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## News from the cities

### One-month countdown begins as capital gets ready for central London ULEZ

Central London ULEZ begins on 8 April 2019 and will introduce the toughest emission standards of any world city. TfL has been working with businesses across London to help them prepare. TfL's communications campaign has seen more than 2.7 million road users check their vehicle's compliance



The central London Ultra Low Emission Zone (ULEZ) starts in April 8 and Transport for London (TfL) is reminding drivers to check their vehicles online and get ready for the scheme which will help clean up London's toxic air.

Air pollution in London is responsible for thousands of premature deaths every year, affecting vulnerable people the most. The central London ULEZ – in operation 24 hours a day, seven days a week across the current Congestion Charge Zone - will help take the most polluting vehicles off London's streets. It is a central part of the Mayor's far-reaching work to protect London's health from harmful air pollution and will see harmful NOx (Nitrogen Oxides) road transport emissions reduce by 45 per cent in its first year.

Over the last year, TfL has worked with the DVLA (Driver and Vehicle Licensing Agency) to send more than 600,000 letters to owners of non-compliant vehicles spotted in the Congestion Charge Zone. It is continuing to raise awareness of the ULEZ to motorists and businesses, including through:

- Posters and digital displays across the whole TfL network, alongside print, radio, online adverts and email newsletters

- Providing advice and support to more than 6,000 registered fleet customers and more than 1,000 other stakeholders, such as small businesses, charities and health services
- Installing more than 300 road signs warning drivers at all entry points to the ULEZ and on a number of key approach routes of the zone

The Mayor and TfL are providing help for Londoners who still need to get ULEZ-ready with nearly £50m set aside to encourage the scrappage of polluting vehicles. Small businesses and charities can access support to upgrade to the cleanest vehicles through the Mayor's £23m diesel scrappage scheme. The scheme offers up to £6,000 of funding to help scrap vehicles and help with running costs of cleaner options.



A separate scrappage scheme aimed at low-income Londoners will launch later this year. It will enable those on low wages to dispose of old and polluting vehicles and replace them with modern cleaner alternatives or to encourage walking, cycling or the use of public transport.

Deputy Mayor for Environment and Energy, Shirley Rodrigues said: "London's filthy air is a public health crisis that causes thousands of premature deaths,

harms lung development in children and requires urgent, bold action. We are leading the world in delivering the central London Ultra Low Emission Zone, which is set to reduce polluting emissions by 45 per cent. Londoners want to breathe cleaner air and with one month to go before ULEZ I'm pleased that millions of motorists have already checked if their vehicles are compliant and thousands of businesses are cleaning up their fleets."

Alex Williams, Transport for London's Director of City Planning, said: "The introduction of the Ultra Low Emission Zone is now just around the corner and it is great to see that so many individuals and businesses are gearing up to help tackle London's toxic air and protect the health of Londoners.

"We have been working hard to ensure that drivers are aware that their vehicle needs to be compliant if they are to avoid paying the charge. We have also been supporting businesses in their preparations - with many already making the move to comply.



"We have engaged with more than 6,000 fleet businesses to advise them of their options and have worked with London's business groups to reach thousands more. This, along with the £23m diesel van scrappage scheme, will help businesses replace their polluting vans with new cleaner ones and help create a cleaner city to the benefit of everyone."

TfL has also worked closely with Waze, the world's largest community-based traffic and navigation app, to provide more information to drivers who might enter the zone. The app will alert drivers if their planned route takes them into the zone or if they head towards it. It will also provide a link to the TfL's vehicle checker to allow drivers to check compliance if they choose to continue into the zone.

Finlay Clark, UK General Manager at Waze, said: "With over 3 million drivers in London, tackling air pollution is not the responsibility of one group, it needs to be tackled through a collective effort. Working in partnership with TfL, Waze will be the only navigation app that supports all ULEZ routing considerations."

David Gold, Director of Public Affairs & Policy at Royal Mail Group, said: "Royal Mail takes its environmental responsibility very seriously. We have invested in new, lower emission vehicles as part of the London ULEZ programme, and continue to deploy a growing number of electric vehicles. We also have the UK's largest feet-on-the-street network of postmen and postwomen who make door-to-door deliveries six days a week."

Bruce Bratley CEO at First Mile LTD, said: "We service over 25,000 businesses in London and operate a fleet of 70 vehicles, most of which are HGVs. As an environmental, purpose led business, it makes sense to operate with the lowest possible impact on air quality - it would be futile to solve one environmental issue (low recycling rates) at the expense of another (air quality). As such, we electrified our delivery fleet and invested £3million to make sure we were ULEZ ready.

"We have been working in partnership Business Improvement Districts and landlords across London to consolidate waste collections as a way of reducing vehicle movements. For example, in partnership with the landlord Grosvenor, we now deliver sacks on a cargo bike and have consolidated waste collections across their Mayfair and Belgravia estate. This has considerably reduced HGV movements in the area and delivered the added benefit of keeping the streets clear of rubbish and recycling bags."

John Maingay, Director of Policy and Public Affairs at the British Heart Foundation, said: "Air pollution is a major threat to the UK's health. BHF-funded research has shown that tiny particles emitted from diesel vehicles enter our lungs, pass into bloodstream and remain present for months afterwards, silently damaging our heart and circulatory systems. Breathing in these particles significantly increases the risk of a devastating heart attack or stroke in vulnerable groups, such as those living with heart failure, as they affect the functioning of blood vessels and put the heart under additional stress.

"The introduction of the ULEZ next month will provide a much needed, bold measure that will help deliver the sustained shift away from diesel vehicles that we desperately need to protect the nation's heart health."

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## London to trial on-demand bus services

Transport for London (TfL) recently launched a consultation on plans to trial an innovative 'on-demand' bus service in Sutton in South London. The new service will let people or groups use an app to book seats on a minibus that will stop at more convenient locations, including areas not currently served by public transport. The on-demand service is proposed to run from 6.30am to 9.30pm, seven days a week and would carry up to 14 passengers. Passengers would benefit from a guaranteed seat, free WiFi and USB charging points and flexible stops within a certain area.



The consultation is asking Londoners for their views on the specific area of Sutton that the service should cover and suggested stopping points. The trial, which will last for a year, will help TfL gauge the level of interest for an on-demand service and assess how it would work alongside the existing public transport network in Sutton.

Sutton was chosen because it has relatively high car dependency, and TfL believes the service could encourage people to switch to a more sustainable way of travelling. In doing so, it will improve London's air quality and reduce congestion. The Euro VI buses will meet the Mayor's tough Ultra Low Emission Zone standards, and also accommodate wheelchairs – improving accessibility.

As well as using the app, passengers will also be able to book trips over the phone. The cost of using this new type of transport will be slightly higher than a traditional bus to reflect a better experience for customers. London's Freedom Pass, a free travel pass for London residents aged 60 and over or who have a disability, will be accepted on these new services.

After a competitive bidding process, ViaVan and Go-Ahead have been chosen to operate the trial. TfL will be tapping into the expertise of the successful bidders' collective knowledge of app development and many years' experience operating the largest part of the bus network in London.

TfL is also exploring the possibility of delivering a second on-demand bus trial to provide further evidence about the initiative's viability.

Drivers for the new innovative service will receive the same pay and conditions as other London bus drivers. This includes the Mayor's 'Licence for London', which guarantees a pay grade equivalent to their level of service and experience.

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## New zone system revolutionizes ticket pricing in the Helsinki region



During spring 2019, HSL (Helsinki Region Transport) will be implementing a new zone system which will fundamentally change public transport ticket pricing in the Helsinki region. In the new system, the HSL area will be divided into four zones (A, B, C and D) independent of municipal boundaries, spreading out from Helsinki center. Ticket prices will be based on the distance from the center of the capital city.

The new model reflects the reality of public transport in the Helsinki region where journeys across municipal boundaries are part of the everyday life. Short journeys across municipal boundaries have been expensive relative to the distance traveled. Ticket names will be easier to understand; instead of internal and regional tickets, there will be tickets for four zones. The new system is easy to expand if new municipalities decide to join HSL.





## HSL awards environmental bonuses to encourage emission reductions

This year, HSL (Helsinki Region Transport) will pay 1.7 million euros in environmental bonuses to bus operators who cut their particulate and carbon emissions. HSL awards bonuses for using biodiesel, bioethanol and biogas as well as for exhaust gas after-treatment. HSL awarded the bonuses through a bidding process held in 2018.

The measures taken by bus operators reduce carbon emission from buses by 18.6 tons, nitrogen oxides by 20.2 tons and fine particles by 530 kilos a year.

HSL's goal is to cut nitrogen oxide, fine particle and carbon emissions affecting air quality by more than 90 percent from 2010 levels by 2025.

## HSL to pilot a kick scooter service in summer 2019

Some 30 scooter stations will be built in Vuosaari, East Helsinki, allowing residents to rent a scooter for short-time use. The scooter sharing service pilot run by HSL (Helsinki Region Transport) and Samocat Sharing will include both regular and electric scooters.

HSL's aim is to test scooters both as an independent means of travel and as part of public transport journeys. The scooters will be foldable, allowing them to be easily taken aboard public transport.

The service will be available from mid-April to the end of October.



## The Amsteltram, in 35 minutes from Uithoorn to Amsterdam South by tram



Transport Authority Amsterdam is commissioning

authority for the realisation of the Amsteltram project, the first regional tramline in the Metropolitan area of Amsterdam. When completed, it is possible to travel from Uithoorn, a suburban town of 30.000 inhabitants some 10 kilometer south of Amsterdam to Amsterdam South station in little over half an hour. This will partly be designed as a light rail connection with new, comfortable and frequently running vehicles. The line will substitute several bus lines that, due to the increase of road traffic has become less dependable, time consuming and therefore less convenient for daily users.

The Amsteltram project consists of two parts: the refurbishment of the metro 51 Amstelveenlijn and the construction of an extension from the south of neighbouring Amstelveen by a new tramline to the village of Uithoorn.

### Refurbished from metroline to tramline

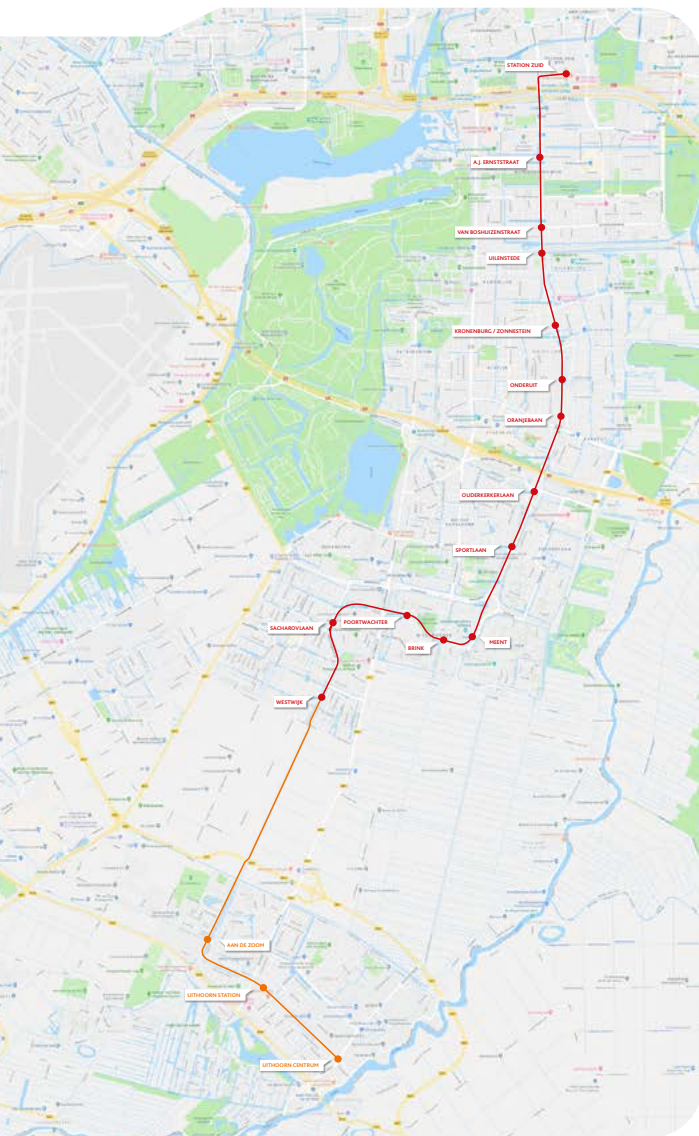
The switch from a metro to a tram that runs to Amsterdam South is foreseen to go to Amsterdam South station where passengers can transfer to the metro network connecting them to different parts of the city and the suburban areas. From there connections by train in all directions or to urban and regional buses are available. Main reason for this substitution is that the current metro on street level posed a danger for mostly cyclist and traffic on busy road crossings. The metro trains are less suitable to safely merge with regular road traffic.

### First regional tramline

The Amsteltram will be the first tramline outside the Amsterdam city parameters and will be an impetus for passenger traffic in the south part of the metropolitan region as both the scope, travel times and comfort for the users will be significantly improved.



The consortium is now finishing the design and the Vervoerregio Amsterdam coordinates actions to make sure local procedures for the various zoning plans are duly passed. Vervoerregio is currently compiling a programme of requirements for the tendering by the future service contractor.



The Amsteltram will start operations staged. First on the route between South Station and Amstelveen in the course of 2020, on the second route that still needs to be built - from Amstelveen Westwijk to Uithoorn - the line will be ready to start service by 2023.

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## Combining demand responsive public transport with fixed bus and train networks in a digital journey planner



The transport authorities in Denmark have found a viable solution to the well-known and worldwide challenge of first&last mile transportation that can provide a both cost effective and high-level public transportation service in areas with low passenger demand. Probably one of the firsts of its kind.

We have for years mastered demand responsive transportation. Even in a model, where different types of passengers travel together in the same vehicles as e.g. patients, disabled and public transport passengers. In total 6.3 million passengers were transported with DRT in Denmark in 2018 thereof 1.1 million with DRPT – in a country with a population of less than 6 million.



Initially, our demand responsive transportation started as a service for special needs passengers, which was carried out in small/medium sized vehicles. The service was only available to pre-qualified users, such as people with disabilities and elderly. However, the volume of passengers with special needs made it possible to make the same service available to the general public by taking advantage of the same vehicles. As a result, demand responsive public transportation (DRPT) is a widespread service in Denmark. Passengers can order a DRPT trip either by phone or online (booking site/app).

We organize DRT to increase the usage of the vehicles and coordinate trips, so passengers travel together between pick-up and drop-off locations according to each passenger's needs whenever possible. This is executed by common IT-systems that secure the planning of all trips with the use of close to 600 vehicles in average per day. The common IT systems have proven valuable for a long period of time, but the systems are unable to fulfill the future demands for organizing and executing DRT. Therefore, we plan to send a new and future-proof version of the system out to tender later in 2019.

The initial aim with the DRPT solution was to provide a public transportation service in areas with low passenger demand. But it has also shown to be an important service for elderly in urban areas where even small walking distances to the bus stop can pose a challenge.

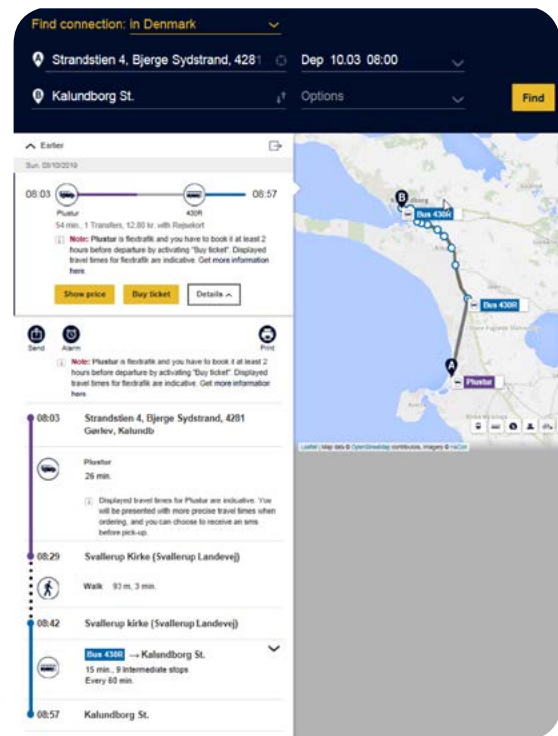
Currently, Movia is cooperating with the other transportation authorities in Denmark on combining DRPT with traditional public transport running along fixed routes (bus and train) in the nationwide digital multimodal journey planner ([www.rejseplanen.dk](http://www.rejseplanen.dk)) – one of the most popular apps in Denmark.

We still aim to provide a public transport service in areas with low passenger demand, but in a way that secures that the fixed route transportation network is offered as the only option when it is an available option. In other words:

- DRPT is included, when a person searches for possible public transportation options in the journey planner. DRPT will however only occur when it is not possible to travel with bus or train for the entire trip.
- If it is not possible to take the trip using bus or train, then demand responsive public transportation will be available to the passenger and bring them to and/or from public transportation in fixed routes (first/last mile). The concept is illustrated below.
- When it is not possible to combine DRPT with bus or train, a journey exclusively with DRPT will be offered.



Testing DRPT in the national wide journey planner in five municipalities



### Testing DRPT in the national wide journey planner in five municipalities

Movia is currently conducting a pilot test of the new service in five municipalities". In the illustration below, a search result in the Journey Planner is shown where DRPT goes by the Danish name "Plustur". As it is depicted the traveler uses DRPT as a connection to the bus route network.

Below are the initial overall conclusions in the early test phase:

- The majority of the users are between 20 and 60 years old. This is in contrast to Movia's regular DRPT service, where 65 percent of the passengers are 70 years old or more.
- The distance covered with DRPT in the Journey Planner is relatively short - 10 kilometers or less

The next step will be to make the service an option for all 45 municipalities on Zealand in 2019. In a strategic perspective, the introduction of a new user-friendly DRPT service in the Journey Planner is a step towards providing our customers a Mobility-as-a-service (MaaS) solution because we can offer one planning process in one journey planner.

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## ELENA facility supports Movia transition to electric buses and boats

The Danish regional public transport authority Movia has received a grant of EUR 1,119,000 from the ELENA facility for technical assistance to prepare a transition of parts of the fleet of buses and ferries operated under the responsibility of Movia from conventional fuels to electricity. Movia is the Public Transport Authority (PTA) in East Denmark including the capital area of Copenhagen. Movia is owned by 45 municipalities and 2 regions.



The ELENA TEBB project runs from fall 2017 to fall 2021, and must result in investments at least 10 times the size of the received ELENA grant (leverage factor 10). So far, the project has realized investments in electric buses and boats resulting in a leverage factor 45.

Investment programme - ELENA TEBB project:

Activity	Tender process	Deployment	Volume
Electric buses in Roskilde	2017-18	April 2019	20 electric buses
Framework contract for charging infrastructure in urban spaces	2017-18	2019-26	Depends on demand
Zero emission harbor buses	2017-18	January 2020	7 electric boats
Zero emission buses in Copenhagen and other parts of Zealand	2018	December 2019	56 electric buses
Zero emission buses in Copenhagen and other parts of Zealand	2019-21	2020-23	up to 200-250 buses

The ELENA grant covers costs of external experts and/or staff to help prepare and implement the investment programme, like:

- Movia staff expenses affiliated with tendering of e-bus services, charging infrastructure in urban spaces and electrification of harbor buses
- Legal advising
- Feasibility studies
- Technical support for setting up tender requirements of harbor bus services
- Technical assistance for optimal placement of charging infrastructure in urban spaces
- Study on impact on local air quality from diesel heaters in e-buses (needed for decision-making purposes)
- Translation of tender documents
- Etc.

Investment programme - ELENA TEBB project:  
EIB/ELENA contributes with a maximum 90% of the total eligible costs.

Besides the investments in electric buses and boats, Movia is obliged to carry out a number of activities within competence building and dissemination of the outcome of the project.

### About the ELENA facility

ELENA (European Local Energy Assistance) is a joint initiative by the EIB and the European Commission under the Horizon 2020 programme. ELENA provides grants for technical assistance focused on the implementation of energy efficiency, distributed renewable energy and urban transport programmes. Within urban transport and mobility ELENA support investments in the use and integration of innovative solutions for alternative fuels in urban mobility along with investments to introduce on a large-scale new, more energy-efficient transport and mobility measures in urban areas.

Movia experienced a smooth application process, which took less than a year from the initial dialogue with the EIB to the EC approval of the application.

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## Prioritising pedestrian access to public transport



According to research in pedestrian behaviour, the prioritisation of pedestrian access to public transport can increase the amount of passengers. Therefore, Movia seeks to strengthen the interaction between pedestrians and public transport in collaboration with municipalities.

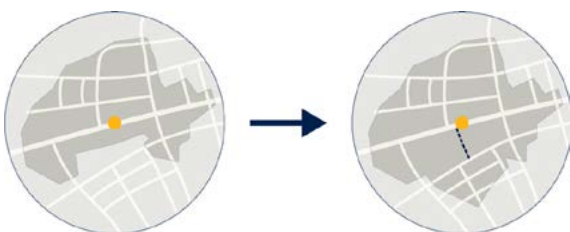
90 percent of public transport users reach bus stops by foot. In addition, almost half of the total travelling time is spent walking. Walking seems to be the most convenient option to reach bus stops, which highlights the need to prioritise pedestrian access to bus stops, train and metro stations.

Furthermore, our surroundings affects our behaviour: people are willing to walk longer distances to bus stops if they are easily accessible and the route feels safe. This is the result from research by Helge Hillnhütter who studied the behaviour of pedestrians. His research shows that public transport users are willing to walk up to 70 percent longer distances in pedestrian-oriented urban areas (Hillnhütter, 2016). Theoretically, this can increase the catchment area by three times. If we can achieve just a part of this huge potential, it will have substantial effects on the use of public transport. Furthermore, prioritisation of pedestrians will positively impact health, environment and urban life.

### New analytical tools can support the prioritisation of pedestrians

As a way to prioritise pedestrians, Movia has adopted a new approach when considering pedestrian access. Through the use of GIS tools it is possible to analyse the catchment area based on distance in the actual network of footpaths rather than on distance as the crow flies. By comparing both methods, it is relatively easy to point out locations where pedestrian access can be improved. Among the possible improvements are relocation of bus stops, creation of new footpaths, break-through in fences or hedges etc. Solutions that are applicable not just in cities, but also in more sparsely populated areas.

Additionally, there is a potential in improving the urban layout near bus stops through an urban design that encourages people to walk. Examples of this are convenient and safe road crossings to avoid detours, good access to facilities like shopping opportunities in close distance to bus stops as well as pleasant and stimulating urban surroundings.



*Creation of new footpaths can increase the catchment area around bus stops and thereby the amount of public transport users.*

### Collaboration with municipalities

The new approach is tested in a collaboration between Movia and the City of Copenhagen, who is currently working to adopt a specific goal for the interaction between pedestrians and public transport in the future

municipal plan. The collaboration has led to suggestions for several physical improvements along a central bus route: creation of new shortcuts for pedestrians; improvement of road crossings; improvement of access from bus to metro etc.

Other municipalities already incorporate both urban design and footpath networks when planning for new and existing urban areas. Building upon this it is possible to strengthen the interaction between pedestrians and public transport. Therefore, Movia is now, in collaboration with municipalities, working to adopt the new approach as part of public transport planning in both urban areas as well as in more sparsely populated areas.

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## Bus adaption to Copenhagen's new metro: Nyt Bynet

Copenhagen's new circle line metro – Cityringen – will open this summer with 17 new stops through some of Copenhagen's most densely populated areas. The new metro line is a massive improvement to the public transportation system in the Copenhagen area as a whole. However, as the metro will service highly dense areas, it will also run parallel to some of the currently most intensively used bus lines.



Movia, Denmark's largest Transport Authority is owned by the 45 municipalities and 2 regions in eastern Denmark. Movia takes care of the tendering and planning of all public bus services in the greater Copenhagen area (Zealand). Municipalities and regions pay for the bus lines, while Movia works in close collaboration with these public entities to ensure coordination in the bus-service within and across municipalities and regions.

Movia is involved in the realization of Cityringen by introducing a new metro-adapted bus network together with the affected municipalities and regions. The new bus network – Nyt Bynet – means re-routing 33 bus lines out of 65 in order to service the many new metro stations and stops, and a total decrease of



service hours above 10 pct. in the City of Copenhagen. In total, Nyt Bynet affects 12 municipalities and the Capital Region.

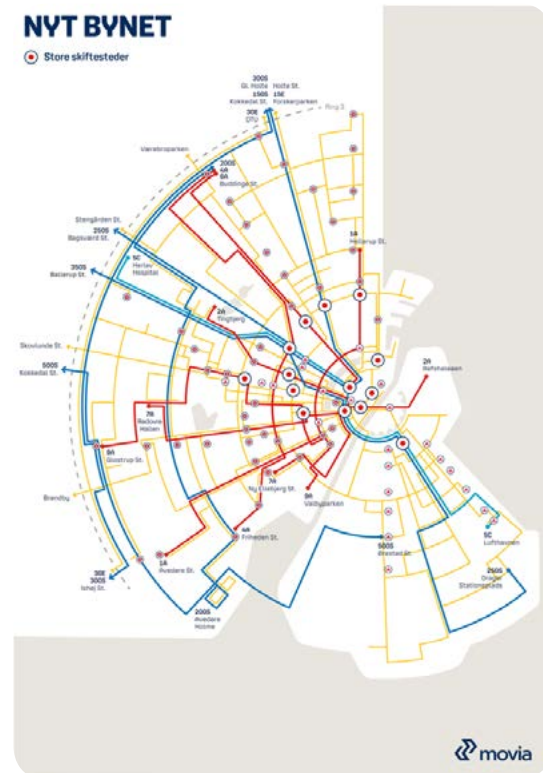
In the spring of 2018, all affected local authorities unanimously agreed on the new bus network. Prior to this was a larger public and political process in the most effected municipalities. An immense amount of work by the municipalities, the region and Movia laid the grounds for that decision, and the initial planning began already in 2014. Both in regards to the design of the new bus network, but also the political process, as it was crucial to reach the unanimous decision at an early stage, in order for Movia to implement the change in service-levels in the pending contracts with the various affected private bus operators.

A unanimously political agreement in a conference hosted by Movia in April 2016 proved a major factor in a successful launch. Support came from all mayors of municipalities and the chairman of the regional council. Stakeholders agreed on common budget constraints and service principles for the new bus network. At the same time the conference provided Movia with political mandate to design the new bus network based on pre-approved goals.

To circumvent the risk of a change in the responsible politicians, Movia designed the political process in such a way that municipalities made their final decision after the local elections in November 2017. However, due to the scale of the project, this meant splitting the decision in two. The municipalities and the Capital Region approved the new “strategic bus lines” in September 2016, which consists of the major and most passenger-dense bus lines.

The initial approval of the strategic bus lines paved the way for the approval of the local bus lines, which in many cases required delicate handling. They will run more infrequent but ensure accessibility to public transport on a wider scale. As such, Movia and the operators could sign all adapted contracts on time and without any penalty payments despite the considerable reduction in service hours, and Movia could begin the preparations for implementation.

Nyt Bynet covers an area that services around 100 million passengers yearly with 95% of the citizens in this area still residing within 400 mtr of a public transport stop. Many of these passengers will need to adopt new travel habits and create a new “mental map” of the total transport network, as Nyt Bynet will introduce not only new bus- and metro lines but also new transport hubs. Preliminary travel estimations for Zealand show a yearly increase of 8 million trips, that involve more than one mode of public transportation.



Movia is well aware of the importance of early communication to enable passengers to have time to get used to new journey patterns. Thus, we launched the first phase of our information campaign in summer of 2018 on both printed and digital platforms.

Movia also focuses on helping and enabling passengers to navigate and get an overview of the new network. Among other things we introduced an early-version of our national journey planner. It enables our passengers to search for their preferred daily journeys and get acquainted with their new trajectories 5-6 months prior to implementation. And also to check whether their journey time will shorten or not. The interest has so far been huge.

The final and largest phase of the information efforts will be launched 2-3 months prior to the opening date with a comprehensive information campaign using both digital and printed platforms, accumulating both over all messages and local campaigns in collaboration with the municipalities and the Capital Region.

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## Vilnius is becoming the European capital with the most up-to-date public transport

In 2017, a record-breaking update of public transport was initiated in the capital of Lithuania. Currently there are almost 300 new public transport vehicles operating in Vilnius: at least 250 new buses and 41 new trolleybuses. These numbers show that 6 out of 10 buses in the streets of Vilnius are completely new: there is probably no other capital in Europe that can boast such a scale of public transport update.



After this record-large update of the bus and trolleybus depot in the capital of Lithuania, passenger satisfaction in public transport has also been growing. The latest survey of passenger satisfaction in public transport showed that they gave Vilnius buses and trolleybuses the rating of 8 out of 10. This is the highest rating of satisfaction in public transport in the entire history of the conducted surveys.

This unprecedented renewal of public transport also helps to ensure a superlative quality of travel, which encourages the city residents to choose this means of transport more and more often. Comparing passenger flows in the autumn of 2017 with the flows in the autumn of 2018, the total number of public transport trips increased by approx. 6 percent. As the number of new public transport vehicles has been rising in Vilnius, the numbers of public transport passengers have continued to grow as well.

New public transport vehicles provide passengers a possibility to charge their smart devices during the trip, by using the designated USB ports. Air

conditioning is available both in the passenger area and by the driver's seat. Moreover, technological solutions that facilitate information provision to passengers have been implemented in the buses: LCD screens and LED displays/route indexes. Furthermore, video cameras are installed both in the interior and exterior of buses,



helping to ensure even greater safety of passengers and making it easier to find items that passengers claim to have left in the transport.

The next step is public transport which is not just new and comfortable but also progressive: at the moment, the first electric buses are being purchased. Before 2020, the capital's bus depot will receive another 135 new public transport vehicles: 5 of them are electricity-powered, 70 are hybrid (20 tri-axle units and 50 twin-axle units), 50 tri-axle buses powered by compressed natural gas, and 10 low capacity buses.

In 2020, after updating the entire public transport depot of Vilnius, it will no longer have buses older than 7 years. After this ambitious stage of public transport renewal, Vilnius will become a European capital with possibly the most up-to-date bus depot in the continent.

This public transport update, which was the largest in the history of Vilnius, was marked by the entire city. For a whole year, various events were organised that received special attention from both Vilnius residents and city guests.

One of the major events was **The Labyrinth**, which consisted of bright red new buses and was placed at the heart of the city, in the Cathedral Square. This labyrinth of new buses presented various surprises and new experiences for everyone. Everyone was invited to join a tour on the history of Vilnius buses, attend



a photo exhibition, take a look at the bus labyrinth from a bird's-eye view (100 metres above ground), and enjoy musical performances.

Bus exhibition spaces also attracted a lot of attention: everyone could get acquainted with the comforts awaiting in the new buses, immerse themselves in the leisure space, or visit the photo session area: people had the opportunity to take a photo of themselves at the driver's seat or at the finish line of the labyrinth. Another event that was very popular with both the media and the public, **Baby on Board**, aimed to not only introduce the newest public transport of Vilnius but also educate its passengers. This is a social campaign which encourages public transport passengers to ensure a safer trip for pregnant women. The future moms are awarded special badges, while other passengers are encouraged to notice them and give them a seat.

This campaign was launched along with an interesting installation in the downtown of Vilnius: a new city bus enveloped in bubble wrap as a metaphor of fragility. Events included live TV broadcasts, a photoshoot of pregnant women, and handouts of free badges. The Baby on Board campaign demonstrated that this is a great way to develop the culture of friendly conduct and interaction in Vilnius buses and trolleybuses.



Before the year's biggest holiday, Christmas, city residents and visitors received a pleasant surprise: **Street Music Day on Wheels**. New buses and trolleybuses served as venues for live music performances on public transport. This was the city's way of congratulating everyone with the upcoming most beautiful holiday of the year. People who found themselves in the unexpected concerts were surprised and responded with a smile, some of them even sang back, clapped and danced.

Another initiative that brought new city buses into the spotlight and sought to make public transport even more attractive involved the opportunity to visit the key art galleries and museums of the capital of Vilnius. This was how the special route **SU-MENĖK (GET ART-IFIED)** was created. The Lithuanian word SU-MENĖTI (to art-ify) describes a certain feeling and impact resulting from art. Vilnius residents and city guests were invited to visit various art-related locations in the entire capital and experience them. Following the SU-MENĖK route, the public could visit 17 of the most essential modern art galleries and museums of Vilnius by riding new buses for free during all weekends of February.



The invitation was responded by thousands of city dwellers and guests: the weekend visitor numbers increased by 3-8 times while a special free route around galleries was used by over 3,000 passengers. Vilnius is a modern and rapidly growing city which is open to innovation and considerate of all residents and visitors. Likewise, the Lithuanian capital's public transport enables everyone to travel safely and comfortably around the city and motivates passengers themselves to create a friendly atmosphere where understanding and courtesy are matter-of-course.



## Transport21: Providing strategic direction for R&D activities in Norway

**Ruter#** As the Norwegian transport sector faces common global challenges regarding efficiency, safety and sustainability, the government's outspoken ambition is for Norway to stand at the forefront of transport sector innovation. To this end, the Ministry of Transport and Communications has ordered the assembly of a national strategy group, Transport21, whose mandate is to advise the government on how to meet the transport challenges of the future.

«The growth of digitalization and automation presents opportunities to make transport safer, more efficient and more environment-friendly than ever before. However, in order to fully exploit the potential of new technologies, research and development efforts need to be applied in the right direction,” says Bernt Reitan Jenssen, CEO of the Oslo region's public transport authority Ruter AS.

As the leader of the Transport21 strategy group, Jenssen helms a diverse group of experts recruited from across the Norwegian transport sector – business leaders, research directors and government agency officials, among others. Together, they are tasked with pinpointing key areas for research and development within their field.

“The main objective of Transport21 is to identify the questions that most urgently need answering. By doing this, we aim to provide crucial direction for R&D activities across the entire Norwegian transport sector”, says Jenssen.

Transport21 is similar in name to a range of other government-initiated strategy processes - among them Digital21, Energy21 and Maritime21 - all conducted with the same purpose: To face important societal challenges by developing comprehensive national strategies for research and development.

A central aspect of all so-called “21-processes” is close cooperation between private companies, research institutes, interest groups and national authorities. Involvement from all corners of the transport sector provides legitimacy to analyses and strategies, while also raising awareness of important research topics across a fragmented industry.

In particular, private companies are encouraged to step up and lead the way with their own R&D projects, as the government's commitment to tackling transport challenges presents a wealth of economic opportunities.

“With the ongoing shift towards a green transport sector, the global market for smart mobility solutions is expected to grow considerably in the years ahead. Norwegian businesses are in position to capitalize on this by researching and developing their own mobility solutions. Therefore, an important goal of our work is to stimulate R&D activity in the private sector, says Jensen.

Transport21's report with recommendations to the government is due in June 2019.

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## Warsaw: Towards electromobility



PUBLIC TRANSPORT AUTHORITY  
OF WARSAW

The capital of Poland is a city with a perfectly

developed public transport system. Residents and visitors can use buses, trams, underground and agglomeration railway. In order to fight air pollution, the city uses increasingly more ecological means of transport. These are primarily electric vehicles, but also those with gas or hybrid drive. Warsaw public transport operators are in the process of huge purchases of modern, eco-friendly buses and trams.

In January 2019 Warsaw Trams (Tramwaje Warszawskie, TW) procuring a tender for up to 213 new trams chose the most advantageous offer. It was submitted by Hyundai Rotem. New vehicles will not only travel on existing routes, but will also go to new ones, eg. to Wilanów district. The basic order is for 123 trams and it could be expanded by another 90 units. Due to various transport needs, Warsaw wants to buy three types of low-floor trams, of various lengths, in a one-way and two-way version. The vehicles will be air-conditioned, equipped with on-board CCTV systems, a passenger information system and an energy storage. Trams under the basic contract should be delivered by the end of October 2022, and as a part of the option - by the end of October 2023.

In February 2019, offers were opened in a tender for the supply of 130 electric articulated buses for Warsaw City Bus Company (Miejskie Zakłady Autobusowe, MZA). The first of them will be delivered at the beginning of 2020. This is one of the largest European tenders for the purchase of electrobuses. Thanks to this order, Warsaw, as the second city in Europe after London, will have over 100 electric buses.

In total, along with currently operated electrobuses, there will be 160 such vehicles on the streets of Polish capital. It's the fourth and largest tender for the supply of electrobuses for MZA. In recent years, 1167 low-floor buses have gone to Warsaw. Currently, the capital invests only in low- or zero-emission rolling stock - in the summer of 2018 a contract was signed for the supply of 80 CNG gas buses (with the option of expanding the purchase to 110 vehicles). They will appear in Warsaw in March this year.



Warsaw electrobuses need adequate infrastructure to charge them. Currently MZA has also launched a tender for 20 quick pantograph chargers. Electric bus batteries will be charged primarily in depots, but also on loops - using quick 400 kW chargers. Each of the buses will be able to connect to them using a pantograph. Recharging electric battery vehicles on loops and termini will increase their range. Electrobus will be able to handle longer routes. Such vehicles do not pollute the air and are quieter than those with diesel drive, which is why they will first serve the lines running through the central Warsaw districts.

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## i2030 – more tracks for Berlin & Brandenburg

### What is i2030 about?

The project's name is "i2030" (co-ordination project with several subprojects): VBB coordinates the project and its partners. The project i2030 organizes the development and the enlargement of the highly stressed tracks between Berlin and Brandenburg. Deutsche Bahn (DB Netz) is responsible for railway infrastructure. The federal states of Berlin and Brandenburg are accountable for the financing of the railway supply on the tracks in the region Berlin and Brandenburg. All three partners signed a memorandum of understanding.

Together we ensure that the infrastructure keeps pace with the increasing number of trains on the track and the demand of the growing number of passengers in the region.

The federal states are as well financing for the preparing analysis for the development of the railway infrastructure in the region in order to ensure the mandatory planning process in time.

The corridors:

- Berlin-Spandau-Nauen
- Potsdamer Stammbahn
- Prignitz Express/Velten
- Nordbahn/Heidekrautbahn
- RE1
- Berlin-Dresden/Rangsdorf
- Berlin-Cottbus/Bahnhof Königs Wusterhausen
- Development S-Bahn network

### What is the goal of VBB?

The main tasks of VBB are the coordination of the services of around 40 public transport companies and their better connections, the development of a common fare system and the improvement and quality control of public transport services. The VBB assists the authorities in charge of public transport in planning, tendering and management of regional railway services.

For information: [www.i2030.de](http://www.i2030.de)

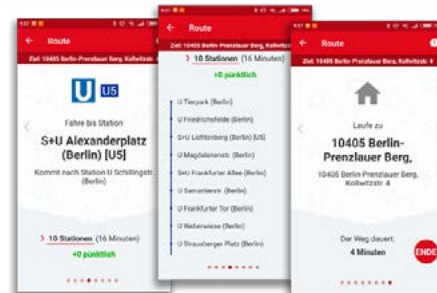
## Developed with kids for kids: A new app for kids: VBB jump!



**Verkehrsverbund  
Berlin-Brandenburg**  
Alles ist erreichbar.

Children are  
early traffic  
participants:  
mostly as co-

drivers with their parents. When school starts, children begin to move in public more individually. They and their parents perceive a public transportation system as a challenge due to its complexity.



A steering committee was founded for the organisational background to monitor all sub-projects. The project started in November 2017.

The project focusses on eight main railway tracks ("corridors"). Based on a main VBB-concept for the whole network different options are analysed. The steering committee will monitor and decide what options to opt for.

The new app 'VBB jump' developed by Verkehrsverbund Berlin-Brandenburg and HaCon is supposed to lower that bar: As children tested the app, its usability is adapted to kids' needs. Parents and children may save up to eight addresses on the dash or "jump" board. These individual destinations can be visualized by personal photographs or by one of 45 icons.



The jump board is then the starting point for kids to get routing information. By simply swiping a finger from the center of the dial-like dash board to the icon, the young user gets a list of connections for the upcoming hour. When having decided for one, the kid can follow the slider step by step, including navigation to the next stop and departures in real-time. In addition, switching transportation means are easy to handle as final destinations and walking minutes are described to the user while navigating through public transportation. However, if anything goes wrong, children have the opportunity to use the help button. When pushed, the app generates automatically a short message including the GPS data and the energy level of the phone's battery. Hence, the configured contact such as a parent will receive the message and can contact or even pick up the child.

Get more information about VBB jump:  
[www.vbb.de/jump](http://www.vbb.de/jump)

For contact:  
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## Calendar of events and conferences

### 43th EMTA GM

Palma de Mallorca, 3 - 5 April 2019

In Palma, EMTA will convene for debating topics like Governance of Shared Mobility and MaaS, Innovative pricing and payment systems, Zero emission strategy, Air quality and Infrastructure financing. Local and invited speakers from all over Europe will highlight the urban network developments, sustainability and equity in- and outside their respective transport networks. Admission is for EMTA members and invitees only.

### Fluidtime Symposium 2019

Vienna, 16 - 19 May 2019

This year's Fluidtime Symposium 2019 is dedicated to the question "MaaS - political agenda or business case?"  
<https://www.fluidtime.com>

### URBAN FUTURE global conference 2019

Oslo, 22 - 24 May 2019

<https://www.urban-future.org>

### International Transport Forum Summit 2019

Leipzig, 22 to 24 May 2019

<http://2019.itf-oecd.org>

### European ITS Congress 2019

Eindhoven & Helmond, 3 - 6 June 2019

This year's ITS Europe Congress is jointly hosted by the cities of Eindhoven and Helmond, in the Dutch Brainport region. The congress host and organiser ERTICO are keen to offer a congress experience that is relevant and interesting for cities.

<https://2019.itsineurope.com>

### UITP SUMMIT 2019

Stockholm, 9 - 12 June 2019

The international public transport community, mobility decision makers and industry suppliers will come together in Stockholm for the UITP Global Public Transport Summit.

<https://uitpsummit.org>

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