

## News from the cities

### ● CRTM MADRID new social fares for public transport

In 2009, the Madrid Transportation Consortium introduces special social measures in the tariff policy aimed at specific segments of the population.

These actions are designed to encourage and facilitate the use of public transport by segments of the population that are considered to deserve special protection measures, based on their socio-economic characteristics.

Three decisions have been made with this aim in mind:

1. Application of a 20% reduction in all types of Public Transport Passes for people with a recognized degree of disability of 65% and above.
2. Application of a reduction of 20% and 50% to the price of all types of Transportation Passes for member of large families in the general and special categories respectively, as stipulated in the Large Family Protection Act.
3. Creation of a new transportation pass called the Tarjeta Azul (Blue Card), in collaboration with the Madrid City Hall, aimed at people over 65 years old or having any degree of disability, who fulfill a series of income conditions. Tarjeta Azul is a monthly pass, valid in the central zone A -municipality of Madrid. It allows unlimited use of metro and bus services at the price of 5.50€. The financial charge of Tarjeta Azul is equally shared between Madrid City Hall (local administration) and the Region of Madrid (regional administration).

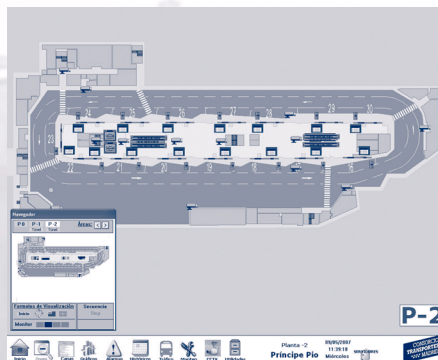
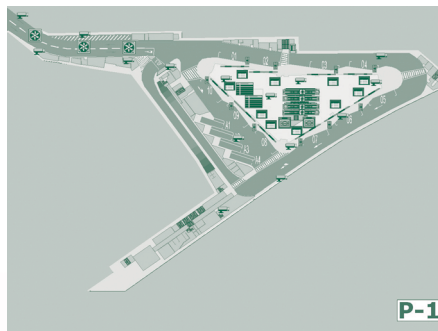
The first two measures will be implemented over the course of the year. The Tarjeta Azul application process already started in March. It is estimated that these measures will benefit approximately 400,000 people.

[www.ctm-madrid.es](http://www.ctm-madrid.es)

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### ● Integrated Collective Public Transport Management Centre in Madrid Region

Before the end of the year, the Region of Madrid will have an Integrated Collective Public Transport Management Centre - a "big brain" that will coordinate the information on infrastructure and services of the different modes of transportation that operate in the region in real time. This centre will be the first in Europe to receive and manage in a single space specific information on all "incidents" that may occur in each one of the modes of transport, acting like a "112" or central emergency hotline for public transport.



This innovative system will provide important benefits both for users and for the Consorcio Regional de Transportes de Madrid (CRTM). The users will be able to receive information on the status of the lines that they are going to use with enough time to allow them to plan the route that is best for them. CRTM the Public Transport Authority in the Region, on its part, will be able to make decisions faster and more effectively when coordinating the operation of the whole transport system.

#### Advantages for users

The system will make it possible to analyze the status of public transport as a whole and to provide a coordinated and integrated

response to the needs of the passengers. Thanks to this centre, the information related to the different modes of transportation (Metro, EMT, Cercanías, transport interchanges, etc.) are conceived as part of a single multi-modal information system. The screens will display information regarding the operation of all different lines of the public transport system and also offer alternatives if any of the infrastructure is not operating at full capacity at a given time.

This Centre, which will operate 24 hours a day, also manages compliance with service timetables, monitoring via TV cameras, and the proper functioning of all of the installations, such as elevators, escalators, HVAC, or fans, in order to guarantee high-quality service for citizens.

Lastly, this Centre will coordinate actions related to incidents (passengers falling on the tracks or being injured, fights, any types of events) that may occur in the public transport system, and execute the established procedures in the corresponding coordination mechanisms with the 112 Regional Emergency Centre, which may require the presence of SAMUR, the Fire Department, Police, etc. depending on the circumstances.



### Supporting Madrid's Candidacy for the 2016 Olympics

This project will undoubtedly represent an important element in Madrid's Candidacy to host the 2016 Olympic Games. Thanks to the applications available in the Integrated Collective Public Transportation Management Centre, all visitors during the Olympics will enjoy the best information and the fastest and most comfortable transport services to the different competition venues, while the coordinated actions of all transport operators will be optimized to ensure efficient and sustainable mobility.

[www.ctm-madrid.es](http://www.ctm-madrid.es)

● **Barcelona tramway: a success story**

In June 2008 came into operation the last track of the planned tramway networks in the area of Barcelona. The project started in 1999 when a bid comprising the design, the construction and the exploitation of a tramway system was launched by ATM and awarded subsequently to a private operator (Tramvia Metropolità SA) for an operation period of 25 years.

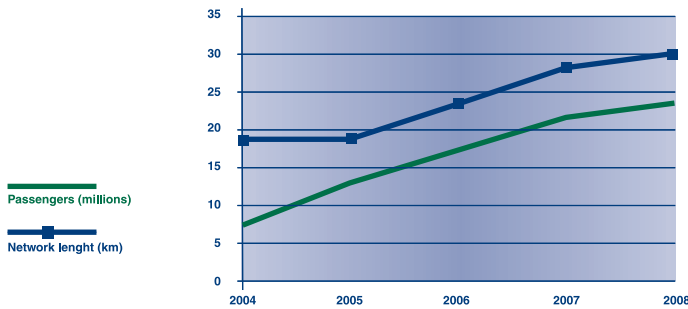
Barcelona tram system consists of two networks, Trambaix and Trambesòs. In April 2004 the first section of Trambaix was inaugurated and the last one, the stretch extending to Sant Feliu de Llobregat, in 2007; 3 lines run on this network. Trambesòs started its operation in May 2004 and this network was completed a few months ago as mentioned before. It is organised in 3 lines as well. Both networks are UIC gauge and equipped with the same rolling stock (Alstom Citadis 302 of 5 modules).

	Trambaix	Trambesòs	Total
Network length	15.9 km	14.1 km	30.0 km
Stops /stations	29	26	55
Rolling stock	19	18	37
Interval at peak hour	5 min	8 min	-
Commercial speed	18.1 km/h	19.4 km/h	-
Passengers 2008 (in millions)	15.5	7.6	23.1

*Technical data of Barcelona tram system*

Introduction of tramways has meant a deep modification of urban space, allowing more space to pedestrians, bike lanes and social life in general. It is worth mentioning that a substantial part of the tram networks runs on a grass - green platform which is very appreciated by the citizens.

Since the opening of the network, the yearly increase of the demand has been regular. As users declared in a survey, the most appreciated features of the tramway are facility of access, cleanliness and comfort.



*The network length as well as the passenger riderships have grown side by side every year, since the opening in 2004.*

After the completion of Trambaix and Trambesòs, a process of reflection and study on new extensions has been undertaken in the framework of the Master Infrastructure Plan. One of the projects that is being considered is linking Trambaix and Trambesòs along Diagonal Avenue.

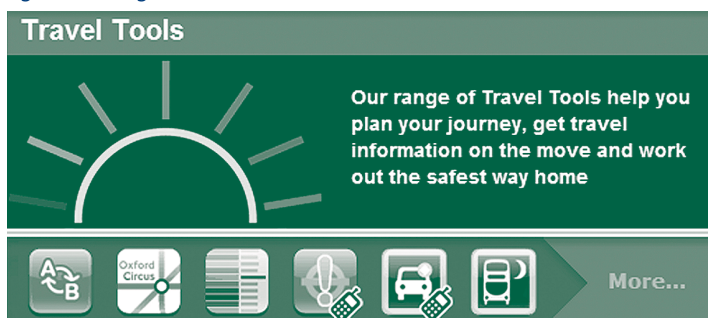
[www.atm.cat](http://www.atm.cat)

● **More ways to check before you travel in London**

New features on Transport for London's website have made it even easier to find the latest travel and Tube (metro) information at the click of a mouse.

Additions to the site include:

- > A single page that brings together all the travel tools so passengers can easily find up-to-date information to plan their journeys,
- > Options to sign-up for email alerts about weekend closures,
- > Upgrade information for each Tube line,
- > Widgets that allow live travel information to be added to websites, including iGoogle and blogs,



- > A tool that enables passengers to select a day to view any planned works on the network and features an interactive map.

The changes, part of Transport for London's Investment Programme, give Londoners the ability to plan their journey in advance or on the go. Find out more at:

[www.tfl.gov.uk/traveltools](http://www.tfl.gov.uk/traveltools)

● **New bus for London moves a step closer**

Mayor of London Boris Johnson has unveiled the winning designs in the New Bus for London competition. Overall 700 entries were received from professionals and non-professionals of all ages. The judges were so impressed with the ideas submitted in the 'whole bus design' category that a joint first prize was awarded to Capoco Design Ltd and a collaborative entry from Aston Martin and Foster + Partners.



*Capoco Design Ltd.*

The competition featured a 'design' category for professional-standard entries, with a class for 'whole-bus' submissions and another for single concepts or features. A second 'imagine' category encouraged entrants of all ages to unleash their creativity. It was split into age groups varying from under-11s to over-18s, with a range of prizes available.



*Aston Martin and Foster+Partners.*

The next step in delivering the new bus is to pass the winning ideas to manufacturers to develop into a final proposed design. TfL expects to award a contract towards the end of next year, after a competitive tendering process. The first new vehicles will be seen on the streets of the Capital in 2011. For more information about the competition, winners and designs, go to:

[www.tfl.gov.uk/newbusforlondon](http://www.tfl.gov.uk/newbusforlondon)

● **Dutch E-ticketing System: success factors for the introduction of a nation wide system.**

In 2003 the Netherlands decided to switch to single E-Ticketing for all types of public transport, for train, tram, bus and underground, both in the cities and regionally. To be sure “proven technology” was used, at that time the choice fell on an already working system from Hong Kong. Via a tender procedure a consortium was selected that was put in charge of the development of the E-ticketing system in the Netherlands.

The principle of the chosen system works as follows: the passenger is checked in and out at the start and end of each trip by keeping his smartcard close to the card reader.



The trip cost, based on kilometres travelled, is deducted from the balance on the card on checking out. The passenger has to check in and out each time he switches vehicles. These check-in and check-out transactions are processed in a central system, which also takes care of settlement between the carriers. Instead of travelling with a balance on the card it is also possible to put “travel products” on the E-ticket, which give certain travel privileges, and which are, therefore, recognised at the check-in and check-out phase.

At the time, five of the nine carriers set up a specialised organisation, Trans Link Systems, for the technical implementation of the project. Among other things this company ensures all carriers implement the E-ticketing system according to the same specifications.

In the Netherlands the public transport carriers run so-called concessions. These are areas where the right to offer transport services during a number of years against a certain compensation from the regional government has to be acquired by means of a tender procedure. The carriers are tasked with the responsibility to implement the E-ticketing system in the areas where they offer transportation; the cost of this implementation is borne by the

regional governments: 12 provinces and 7 city regions.

The implementation of E-ticketing in the Netherlands is wholly regionalised to the 19 regional governments. Strictly speaking the ministry of Transport is only involved in the implementation of E-ticketing for the National Railways (NS), and in giving permission to abolish the current paper tickets. It also grants subsidies to the regional governments with which they can pay for the implementation of E-ticketing.

The agreements on the implementation of E-ticketing are settled in contracts between the regional governments and the carriers.

The E-ticket is gradually being implemented in the Netherlands. The conglomerates Rotterdam and Amsterdam together with their surrounding regions are first. In Rotterdam the underground is only accessible for E-ticket holders since the beginning of 2009, in Amsterdam this will happen within half a year. In the rest of the Netherlands the E-ticket will be introduced during 2009 and 2010 and the paper tickets will be discarded. In the same period a network of charging locations will also be realised in shops spread over the whole country, in the vehicles, and at the stations and stops. 9 million travellers will also have to be supplied with E-tickets in the same period; a daunting operation.

Sadly enough the implementation of E-ticketing in the Netherlands has run up a delay. A number of causes can be seen to be at the root of this, which, at the same time, are lessons to be learned for other countries and regions with plans in this direction. Consideration has to be given, however, to the fact that the way in which a new E-ticketing system is implemented in the Netherlands is unique in the world: all carriers take part, and at the end of the project every Dutchman can travel throughout the country using every means of public transport with a single smartcard: the E-ticket.

The reason for this national approach – in a small country like the Netherlands– was to avoid contraining the travellers to travel with several different systems and smartcards. Even if this approach results in the need for a synchronisation between a large number of parties. As a result a number of problems arose however, which could mostly have been avoided if the success factors had been better mapped out in advance and during the implementation phase.

**Success factor 1 : see to the existence of strict coordination of the whole exercise from one central point**

Many parties are involved in the E-ticketing project, all with valid reason:

- > The ministry of Transport: financier of the project,
- > Provinces and city regions: draw up contracts with the carriers about the implementation of E-ticketing,
- > Carriers and their branch associations: have to implement the E-ticket which is not their core business,
- > Consumer organisations: criticize the consequences of the E-ticket for the traveller,
- > The travellers: are confronted with a new way of paying for their journey,
- > Trans Link Systems (TLS): is charged with specifying the system, including the clearance of revenues and issuing E-cards,
- > Suppliers of E-ticket equipment: have to adhere to the specifications and need to be certified,
- > De Nederlandse Bank (the Dutch National Bank): needs to authorise TLS to manage the “float” of outstanding balances as a banking institution,
- > The Dutch Data Protection Authority (College Bescherming Persoonsgegevens): monitors the amount of security for the personal data in the E-ticket system,
- > Universities and technical institutions: test the protection of the electronic security of the E-ticket system against cracking the E-ticket code,
- > The media: are naturally interested in everything that can go wrong in such a national system.

It is important that there is a director to the project clearly identified, who ensures that all parties agree on matters such as technology, planning, tariffs and distribution. If that doesn’t happen then a chaos of joint decision making, new ideas and self-interest will result. Leadership is necessary to cut the knot if parties disagree.

**Success factor 2: make sure that you tell a success story right from the start**

The E-ticket acquired a negative image as a result of problems with the gates, the negative coverage by media and the consumer organisations, and the suspicion of the traveller organisations that the E-ticket will be misused to covertly increase the prices and that private information will be misused. If clear agreements have not been made carriers tend to demonstrate risk evasive behaviour because of the risks. They prefer to pass onto the government extra costs as much as possible and they do not sufficiently look for possibilities and opportunities.

Therefore it is necessary to ensure that people do not immediately think of problems in relation to the E-ticket, but recognise the positive effects of such a useful system. Example of a success story in the Netherlands is the recent implementation in Rotterdam, where fare dodging, for example, has been considerably reduced. This has also been well managed and communicated: finally a success story that made all the papers. Amsterdam too came in the news positively: elderly people (65 plus) are buying the E-ticket in large numbers now (over 40.000) in exchange for 3 months of free ridership in Amsterdam.

### Success factor 3: keep it all simple for the customer ("KISS")

The E-ticket in Nederland is complicate for the customer. He is confronted with a number of questions, for example: why can't you load the E-ticket at a bank, why do we need so many new machines, why do they all look different? Why do you sometimes have to go through a gate at the railway station but not always? Why do I have to check-in and out each time with every new carrier? Why do I encounter different kilometre tariffs on the way? Why do I need to check out if I have a season ticket? Why isn't the current zoning system copied to the E-ticket system on a 1-1 basis?



Reason for these sometimes complex constructions, lies in the fact that the 19 regional governments have the right, as public transport authorities, to their own tariff wishes.

Restraint in inventing proprietary tariffs and products is necessary, however. Keep it simple, even in the own region. It is preferable to travel on the card balance as much as possible, with or without reductions, based on a kilometre tariff, but no more zones, and with as little products and exceptions as possible. Also ensure effective communication of the milestones achieved, in which everything is extensively explained.

### Success factor 4: really buy a system that works already, and that can

### actually be copied

The Netherlands bought the system that is being used in Hong Kong. It had to be rebuilt, however, according to very complicated and continuously changing specifications. Later on other suppliers were also allowed to join in, provided they could match their systems with the system bought. Very good in terms of competitiveness, however, it did result in a doubling of the technical problems.



The setup of the technical system can also be simpler: the multi-staged architecture, in which the carriers manage their own back-office, linked to a central system, should be discouraged. One central back-office in which all information is safely processed is to be preferred, even more so now that it has turned out that carriers are not allowed to use the individual travel data for commercial ends, because of the law on privacy.



### Success factor 5: take a joint project approach

The 9 public transport carriers and their 19 ordering customers (regional Public Transport Authorities) together determine a number of issues for the more than 60 regions (concession areas) in which travellers are being transported, such as the tariffs, the travel products, the communication campaigns and the recharging locations. Of course there are separate teams in which this information is exchanged. And country-wide agreements were also made between these parties about these subjects. But it would have been better if there had been one national organisation that had taken

in charge all these aspects in a professional manner, and not just the technology, as Trans Link Systems did.

Also empowering such an organisation with sufficient authority to enforce a number of matters, that are particularly important to the traveller, such as the appearance of the equipment, the recharging services to be set up and finally a simple tariff structure, is important.

### Conclusion

A number of years have passed and the E-ticket system is eventually being implemented nation-wide in the Netherlands in 2009 throughout to 2010. After getting used to it the travellers will be able to use it comfortably as is proved by the pilots projects in Rotterdam and Amsterdam. However a number of problems could have been prevented, if more thought had been given to what makes such a project a success for the traveller. Because in the end it all revolves around the traveller ...

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## Agenda

- EMTA workshop on Mobility Plans  
27 April 2009  
Valencia (Spain)  
[www.emta.com](http://www.emta.com)
- 24<sup>th</sup> International Electric Vehicle Symposium  
13-16 May 2009  
Stavanger (Norway),  
[www.evs24.org](http://www.evs24.org)
- 16<sup>th</sup> ITS World Congress  
21-25 September 2009  
Stockholm (Sweden),  
[www.itsworldcongress.com/](http://www.itsworldcongress.com/)
- EMTA autumn General Meeting  
5-6 November 2009  
Warsaw (Poland),  
[www.emta.com](http://www.emta.com)



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