation workshops, European citizens are welcomed to share their views and perspectives about the future of Public Transport and submit innovative ideas in the context of the crowdsourcing campaign that is now ongoing. To this end a user-friendly platform is accessible through: **<http://europe.ciptec.eu>**. A special template is designed for the submission of the ideas, by description accompanied by relevant files, e.g. photos, graphs, etc. The submitted ideas will be circulated, debated and possibly enriched and evaluated by other platform users. The best ideas from users’ evaluation and from assessment by an expert committee in the field of transport, will be rewarded.

Furthermore, **similar campaigns** are taking place at local site level with a focus on the urban areas of Frankfurt, South Tuscany, Rotterdam and Thessaloniki, in the respective national languages. The main aim of these platforms is the collection of ideas and suggestions for innovative concepts, like practices and business models for the Public Transport sector, from the needs and perspective of each of the four mentioned areas.

The crowdsourcing actions are addressed to all users and non-users of public transport and aim at strengthening interaction, cooperation and communication with the public to support improvement of the public transport system. Beyond the motivation derived from the participation, dialogue and joy of collaborative creation themselves, best ideas will be rewarded as an incentive to participate in this unique ‘social experiment’.

In parallel, a **survey** towards promising innovations and on identifying their relevance and their potential in improving the experience from using Public Transport in European Cities is currently running. The aim of the survey is to explore the preferences of both users and non-users for certain innovations, and reveal hidden groups of (potential) users. By filling in the questionnaire, citizens can co-design with CIPTec project partners the future of Public Transport and improve the quality of urban life.

All CIPTec project’s initiatives and results are accessible at the CIPTec website and are included in CIPTec project deliverables. All CIPTec project’s deliverables made public so far are available for downloading: **<http://ciptec.eu/deliverables/>**

Partners participated in a formal project meeting hosted by European Passenger Federation in Ghent on 24th and 25th of January to plan and schedule project activities for the next period. On the 26th of January 2017 CIPTec was called to account for the research deliverables made so far in a midterm review meeting in Brussels with representatives of INEA.

The next project meeting will take place in Sienna on May 2017 and it will be combined with a special workshop. During the workshop, project partners and external experts will provide feedback for the evaluation of ideas, which have arisen from the co-creation workshops and the crowdsourcing platforms.

For more information about CIPTec, please visit its website: **<http://ciptec.eu/>** and subscribe for the **CIPTec newsletter**.



## 2017 is set to be a milestone year for Metrolink

Metrolink's phenomenal expansion programme has been one of the largest and most ambitious transport projects to be delivered in the UK and 2017 is set to be a milestone year in its history. It marks Metrolink's Silver Jubilee year, the completion of the Second City Crossing – a brand new line through the heart of Manchester – and work will progress on the much-anticipated Trafford Park Line.

A good transport system is the lifeblood of any city and the Second City Crossing, which officially opened on 26 February, will play a vital role in providing the necessary capacity, flexibility and reliability for the future tram network to operate. This project is the final piece in the Metrolink 'big-bang' expansion jigsaw.

In December 2009, work began on a new tram line to East Didsbury, marking the start of a £1.5bn expansion programme that has seen the Greater Manchester Metrolink light rail network grow to three times its original size.

New lines to MediaCityUK, Rochdale via Oldham, Ashton and Manchester Airport followed and, eight years later, Metrolink is now the largest light rail system in the UK.

The latest 1.3km stretch of track through the city centre links together a network now some 93 stops strong, with over 60 miles of track and a record-breaking 37 million passengers a year.

The Second City Crossing runs from the transformed Deansgate-Castlefield stop to a major **new stop at St Peter's Square** along Cross Street to stops at Exchange Square and Victoria.

In addition to the completion of the Second City Crossing, preliminary work and utility work is now under way on the £350 million Trafford Park Line extension. This project will increase the size of the Metrolink network to 64 miles (103km) served by 99 stops.

Public support for the Trafford Park line was established at a major public consultation in summer 2014, where 89% of respondents were in favour.

Transport for Greater Manchester (TfGM) is continuing its award-winning collaboration with Mptact-Thales (MPT) and WSP Parsons Brinckerhoff to deliver the line. This partnership has already successfully delivered extensions to MediaCityUK, Manchester Airport, Ashton, East Didsbury, Oldham and Rochdale and the Second City Crossing.

Once the line opens in approximately four years' time, the Trafford Park Line will offer fast and frequent connections to jobs, leisure, shopping and cultural destinations along the 5.5km route. The six stop line will run from the existing Pomona Metrolink stop through the Trafford Park business district - Europe's largest industrial estate - to the intu Trafford Centre.

As the largest major employment zone in Greater Manchester outside the city centre, Trafford Park is home to over 1,300 businesses and more than 33,000 jobs – with employees travelling from across Greater Manchester and further afield.

Metrolink is also a strong catalyst for further investment and economic growth, helping to deliver regeneration in the areas it serves, with places like MediaCityUK, Oldham and Wythenshawe town centre prime examples.

Metrolink continues to shine bright as a symbol of Greater Manchester's ardent ambition and appetite for growth, and a driving force in the Northern Powerhouse agenda.

It is apt that this particularly significant year will also see a series of celebrations to mark Metrolink's 25th birthday.

On 17 July 1992, Manchester had the great pleasure of welcoming Her Majesty The Queen to officially open the Metrolink network, which, at that time, saw a fleet of 26 trams running to 26 stops along 30km of track running between Altrincham and Bury via Manchester city centre.

Now, Metrolink has grown to become the largest light rail system in the country thanks to a remarkable – and multi-award winning – programme of expansion that is the envy of operators and owners around the globe. Patronage has rocketed from circa 8 million journeys in its first year to more than 37 million journeys a year in 2016.

For more information on Metrolink services visit [www.metrolink.co.uk](http://www.metrolink.co.uk)





## "Please Offer Me a Seat"

After a six-trial involving over 1,200 people with invisible impairments across its network, TfL's 'Please Offer Me a Seat' badge and accompanying card for those less able to stand on public transport will be introduced on a permanent basis in spring this year.

The trial was in response to passenger feedback and TfL research which found that those with hidden disabilities and conditions, or those undergoing treatments, often find it difficult to get a seat when they need one. During the trial, 72 per cent of journeys were said to be easier as a result of the badge, in 86 per cent of journeys participants reported feeling more confident when asking for a seat and 98 per cent said they would recommend the badge and card to somebody who requires or would benefit from it.



TfL discovered that members of the public were developing their own solutions to the problem, such as a cancer on board' badge. Its creator, James McNaught, took part in the TfL trial. He said it was sometimes difficult to get a seat on public transport if the reason you need to sit down isn't obvious to others. When he was undergoing radiotherapy for throat cancer, it meant he couldn't talk to ask for a seat. His morphine medication also made him appear drunk and he said it was a real struggle to get people to understand why he needed to sit down.

The 'Please Offer Me a Seat' initiative is part of TfL's commitment to constantly improve its network for all its customers. Since 2012, TfL's Travel Support card has helped disabled and older customers communicate with staff by allowing them to write down what help they

need, as well as things like their emergency contact number. TfL's Baby on Board badge was launched in 2005 to help pregnant women get a seat on public transport and TfL now issues around 310,000 Baby on Board badges a year.

For further information on TfL's accessibility initiatives, please visit [www.tfl.gov.uk/accessibility](http://www.tfl.gov.uk/accessibility) and Action on Equality: TfL's Commitments to 2020' report - <http://content.tfl.gov.uk/action-on-equality-tfls-commitments-to-2020.pdf>

## TfL and Terrence Higgins Trust host the UK's largest HIV workplace testing event

In November 2016, TfL teamed up with the UK's largest voluntary sector provider of HIV and sexual health services to provide the UK's biggest ever workplace HIV testing event as part of National HIV Testing Week.



National HIV Testing Week aims to increase the awareness and accessibility of HIV testing across the UK, particularly to the key groups affected by HIV - gay and bisexual men and black African men and women. TfL was proud to support the event for the second year running believing it is hugely important for its staff to have access to HIV testing and to be aware of the benefits of getting an early diagnosis.

Almost half of all new HIV diagnoses in the UK are made in London. Tim Martineau, Chief of Staff, UNAIDS, believes that workplace testing events are critically important to get people talking about HIV, to break down the barriers of stigma and to allow people to make informed decisions about their own health.

TfL's LGBT+ staff network group, OUTbound, alongside TfL's Occupational Health team, promoted the initiative to staff internally to raise awareness and encourage participation. Employees had the opportunity to book appointments beforehand or attend a walk-in session.

For more information, please contact:  
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After a transition period of 2 years “Stadsregio Amsterdam” (Amsterdam City Region) has changed its name to “Vervoerregio Amsterdam” (Transport Authority Amsterdam). From January 1, 2006 to December 2016 Stadsregio Amsterdam operated as a grouping of 15 municipalities in the region, exercising competences in the field of traffic and transport, economy and tourism, regional housing and youth welfare.

Since January 1, 2017 it continues as Transport Authority Amsterdam, and it retains its original role as regional transport authority for commissioning public transport (bus, tram and metro) in the Amsterdam area. The new organisation will continue to work on connectivity and accessibility of the Amsterdam region and its inhabitants, to contribute to the quality of life, housing, leisure and working. The focus will be on regional traffic and transport related policies, including planning and financing of regional infrastructure for all modes of transport (public transport, road, bicycle), for traffic safety and smart mobility solutions.

The Vervoerregio during the transition has explored options to strengthen and build on collaboration with new partners, such as rather young cities Almere and Lelystad in the Flevoland province.

Collaboration for economy have now been transferred to a platform called MRA (Amsterdam Metropolitan Area) whereas collaboration on housing policy will be done on the level of the sub-regions (Amstelland-Meerlanden, Zaanstreek-Waterland and the City of Amsterdam).

Until January 1, 2015 the Stadsregio Amsterdam carried responsibilities for youth welfare, that by national legislation were devolved to the local administration.

Vervoerregio Amsterdam consists of 15 municipalities: Aalsmeer, Amstelveen, Amsterdam, Beemster, Diemen, Edam/Volendam, Haarlemmermeer, Landsmeer, Oostzaan, Ouder-Amstel, Uithoorn, Purmerend, Waterland, Wormerland and Zaanstad.

### Connexxion wins sustainable tender in Amstelland Meerlanden (NL)

In the Amstelland Meerlanden subregion, south-west of Amsterdam, bus transport from December 10, 2017 will be run by Connexxion, a Dutch operator and subsidiary of Transdev. Last December the operator won the public tender for the Amstelland Meerlanden concession 2018 procured by Vervoerregio Amsterdam (Amsterdam Transport Authority).

The winning bid aims to further improve the quality of public transport in one of the busiest regions in the Netherlands. The concession term is ten years, ending on December 12, 2027. It's one of the largest bus contracts ever tendered in the Netherlands.

"Vervoerregio Amsterdam was positively surprised by the time and energy invested in the bids, but above all by the contents of the bids. The Connexxion bid leads to a significant quality improvement and ensures that public transport in the region is ready for the future," says Amsterdam Transport Authority' councillor Pieter Litjens.

A concession grants a transport company an exclusive legal right to operate public transport in a set period and area. The perimeter of Amstelland Meerlanden covers the municipalities of Aalsmeer, Amstelveen, Haarlemmermeer, Ouder-Amstel and Uithoorn, added by some connections to Amsterdam, Haarlem and other periferic municipalities (see map). The area is over 300 square kilometres with over 300,000 inhabitants. Centric is Schiphol Airport and industry related enterprises serving as strong engine to the regional economy.

In addition, the Aalsmeer flower auction is an important economic pillar. Annually over 30 million passengers use a bus around Aalsmeer and Schiphol. Vervoerregio provides a subvention of €40,5 million to this contract with a value of 90 million Euro in total.

Vervoerregio aimed to contract an operator that aligns its offer to current and future travel needs of residents and visitors by serving high-quality products and implementing zero-emission buses. This goal has been amply achieved with the outcome of this tender.

Connexxion provides public transport to help keeping the engine of the regional economy around Schiphol Airport and its 24-hour economy.

### R-net and night line network

The concession covers a huge passenger demand, mainly in peak a challenge to match. Mr Eric Bavelaar, the recently appointed director of Connexxion says: "It's unprecedented. If we add new lines of buses, they will fill up instantly". Connexxion, the incumbent operator, expands gradually to nearly 30 million timetable kilometres per year, with 80 percent consist of "R-net". During peaks eight buses per hour are needed to match the demand.

"R-net" is the high-end quality brand and will considerably expand service in terms of lines, headway and seating capacity. R-Net lines run with maximum headway from 7:00 a.m. to 19:00 p.m. In addition, the night network will be considerably expanded. R-net buses offering a 24-hour service and a direct connection to Schiphol from each village larger than 10,000 inhabitants. More people will benefit from a nearby stop and from faster and more frequent connections, with reduced waiting times. In places where demand is erratic and low, Connexxion provides demand responsive transport in significantly varied options. Connexxion will optimally tailor its offer to the different types of travellers, serving both commuters as well as the needs of vulnerable user groups.



Connexxion offers additional mobility services such as car sharing and bicycle to facilitate door-to-door journeys and pay-as-you-go services. On top of this a large deployment of electric buses is planned: zero-emission vehicles will set the scene around Schiphol and on some major "R-Net" lines to the city of Amsterdam. Electric buses will gradually flow in and ultimately over 90% of travellers will be transported with zero-emission vehicles.

"We're doing new things," stresses mr Bavelaar, "not just in terms of vehicles. We will provide a 24-hour transport service", referring to the offerings of Connexxion to provide at least twice an hour at night. To match the high demand on the heavy link between the city of Haarlem and Amsterdam South business district Connexxion will deploy vehicles with extra capacity.

It ordered 18 VDL coaches in double-deckers version (see picture), harbouring 83 seats each. These vehicles will be slightly refurbished to make them better suited for mass transit service. To speed up the boarding and egress process on the bus exterior electronic displays will show which seats in the bus are still vacant.

The lines around Schiphol will be fully electrified by the start of the concession. Connexxion ordered exactly 100 articulated e-buses. With 100 buses, the fleet is significantly larger than the 43 buses in Eindhoven, the ground breaker city for e-mobility in the Netherlands so far. "In London soon 51 electric buses will be running. We trump that number with the largest electric fleet in Europe," says mr Bavelaar. "In 2021 electric buses will run in nearly three quarters of the transport area. What we will be doing in this area is big."

### Fast chargers

Initially eight fast chargers at a junction near Schiphol North and P30 and 21 will be installed next to 43 places for overnight charging in the depot. Connexxion will deploy electric vehicles that run without a timetable and act as a feeder for the regular bus lines.

### Whim

Transdev, the parent company of Connexxion, announced to introduce the concept of Mobility-as-a-Service to the Netherlands. Since October under the brand name of Whim, a Finnish company is testing this concept with a few hundred users in Helsinki: for a fixed amount per month a traveller users can by use of smartphone or tablet book trips by public transport, shared bike, taxi, car rental or car share. Transdev, the parent company of Connexxion, will introduce this concept by the end of this year, to begin with in combination with the public transport in this area.



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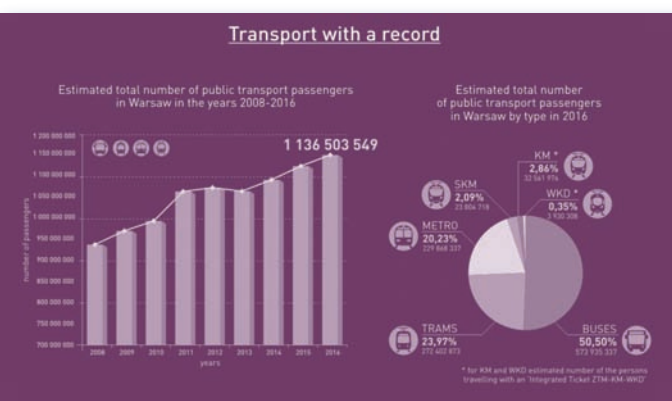
PUBLIC TRANSPORT AUTHORITY  
OF WARSAW

## Record high number of public transport passengers in Warsaw

Last year, the number of passengers of trams, buses, and trains of the metro and rapid urban rail (SKM) was record high — over 1.136 billion passengers! It was by more than 5 million more than in 2015.

More and more people use the public transport services in the capital city. In 2015, the estimated number of public transport journeys (calculated on the basis of ticket sales) was 1,131,357,900. And last year, in 2016 — it was as many as 1,136,503,549. It is by more than 5 million more than earlier.

The upward trend has continued since 2008. In 2011 - first time in history - exceeded one billion people.



'I am glad that the upward trend continues. This shows that our actions — exchange of fleet and infrastructure investments — bring expected results and the public transport is the most popular transport means' says Ms Renata Kaznowska, Deputy Mayor of Warsaw.

These figures based on the number of sold tickets and data from the passenger counting systems installed in rolling stock and in the M1 and M2 metro lines.

According to the Warsaw Traffic Survey 2015, Warsaw residents make approximately 3.35 million journeys during one day; 56.9% of the nonstrian journeys are public transport rides. This proves the effectiveness of the Warsaw' actions aim to encourage inhabitants to use public transport.

These are primarily investments - over the last decade Warsaw completed the M1 metro line and built central section of the M2 line, new tram routes, P+R parkings and interchanges and purchase low floor and eco-friendly rolling stock.



For the next few years Warsaw plan very important investments - the construction of another 6 stations on the M2 metro line, reconstruction and modernization of tram lines and purchase of modern rolling stock. The scale of expenditure makes public transport one of the most important part of the city budget with the record high expenditure at 2.7 billion PLN.

All these activities make public transport can be considered as a signature of Warsaw. It also plays a key role in the transport system of the city and Warsaw' agglomeration.

For more information:

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## Developing “*Mobility as a Service*” in the West Midlands

### Background

Positive change is happening in the West Midlands. A new West Midlands Combined Authority (WMCA) governance model supported by a transformation Devolution Deal with the UK Government, will see an unprecedented step change in delivery to support our collective ambitions for economic growth.

Transport is firmly at the heart of those plans and is led by Transport for the West Midlands (TfWM) – the transport arm of the WMCA. WMCA replaces and builds on the exciting and innovative work of the West Midlands and Centro.

Historically, the West Midlands was the “workshop of the world”. Our challenge is to become the engine of the British economy. The ambition for the West Midlands is to help rebalance the UK economy, closing the £16bn output gap, and leading the Midlands Engine.

As an area of over 5m population WMCA recognises both the challenges we face, and the opportunities that exist. We see the importance of an effective transport system for the creation of new jobs, economic growth which benefits all, new housing, clean air and improved health in our conurbation. As a fundamental element of West Midlands Strategic Transport Plan “Movement for Growth”, we will be investing in our infrastructure - in order to ensure that goods and people are able to move seamlessly throughout the West Midlands.

“Movement for Growth” is based on making better use of our existing capacity, alongside large-scale investment in sustainable transport capacity and supporting operational and smaller scale measures.

### Developing “*Mobility as a Service*”

The WMCA area has identified three core pillars of Smart City activity (Mobility, Energy and Health) that link directly to unlocking knowledge sectors and economic growth, as well as being particularly effective at supporting its public sector reform agenda. Whilst the mobility challenge goes well beyond simply meeting future travel demand, in response to this WMCA has established a programme of investment in public transport, active modes, highway capacity improvements and fundamentally smarter use of transport infrastructure using technology and greater integration of transport services.

Within the Smarter mobility arena it has identified ‘Mobility as a Service’ (MaaS) as a critical component to its success. MaaS is a new concept in the transport sector; it provides a new way of approaching how the delivery and consumption of mobility is managed through a consumer focused technology platform(s) which provide end to end journey and payment solutions.

MaaS is the provision of an efficient, personalised transport service, integrating a range of modes and presenting the consumer with the best options for getting from A to B. Flexible ticketing and payment options allow consumers to pay for access to a range of total mobility options, rather than a specific mode, meaning consumers can be modally agnostic.

At the heart of our MaaS agenda is enabling every user to have a better journey experience than they currently can. This is achieved by offering users the ability to buy a service from a MaaS provider that ‘looks after them’ at all stages of their journey. This is a key shift from the block provision of transport, to a much more flexible and customer-centred means of providing mobility in a managed way.

By exploiting our existing productive relationships with the private sector, as well as key opportunities such as open and big data, the benefits of MaaS in the West Midlands include more efficient journey making which is more accessible to all our residents, better use of our transport system, journey decisions which are better informed by their health and environment impacts and a more mobile workforce supporting our economy. We will achieve this through the parallel development of a system which addresses:

- Journey Guidance & Planning - real-time journey planning which allows a user to plan their journey, choosing from multiple modes that are ‘intelligently’ suggested based on their personal preferences - for example, cost, comfort and time. In-journey and pre-journey alerts are automatically integrated with the transport system to support traveller advice on early or later start times, or different choices during a journey.

- **Ease of Transaction** - The user can access mobility using a range of payment channels for example a phone, watch, smartcard or bank card regardless of which modes of transport they use or their personal financial circumstances.
- **Flexible Payment terms** - The user can pay for their mobility choice via pre-pay, post-pay or pay-as-you-go.
- **User Experience** – Data analytics will enhance the overall user experience. This feature may be seen as a virtual “concierge service” that provides the user with the best possible whole journey experience by managing the choices they make. Rich intelligence enables operators, systems and infrastructure providers to refine their services.
- **A Personalised Service** - A fully personalised service that builds a relationship between the user and the MaaS provider by allowing two-way communication. The MaaS ‘service’ will be highly customer relevant and focussed and will react to user feedback.

### Next Steps

In conclusion, MaaS provides the West Midlands with a new and effective opportunity to achieve strategic policy aims, attract public and private sector funding and demonstrate that the West Midlands is continuing to innovate to provide world class solutions to our transport policy challenges.

### Lead contact

*Adam Harrison - Senior Transport Policy Advisor*

Transport for the West Midlands (TfWM) – the transport arm of the West Midlands Combined Authority (WMCA)

## The West Midlands and Connected & Autonomous Vehicles Opportunities

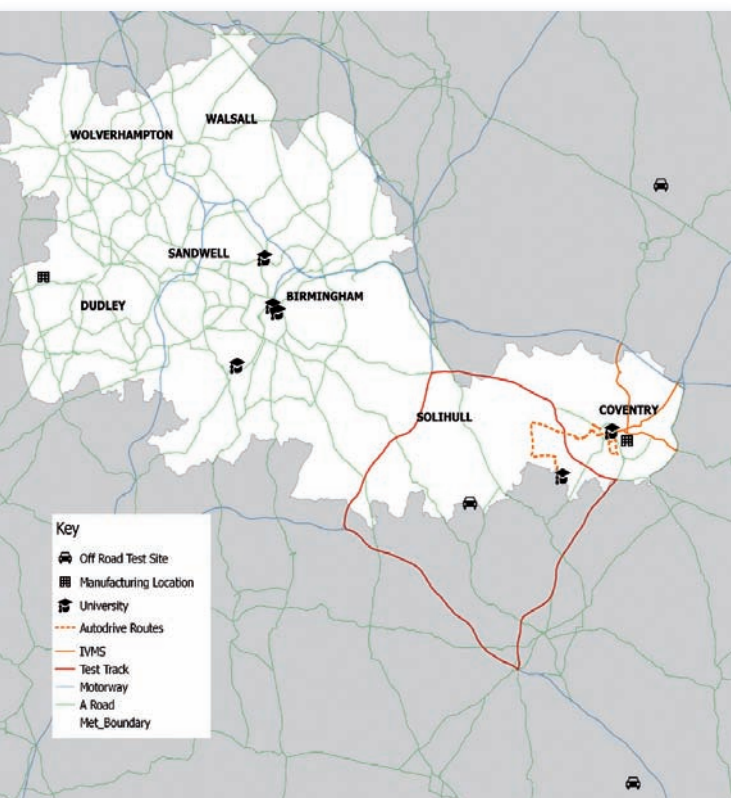
The West Midlands operates as the location for the development of Autonomous Vehicles and the supporting technology. Building upon existing connected and autonomous (CAV) work and planned infrastructure developments; the region’s innovative manufacturing base; a rich pool of entrepreneurs, a thriving community of digital/technology start-ups, the wealth of applied research and development within the academic sector and the alignment with public sector key objectives, the region has the assets and the drive to be the main actor within this rapidly developing sector.

Autonomous Vehicles are set to bring transformational change into the urban environment. Increasingly automated driving benefits:

- Safety
- Convenience and comfort
- Accessibility
- Efficiency and co-ordination of traffic
- Environmental Impact

Introducing CAV via rigorous testing through managed environments will deliver these benefits to the West Midlands and subsequently the UK. The full benefits will be realised at Level 4, full autonomy, according to an MIT study published in 2014 Road Vehicle Automation, Frazzoli and colleagues estimated that 300,000 driverless taxis, in theory, could do the work of the 780,000 privately owned cars currently operating today in Singapore, while keeping waiting times below 15 minutes. A 60 percent reduction in the number of vehicles operating in Singapore.

Effective taxi fleet management, reduction in personal car ownership and access to electric and hybrid vehicles without the worry of charging them could produce up to 94 percent less greenhouse gas emission per mile worldwide by 2030 when compared to conventional taxis according to a 2015 study published in Nature Climate Change.



The West Midlands recognises the major change this will bring and is gearing itself up to be at the forefront. Operating as a UK hub the region is set to benefit economically and gain early results by introducing these technologies built upon the research and development taking place across the West Midlands. The following projects are already taking place in the West Midlands.



UK Connected Intelligent Transport Environment (UKCITE) is a project to create the most advanced environment for testing connected and autonomous vehicles. It involves equipping over 40 miles of urban roads, dual-carriageways and motorways with combinations of three 'talking car technologies' and testing for a fourth, known as LTE-V. The project will establish how these technologies can improve journeys reduce traffic congestion, provide entertainment and safety services through better connectivity.

UK Autodrive, one of three projects to have emerged successfully from the UK government's 'Introducing Driverless Cars' competition, will carry out on-road trials in Milton Keynes and Coventry, using cars provided by project partners Ford, Jaguar Land Rover and Tata Motors European Technical Centre. The programme will also trial a fleet of lightweight, self-driving 'pods' for use on pavements and other pedestrianised areas.

The West Midlands is building the capacity as a UK hub acting as a production line from the full research and testing into CAV right through to scaled-up production, via the following environments:

### **Digital Simulation - Knowledge sector and advanced manufacturing**

There is a world class research and development sector within the West Midlands with a particular focus on the region's strength in automotive manufacturing and mobility. This is supported with advanced manufacturing research relating to materials production, digital technologies and design that have put the region at the forefront in the UK.

### **Controlled Environment**

The West Midlands can call on a wealth of experience. Communication infrastructure, realistic test track conditions, safety critical feedback and technical expertise are all available in close proximity and in a collaborative environment.

### **HORIBA MIRA Ltd**

HORIBA MIRA's purpose built Intelligent Transport Systems (ITS) facility provides a safe, comprehensive and fully controllable connected city environment dedicated to the testing, validation and demonstration of co-operative systems in an urban and sub-urban environment.

### **Gaydon test track**

The Jaguar Land Rover Gaydon Centre is one of the principal engineering centres of Jaguar Land Rover.

### **On-Road testing**

The West Midlands is building the largest and most diverse real world test environment in the UK. Incorporating a variety of technologies to accommodate both connected vehicles and autonomous vehicles, safety and human behaviour is paramount to understanding the impact of these vehicles.

### **Production & Manufacture**

Harnessing the supply chain of agile SMEs in the West Midlands, who can develop and refine the techniques to build parts, components, digital technology, products and services. The growth in large scale mass production, led by Jaguar land Rovers investment in the region, allows the scaling up of these processes to meet domestic and international market demand.

### **Conclusion**

CAV initiatives can offer opportunities for the Midlands transport system and economy as well as continuing to raise the already established West Midlands profile and UK leadership in the field.





## Establishment of a new Transport Authority for the Valencian metropolitan area

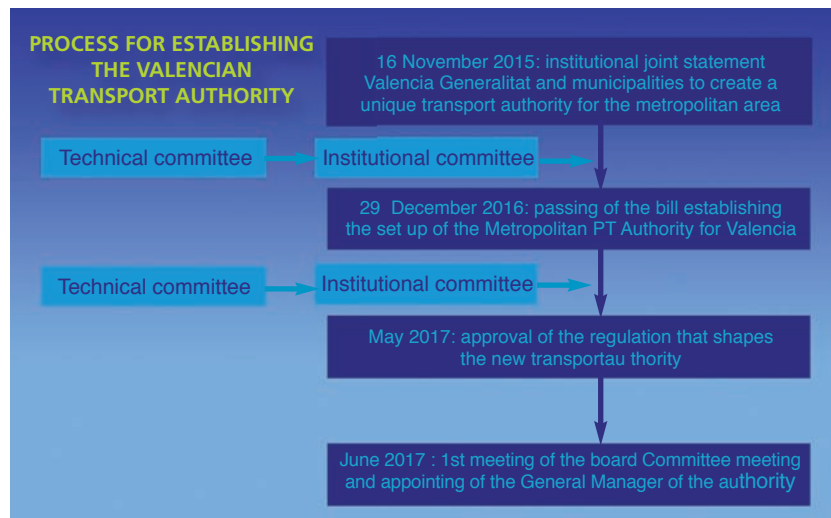
On 29 December 2016, the Valencia Generalitat (Regional Government) passed the law that regulates the creation of the Metropolitan Transport Authority of Valencia. This entity will function as an autonomous agency to carry out the legal responsibilities on the management of all public transport services of the Generalitat, acting on behalf those municipalities that will transfer their responsibilities on urban transport to the Generalitat.

The establishment of this new authority is a process that started on 16 November 2015, when the Regional Ministry on Housing, Public Works and Territory Structuring pushed an institutional statement recognizing the need to create a unique transport authority for the Valencia metropolitan area. The objective is to manage the public transport system in the area, and to offer a higher quality service in transport provision to the citizens in the region.

This statement leads to the installation of two committees, one on institutional and one on technical matters, to manage the creation of the transport authority. These committees have steered the creation process of this agency.

The scope of the new transport authority encompasses the metropolitan area of Valencia, which includes 60 municipalities with a population of 1,797,346 inhabitants, of which 44% of them live in the city of Valencia (790,201 inhabitants), along an area of 1,475 km<sup>2</sup>.

The new transport authority will be responsible for the planning of infrastructure for public transport, the development of the network, the design of a sustainable mobility plan for the region, including service quality monitoring, control and assessment, and the conclusion and control of public service contracts. The entity will be responsible for administrative management, the design and approval of the fares, set up of programs-agreements with transport operators as well as monitoring operator's compliance with contract standards. Last but not least, the authority will be responsible for funding and financing of the transport system, for real time user information, marketing and quality of the services.



The coordination with other public administrations on transport infrastructure investment, land use and the traffic management, or any other commitment which is assigned into its Regulation also pertains to the new legal entity.

The new transport authority agency will be governed by an Administrative Board, supervised by an Executive Committee and run by a General Manager.

The approval of the regulation that shapes the new transport authority, where all its tasks and activities including those of the mentioned governing bodies are encompassed, is now scheduled for approval.

At present, some statutory provisions of the Regulation are reviewed by official institutions from the Valencian Generalitat, prior to its approval by the Council of the Regional Government. This is expected to be absolved before the summer. Once the statutes are endorsed, the Administrative Board will set a date for the first official convention. Thereafter the new transport authority will be launched and on its way.



# Agenda

Meetings, working groups and conferences (- June 2017)

- **EEVC 2017 - The European Battery, Hybrid & Fuel Cell Electric Vehicle Congress**  
14 - 16 March 2017  
Geneva, SWITZERLAND  
The European Battery, Hybrid and Fuel Cell Electric Vehicle Congress is recognised as premier global platform to foster exchange of views between the R&D, the industry, the authorities, end-users and the NGO's actors, so to develop synergies in the field of e-Mobility.  
<http://www.eevc.eu/>
- **5th EU Electromobility Stakeholder Forum & Conference**  
22 - 23 March 2017  
17 avenue du Boulevard  
1210 Brussels, BELGIUM
- **International Rail Forum & Conference**  
22 - 24 March 2017  
Prague, CZECH REPUBLIC  
<http://irfc.eu/en>
- **Opportunities for a Knowledge and Innovation Community in Urban Mobility**  
29 March 2017  
Brussels, BELGIUM
- **Railtech Europe Utrecht, The Netherlands**  
11th edition of RailTech Europe. The whole railway industry will come together at this event.  
28 - 30 March 2017  
Utrecht, THE NETHERLANDS
- **4th European Conference on Sustainable Urban Mobility Plans,**  
This conference on Sustainable Urban Mobility Plans is the principal annual event enabling the international community of practitioners, policy makers, city staff and academics from across Europe to debate key issues, highlight developments in mobility planning and exchange ideas and experience.  
29 - 30 March 2017  
Dubrovnik, CROATIA
- **International Congress on Transport Infrastructure & Systems**  
9 - 11 April 2017  
Rome, ITALY
- **UITP Global Public Transport Summit**  
The Global Public Transport Summit covers all urban and regional transport modes. It combines a full programme of congress sessions with an exhibition of the latest solutions, innovations and products in public transport and urban mobility.  
15 - 17 May 2017  
Montreal, CANADA
- **EMTA Spring general meeting 2017**  
31 May - 2 June 2017  
Helsinki, FINLAND

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