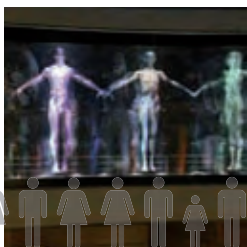


Madrid, a world reference



- 1 The Regional Transport Consortium of Madrid
- 2 Territorial Structure
- 3 Mobility
- 4 The Road Network
- 5 The Public Transport System
- 6 The Travel Pass
- 7 Accessibility
- 8 Metro Extension Plan 1995-1999
- 9 Private Concession of Metro Line 9 to Rivas and Arganda
- 10 Metro Extension Plan 1999-2003
- 11 MetroSur
- 12 Metro and Light Rail Extension Plan 2003-2007
- 13 Parla Tramway
- 14 Public Transport Infrastructure Plan 2007-2011
- 15 Madrid Suburban Railway Infrastructure Plan 2009-2015
- 16 Madrid Metro
- 17 Madrid Urban Bus Services: EMT
- 18 Suburban Train Services: RENFE
- 19 Light Rail in the Madrid Region
- 20 Suburban Bus Services: Private Operators
- 21 Reserved Bus Platforms in Roads
- 22 Madrid Interchange Stations Plan
- 23 Moncloa Interchange
- 24 Plaza Castilla Surface Interchange
- 25 Park and Ride
- 26 Bus Stop Facilities and Information
- 27 Integrated Public Transport Management Centre
- 28 New Technologies
- 29 Public Transport Financing
- 30 Madrid: A World Reference

© Consorcio Regional de Transportes de Madrid

Studies and Planning Department
Plaza Descubridor Diego de Ordás, 3 · 28003 Madrid. Spain.
Tel. + 34 - 91 580 4532 · Fax: + 34 - 91 580 3310
e-mail: estudios@ctm-comadrid.com

Photographs: Archivo Consorcio de Transportes · Technical Photographs · Blanca Berlín · Javier Aldecoa · Miguel Angel Delgado · Juan Carlos Melero · Emiliano Durán · Jose Manuel Luna · Kerygma

Design: breu comunicación · breu@breu.es

Printed by: IARRICCIO artes gráficas

Date: October 2010

All Rights Reserved

Legal Deposit: M-21358-2003



The Regional Transport Consortium of Madrid was set up in 1985 as a Public Transport Authority to coordinate infrastructures and services for the different modes of transport in the Madrid Region.

Ever since, as well as implementing this essential function to organise a truly integrated public transport system, the Consortium has also consolidated its essential role as a network planning body. It is now considered a model and a benchmark for many other regional systems.

Thanks to this integrated model, between 2003 and 2007 the Madrid Regional Government was able to put an ambitious Infrastructure Plan into practice. Among other actions, this has resulted in the most significant enlargement in the history of our underground system, the third largest in the world, including 36 km of a new light train network.

This document provides you with all the relevant information regarding these expansion plans, with a detailed description of our system's resources and activities. "Madrid 2010 A World Reference" presents a comprehensive overview of what our Public Transport System is and what it represents. The people of Madrid justifiably consider this Public Transport System to be one of their major sources of pride and it is used by an enormous number of citizens.

Despite the success and importance of what has already been achieved, the Madrid Regional Government is fully aware of the fact that such a modern, dynamic society, in process of expansion, requires ongoing commitment, permanently seeking new solutions. Accordingly, a new plan to enlarge and modernise the network is currently in progress.

In this new stage, our project will continue to improve and expand the public transport network in these times of economic crisis, with the extension of three Metro lines (lines 2, 9 and 11 – this last line extending to Leganés municipality). We shall extend the suburban railway network to the town of Navalcarnero, connect the town centre of the municipality of Torrejón de Ardoz via a suburban underground railway; renew the train and bus fleets; and, finally, the Modernisation Plan for the interurban bus network has been put into practice which, apart from improving service quality, will provide local people with new information technologies on this mode of transport. At the same time, we have signed an agreement with the Ministry of Public Works to implement the Madrid Railway Infrastructures Plan 2009-2015, which extends the railway network by over 100 km in a way that further enhances the structure of the regional layout.

This is an ambitious Plan of a comprehensive, all-encompassing nature, that intends to achieve the complementarity of different modes of transport by integrating these via points of intermodal connection.

With these projects, we hope to provide an efficient response to the new challenges that are taking shape in the immediate future as far as mobility is concerned. We aim to offer the people of Madrid an increasingly faster and more efficient service, as befits an international benchmark.



José Ignacio Echeverría Echániz
Regional Minister for Transport and Infrastructures
President of the Regional Transport Consortium

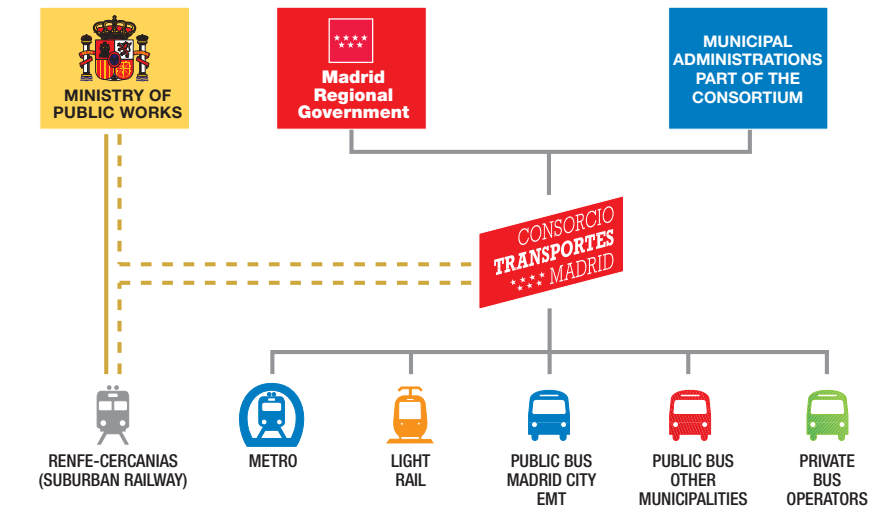


Surface interchanger at Plaza de Castilla

The Regional Transport Consortium of Madrid



INSTITUTIONAL FRAMEWORK OF THE MADRID REGION PUBLIC TRANSPORT SYSTEM



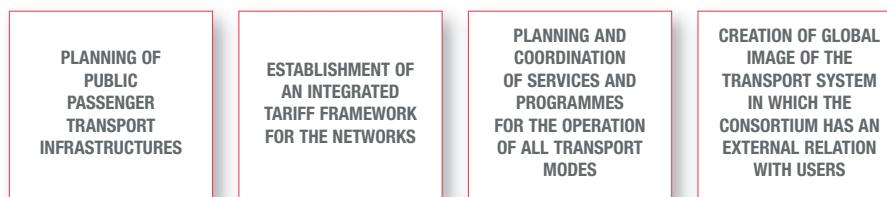
The Regional Transport Consortium (CRTM) was founded by the Madrid Regional Government under Act 5/1985 of May 16th, just two years after the creation of the Region of Madrid itself.

As an Autonomous Body of the Regional Government, the responsibilities of the Regional Transport Consortium (CRTM) cover the provision of public transport services to the inhabitants of the entire Madrid Region and associated municipalities.

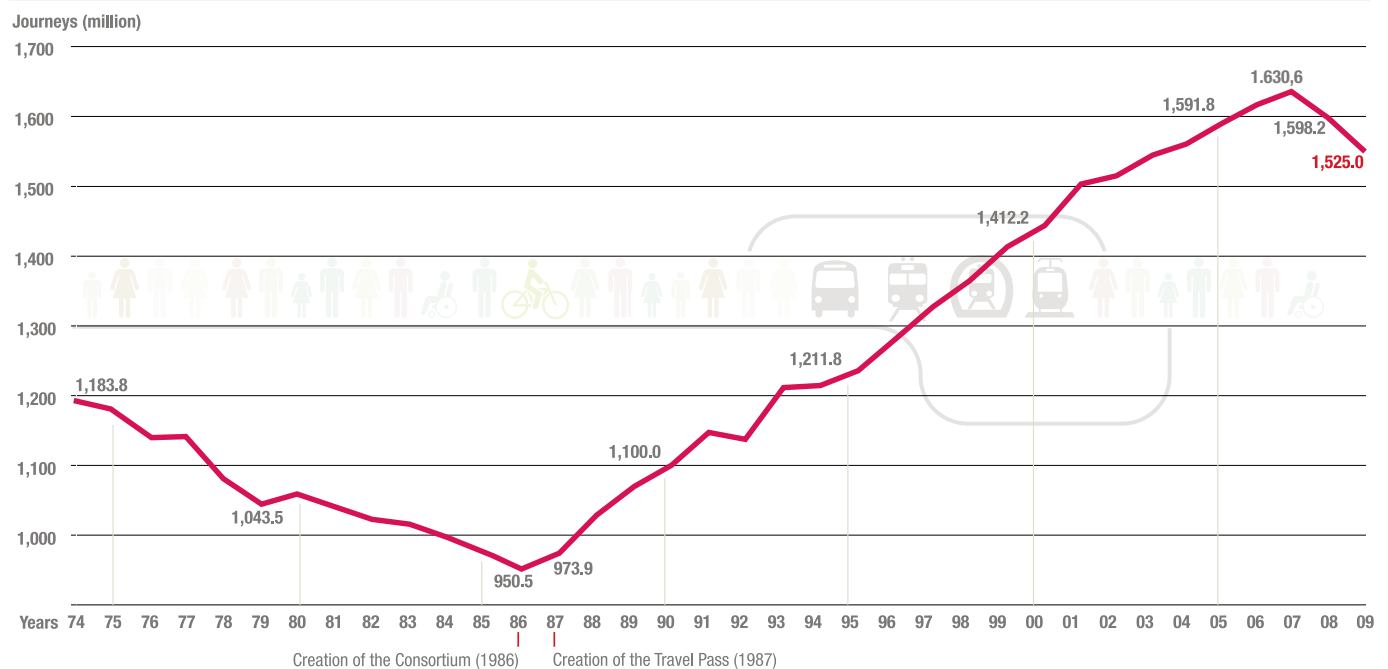
CRTM's Board of Management is made up of members from a number of public and private bodies, including representatives from the Region of Madrid (5 representatives), associated towns and municipalities (8 in total, 5 from Madrid City Council), the Spanish Government (2), private transport operators (2), trade unions (2) and user and consumer associations (1).

The CRTM has no authority over RENFE CERCANÍAS (suburban train), although there is an agreement for the use of the Travel Pass.

FUNCTIONS OF THE CRTM



EVOLUTION OF PUBLIC TRANSPORT DEMAND



Since the creation of the Regional Transport Consortium of Madrid, use of public transport has risen by 60.8%, whilst population in the same period (1986-2009) has grown by 33.6%. Nevertheless, since 2008, the economic crisis has had a significant impact on the use of transport in the region.

Territorial Structure



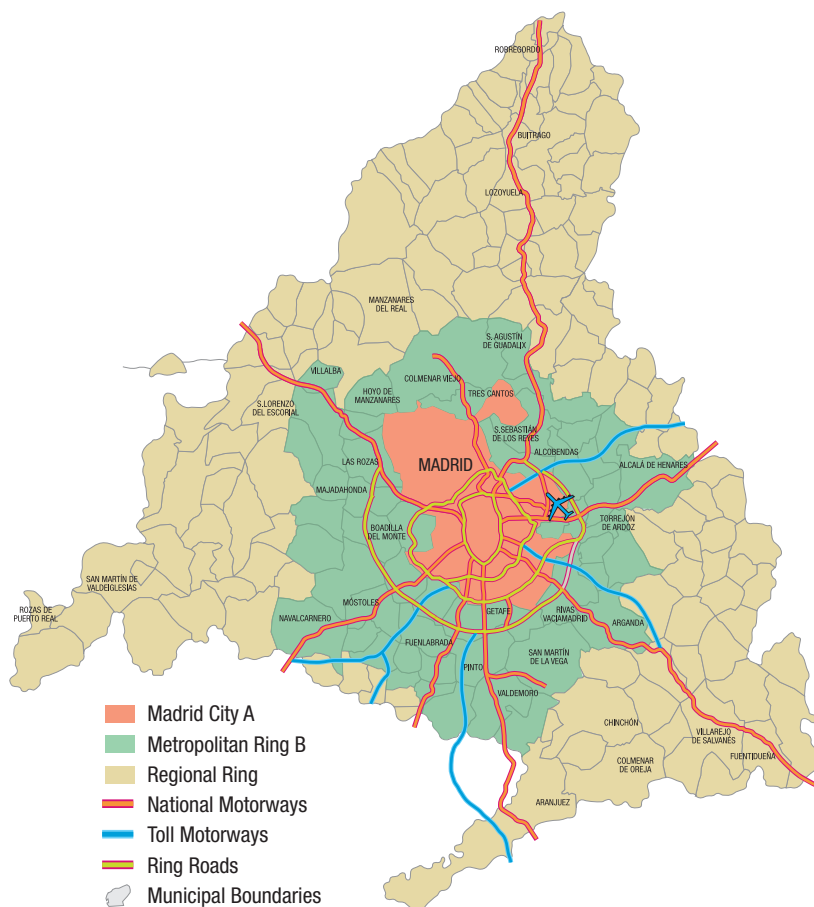
The current organisation of the Spanish state, apart from the national government, is based on Autonomous Communities, which have extensive responsibilities at regional level, and municipalities, which represent local territorial bodies. Madrid region is one of Spain's 17 autonomous communities and its territory is made up of 179 municipalities, with a clearly defined functional structure in three zones, or "rings":

- **Municipality of Madrid**, as the area's main body, concentrating the majority of activities.
- **Metropolitan Ring**, which consists of a number of large and medium-sized municipalities around the municipality of Madrid, closely related with each other.
- **Rest of the region**, with small and medium-sized municipalities.

In 2009, the city of Madrid had a population of 3.3 million inhabitants, accounting for 51.0% of the region's total population. Its central core, the so-called "Central Almond", is home to 31.1% of the population and provides a large proportion of the region's jobs.

Since the final quarter of last century, the population's distribution in these three functional rings has shown a dynamic process characterised by a population loss from the municipality of Madrid. This trend slowed around 1996, a year in which the municipality's population recovered. During this whole period, populations in the metropolitan and regional rings have increased in growing proportions, giving rise to radical changes in mobility in the region, with a significant increase in metropolitan journeys.

TERRITORIAL STRUCTURE OF THE REGION OF MADRID

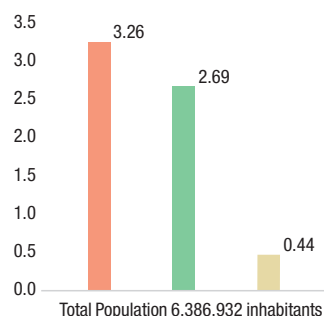


INHABITANTS IN THE REGION OF MADRID

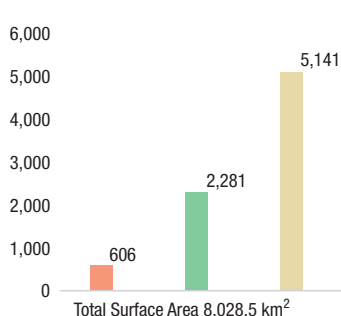
	Municipalities	Population 1986	Population 2009*	Surface area (km ²)	Density (inhab./km ²)
Ring A Madrid city	1	3,058,182	3,255,944	606.4	5,369
- Central Core		1,029,010	1,013,437	42.0	24,129
- Suburban area		2,029,172	2,242,507	564.4	3,973
Metropolitan ring B	49	1,533,184	2,687,296	2,280.7	1,178
Regional ring C	129	189,206	443,692	5,141.4	86
Total	179	4,780,572	6,386,932	8,028.5	795

*Population as of 1 January 2009

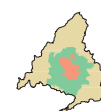
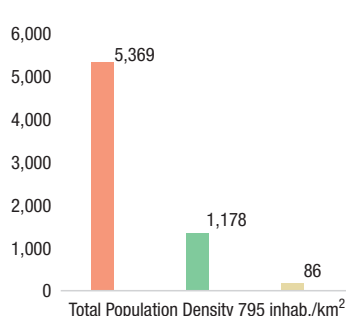
INHABITANTS (millions)



SURFACE AREA (km²)



DENSITY (inhab./km²)



- Madrid city ring A
- Metropolitan ring B
- Regional ring C



Travellers in a transport interchange

The total number of journeys in the Madrid Region during a single working day in 2004 (according to the last Household Mobility Survey, EDM 2004), was 15.2 million, or an average of 2.6 journeys per inhabitant. These journeys are distributed more or less equally between the three major modes of transport; thus, 31.2% are made on foot, 34% use public transport, and 34.8% are made using private vehicles.

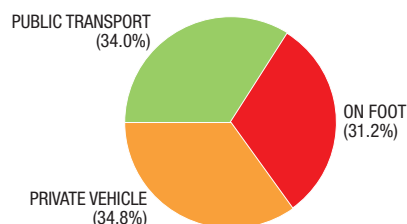
The most important reasons for travelling are mandatory travel, firstly for reasons of work (37.1%) followed by study (19.3%). Non-mandatory travel accounts for 43.6% of the total, which would indicate that the purposes for making journeys are increasingly varied. The issue of mobility is, therefore, gradually becoming more complex.

Mobility by spatial area shows some significant differences:

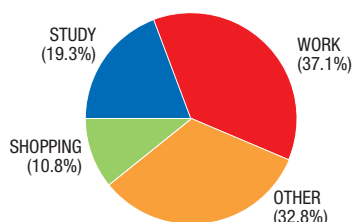
- Mobility within the municipality of Madrid: public transport predominates, with 42.2%, followed by journeys made on foot (33.6%).
- Radial mobility between the municipality of Madrid and the metropolitan ring: in this case, there is a balance between public transport and the use of private vehicles.
- Mobility within the municipalities of the metropolitan ring: journeys made on foot clearly predominate (56.5%), followed by private vehicles (33.7%).
- Mobility between municipalities in the rest of the Community: more than two thirds of journeys are made by private vehicle (69.4%).

Of the 2.8 million jobs recorded in the Household Mobility Survey (EDM 2004), 63.5% were located in Madrid city. The population of the city of Madrid itself mostly works in the city (82.1%), and of the population living in the rest of the Region, 42.5% work in Madrid city. As for the location of jobs, it was found that 68.5% of employment in the city of Madrid corresponds to people who live in the capital, whereas 74% of employment in the rest of the Region corresponds to people living there.

DISTRIBUTION BY MODES (EDM 2004)



JOURNEYS ACCORDING TO PURPOSE (EDM 2004)



DISTRIBUTION OF MOBILITY BY SPATIAL AREA (EDM 2004)

Spatial area of mobility	%	Walking (%)	Public transport (%)	Private vehicle (%)
Internal mobility in the Region of Madrid	50.3%	33.6%	42.2%	24.2%
Radial mobility between Madrid municipality and the rest of the Region	15.6%	0.6%	49.0%	50.4%
Internal mobility in municipalities in the rest of the Region	24.8%	56.5%	9.8%	33.7%
Mobility between municipalities in the rest of the Region	9.3%	2.0%	28.6%	69.4%
Total mobility	100%	31.2%	34.0%	34.8%

DISTRIBUTION OF THE WORKING POPULATION BY RESIDENCE AND EMPLOYMENT (EDM 2004)

Area of residence	Place of employment			Total
	Madrid municipality	Rest of the region	Outside the region	
Madrid municipality	43.5%	9.2%	0.3%	53.0%
Rest of the Region	20.0%	26.2%	0.8%	47.0%
Total	63.5%	35.4%	1.1%	2,793,132

The Road Network



The Madrid road network is fundamentally a radial system, with seven corridors located along seven national trunk roads. There are also two ring roads, the M-30 and the M-40, a third ring road, the M-50, with the northern part of the loop not connected and the M-45 allowing the redistribution of the traffic within Madrid's metropolitan area. This network is complemented with a series of radial toll motorways that basically run parallel to the national highways.

On the M-30, a large urban transformation project is being undertaken which entails remodelling the motorway (tunnels in some sections and improvements to junctions). The project also involves improving the area through which it runs (the recovery of the River Manzanares, creation of new green zones and leisure areas, improving the soft mobility of the population) ensuring greater functionality and enhanced traffic efficiency.

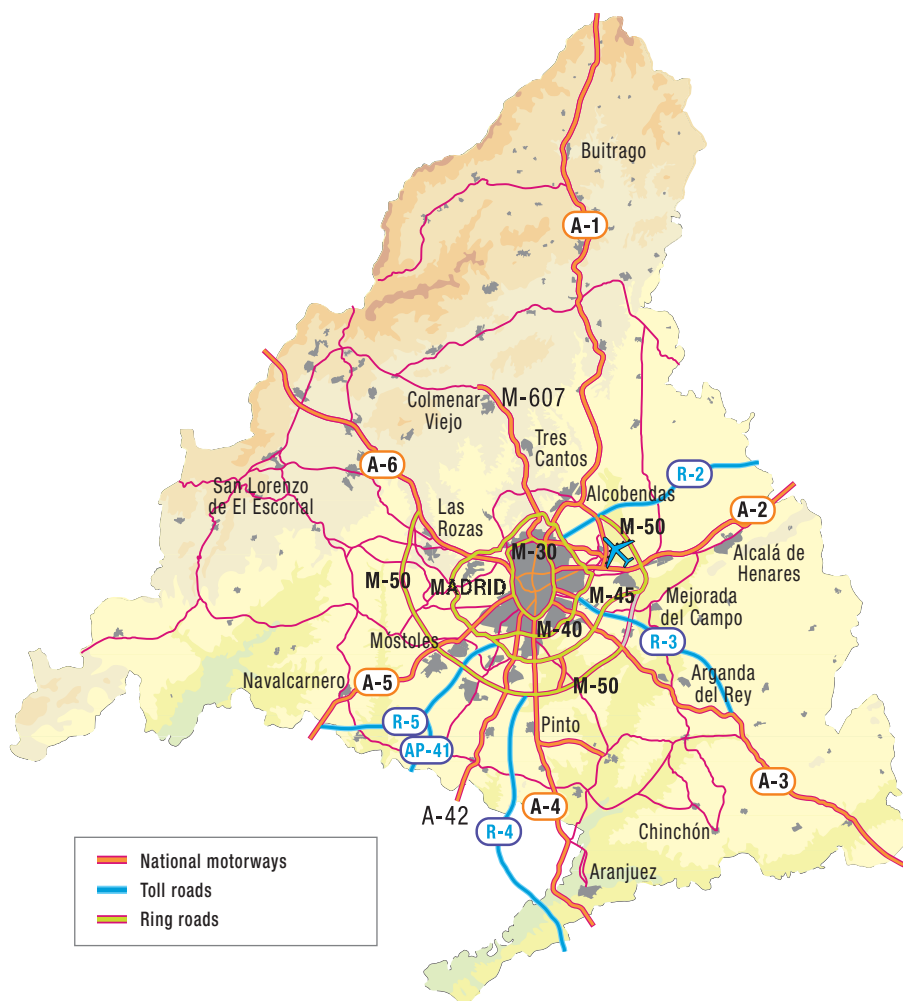
The high-capacity road network is 964 kilometres long, 69% of which is run by the Central Government and the remainder is the responsibility of the Community of Madrid. This figure gives a ratio of 153.7 km of high-capacity roads per one million inhabitants or 12.0 km per 100 km² of surface territory.

In 2008 the number of vehicle-km travelled per day was 60.77 million on the total network, of which 65% was on national roads. Heavy vehicles accounted for 10.4% of traffic on the total network.

The Average Daily Traffic (ADT) on the Madrid regional road network is 8,114 vehicles per day and on national roads exceeds 50,000 vehicles per day.

In recent years, trends in road safety parameters have shown certain variations, but with a downward trend in the number of accidents. In 2008, the number of accidents with victims in the Community of Madrid was 13,995, however, the number of fatalities in these accidents fell significantly, by 44% in the period 2003-2008, standing at 201 deaths in 2008.

Even so, reducing these figures is still a fundamental objective for the Madrid Regional Government.



ROAD NETWORK IN THE REGION OF MADRID (km)					
Highway category	Competent Authority		2008		
	State	Region	TOTAL		
LARGE CAPACITY HIGHWAYS	664	300	964		
- Toll motorways	144	0	144		
- Free motorways and expressways	505	103	608		
- Dual carriageways	15	197	212		
REST OF THE NETWORK	107	2,310	2,417		
Total	771	2,610	3,381		
TREND IN NETWORK AND MOTORISATION INDICATORS					
Indicator	1991	1996	2001	2006	2008
Large capacity network/100 km²	7.5	7.9	9.4	11.7	12.0
Large capacity network/million de inhab.	120.3	124.8	135.9	156.1	153.7
Vehicles/Large capacity network (km)	3,910	4,497	4,826	4,378	4,575
Vehicles/1,000 inhabitants	474	565	675	638	703
AVERAGE DAILY TRAFFIC (ADT) ON THE ROADS OF THE REGION					
Network	ADT 1991	ADT 2009	heavy ADT 2009	% heavy	
Main	12,697	22,869	1,999	8.94	
Secondary	3,178	5,236	473	9.03	
Local	1,528	2,254	202	8.94	
Total	3,905	8,114	715	8.82	



The Public Transport System



Plaza de Castilla Interchange Station



Line 3 station, Embajadores

The public transport system for the Madrid region is a complex intermodal system, consisting of various modes of transport. Two major sub-systems can be distinguished:













- The urban area of the city of Madrid: around 200 urban bus routes (EMT), 12 underground Lines (Metro), one light rail line and 31 suburban train stations.
- Metropolitan area of the region: over a hundred urban bus routes, over 300 interurban lines, 5 Metro lines, 3 light rail lines and 8 suburban railway lines.

Both subsystems are connected by a series of large interchanges that surround the central area of the city of Madrid, channelling radial mobility between the capital and its metropolitan rings.

The system has various operating companies, both public and privately-owned:

- Metro de Madrid, S.A., a public company owned by the Madrid City Council (75%) and the Madrid Region (25%).
- EMT, a municipal company of the Madrid City Council, is responsible for the urban bus lines in the municipality of Madrid.
- 31 private companies that operate the interurban and urban bus services in rings B and C.
- The municipal transport company of Fuenlabrada.
- Cercanías Renfe, a public company dependent on the Spanish Ministry of Public Works, operates suburban rail services.
- Transportes Ferroviarios de Madrid (TFM), the company awarded the tender for the extension of Metro line 9 to Arganda del Rey.
- The company MetroBarajas, S.A., concessionaire of the connection with the airport's terminal T-4.
- The 3 light rail concessionaires: Metro Ligero Oeste S.A., Metros Ligeros de Madrid S.A. and Tranvía de Parla S.A.

The annual demand for public transport in the year 2009 was in the order of 1,528.6 million journeys, representing an average of 240 journeys per inhabitant, placing the Madrid Region at a very high level among Spanish and European cities.

PUBLIC TRANSPORTM SYSTEM: SUPPLY AND DEMAND (2009)							
SUPPLY						DEMAND*	
	Number of lines	Lenght of lines (km)	Stations/ Stops	Number of vehicles	Vehicles-km (millions)	Passengers (millions)	
  METRO	12+1	278	232	2,281	198.2	652.9	
  Urban bus zone A	215	3,870	10,970	2,092	100.4	426.4	
  Urban bus Rings B and C	127	1,854	4,273	180	17.8	44.0	
  Interurban bus	351	20,194	17,149	1,944	178.3	201.2	
  RENFE** Suburban train	8	363.2	100	1,146	138.7	184.0	
  Light rail	4	36	53	44	18.9	16.5	

* Underground (Metro) and suburban rail (Cercanías-Renfe) data are provided for the network. Data for the bus networks are provided for routes.

** Suburban rail data is for Cercanías-Renfe in the Madrid Region, with some sections of Lines C-2, C-9 and C-3 going beyond the limits of the Region of Madrid (to Guadalajara, Segovia and Toledo, respectively).

The Travel Pass



The Travel Pass is a multimodal, integrated travel ticket for unlimited personal use on all public transport modes (buses, metro, suburban railways, ...) within specified tariff zones. It is valid for a specific period of time (a month or a year).

Thanks to this Travel Pass, public transport is now an affordable option for users in Madrid, fostering its use all over the network.

There are three types of monthly travel passes:

- **Standard Pass:** for users aged 22-64.
- **Young persons Pass:** valid until June of the year in which the user turns 22.
- **Senior Pass:** for over-65s.

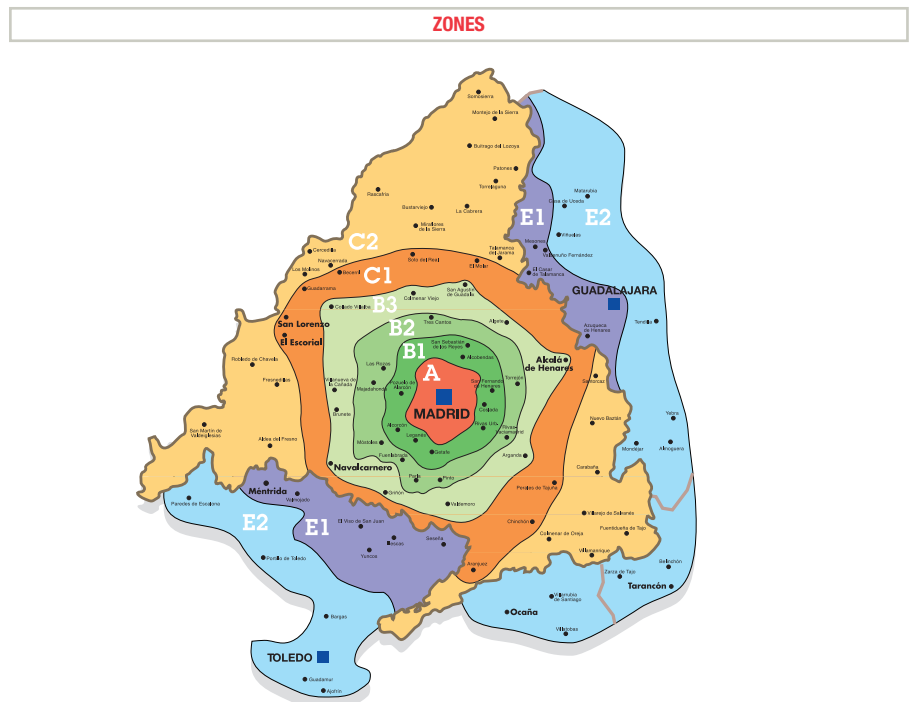
Apart from these monthly passes, annual standard and senior passes are also available.

A total of 13.5 million travel passes were sold in 2009 and over 1.2 million people a day use these tickets.

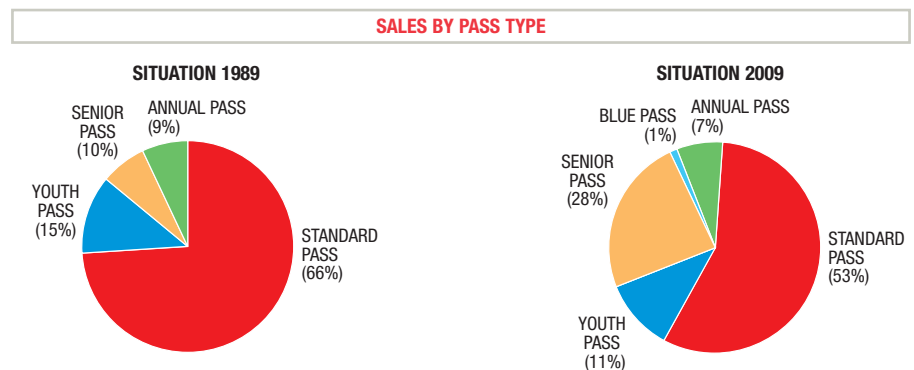
Proportional use of the Travel Pass in the different modes of transport is 57.6% on the Metro, 65.9% on EMT urban buses, 65.8% on interurban buses, 64.5% on suburban trains and 60.4% on rail concessions.

Since the beginning of 2004, the fare system in operation in the Region has been further enhanced by the creation of a Tourist Pass. This is identical to the standard travel pass but offers unrestricted travel for one, two, three, five or seven days for two areas: Madrid city (Zone A) and the Region of Madrid (Zone T).

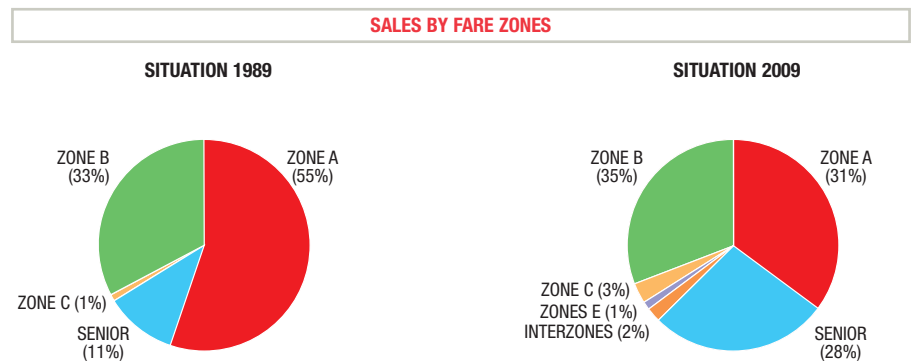
There are also passes for large families and for persons with a disability equal to or greater than 65%.



The Madrid Region is divided into 6 fare zones, with the outer zones successively incorporating the inner zones. Two additional outlying zones, E-1 and E-2 from the adjacent Region of Castile - La Mancha, were incorporated into the system in 2001).



The Standard Pass is the most sold, although Senior Passes have grown in market share with respect to other passes in recent years, as a result of demographic change in the Region of Madrid.



Changing sales patterns reflect population shifts in the Region of Madrid. In 1989, sales for Zone A amounted to 55% of the total, a figure which since then has fallen to 31%. Since 1995, however, travel pass sales in suburban Zone B have surpassed sales in central Zone A.



Accessibility



One of the Madrid Region's priority goals is to adopt the necessary measures to extend "universal accessibility" to everyone" on every mode of transport that makes up our public transport system.

Metro network:

- A plan for installing lifts in older stations: currently 27 stations and 3 planned.
- The total number of lifts is 478 (as of June 2010).
- A plan for the implementation of accessibility measures in older stations: 102 stations.
- Accessible ticket vending machines, with "user-friendly" options, installed in all stations.
- New, accessible rolling stock series 3000 and 9000, with access ramps and specific features.

EMT urban and interurban bus networks of Madrid:

- At bus stops:
 - Ramps, visual and aural information and Braille. Installation of new Variable Messaging Panels.
 - Mobile Customer Attention Personnel.
- On buses:
 - External loudspeaker systems.
 - Access ramps or platforms.
 - Reserved seats for PRMs.







- Spaces designed for wheelchairs and pushchairs.
- Information in Braille on stop buttons.
- External button to call for the ramp to be deployed.
- Audiovisual information of the next stop.
- Communication between passengers and driver via a Driver Notification Card system.
- Gradual incorporation of new technologies, the contactless card with useful information for passengers and increased use of mobile phones as a platform for in-journey information.

Web page, Accessible Transport Information System and new

information points:

- The web page has a "Level AA" awarded by the Web Accessibility Initiative (WAI).
- A new functionality has been developed for the Transport Information Service (TIS), on the internet, at Information Points and for mobile phones, that allow users to request information on routes and accessibility.
- The components of the new Information Points are completely accessible, with adapted interfaces. In the future, the results of consultations may be saved in Mp3 format and sent to an email address chosen by the user.



ACCESSIBILITY TO MODES OF PUBLIC TRANSPORT (MAY 2009)		
	Madrid E.M.T. low-floor urban buses	100%
	Accessible urban and interurban buses in different municipalities of Madrid	85.5%
	Accessible Metro stations	62.7%
	Accessible Light Train and Tramway stations	100%

Metro Extension Plan 1995-1999



The Metro Extension Plan 1995-1999, implemented by the Regional Government of Madrid, marked a milestone in the extension of the Madrid Metro system. 56.3 kilometres of new track were laid, increasing the length of existing track by almost 50%. 38 new stations were built, 9 of which were interchangers, 6 for changing to other Metro lines and 3 for changing to the Renfe suburban rail network. Total investment was €1,622.7 million, €223 million of which was assigned to acquiring new rolling stock.

This Extension Plan was based on the following objectives:

- Extension of the Metro to the densely populated outskirts of Madrid, with the extension of Lines 1, 4, 7 and 9, and the new Line 11.
- Improvements to the structure and layout of the existing Metro network, such as the works carried out on the central sections of Lines 7 and 10.
- Improved access to strategic areas of the city, like the Trade Fair Centre and Madrid-Barajas Airport, with the new Line 8.
- Extension of the network beyond the city limits to commuter towns without any rail links, such as the extension of Line 9 to Rivas-Vaciamadrid and Arganda del Rey.



BASIC EXTENSION DATA


Length: 56.3 km

Stations: 38

Interchanges: 9

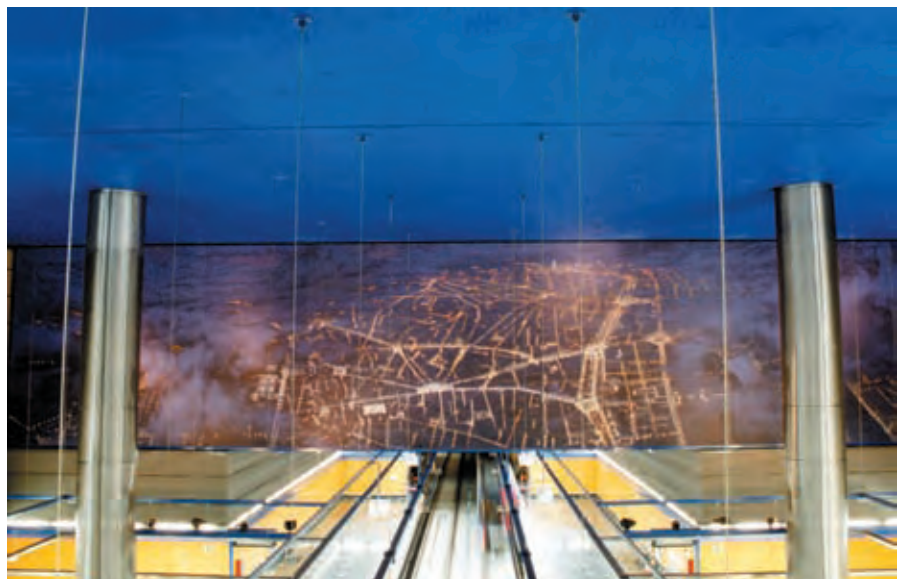
Investment: € 1,622.7 million


Comunidad de Madrid
CONSEJERIA DE TRANSPORTES E INFRAESTRUCTURAS

 **mintra**



Tunnelling machine entering a Metro station



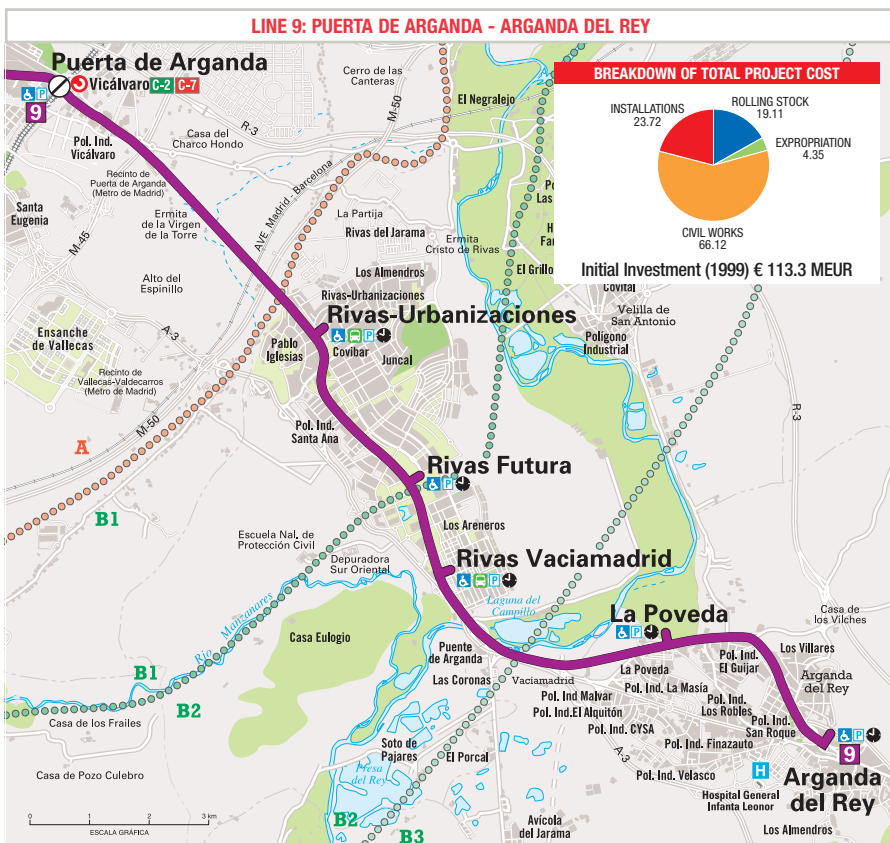
T1-T2-T3 Airport Metro station



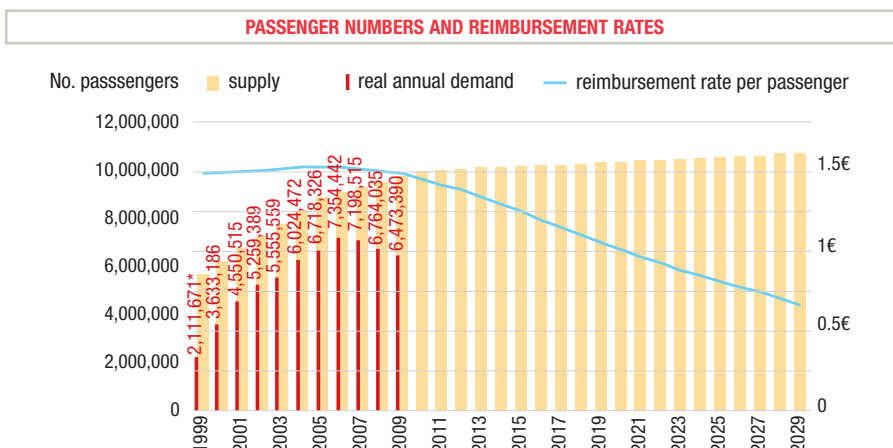
Private Concession of Metro Line 9 to Rivas and Arganda



Line 9 on its way over the River Jarama bridge



This section of line 9 links the towns of Rivas and Arganda with Madrid and connects with MetroMadrid and Cercanías-RENFE at the Puerta de Arganda-Vicálvaro interchange



*The line started operating in April 1999

The territorial structure of the metropolitan area of Madrid is based on a radial road network, so the towns around the metropolitan area have developed in keeping with this structure, as has the railway system. By 1996, all of Madrid's radial corridors were linked to the city centre by rail, except for the corridor along the A-1 and A-3 motorways. This corridor did, however, have a railway line at one point, but passenger services were suspended in 1960, and only one section remained in operation for the transportation of cement.

In February 1996, the Regional Transport Consortium conducted a study to examine the feasibility of establishing a rail service for the people living and working along this corridor. The study revealed that the A-3 corridor, between the municipalities of Madrid and Arganda del Rey, offered considerable potential in terms of commuter numbers. Initial estimates of the investment required to carry out this project rounded the €90 million mark, which meant that hopes of funding the initiative purely through public funds did not prosper.

In May 1996, the Regional Government of Madrid decided to build the required infrastructure with private funding and called for tenders from private companies to design, build and operate the line for a period of 30 years. In February 1997, the contract was awarded to Transportes Ferroviarios de Madrid, S.A.

The 18 km line was inaugurated on 7 April 1999. In less than three years (including the planning stage) this innovative project had become a reality.

The concession holder receives income from two sources.

- Direct proceeds from ticket sales.
- Public subsidies earned on a per-passenger basis. This amount is calculated by multiplying the average rate per passenger by the total daily number of passengers who use this service, to a ceiling equal to the maximum number of journeys estimated by the concessionary for each year of the contract.

The line currently transports over 25,000 passengers daily.

Metro Extension Plan 1999-2003



The Metro Extension Plan for the Madrid Region for the period between 1999 and 2003 involved the construction of 54.6 additional kilometres of Metro line, along with 36 new stations, 11 of which are interchange stations. The total investment was €2,787.7 million, €419.3 million of which was invested in rolling stock.

Three major operations were undertaken:

- MetroSur, a circular line 40.5 kilometres in length that connects five of the most important municipalities to the south of the city, with a combined population of around one million inhabitants.
- An extension of line 8 between Mar de Cristal and Nuevos Ministerios. This 5.9 kilometre extension allows passengers to travel to the main business and



services area of Madrid directly and quickly. In less than 15 minutes, passengers can now travel between Madrid-Barajas airport and Nuevos Ministerios station, which has become a large terminal with three Metro lines and seven suburban train lines.

- Three-fold actions carried out on Line 10: an extension of 8.2 kilometres to Alcorcón to connect with MetroSur, conversion from a narrow-gauge 2.4 m to a wide-gauge 2.8 m rolling stock, and a changeover to a 1.5 kV voltage.

With this Plan, the length of the Madrid Metro network increased to more than 210 km and the network branched out to several metropolitan areas.



Getafe Central Station on the day it opened

DATA BY MUNICIPALITIES

Municipality	Population census 2009	Number of stations	Population coverage (radius<600 m)	Passengers boarding and alighting/day 2007
Móstoles	206,478	5	55.8%	60,072
Fuenlabrada	197,386	5	50.1%	59,979
Leganés	186,066	6	70.5%	72,107
Alcorcón	167,967	4	60.2%	68,704
Getafe	167,164	8	74.2%	80,213
TOTAL	925,061	28	63.8%	341,075

BASIC DATA (Opened on April 11th, 2003):

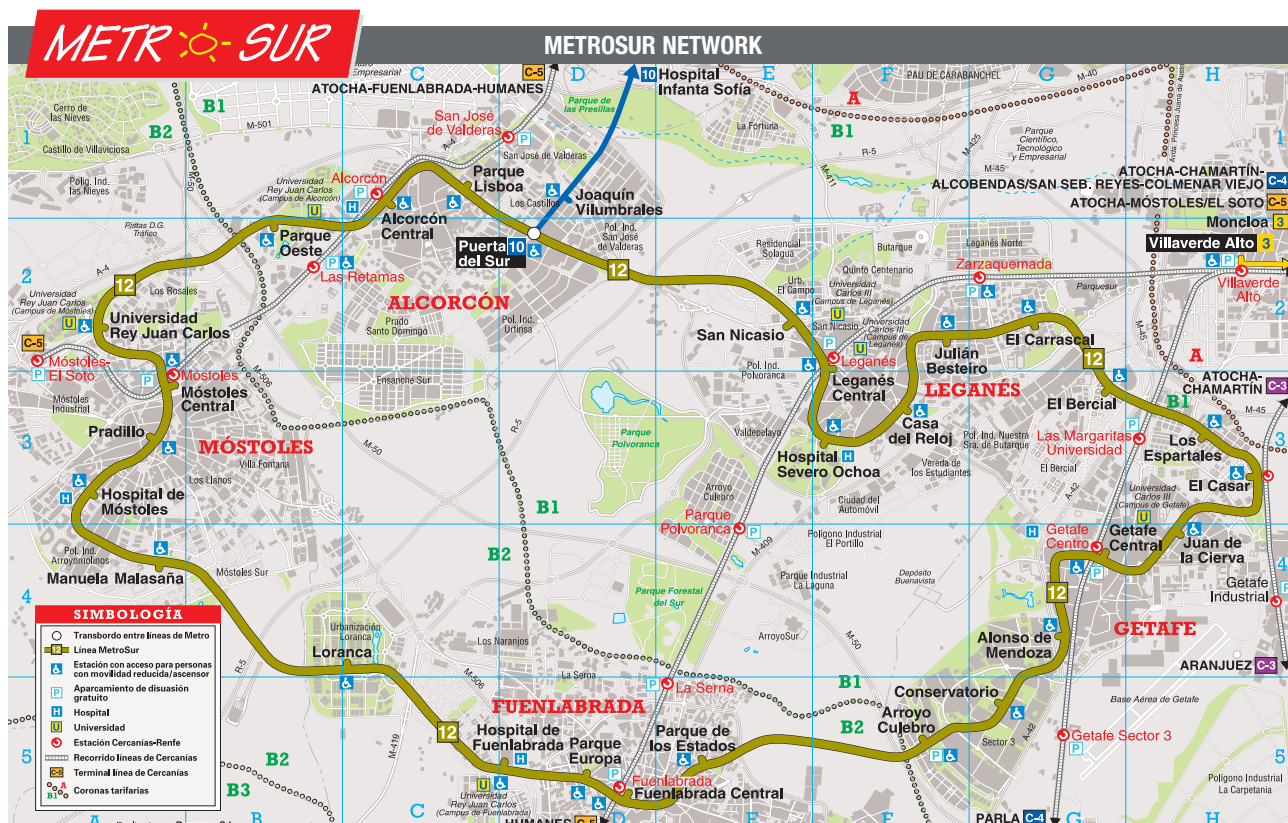
- Length:** 40.5 kilometres, 26.6 kilometres of which were constructed using tunnelling machines, 6.6 km using the cut and-cover method, 5.7 km between cut-off walls and 1.6 km using traditional methods.
- Stations:** 28 new stations, 6 of which are interchangers that connect to the suburban rail network and 1 interchange station with Line 10 of the Metro at Alcorcón. A further 3 stations are planned as part of future urban development projects.
- Total investment:** €1,640 million, including rolling stock.
- Rolling stock:** Series 8000 three carriage compositions, voltage 1.5 kV. Equipped with the latest technology in terms of passenger safety and comfort, the trains can reach speeds of 110 km/hour.
- Six months after the line was opened, 134,000 people were using it every day. 180,000 passengers were using the service daily in 2009.
- The opening of this line changed the travelling habits of many users. Six months after the line was opened, it was found that 61.5% of MetroSur passengers had been travelling between the same two places via different means before the new service was available.
- MetroSur has attracted over 12,000 passengers who used to travel in private vehicles, representing 15% of the commuters who used to do the same journey before the line was opened.
- Almost 60% of the journeys made on this line are journeys made within the MetroSur area, 37% of which are journeys between municipal boroughs and 20% within the same borough. Although there is a large number of journeys to or from Madrid, they only amount to 35% of the total.

Over a million people live in the southern metropolitan area of the Madrid Region, distributed among the five large municipalities of Alcorcón, Leganés, Getafe, Fuenlabrada, Móstoles and other smaller neighbouring towns.

These towns are now all interconnected by MetroSur, but until recently, they were enormously dependent on Madrid, a dependence which was exacerbated by the radial nature of the road and public transport networks.

The transformation of these towns in recent years has given rise to the emergence of an entire network of essential facilities and services, such as cultural and sports centres, schools and universities, health centres and hospitals, shopping and leisure centres, etc. This means that their dependence on the capital is gradually declining, and what could be termed dormitory towns back in the 1970s and 1980s have now developed into modern towns in their own right.

The Regional Government of Madrid has made a clear bid to support and consolidate the development of the southern metropolitan area through the creation of a circular Metro line, fully interlinked with the C-3, C-4 and C-5 suburban rail lines, as well as with Line 10 of the Metro network.



Metro and Light Rail Extension Plan 2003-2007



The Regional Government of Madrid remains committed to developing the region's public transport network in all its modes. Throughout the 2003-2007 legislature, 92 kilometres of new Metro and light rail lines were built and major improvements were made to the existing system, with new interchange stations, etc., all with the following objectives:

- To extend the conventional Metro, which has grown by over 55 kilometres. Lines now reach suburbs via the extension of Lines 1, 2, 3, 4, 5 and 11.
- To provide a Metro connection between Madrid and adjacent municipalities, like Alcobendas and San Sebastián de los Reyes to the



- north, and Coslada and San Fernando de Henares to the east.
- To connect the major urban planning developments to the transport network, either with the conventional Metro or with a light railway: Las Tablas, Montecarmelo, Sanchinarro, Carabanchel and the Vallecas.
- The extension of Line 7 connects the Olympic Stadium and the future Olympic Village with the city centre, as part of the Madrid 2016 Olympic Bid project.

- Improvements to the existing Metro network in the city centre. This included the ambitious improvement programme for Line 3, which has extended the length of station platforms and facilitated access for people with reduced mobility.
- New Metro stations that were part of original projects have also been built, as well as stations in sections of the network where there have been major urban changes, such as Aviación Española on Line 10, Arganzuela-Planetario on Line 6 and Pinar del Rey on Line 8.

- Extension of line 8 to the new T4 terminal in Madrid-Barajas Airport, using a 20-year concession system.
- Finally, the Madrid Region has constructed 36 km of light rail lines in different municipalities of the region, such as Pozuelo de Alarcón, Boadilla del Monte and Parla, and in other areas, such as the new development areas in the north of Madrid, where population density, planning infrastructure and morphology mean that a light railway system is the ideal mode of transport, as has been demonstrated in other European and Spanish cities.



Parla Tramway



Centro Bulevar Norte Station in Parla

Part of the 2003-2007 Infrastructures Plan, Parla Tramway is a unique initiative that has gone beyond the transport system, making it a symbol of the city's development and image, involving the whole population in the project.

It comprises 8.5 km of surface track within the city of Parla with intermediate right-of-way platform capacity, wholly inside the urban area and connected to the Parla suburban train station.

The project is a cooperation initiative between the Madrid Regional Government and Parla town council that form part of the Transport Consortium, which is in charge of managing the public service.

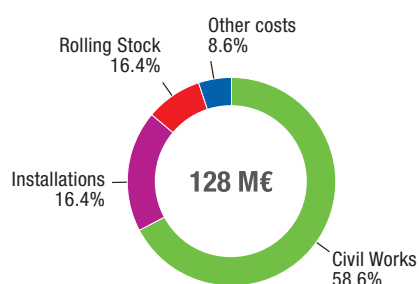
33% of the €128 million in capital investment for the project came from urban levies on the development of the new Parla Este district, which benefits directly from increased accessibility. The rest is provided by Parla town council in a series of installments.

The consolidated city centre has improved significantly, increasing activity and the quality of life around the tramway.

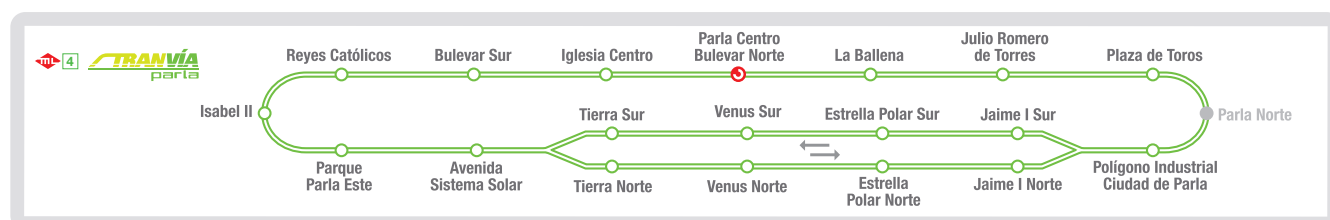
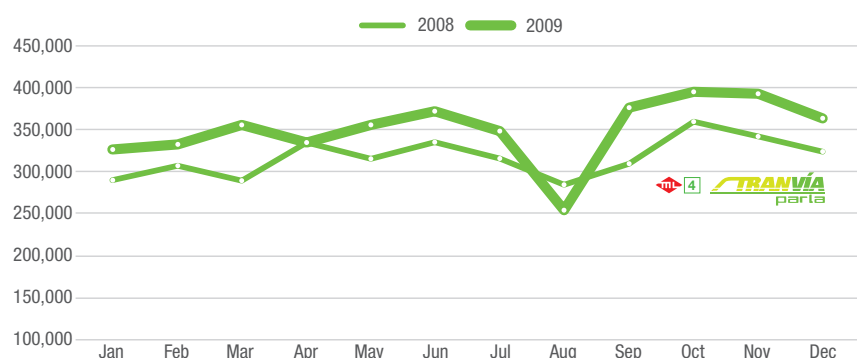
The contract model is concessionary, for 40 years, including the project, works and operation of the tram line, to a company made up of Glo-balvía (75%), Detren (10%) and Caja Castilla-La Mancha (15%).

The result is a demand greater than initial estimates suggested, one of the highest levels of user satisfaction in the public transport system in the Region of Madrid (8.03) and an improvement for Parla, making it more attractive and more sustainable.

TOTAL PROJECT INVESTMENT



MONTHLY TREND IN DEMAND



Layout of line and stations

Public Transport Infrastructure Plan 2007-2011



With the 2007-2011 Infrastructure Plan, the regional government's aim is to keep its commitment to public transport. This plan is no less ambitious in concept than its predecessors and it is designed to integrate the region's Metro and railway networks. It provides the inclusion of the suburban railway which will run underground to the urban area of Torrejón de Ardoz.

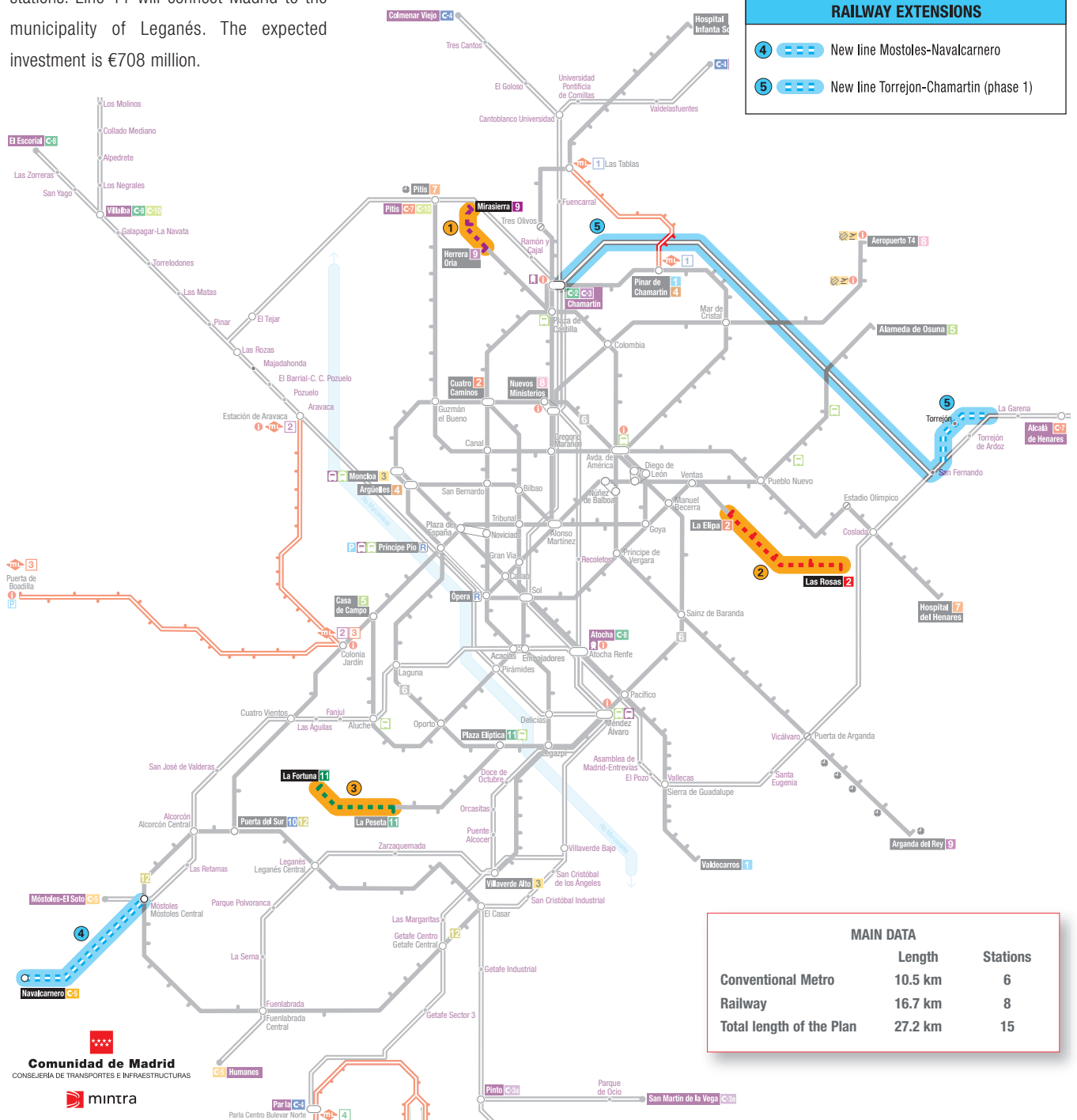
The Plan includes the following:

- **Convencional metro:** Lines 2, 9 and 11 will be extended with 10.5 kilometres and 6 new stations. Line 11 will connect Madrid to the municipality of Leganés. The expected investment is €708 million.



- **Railway:** 2 projects will be carried out: the Mostoles-Navalcarnero connection and the Torrejón-Chamartín line. The total plan will involve 16.7 km of lines, 8 new stations and an investment of €519 million.

METRO EXTENSIONS	
1	LINE 9: Extension to Mirasierra
2	LINE 2: Extension to Las Rosas
3	LINE 11: Extension to La Fortuna (Leganés)
RAILWAY EXTENSIONS	
4	New line Mostoles-Navalcarnero
5	New line Torrejón-Chamartín (phase 1)



MAIN DATA		
	Length	Stations
Conventional Metro	10.5 km	6
Railway	16.7 km	8
Total length of the Plan	27.2 km	15



Madrid Suburban Railway Infrastructures Plan 2009-2015

TOTAL INVESTMENT IN THE PLAN (IN MILLIONS OF EUROS)

INFRASTRUCTURE CONSTRUCTION PROGRAMMES

- Network enlargement: New arterial line	1,350
Line extensions	1,600
- Capacity enlargement (quadruplications of track)	620
- Stations and interchanges	650

PROGRAMMES TO MODERNISE AND IMPROVE THE NETWORK

TOTAL	5,000
--------------	--------------

The Suburban Rail Infrastructure Plan 2009-2015 is a joint initiative between the State and Madrid Regional Government to improve and reinforce the rail network for Madrid and surrounding area. The plan is based on the modernisation, renovation, and expansion of the network's capacity. It establishes a medium to long-term action plan, based on the principle objectives of extending coverage, improving the accessibility and connectivity of the network, and improving the quality of service.

The series of initiatives contained in the plan will result in 115 km of new lines, 66 km of quadruplicated tracks, and the construction of 25 new stations and 5 interchanges. It also includes a programme for improving and modernising the existing network.





Between 17 October 1919, when the first section of the Madrid Metro was opened to the public, and today, Metro de Madrid has undergone a process of considerable, continuous growth, in line with the trend for economic development in both Madrid itself and the country as a whole.

After completion of the most recent extension plan (2007), the network is now 278 kilometres long and has 232 stations distributed over its 12 Metro lines and an additional branch. At the end of 2008, the Metro network employed 7,598 workers. The average speed of commercial trains throughout the network was 27.5 km/h. Around 2,460,000 passengers used the Metro daily, with demand peaking at 16,000 passengers on sections of line 10. Throughout 2009, 652.9 million passengers travelled on the network.

Metro de Madrid is committed to modernity, using state of the art equipment and the best possible safety measures for its passengers.

This commitment is supported by our continuous plans to extend and modernise the network. Since 1991, the Region of Madrid has implemented a number of extension plans, of which, the 2003-2007 plan, marked a milestone in extending and modernising the Madrid Metro network. Madrid Metro has also carried out an ambitious Renovation Plan, which focused on increasing capacity and accessibility and making general improvements to rolling stock and facilities in the old network.

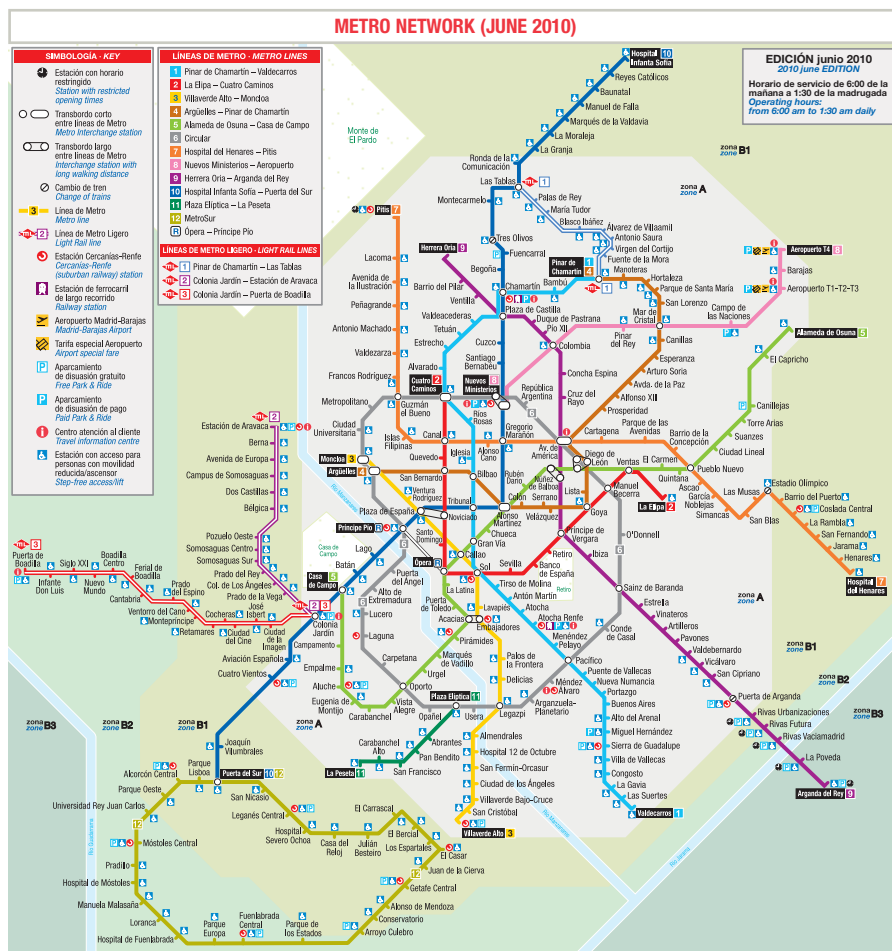
Rolling stock, which has increased by 50% in the last 5 years, is made up of 2,281 carriages with an average age of 10.8 years. New 8000 and 9000 series trains, with their new, exceedingly comfortable designer carriages and 21st century technology, are now in use. These trains are very energy efficient and boast automatic signalling and control systems, integrated access, an attractive design and bright interiors.



Metro control post at the Alto del Arenal station



Model 8000 train at the El Carrascal station



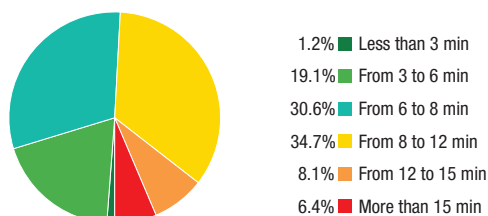


EMT bus next to the Puerta de Alcalá

EMT LINES WITH GREATEST DEMAND (PEAK TIMES AND DIRECTION) - YEAR 2009

Line	Direction with most intensity	Passengers/hour	Occupation rate
A	MONCLOA - CAMPUS DE SOMOSAGUAS	1,042	0.60
27	GTA. DE EMBAJADORES - PLAZA DE CASTILLA	1,034	0.39
19	PLAZA DE LEGAZPI - PLAZA DE CATALUÑA	1,015	0.68
G	MONCLOA - CIUDAD UNIVERSITARIA	966	0.73
115	AVENIDA DE AMÉRICA - BARAJAS	813	0.57
T61	ESTACIÓN DE FUENCARRAL - TELEFÓNICA	736	0.64
133	PLAZA DEL CALLAO - MIRASIERRA	720	0.79
34	AVENIDA DEL GENERAL FANJUL - PLAZA DE CIBELES	704	0.48
28	BARRIO DE CANILLEJAS - PUERTA DE ALCALÁ	691	0.50
70	PLAZA DE CASTILLA - SAN BLAS	624	0.35
114	AVENIDA DE AMÉRICA - BARRIO DEL AEROPUERTO	616	0.63
C2	EMBAJADORES - CUATRO CAMINOS	584	0.51
102	ESTACIÓN EL POZO - ATOCHA	575	0.49
C1	CUATRO CAMINOS - EMBAJADORES	568	0.49
82	MONCLOA - BARRIO DE PEÑAGRANDE	567	0.57

PEAK TIMES HEADWAY FOR INTEGRATED DAILY NETWORK ROUTES



20.3% of routes operate with a headway of less than 6 minutes during peak times

Information service by SMS



Send a message on your mobile phone and find out where the next bus is and its estimated time of arrival.

Message: "WAIT space number of stop space number of line". Send to: 7998

In 20 seconds you will receive an answer

Total cost: €0,15 + VAT

The current bus network serving the city of Madrid consists of 215 different routes, covering a distance of 3,870 km. The bus service is managed by the Empresa Municipal de Transportes (EMT). Around 1,525,000 journeys are made daily, equivalent to an annual demand of 426.4 million journeys.

The typical features of an EMT bus route are that it covers a distance of 8,000 metres, serving 25 bus stops in each direction located at intervals of 330 metres. The average journey distance per passenger is 2.7 kilometres.

The bus fleet consists of 2,092 vehicles with an average 5.6 years, 100% with low floors. 411 ecological buses, powered by compressed natural gas. Another 20 buses are powered by hybrid diesel-electric engines, 20 buses are electric and 5 use ethanol.

The EMT network has 93.5 km of bus lanes, of which 35 km are protected with a specifically designed barrier that Madrid City Council plans to continue expanding in the future. A 1,200 metre section has recently been created along the O'Donnell arterial connection, separated by a passable kerb. An exclusive bus lane is being set up in Avenida de Córdoba, between the roundabouts of Cádiz and Málaga, with a length of 1,300 m.

EMT has an Automated Vehicle Management System (AVMS) for the whole fleet, consisting of locating buses by GPS and communicating in real time with a Central Control Post. The system offers multiple options for providing information to users in real time. The installation of 300 Realtime Information Points has begun at the stops with greatest demand, showing the arrival time of the next bus on the different lines that use the stop. Since 2006, this information can be obtained from any stop on the network, by means of SMS messaging, for travellers who have a mobile phone. Also, in order to improve service quality, timetables at each stop have begun to be implemented on low-frequency lines.

Suburban Train Services: RENFE



The Madrid railway network, dating back to the mid 19th century, has become a modern urban rail network, celebrating its 20th anniversary in 2009. Over these years, demand for suburban rail transport has increased by 400%, making it an essential mode of transport in the region.

The current network consists of 363 km of track, 100 stations and 8 lines. On a week day, the trains make 859,196 stages, corresponding to a demand of 184.0 million journeys per year. Line C-5 carries 288,864 passengers a day (33.6% of the total), making it the most heavily used commuter rail line in Spain.

The present rolling stock (1.146 units) consists of modern carriages, fully air conditioned, making 1,400 journeys each day.

Over the last 5 years the network has seen major changes, including, for example, the remodelling of the Entrevías-Asamblea de Madrid, Fuencarral and Parla stations and the Embajadores interchange.

The most emblematic initiative, has been, without doubt, the opening of the new Atocha-Chamartín tunnel in July 2008. The tunnel, which is 8.3 km long, has allowed the number of trains in the most heavily-used section of the network to be doubled, thus resulting in a considerable reduction in journey time for users of the C-3 and C-4 lines. It has also improved the flow of traffic in the centre of the city. These significant works had their culmination in the opening of the Sol station towards the end of July 2009, in the very heart of the city. This station allows passengers to transfer to a further 3 Metro lines, thus making this station one of the main public transport nodes in the region.

Future plans for Madrid's urban rail network lie within the framework of the Railway Infrastructure Plan 2009-2015, with an expected investment of €5,000 million. The objective is to extend the network by 115 km, build 25 new stations increase the capacity and modernise the existing network. Some of the work has already begun, such as the access to Barajas airport's terminal T-4 or the quadruplication of lines in the San Cristóbal-Getafe-Pinto section.



CIVIA commuter train at Sol station

RENFE SUBURBAN TRAINS IN MADRID REGION DEMAND BY LINE (MARCH 2010)

Line	No. stages
C-2 C-8 GUADALAJARA - ATOCHA - CHAMARTÍN - VILLALBA - EL ESCORIAL/CERCEDILLA	146,736
C-3 ARANJUEZ - ATOCHA - CHAMARTÍN	61,499
C-3a PINTO - SAN MARTÍN DE LA VEGA	404
C-4 PARLA - ATOCHA - ALCOBENDAS	201,652
C-5 MÓSTOLES - EL SOTO - ATOCHA - FUENLABRADA	288,864
C-7 ALCALÁ DE HENARES - CHAMARTÍN - PRÍNCIPE PÍO - ATOCHA - PITIS	109,395
C-10 VILLALBA - PRÍNCIPE PÍO - ATOCHA - CHAMARTÍN - PITIS	50,646
TOTAL LINES	859,196





Light Rail in the Region of Madrid

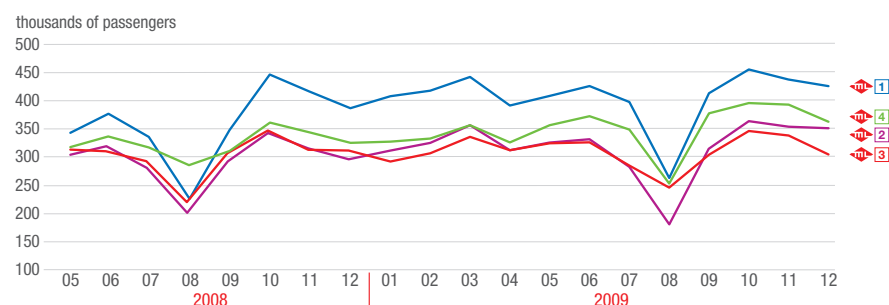


Light Rail in Boadilla Centre Station

MAIN DATA ON LIGHT RAIL IN MADRID

Line	Peak time headway (minutes)	Length (km)	Stops (number)	Rolling Stock	Investment (million €/km)	2009 millions of passengers	2009 million trains-km
ML1	5	5.4	9	8	47.0	4.9	0.45
ML2	6	8.7	13	12	29.9	3.7	0.79
ML3	6	13.7	16	15	19.1	3.7	1.23
ML4	7	8.2	15	9	15.6	4.2	0.68
TOTAL		36.0	53	44	25.1	16.5	3.15

MONTHLY EVOLUTION OF DEMAND



BASIC DATA ON THE CONCESSIONARY MODEL OF LIGHT RAILWAYS AND TRAMWAYS IN MADRID

Line	Concessionary	Shareholders	Type of concession	Term (years)	Investment (€millions)	% Investment private
ML1		42.5% 42.5% 15%	BOT	30	254	100%
ML2		51.3% 30% 18.7%	BOT	30	260	100%
ML3			BOT	30	262	100%
ML4		75% 10% 15%	DBOT	40	128	67%

BOT: Contract for construction, operation and maintenance

DBOT: Contract for project, construction, operation and maintenance

Modern and accessible, Light Rail Transit (LRT) systems are becoming an integral part of the landscapes and daily life of many advanced cities.

Over the last decade the number of modern tramway networks has increased dramatically, particularly in cities that lost tramways in the past.

Since 2007, Madrid Region has followed this trend with 36 kilometres of light rail and tramway network. The 4 existing lines ML1: Pinar de Chamartín-Las Tablas, ML2: Colonia Jardín-Estación de Aravaca, ML3: Colonia Jardín-Puerta de Boadilla and ML4 Tranvía de Parla, have greatly differing functions which clearly show the enormous versatility of this new mode of transport. The system meets transport needs in medium-density urban areas and towns and also acts as the main transport link between outlying areas and the high-capacity transport networks.

The concept of the light rail networks is based on:

- A reserved platform that merges well with the urban environment, with a user-friendly transport system that helps regenerate the neighbourhoods and towns it passes through.
- The intensive use of new technologies to aid users, providing easy access to information, which in conjunction with innovatively-designed, high-performance vehicles, offers a regular and reliable service.
- A global concept of accessibility to all kinds of users over the whole system, and providing high-capacity transport modes with convenient connections.

In short, a modern tramway, never far from its users and perfectly capable of dealing with increasing demands (over 12% increase in 2009). For the second year running, it has received one of the highest quality ratings in the annual ranking of the CRTM's quality survey.

In its decisive support for light rail, the CRTM and the Madrid Regional Government will be hosting the 10th UITP Light Rail Conference in October, 2010.

Suburban Bus Services: Private Operators



Fleets of interurban buses operated by private companies are largely responsible for public transport road connections between the different municipalities in the Region of Madrid and between Madrid and the metropolitan ring.

28 private companies operate 351 bus routes, covering 20,194 kilometres, using a fleet of 1,944 buses with an average age of 5.5 years. These 28 operators are governed by 30 administrative concession contracts.

The total supply of programmed transport for the whole network amounts to 24,168 services per working day, of which 1,046 are single-direction peak hour services.

Although most urban transport services in the municipalities within the Region of Madrid are provided by the same companies as the interurban bus routes, in 2009 a total of 38 municipalities, plus Madrid, had their own specific network of urban bus routes, all dependent on the Regional Transport Consortium. These include 7 urban concessions and 1 municipal company service. The total number of these urban lines is now 127, programmed for a total of 8,837 services per weekday. The annual demand for these routes is 44.0 million journeys. The municipality of Alcalá de Henares has the largest network with 11 routes, 56 buses and 10.8 million passengers/year.

Both networks (interurban and urban in rings B and C) move a daily total of 908,000 passengers, corresponding to an annual demand of 245 million journeys.

In December 2009, the Madrid Regional Transport Consortium started a Modernisation Plan for interurban buses and extended the concession term by 10 years (with the option of an additional 5-year extension). This Plan, which includes the whole fleet of interurban and urban buses in rings B and C, with over 2,000 buses, seeks to enhance quality, improve the service and management, make a commitment to new technologies and renew the fleet, in order to offer the public more efficient solutions in terms of mobility.



Interurban bus at the Plaza de Castilla interchange



Torrejón de Ardoz urban line

MAIN INTERURBAN AND URBAN BUS OPERATORS IN THE B AND C RINGS (2009)

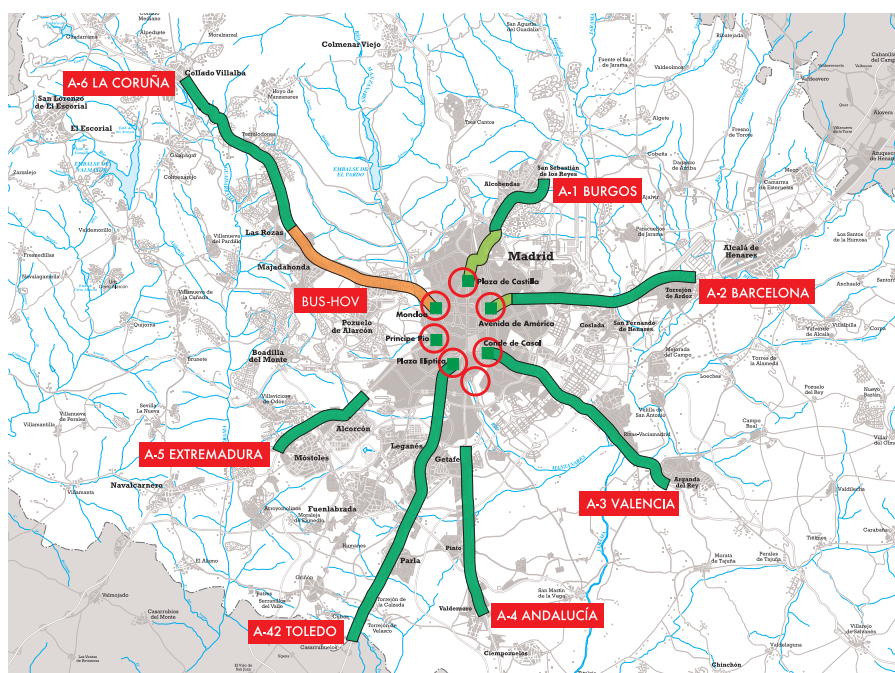
Company	No. buses	Services/day	Passengers/year
De Blas	217	3,889	30,329,591
Continental	161	2,785	25,223,374
Llorente	142	2,848	23,635,705
Martín	159	2,368	19,657,982
Interbús	146	2,055	14,968,704
Autoperiferia	86	1,135	11,502,626
Etasa	88	1,405	11,490,808
Gonzalo Pascual Árias (urbanos de Alcalá)	56	1,667	10,818,803
La Veloz	108	1,535	9,269,373
Urbanos del Sur	80	1,899	9,209,454
LARREA	108	1,072	8,284,847
Resto de Empresas	773	10,347	70,830,256
TOTAL	2,124	33,005	245,221,523



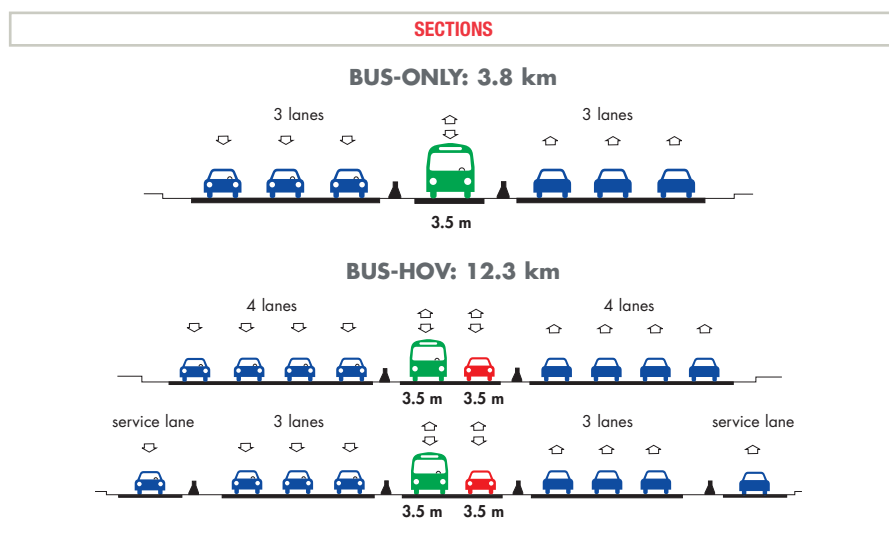
Reserved bus platforms on roads



BUS-HOV lane on the A-6



Layout of future bus and interchange platforms



Due to the importance of the interurban bus network for mobility between the greater metropolitan region and the city of Madrid, the CRTM has been strengthening this network for years, not just in terms of improving the quality and quantity of services offered via new lines, better buses, etc., but also by carrying out specific programmes to foster this mode of transport.

This is the context in which two programmes of wide-ranging scope are being developed: the Madrid plan for metropolitan bus terminal interchanges and the plan for bus platforms on national and regional roads.

The programme for bus platforms on roads came about at the beginning of the 90's with the BUS-HOV (High Occupation Vehicles) initiative along the A-6 road to the northwest of Madrid. The area along this road was experiencing a considerable increase in population and employment, a trend which has continued, with more than 500,000 inhabitants in 2009.

The initiative consisted of a system with 4 basic elements: the BUS-HOV lane for buses and high occupation vehicles; a BUS-ONLY section when approaching the city itself; an underground interchange (Moncloa) for the bus terminals; and a good connection with the metro system and the city as a whole, via two metro lines and a number of EMT bus lines.

The system operates reversibly (with traffic heading towards the city in the morning and towards the suburbs in the afternoon and evening). It is located in the middle of the dual-carriageway and is separated from the road by means of rigid barriers. The access points to the BUS-HOV system are located at its two end points (beginning and end) and via 3 intermediate tunnel access points. The performance of the system has been highly satisfactory. More than 110,000 passengers use the buses every day.

The success of this initiative has resulted in the Ministry for Public Works considering similar solutions for other access roads into Madrid (the A-1, A-42, etc.). Some of these are already at advance study phase. This will give the towns located in the greater metropolitan area direct access to Madrid. The Region of Madrid has also planned a series of initiatives to complement the Ministry's programme.

Madrid Interchange Bus Stations Plan

Modal integration unquestionably plays a fundamental role in the success of any metropolitan transport system.

The interchange terminals represent a crucial aspect of Madrid's public transport system, allowing users to make a wide range of journeys comfortably and easily, highlighting the fact that the old concept of train or bus stations has now ceased to be valid.

The transport interchanges act as access gateways to Madrid's public transport (interurban buses and suburban trains), optimising accessibility to the mainly urban modes of transport.

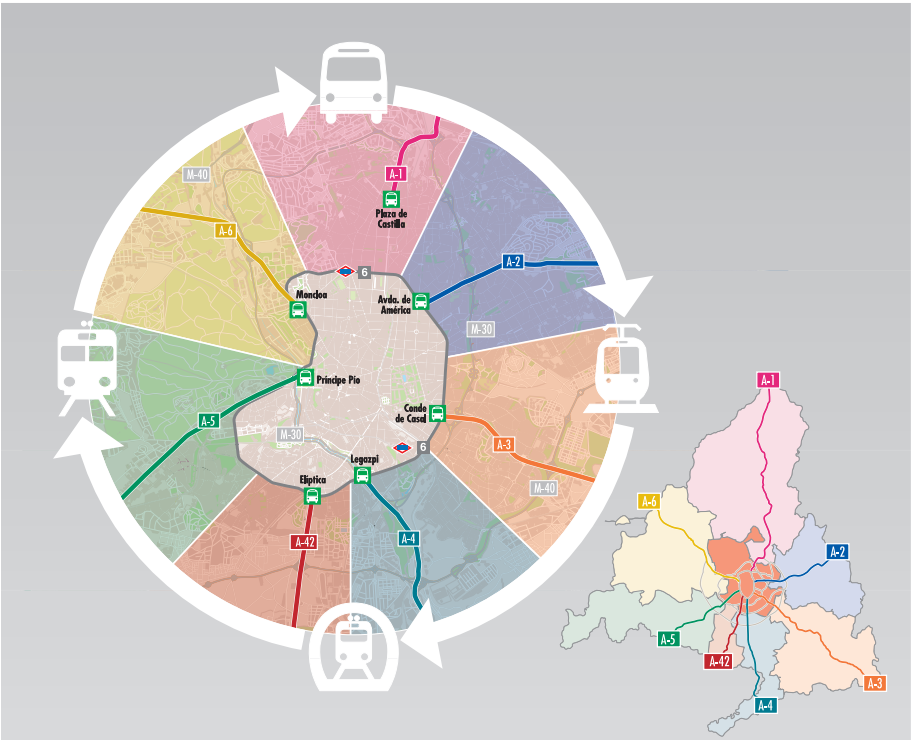
The Metro network, owing to its high capacity, acts as the core mode of transport in the city, complemented by the network of urban buses.

The Madrid Transport Consortium's Interchange Bus Stations Plan represents the culmination of a process intended to unify the interurban bus line terminals of each corridor, ensuring the system's optimal modal integration.

Location in the city, integration with the public transport system and concentration of terminals are the three basic elements in this Interchange Stations Plan for interurban buses.

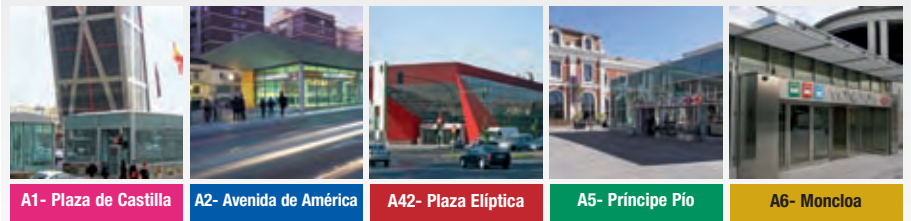


Moncloa Interchange: Ground level



GENERAL DATA ON THE MAIN INTERCHANGES FOR INTERURBAN BUSES (JUNE 2010)

	Plaza de Castilla	Avenida de América Current	Avenida de América Extension	Plaza Elíptica	Príncipe Pío	Moncloa
Investment (€millions)	143.9	24	43	54.5	56.3	113.9
Surface area (m²)	59,829	40,548	6,350	40,200	28,300	46,000
Tunnels (m)	1,250	400	160	600	400	500
Total demand (pass/day)	179,645	167,720		76,633	198,807	287,081
No. of urban lines (EMT)	25	18		9	17	20
No. of interurban lines	55	14		20	27	56
No. of long-distance lines	-	19		1	2	1
No. of platforms	48	36		24	30	36
No. of car park spaces	400	645		363	-	-
No. of Metro lines	3	4		1	3	2
No. of suburban rail lines	-	-		-	2	-



MADRID INTERCHANGE STATIONS PLAN - AWARDS



ANTI-FIRE SAFETY MEASURES 2009

Faced with a lack of specific regulations, the Madrid Regional Transport Consortium began the process of developing a service solution that turned out even more efficient than the established requirements for similar practices laid down in the Technical Construction Code. This work, together with close collaboration with the fire brigade, has been rewarded for the excellent safety measures adopted in transport interchange stations.

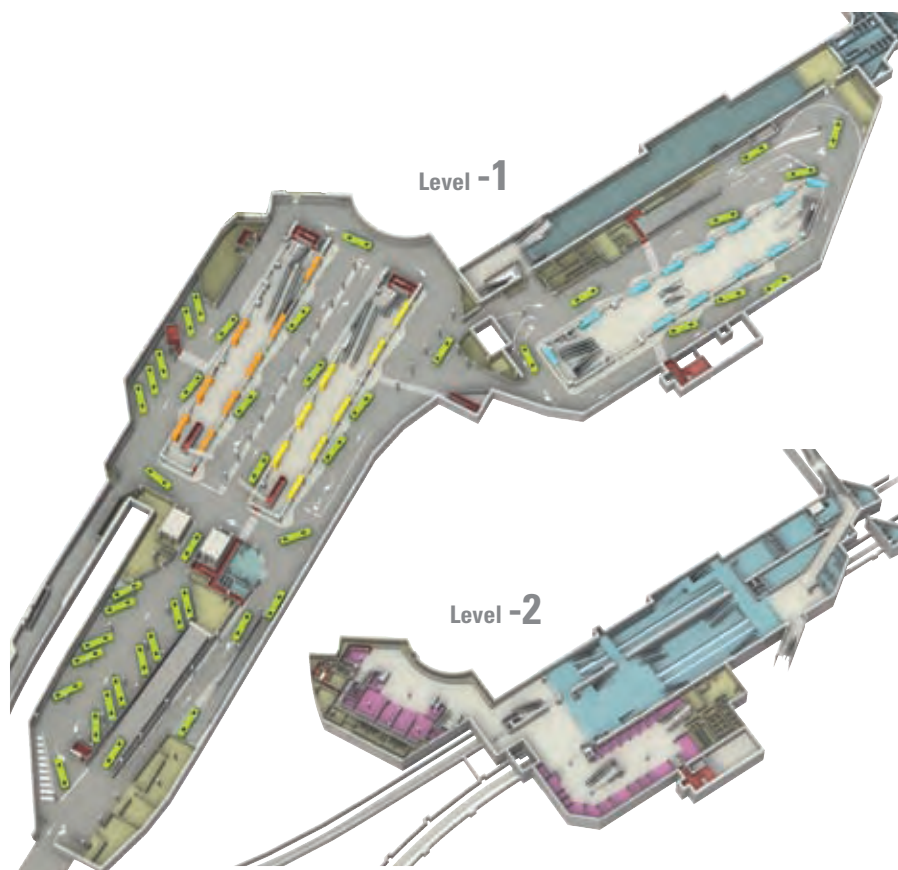


AWARD FOR BEST URBAN DEVELOPMENT PROJECT 2009

The magazine Actualidad Económica awarded the prize for best urban development project to the Plan for building new transport interchanges, considered within its group as the best urban project that the authorities had implemented in the year 2009.



Moncloa Interchange

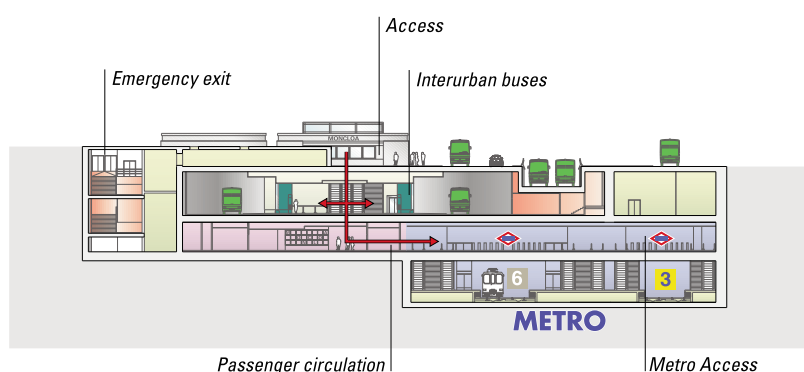


Moncloa interchange station was inaugurated in 1995 with around 50,000 users, dispatching 1,400 interurban buses every day and serving the population along the A-6 corridor. Since February 2008, the Moncloa interchange has been enlarged, below the Plaza del Arco de la Victoria, by 20,000 m² and 20 new bays. It currently comprises 56 interurban bus lines from the north-east corridor, providing connections with Metro lines 3 and 6, and 20 urban bus lines (EMT). A total of 287,000 passengers per day (November 2008) have seen their daily travelling conditions improve.

The construction of a connection directly linking the BUS-HOV lane with the interchange reduced journey times for the 5,000 interurban buses that circulate every day in the Moncloa area. The extension has bus regulation areas, which help streamline operations and improve surface traffic, giving rise to benefits for the environment and for transport, both public and private.



INTERCHANGE SECTION



At present, the interchange consists of 3 islands with 36 bays on the main bus level, a lower level for connections to Metro lines 3 and 6, a shopping and passenger services area, plus 4 access points from Calle Princesa, Paseo Moret and Plaza de la Junta Municipal de Moncloa.

Like the rest of the interchange bus stations created in the 2004-2008 Plan, Moncloa has modern traffic management, safety and maintenance systems to guarantee high service quality. The whole operation is controlled, in real time, from a Local Control Post, which forms part of the CRTM's Integrated Public Transport Management Centre.

MADRID INTERCHANGE STATIONS PLAN - AWARDS



PRODIS 2009 AWARD IN THE CATEGORY OF ENTITIES

The Committee of Entities Representing Persons with Disabilities in the Region of Madrid (CERMI), on its 10th Anniversary, gave the PRODIS 2009 Award, in the category of entities, to the work carried out in Madrid's interchanges for its commitment to the community of disabled persons.



AWARD IN THE URBAN DEVELOPMENT CATEGORY 2009

The foundation DFA (Physically Disabled Persons of Aragon) awarded first prize for accessibility in transport interchanges to the Region of Madrid, in the category of "Urban Developments", acknowledging the work carried out in the solutions used for accessibility.

Plaza de Castilla Surface Interchange Station



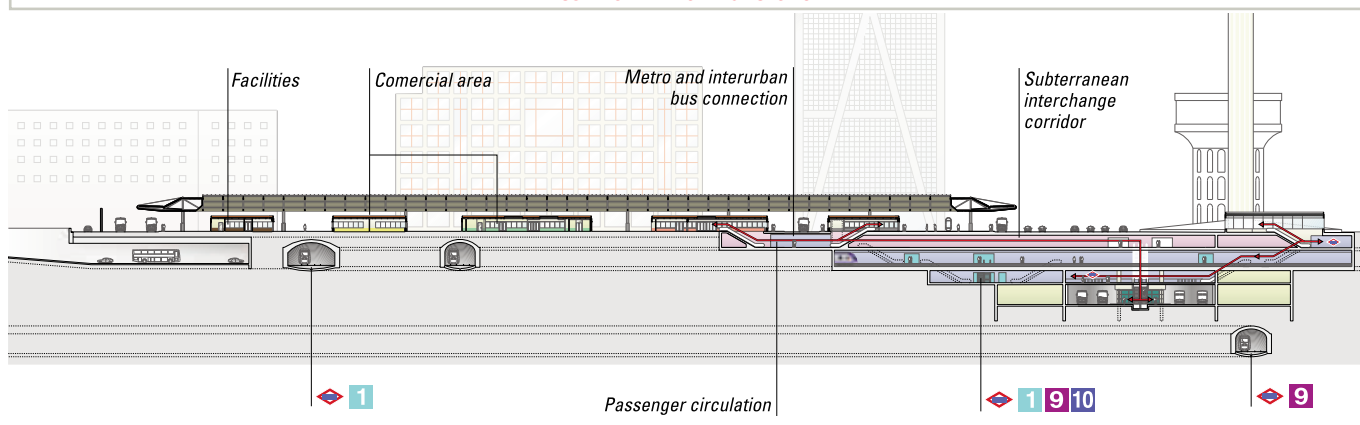
The goal of the new surface bus terminal is to improve the conditions for waiting and transferring between modes of public transport. Additionally, the saw-tooth arrangement of bays, as in the subterranean terminals, creates a safer, more convenient space for public transport users.

The new terminal consists of two islands, around which the bus bays are arranged, in line with the typology of differentiating between zones for passengers and zones for buses to circulate. An overhanging shelter joins both zones and protects users from inclement weather. Access to the metro network and the subterranean interchange is via two hallways located on each of the islands. The islands are equipped in turn with a series of spaces that act as waiting areas and service zones, key points for improving service quality.

In short, the terminal has been designed in keeping with the qualities and conveniences that exist in the transport interchange stations carried out in Madrid in recent years and which will stand as a benchmark for surface urban bus terminals.



SURFACE INTERCHANGE SECTION



MADRID INTERCHANGE STATIONS PLAN - AWARDS



INTERMODES AWARD 2010

The purpose of Intermodos is to create a platform of exchange between all European sectors of passenger transport. In acknowledgement of the interchange plan carried out in Madrid, it was awarded first prize for its contribution to the best solutions as regards intermodality.



ITF-UITP AWARD 2010 FOR THE BEST INNOVATION IN PUBLIC TRANSPORT

The objective of the award is to acknowledge innovative public transport projects that specifically deal with service quality, sustainability of the public transport system, intermodal connections between public transport and others to achieve problem-free transportation, collaboration and leadership for innovation in the public transport sector.



Park and Ride



Pay park-and-ride car park at Majadahonda station



Free park-and-ride car park at Aranjuez station

Park and ride car parks act as an interface between private vehicles and public transport and represent a key factor in the modal chain intended to orient the public transport system towards residents in the outlying urban and metropolitan areas most inclined to use automobiles.

Madrid's commuter train network has 56 park and ride car parks. On a weekday, 7.5% of commuter train passengers arrive at the network's different stations by private vehicle, of which 3.8% are drivers and 3.7% are companions.

When we look at the stations in the different metropolitan rings, the number of cars using the car parks increases the further away they are from Madrid.

Car park capacity in 2006 was 20,758. Average size is 371 spaces per car park, although pay car parks are of a larger size: more than 690 spaces compared to 300 spaces in the rest.

Of all the stations with park and ride facilities, only five - all located in the north-western A-6 corridor - are fee-paying: El Barrial - Centro Comercial Pozuelo, Majadahonda, Las Rozas, El Pinar and Las Matas. Rates vary according to length of stay (1, 5, 10 or 30 days), and it is necessary to be in possession of a public transport ticket valid for an equal or greater period of time.

Certain Metro stations, such as Canillejas, Aluche, Miguel Hernández and Colonia Jardín (in Madrid) and the 4 stations on the Line 9 extension to Rivas and Arganda del Rey, also have park and ride facilities.

Finally, the Region of Madrid is setting up free park and ride car parks linked to small interurban bus stations, particularly in the municipalities of Villa del Prado and Moralarzal.



TYPOLOGY, NUMBER AND SPACES IN PARK-AND-RIDE CAR PARK AS ASSOCIATED WITH COMMUTER TRAINS

Type of car park	No. of parkings	No. of spaces
Free Access	46	13,852
Pay-per-use	10	6,906
TOTAL	56	20,758

RATES FOR PAY-PER-USE SUBURBAN PARK-AND-RIDE CAR PARKS

Period	Rate	Validity associated with public transport ticket
1 stay	1 euro	1 stay on the same day of purchase
5 stays	4 euros	5 stays (which may coincide on the same day)
10 stays	8 euros	10 stays (which may coincide on the same day)
Monthly	15 euros	1 stay/day for 30 days as of the purchase date

DISTRIBUTION OF SUBURBAN PARK-AND-RIDE CAR PARKS ACCORDING TO CAPACITY

Car park capacity	Number	Percentage
50 spaces or less	11	26.8
51 – 100 spaces	4	14.0
101 – 250 spaces	14	25.0
251 – 500 spaces	14	25.0
501 – 1,000 spaces	6	10.7
Más de 1,000 spaces	7	12.5
TOTAL	56	100.0

Bus Stop Facilities and Information



Since 1987, the CRTM has been developing an Interurban Bus Stop Fittings and Signage Plan. The objective of the plan is to promote the use of this mode of transport by improving the quality of the service by: clearly identifying and marking bus stops; providing information to users about the services; protecting users from inclement weather while waiting for buses; and creating a coordinated, integrated image of surface transport.

Apart from the model of shelter, two new models began to be installed in 2009: the "Consortio Renovada", based on the previous model, and the "Enthoven".

The concepts that define them are appearance and accessibility, including full information on transport as provided by the old model.

In those stops which do not have a shelter, posts are used to indicate the location of the stop for potential public transport users. These posts include a space for information about the routes of the different bus lines and the timetables for the buses which run along the routes.

In the municipality of Madrid, the Transport Consortium has carried out an Information Plan which has defined new information for EMT lines. This plan has been implemented over the last few years. Each EMT bus stop contains up-to-date information regarding the lines which stop at the bus stop, their routes, basic timetables and ticket price information. In bus stops which have shelters the information also includes a map of the entire Madrid public transport network.



New models of shelters and post stops



NUMBER OF INTERURBAN BUS SHELTERS INSTALLED (December 2009)		
Urban zone in municipalities with more than 10,000 inhabitants	1,796	62.0%
Urban zone in municipalities with fewer than 10,000 inhabitants	387	13.4%
Bus stops located in low density residential areas	79	2.7%
Bus stops located on roads	634	21.9%
TOTAL	2,896	100%



Integrated Public Transport Management Centre



Integrated Management Centre for Collective Public Transport

ADVANTAGES FOR USERS

The system makes it possible to analyse the status of public transport as a whole and to provide a coordinated, integrated response to passengers' needs. Thanks to this centre, for example, the user information screens for the different modes of transportation (Metro, EMT, suburban trains, interchanges, etc.) are conceived as parts of a single multi-modal information system, which displays any operational incidences on all the different lines in the public transport system and offer alternatives if any part of the infrastructure is not operating at full capacity at a given time.

Transport users will also be able to receive e-mail or text messages with updated information on any incidents on the lines that they normally use.

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

Lastly, this centre will coordinate actions relating to incidents that may occur in the public transport system, executing standard procedures in the corresponding coordination mechanisms with the 112 Regional Emergency Centre, which may require the presence of ambulances, the Fire Department, Police, etc., depending on the circumstances.

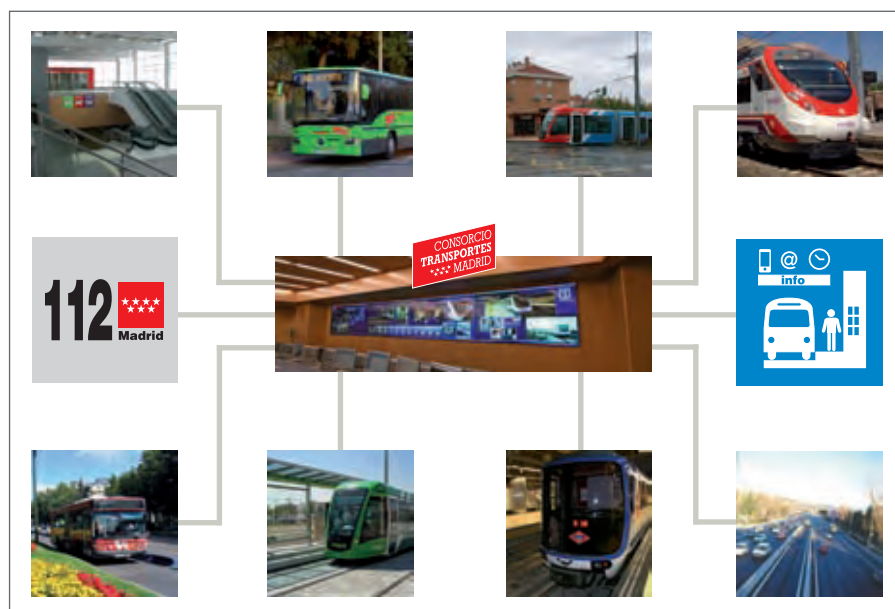
The Region of Madrid is developing an Integrated Collective Public Transport Management Centre, a "big brain" that will coordinate the information on infrastructure and services of the different modes of transportation that operate in the region. This centre will be the first in Europe to receive and manage specific information on all incidents that occur in each mode of transport.

This innovative system will provide two important benefits: on one hand, 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 most convenient route and, on the other hand, the Madrid Regional Transport Consortium will be able to make decisions faster and more effectively when coordinating the operation of the entire transport system.

This project has been executed in several phases. For the first step, the Region of Madrid, through the CRTM, implemented a control centre in the Moncloa Interchange to supervise operations and coordinate information from the four new transport interchanges built between 2004 and 2008 (Moncloa, Príncipe Pío, Plaza Elíptica and Plaza Castilla) and more than 150 bus lines that arrive and depart to and from them. Over the course of 2008, the functions of this centre were expanded and it now also coordinates the status of the three light rail lines and the Parla tramway, with a total of 36 km opened by the middle of 2007.

The positive results have made this control centre the first in Spain to have an integrated public transport management system covering: the Metro network, urban and interurban buses and the light rail network.

The next step will be to receive status information from suburban transport services and from the main access roads and streets of Madrid, making it an Integrated Mobility Control Centre.



New Technologies



The Transport Consortium promotes technological innovation in the whole area of public transport through a variety of initiatives: smart ticketing, user information, localisation and identification of transport below ground level, etc.

STT (Smart Transport Ticketing)

The ticketing system implemented in 2006 with the creation of the Sube-T card. Sube-T card-holders can access all modes of transport that operate in the municipality of Madrid: Metro, Madrid EMT, suburban rail network (RENFE), PRISEI (with the Opera-Los Cármenes line 500) and ML1 light rail line, with STT covering the whole A fare zone.

The security systems, based on HSM (Hard Security Modules), which are applied to the commercial network and the acquisition of consumable goods, have been strengthened with tools that guarantee a high level of availability throughout every process. A system for load-balancing in HSM servers has been acquired, allowing the security systems to be permanently available. The CRTM has begun work on adapting operation control to the requirements of STT.

To guarantee compatibility, the Transport Consortium has created a quality control centre for these technological innovations. This Development and Approval Centre has the necessary technical and human resources for to test each new development before its introduction into the transport system.

Real-time information panels

Based on a programme by the IDAE (Institute for Energy Saving and Diversification) the installation of real-time information systems was promoted for public transport users, regarding bus arrival times, by installing the technology necessary on the shuttle lines to the industrial estates of Getafe lines, Pi1 and Pi2, and lines 720, 725 and 726, which cover the general service for Madrid-Colmenar Viejo-Soto del Real and different municipalities in the mountains. Variable Message Screens have been installed at different stops along these lines.

Emergency systems for night lines on the interurban road network

26 operators of interurban bus lines have an

emergency system on 217 night line buses. The emergency system has been consolidated as a stable, efficient platform to assist drivers and users. The platform reports information in real time on the geographical location and the emergency that has occurred to an Integrated Collective Transport Management Centre.

Subterranean Transport Interchange Stations

Interchange bus stations of Plaza Castilla, Príncipe Pío, Moncloa and Plaza Elíptica have a geographical location system, below ground level, based on a network of Wi-Fi antennas, strategically placed inside the interchange.

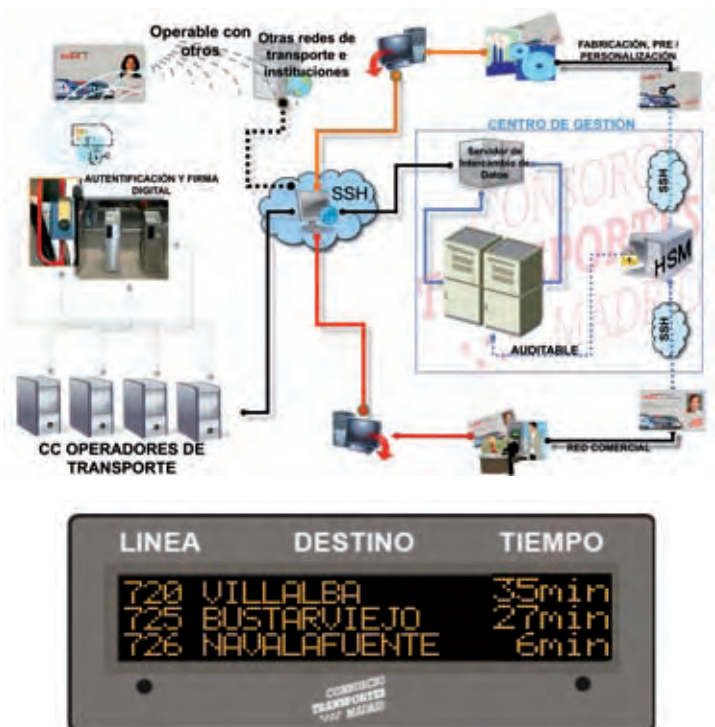
Modernisation Plan for Interurban Road Lines in the Region of Madrid

The plan affects around 2,100 vehicles, on around 480 lines, which serve over 20,000 stops. Service quality is directly related to the quality of information and the Modernisation Plan that promotes the availability of information in real time, on the basis of introducing a number of technological innovations (SAE, etc...).

SMART TICKETING SYSTEM FOR TRANSPORT



STT DATA MONITORING AND CONTROL



Real-time information panel



Public Transport Financing

FINANCING OF OPERATIONS

The Transport Consortium's existence as a regulating and coordinating body creates a stable framework for financing the Region of Madrid's transport services. To do so, it enters into agreements and commitments with the different authorities, interacting with political departments, in order to meet the cost of any subsidy necessary that has not been covered through fares.

From the perspective of financial needs, the Consortium must basically cover operating expenses and, as the case may be, the investment expenses of the public companies that are part of it, railway concessions, as well as compensation to the private interurban companies and Renfe suburban lines that may be payable, through the use of Transport Passes.

FINANCING OF NEW INFRASTRUCTURES

For several years, the Region of Madrid has been using alternative systems for the financing of investment transport infrastructures.

Accordingly, the Metro Extension Plan 1995-1999, with a total investment of €1,632 million,

was partly financed through the public company ARPEGIO, whose assets included several million square metres of land, used as surety for the loans obtained to fund the work. For example, the extension of Line 9 Arganda del Rey, was financed through a DBOT concessionary scheme with a 30-year term.

Subsequently, the Metro Extension Plan 1999-2003 (a total investment of €2,788 million) and the recently finalised Metro and Light Rail Extension Plan 2003-2007 (€5,126 million) has been developed through the publicly owned MINTRA. Certain parts of the 2003-2007 Plan have been removed from the responsibility of MINTRA and will be financed through concessions for construction and operation over 30 years (light rail network, the extension of Metro Line 8 to the new terminal at Madrid's Barajas Airport and the purchase of new trains).

Standing out in the 2003-2007 Plan is the financing of a system whereby the financing of part of some of the infrastructure is to be funded privately by land developers, as in the case of the Metro Line 1 extension to Ensanche de Vallecas,

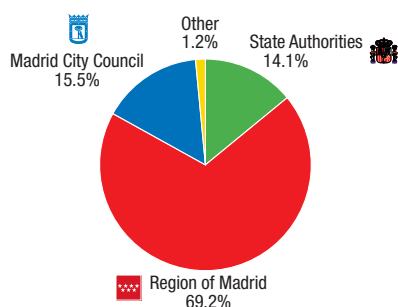
where part of the investment was made by property developers, and another part was financed by public companies, as in the case of the Parla Tramway, which has received a contribution of €42 million from benefits generated by value capture from the Consorcio Urbanístico Parla Este.

Finally, it is worth noting the innovative public/private partnership, which, based on the experience of the Avenida de América interchange transfer station in 2000, has enabled the development of the Interchange Stations Plan 2004-2007, building 4 new interchange stations with a total budget of €369 million.

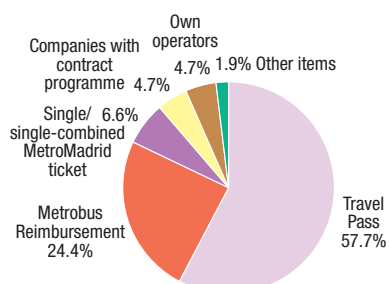
These are 30-year concessions for the construction and operation of infrastructures (which occasionally include adjoining car parks), where private partners recover their investment by means of collecting a fare from each regular bus passenger that gets on or off at the interchange. This also includes the operation of retail outlets, advertising areas, vending machines, etc...

PLAN FOR TRANSPORT SYSTEM FINANCING REQUIREMENTS: 2009 FISCAL YEAR (€ MILLION)

ORIGIN OF FUNDING. YEAR 2009
(€ 1,290.3 MILLION)



INCOME FROM FARE COLLECTION. YEAR 2009
(€ 865.3 MILLION)



ALLOCATION OF FUNDS / EXPENDITURE / REIMBURSEMENT / SUBSIDIES

<div>CONSORCIO TRANSPORTES *** MADRID</div> <div>Current expenditure 51.0 Operational 50.2 Investment 0.8</div> <div>Minus: Own income 5.9</div> <div>TOTAL NEEDS 45.1</div>	<div>Madrid Metro</div>	REAL NEEDS	1,067.8
		TAKINGS	407.9
		Travel Pass Reimbursement 184.4 Metrobus Reimbursement 143.9 Other items 79.6	
		SUBSIDY TO BE SETTLED	659.9*
	<div>EMT</div> <div>Municipal Transport Company</div>	REAL NEEDS	410.9
		TAKINGS	219.8
		Travel Pass Reimbursement 122.6 Metrobus Reimbursement 67.2 Company collection 30.0	
		SUBSIDY TO BE SETTLED	191.1
	<div>Renfe</div> <div>Interurban</div> <div>TFM</div> <div>Other urban</div>	REAL NEEDS	571.2
		COLLECTION	237.6
		SUBSIDY TO BE SETTLED	333.6
	Other needs	REAL NEEDS	51.4
Total funds applied (needs)			2,146.3

* Of which € 280.0 million are from MINTRA payments for the use of infrastructures

Madrid, A World Reference



Madrid is a modern, multicultural region, whose historical background and geographical location make it a bridge between Europe, Latin America and Africa. In addition to its obvious tourist attractions, the region of Madrid comprises a considerable list of protected natural areas and cities with enormous historical appeal, such as Aranjuez, San Lorenzo de El Escorial, Alcalá de Henares, Buitrago, etc...

Capital of Trade Fairs and Congresses

The International Congress and Convention Association (ICCA) places Madrid thirteenth in its world ranking. The appeal of Madrid as a venue for congresses and trade fairs is the result of a rich offer in culture and leisure and an excellent transport system. This is, without a doubt, the most significant complement when choosing the Spanish capital as the venue for an international event. As for conventional tourism, Madrid has reached a new record number of visitors, as in April 2009 it again broke the historical figure for tourists with an inter-annual growth of 11%.

Madrid and Nature

Natural areas occupy more than half the Region of Madrid's territory. Our territory comprises ten major protected natural areas, which exemplify a varied geography that ranges from the plains and valleys in the south of the region, to the

areas closer to the Sierra de Guadarrama mountains, our region's green lung and a genuine natural treasure. In this last area and just 45 minutes from the centre of Madrid, we can find mountains that rise to over 2,400 metres in altitude, with abundant snow in winter and a large number of trekking routes and climbing areas to enjoy in summer.

An architectural and urban reference

Madrid is also a reference as regards architectural and urban development projects. Our region contains many buildings designed by world famous architects. To mention just a few of the most recent examples, we have the T4 Terminal at Barajas Airport, designed by the Foster-Lamela studio, the Reina Sofía Art Centre by Jean Nouvel, the Caja Mágica sports centre by Perrault and the so-called "Four Towers", the highest buildings in the city, its new skyline, designed by Cobb, Pelli, Foster, Carlos Rubio and Enrique Álvarez. From an urban point of view, Madrid has pedestrianised a large number of streets and the tunnelling works for the M-30 motorway have led to the urban recovery of the banks of the River Manzanares.

For all the above and its magnificent transport system, Madrid is acknowledged as a world-wide reference.



View of Plaza de Castilla and the Four Towers



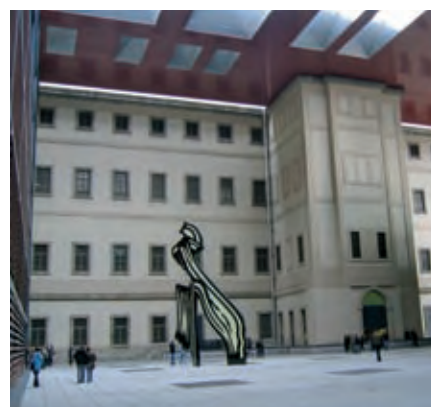
Sierra de Guadarrama



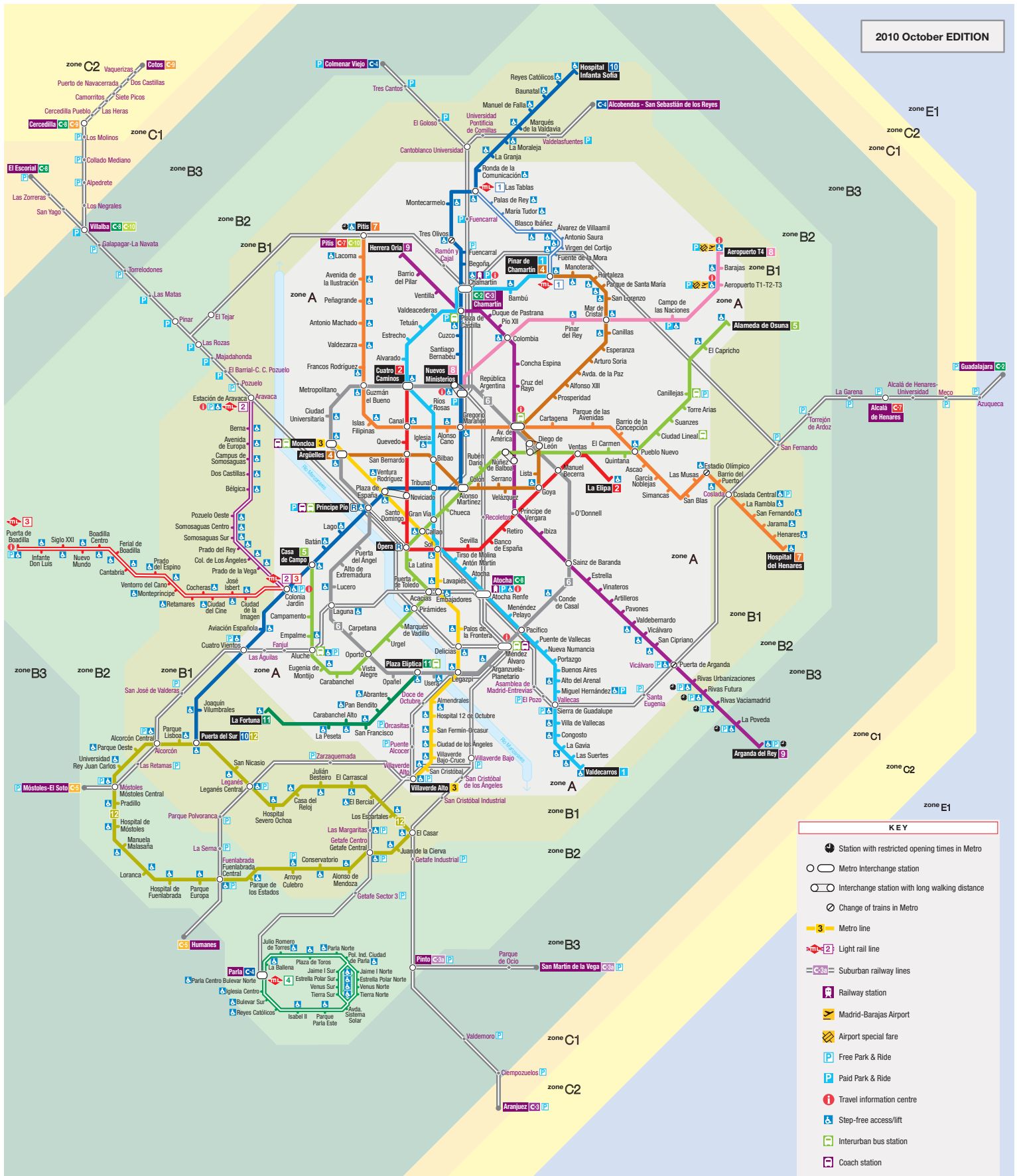
Puerta del Sol



The Rastro



Reina Sofía Museum





CONSEJERIA DE TRANSPORTES
E INFRAESTRUCTURAS

Comunidad de Madrid



Consortio de Transportes de Madrid.
Tu sistema de transportes



CONSORCIO
TRANSPORTES
MADRID

www.ctm-madrid.es