

Annual Report 2015



The Regional Transport Consortium has been taking significant measures over the year 2015 to encourage the use of public transport, some of them with great relevance.

The most important one has been the implementation of the new young pass, promoted by the Madrid Region, extending it age limit from 23 to 26 years old and establishing a flat rate of 20 euros to travel through all zones. It came into effect the 1st of October and by the end of the year, more than 686,000 young people had benefited from this young pass.

In addition to this, there are the freeze on tariffs, the long-term pass for unemployed people participating in the programme of employment activation, with a flat rate of 10 euros, and the extension of the age limit for free-travel in public transports for children under 6 years old. This last measure permitted to give access for free to the entire transport network of the region to more of 76,000 children.

We also kept renewing the bus fleet to make it increasingly efficient, ecological and less pollutant and to improve the air quality of the region; the number of lines and kilometres have been extended, a new agreement has been signed with Renfe to allow recharging the the Public Transport Card in Renfe-Cercanías suburban railway stations; we started the training of 360 new drivers to recover the Metro passing frequencies there were before the crisis; the intermodality between public transport and bicycle is being strengthening; infrastructures and Metro lines have been modernized; etc. among many other measures which permit to provide a better service to the traveller every day.

This intervention programme has been supported by the considerable increase of the number of passengers, reaching 1,385.5 million, 1.1% more than in 2014, among those 569.7 million of passengers correspond to Metro, 405.9 to EMT, 207.3 to interurban buses and 182.2 to railways.

We have one of the best public transport systems of the world, which is a reference and an example for other countries; however, we will keep working to improve it day after day. This is our great challenge for the years to come.



M. Pedro Rollán, the Transport, Infrastructure and Housing Regional Minister of the Madrid Region











BETTER TO THE PARTY OF THE PART	
Passengers	54
Demand evolution per ticket type Transport ticket sales	56 58 61



Studies and 70 projects

Studies 72
New technologies 74
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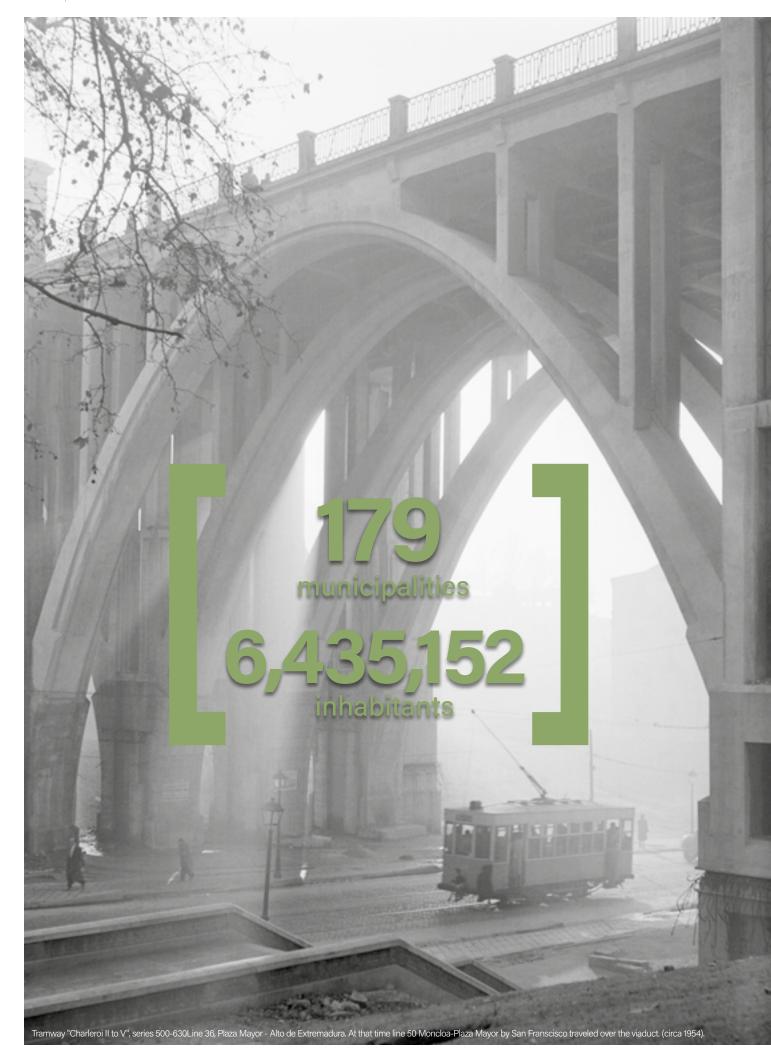
Relations with 76 citizens

The new app "Mi transporte" 79
Transparency portal 80
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Passenger Information Points (PIV) 81
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92 International presence III Public Transport Promotion and Sustainable 94 Mobility Awards





1. The CRTM

The Regional Transport Consortium of Madrid (CRTM) is the Public Transport Authority of the Madrid Region. It was founded under Act 5/1985 May 16th, passed by the Madrid Assembly. The CRTM adopts the form of an Independent Agency of Madrid Regional Government and brings together all its competencies and those belonging to all local municipalities in the region, in matters of regular passengers transport. It assumes the integrated management of the public transport in the said territory.

Its functions and priority objectives are, summarized below:

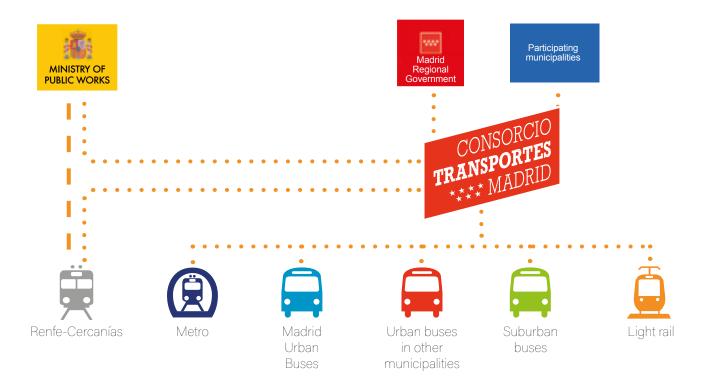
- · Planning of public transport infrastructures.
- · Planning of services and coordination of exploitation programmes of all public transport modes.
- Definition of a unique integrated fare system for the whole public transport system.
- · Establishing a stable financial framework.
- · Controlling and monitoring the operators' economic management.
- The creation of a global image for the system, unifying external relations with users.

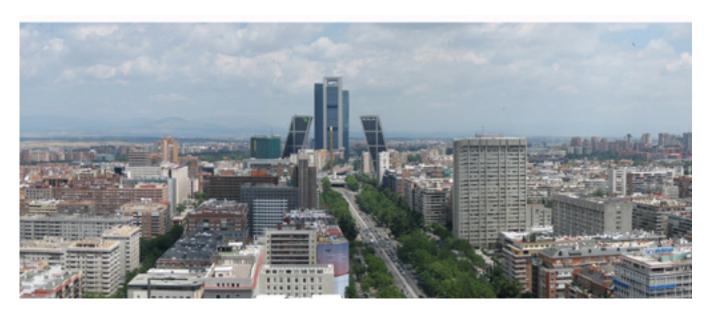


1.1. The institution

The CRTM is constituted as a group of public administrations which transfer their competences in order to act as a collegiate body. Henceforth, companies that provide transport services are not directly integrated into the consortium, but they depend on it by the adhesion of the Administration responsible for providing such services.

Accordingly, RENFE, a public company attached to the Ministry of Public Works, lies outside the consortium's sphere of competence, even though the Central State Administration, which contributes to the financing of the system, has representation in the Consortium's Administrative Board.





The Consortium is governed by an Administrative Board, which performs its functions directly or through a Delegate Committee. On 31 December 2015 the composition of these bodies were as follows:

111 Administrative Board

Chairman	Pedro Manuel Rollán Ojeda	
Board members	Jesús Valverde Bocanegra Pablo Rodríguez Sardinero Elena Collado Martínez José Trigueros Rodrigo Jesús Mora de la Cruz Miguel Ángel García Martín	Madrid Regional Government
Vice-chairwoman	Inés Sabanés Nadal	
Board members	Carlos Sánchez Mato José Manuel Calvo del Olmo	Madrid City Council
Board members	José Luis Fernández-Quejo del Pozo Daniel Ortiz Espejo Francisco José Recover Lorente	Participating municipalities
Board members	Joaquín del Moral Salcedo Luis Martínez-Sicluna Sepúlveda	Central State Administration
Board members	David Jabato García-Valenciano Antonio Oviedo García	CC.OO. Union U.G.T. Union
Board members	Fco. Javier Carbajo de la Fuente Juan Carlos Herranz Arranz	Business Associations
Board member	Gustavo Samayoa Estrada	Consumer Associations
Secretary non-counsellor	José María Ortega Antón	
General Manager non-counsellor	Juan Ignacio Merino de Mesa	

1.1.2. Delegate Committee

Chairman	Pedro Manuel Rollán Ojeda
Board members	Jesús Valverde Bocanegra Miguel Ángel García Martín Inés Sabanés Nadal Carlos Sánchez Mato José Manuel Calvo del Olmo
Secretary	José María Ortega Antón

1.1.3. Operational framework

The operational framework for the public transport system in the Madrid Regional Government is summarised as follows:

Passenger road transport



Madrid Urban Bus.

This public company held by Madrid Urban Bus Services (EMT) provides urban passenger transport in the city of Madrid



Urban bus operators in other municipalities.

There are 6 urban transport concessions operating in 6 municipalities, and one public company in the municipality of Fuenlabrada. In addition, 28 municipalities provide urban services through urban transport concessions.



Suburban bus operators.

There are 27 operators exploiting 30 suburban transport concessions that provide services for all the municipalities in the region.

Railway passenger transport I



Metro de Madrid.

A public company held by Madrid Regional Government that operates in 9 municipalities.



Renfe Viajeros.

A public company held by the Central State Administration that exploits the suburban railway network in Madrid.



Private metro operators.

2 public works concessions for the extensions of both line 8 (Barajas -Aeropuerto T4) and line 9 (Puerta Arganda-Arganda del Rey), operated respectively by Metro Barajas S.C and TFM.



Private light rail and tramway operators.

3 public works concessions for light rail lines: ML1 (Metros Ligeros de Madrid), ML2-ML3 (Metro Ligero Oeste) and ML4 tramway (Tranvía de Parla).

Interchange stations

There are 5 public work concessions, including exploitation and maintenance of the passenger interchange stations of Madrid:

- · Avenida de América
- · Plaza de Castilla
- · Plaza Elíptica
- · Moncloa
- · Príncipe Pío



1.2. Funding

The financial needs of the transport system consist on a compensation per service supplied paid by the CRTM to the different operators, and it is funded by public contributions from all levels of administrations, and contributions from users.

The difference between the economic needs and the revenue from ticket sales is covered by these public contributions, called fare subsidy of the system.

The payments for Metro de Madrid and Empresa Municipal de Transportes de Madrid (EMT) are governed by annual agreements, based on the approval of a balanced ticket price per passenger in the case of Metro de Madrid, and a production commitment in the case of EMT. They include, in both cases, a commitment with several objectives of service quality.

Economic relations with the road passenger transport private operators are established in public service contracts, according to Law 16 of 30th July 1985, Transport Planning Act, modified by Law 5 of 20th October 2009, concerning Road-based Transport and Mobility Management, passed by the Madrid Assembly.

The CRTM remunerates their contractors for light rail and the T4-Barajas section of line 8 according to the real level of passenger demand, by the use of the agreed technical fare. The deficit between the break-even fare and the money collected by Tranvía de Parla is equally covered by the CRTM and the Municipality of Parla, in analogous terms as stablished for the Empresa Municipal de Transportes de Fuenlabrada.

Transportes Ferroviarios de Madrid (TFM), as contractor for Puerta Arganda – Arganda del Rey section of line 9, receives a compensation adjusted to the fare established in the contract for any passenger using a public transport pass. The contract provides also a complementary compensation per passenger carried, until a certain amount of demand is achieved.

The interchange stations are financed by applying the fare included in the concession agreement, updated as established in the said agreement.

Renfe keeps an agreement with the Consortium that regulates the use of multimodal tickets -transport pass-and compensations derived from them.

The contributions from users consist on the revenue raised from the sale of the different tickets.

Central State Administration, Madrid Regional Government and Madrid City Council are quantitatively the most important contributors to the system. The others councils of the region with urban transport services also contribute, although to a considerably lesser extent. Lastly, the Spanish Regions of Castilla La Mancha and Castilla y León contribute as well, under the respective financing agreement for interregional passenger transport through their borders.



Central State Administration contributes with a nominative subsidy aimed to cover the financial needs of the system.

Once the central administration subsidy is deducted, the contributions from the other administrations are as follows:

- Madrid City Council contributes with the funding of 55% of the operating deficit of EMT of Madrid, as stated in the Regulatory Agreement that establishes the conditions on which Madrid City Council adheres to the Regional Transport Consortium for the 2013-2015 period. In addition, it also contributes with 50% of the financial needs for road transport concessions and Renfe in Zone A, 10 % of the financial needs for the interchange stations, 17% of the operation expenses of the Consortium and 25% of Commercial Operations.
- · Madrid Regional Government covers the total financial needs of Metro de Madrid and the services provided in Zones B and C (for the entire CAM, except for the municipality of Madrid).
- · In the case of municipal urban transport services in Zones B and C, their deficits are covered in half by the respective municipality.
- The needs deriving from the use of outer areas travel passes (Zone E1 and E2 in Castilla la Mancha Region) and combined tickets in certain services between Madrid and the provinces of Avila and Segovia are covered by the Castilla la Mancha and Castilla y León Regions respectively, in accordance to the corresponding collaboration agreement.



1,973 M€

CRTM expenditure

1,935 M€

1.2.1. 2015 budget and economic results

Due to the special legal regime of the CRTM, two different budgets have to be managed:

- An estimated budget compiling all commercial activity that integrates, on the income side, those derived from ticket sales, and on the expenditure side the distribution of this income among the transport operators and distribution and commercialization of tickets.
- An administrative budget integrated by tax collection and other public incomes, and contributions from its members as subsidized fares. On the expenditure side, this budget includes all necessary credits to finance personnel expense of the entity, current expenses on goods and services, and the reimbursement of the subsidized fares to the operators.

In 2015, in both cases collected revenues amounted to 1,972.6 million euros, whereas the amount of expenditure by December 31st reached 1,935.4 million euros. The operators' revenue should be taking into account too, so that the fare total incomes would reach the amount of 964.5 million euros for 2015. The difference between income -recognised revenue- and expenses -recognized liabilities- produced a budget surplus of 37.7 million euros, according to the following figures.

■ 2015 CRTM Budget Settlement I

Restricted and Estimated Budgets / Euro

INCOME	Recognised Revenue 2015
Chap. III-Taxes and other incomes	931,592.28
Chap. IV- Current transfers	1,088,888,427.89
Chap. V- Property income	28,872.93
Chap. VII- Capital transfers	1,165,985.00
Chap. VIII- Financial assets	12,485.85

 TOTAL RESTRICTED INCOME
 1,091,027,363.95

 Revenue collection
 881,554,808.68

 TOTAL ESTIMATED INCOME
 881,554,808.68

 TOTAL INCOME
 1,972,582,172.63

This budget settlement takes into account income and expenditure regardless of the year they are generated. By applying accruals, an economic result is obtained for the financial year, which in 2015 equals to the budget result.

EXPENDITURE	Recognised Liabilities 2015
Chap. I- Staff expenditure	6,528,407.63
Chap. II- Current goods and services expense	5,229,468.80
Chap. IV- Current transfers	1,007,855,451.28
Chap. VI- Investment	688,288.53
Chap. VII- Capital transfer	0.00
Chap. VIII- Financial assets	0.00

TOTAL RESTRICTED EXPENDITURE	1,020,301,616.24
Raw material for service operations	1,206,645.16
Other subcontracted work	34,648,180.91
Refunds	879,238,554.86
TOTAL ESTIMATED EXPENDITURE	915,093,380.93
TOTAL EXPENDITURE	1,935,394,997.17

Recognised Revenue -Recognised Liabilities 2015

I RESTRICTED BUDGET	70,725,747.71
II ESTIMATED BUDGET	-33,538,572.25
BUDGET RESULT FOR THE PERIOD (I+II)	37,187,175.46



Economic result

The economic flows of source and use of funds in 2015 are shown in the following charts, which comprises all income and expenditure:

	REAL 2015 (EURO)
I INCOME	2,055,521,022.76
* Contributions to CRTM	1,089,738,320.54
* Fare income	964,493,658.81
* CRTM own income	1,289,043.41
II EXPENDITURE	2,018,333,847.30
* CRTM internal operations	45,85,.879.43
* Transport operators fare compensation	1,898,110,277.78
* Administrative concessions	74,238,832.31
* Other current and capital expenses	126,857.78
III DIFFERENCE (I-II)	37,187,175.46



FINANCING SCHEME OF CRTM CONTRIBUTIONS TO THE TRANSPORT SYSTEM NEEDS. FISCAL YEAR 2015

Economic Result / Euro

SOURCE OF FUNDS

USE OF FUNDS / REAL NEEDS

CENTRAL STATE

128,154,260.00

MADRID REGIONAL GOVERNMENT 834,449,385.11

MADRID CITY COUNCIL 107,797,800.00

LOCAL AUTHORITIES AND OTHER REGIONS 19,336,875.43

APPLIED REVENUE COLLECTED ¹ 964,493,658.81

CONSORCIO

TRANSPORTES

***** MADRID

METRO DE MADRID, S.A. **744.448.530.77**

EMPRESA MUNICIPAL DE TRANSPORTES DE MADRID, SA

440,299,349.98

RENFE VIAJEROS 154,378,315.71

RAIL TRANSPORT CONCESSIONS (TFM, PARLA TRAMWAY, LIGHT RAIL) 119,244,345.63

ROAD TRANSPORT CONCESSIONS (URBAN AND SUBURBAN BUSES) 439,739,735.69

OTHER NEEDS (ADMINISTRATIVE CONCESSIONS, ETC.) 74,365,690.09

CRTM OPERATION EXPENSES 44,568,836.02

TOTAL SOURCE OF FUNDS

2,054,231,979.35

ECONOMIC RESULT FOR 2015 37,187,175.46 TOTAL USE OF FUNDS

2,017,044,803.89

€0.74* €1.54* €0.80

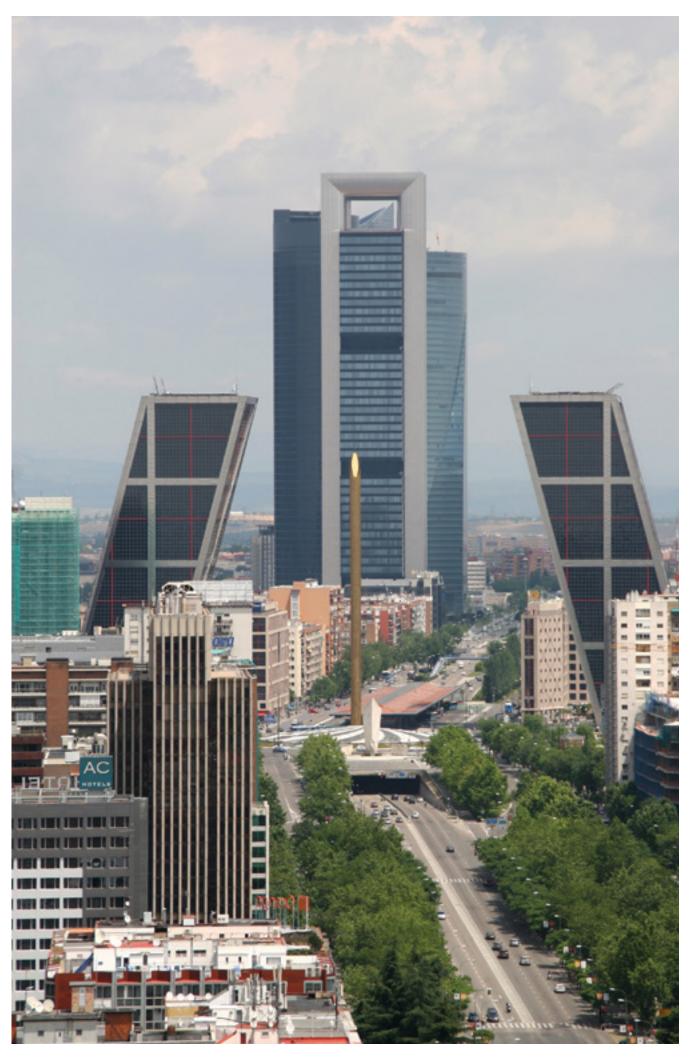
Average revenue per trip

Average cost per trip

Average subsidy per trip

^{*}These averages are calculated without taking into account Renfe-Cercanías own tickets (single ticket, 10-trip ticket and others) as they don't affect CRTM budget.

^{1.} Revenue collected from ticket sales amounted to 966,988,904.36€, of which 964,493,658.81€ have been applied to cover financial needs.



1,2,2, Balance sheet

Finally, the balance sheet and the statement of financial performance for the year ending 31st December 2015 are published as annexes.

■ Balance sheet as of 31st December 2015 ▮

Restricted and Estimated Budget / Euro	
Assets	245,028,462.00
A. NON-CURRENT ASSETS	26,542,365.10
I. Intangible assets	25,231,191.38
Research and Development	-
Patents, licenses, trademarks and similar rights	1,420.05
IT applications	909,935.68
Leasholds	20,000.00
Other intangible assets	24,299,835.65
II. Tangible assets	1,310,937.21
Other tangible assets	1,310,937.21
V. Long-term financial assets	236.51
Other financial assets	236.51
B. CURRENT ASSETS	218,486,096.90
III. Trade and other receivables	180,250,343.00
Budget receivables	-47,260,310.55
Other receivables	6,863,002.25
Receivables from public authorities	220,647,651.30
V. Short-term financial investment	9,043.65
Credits and debt securities	9,043.65
VII. Cash and cash equivalents	38,226,710.25
Cash	38,226,710.25
EQUITY AND LIABILITIES	245,028,462.00
A. NET EQUITY	77,903,380.78
II. Generated equity	77,903,380.78
Prior periods' profit-loss	149.373.966,70
Profit-loss for the period	-71,470,585.92
B. NON-CURRENT LIABILITIES	77,425.15
II. Long-term debts	77,425.15
Other debts	77,425.15
C. CURRENT LIABILITIES	167,047,656.07
II. Short-term debts	138,844.93
Other debts	138,844.93
IV. Trade and other payables	166,908,811.14
Budget payables	74,239,803.95
Other payables	92,091,579.81
Payable to public authorities	577,427.38

■ Statement of economic result as of 31st December 2015 ▮

Restricted and Estimated Budget / Euro	
A. TOTAL OPERATING REVENUE	1,972,161,949.38
a. Transfers and subsidies received during current year	1,090,054,412.89
Current subsidies	316,092.35
Transfers	1,089,738,320.54
b. Net sales and services rendered	881,554,808.18
Net Sales	881,554,808.18
c. Other operating income	552,728.31
B. TOTAL OPERATING EXPENDITURE	1,941,219,765.69
a. Personnel expenses	6,528,407.63
Salaries and wages	5,046,308.06
Employee benefits expense	1,482,099.57
b. Transfers and subsidies granted	1,010,284,692.31
c. Supplies	910,153,438.72
Raw materials and other consumables used	910,153,438.72
d. Other operating expenses	10,299,71,61
External services	10,299,717.61
e. Fixed asset depreciation	3,953,509.42

I. RESULT FROM OPERATING ACTIVITIES	30,942,183.69
c. Finance income	407,736.90
d. Finance expense	102,820,506.51
II. NET FINANCE INCOME/EXPENSE	-102,412,769.61
III. PROFIT / LOSS FOR THE PERIOD (I-II)	-71,470,585.92







2. Services supply

The public transport system of the Madrid Region is based on a combination of integrated elements, comprised of operators, infrastructures and smart transport systems, with a common fare system, on which the CRTM performs its functions of planning and management of transport services.

Over the year 2015, the services production for the means of transports as a whole recorded 326.7 million of carriages-km by rail and 259.8 million of vehicles-km by road, on a network which covers more than 11,000 km and gives service to all the municipalities of the region.



2.1. The supply

The following chart defines and summarizes the main characteristics of the service supplied in 2015 depending on the type of urban, railway, or road operators which form the whole transport system managed by the CRTM.













Transport operators

Metro de Madrid Urban Bus (FMT)

Road transport concessions Light rail and other railway concessions

Renfe-Cercanías

		(EMT)	CONCESSIONS	concessions	
No. of lines	12+Branch	204	439	5	9
Network length (km)	269.5	1,533.7	8,447.0	54.8	391.0
Lines length (km)	269.5	3,622.8	20,843.0	54.8	778.3
No. of stations/ stops-network	236	4,660	8,083	62	94
No. of stations/ stops-lines	286	10,706	20,951	63	169
No. of vehicles (vehicles/ buses)	2,320	1,908	1,810	241	1,127
Vehicles-km (millions)	165.3	87.8	172.0	16.1	145.3

^(*) Light rail vehicles are recorded as 185 carriages, being 37 trains in total.

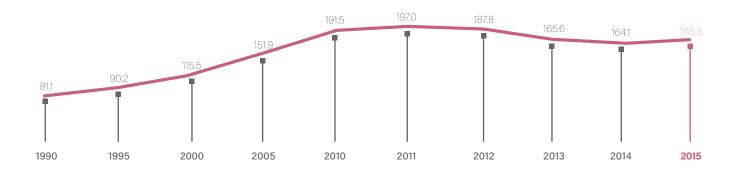
2.1.1. Madrid Metro

The Metro network is formed by a total of 12 lines plus the branch line between Opera and Principe Pío stations, and extends over 269.5 km with a total of 236 stations-network. Among these, there are 39 multiple stations (they have a connection between 2 or more lines), and 197 are simple stations. In terms of the number of lines, the Metro network has a total of 286 stations-line, including the new Paco de Lucía station (line 9), inaugurated in march of 2015.

Including the operated section by the contractor for line 9 between Puerta de Arganda and Arganda del Rey (TFM), it would be a network of 288.5 km, and a total of 241 stations-network and 292 stations-line.

The production of 2015 records 165.3 million of vehicles-kilometres, 0.7% more than the one carried out in 2014, mainly due to the variations in the Metro network programming over the winter period, in order to improve the interval and the occupancy in different time periods and days of service.

■ Evolution of annual production (millions of carriages-km) ■





■ Morning peak hour supply per line over a working day ■

Line	Trains	Carriages per train	Operating speed (Km/h)	Travel time (min) (round trip)	Interval (min)
1	35	6	22.0	119.9	3.4
2	19	4	23.6	68.0	3.6
3	26	6	23.9	69.0	2.7
4	25	4	21.8	79.0	3,2
5	29	6	23.2	116.0	4.0
6 (direction 1)	20	6	24.3	58.0	2.9
6 (direction 2)	13	6	26.1	54.0	4.2
7	18	6	27.6	83.0	4.6
East Metro	6	3	33.1	31.6	5.3
8	11	4	42.8	44.0	4.0
9	22	6	25.6	96.0	4.4
10	33	6	29.2	97.0	2.9
North Metro	11	3	38.1	48.0	4.4
11	5	4	29.2	28.2	5.6
12 (direction 1)	10	3	39.3	62.0	6.2
12 (direction 2)	10	3	39.3	62.0	6.2
Branch Line	2	4	11.6	10.0	5.0

Over a working day, the morning peak hour supply is composed of 295 trains in service, with an average passing frequency of 4.3 minutes and an average speed of 28.3 km/h.

The rolling stock in service during the year 2015 was composed by 2,320 carriages and the average age is 15 years old.

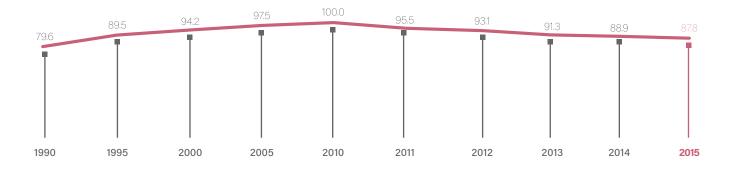
21,2, EMT

The urban buses network of Madrid, operated by Empresa Municipal de Transportes de Madrid (EMT), is formed by a total of 204 lines, being 177 day lines and 26 night lines; these latter in service the whole year. The Airport Express EMT Bus Line is in service 24 hours a day.

The total number of kilometres covered in 2015 is 87.8 million, 1.3% lower than the same magnitude in 2014. In this sense, the hours-vehicle (6.6 million) and the trips made (10.2 million) also show a similar relative decrease.

The characteristics of the planned supply vary due to the heterogeneity of the lines that form the day network, although the main group is composed by those lines with a daily average interval between 8 and 12 minutes. In the peak hour, 29 % of the lines operate with a passing frequency below 8 minutes.

■ Evolution of annual production (millions of vehicles-km) ■

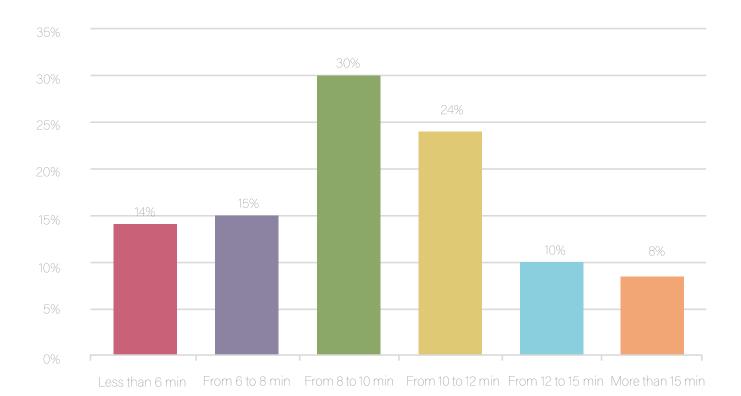


In 2015, the operating average speed is 13.4 km/h, 0.2% below the one recorded last year, due to the adaptation of service panels to the increase of traffic in the city.

In 2015, the EMT rolling stock is composed of 1,908 active vehicles with an average age of 8.8 years old, of which 768 work with natural compressed gas, 27 are hybrids, 20 are electrics and the rest work with biodiesel. Over this year, the installation of exhaust gases treatment systems was completed on the Euro III biodiesel vehicles in order to reduce their emissions below the limits of Euro V normative. All the buses have low floor and a ramp for Persons with Reduced Mobility (PRM).



■ % of EMT Lines per interval during peak hour ■





2.1.3. Road transport concessions

The bus network of the road transport concessions of the Madrid Region is formed on 31st December 2015 by 439 lines, being 298 suburban day lines, 111 urban lines and 30 suburban night lines.

Over the year 2015, new lines had been established:



Urban line 5 Móstoles "Móstoles (Train Station) – Parque Coimbra"



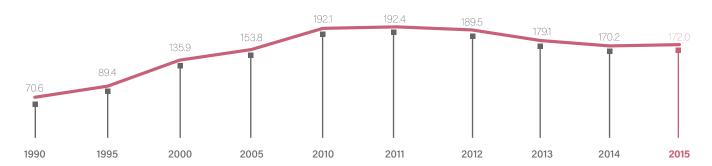
Urban line 13
Fuenlabrada
"Barrio Naranjo – Fuenlabrada
Central Train Station"



Line 180A
"Prado Norte – Monte Tesoro"

This set of lines are operated by 31 different companies, under 36 administrative concessions. The urban service in the municipalities of zones B and C is provided by urban lines of the municipality or by the suburban buses network. In some municipalities, the urban service is provided by a combination of the two networks. As a consequence, the real urban transport supply is far superior to what it can be deduced examining the urban network itself.

■ Evolution of annual production (millions of vehicles-km) ■



The specific urban network for zone B and C reaches 35 municipalities, although only in 6 of them there is an administrative concession for independent urban service. Moreover, in the municipality of Fuenlabrada, the urban service is provided by the City Council through a local public company. The number of services offered for the whole network rise to 27,379 during a working day in winter.

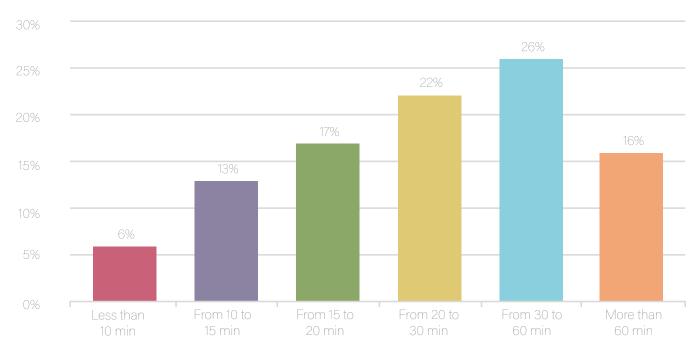
The supply for the different lines of the network is, logically, heterogenic and it's adapted to the different existing needs in municipalities with disparate people and characteristics, as illustrated in the following chart that shows the percentage of lines per passing frequency on peak hour, in minutes, during a working day.

The fleet of vehicles of the road transport concessions consists of 1,810 buses. Over the year 2015, 186 buses have been renovated, being the average age of 4.3 years old. As a result of these changes and improvement in the fleet, there are 145 available vehicles that work with natural gas and 70 hybrid vehicles. Also, 100% of the bus fleet is adapted to persons with reduced mobility (PRM).

Also, the CRTM keeps, through a concession, a Plan for Equipment and Signalling of Suburban Bus Shelters, in order to guarantee the maintenance and the correct equipping of the shelters. By the 31th of December 2015, there were installed 3,166 shelters and 4,161 posts in the area of the Madrid Region. In 2015, 42 new shelters were installed and 56 of them were relocated. Equally, 530 new posts were installed and 85 of them were replaced.



% Road concessions lines per interval during peak hour



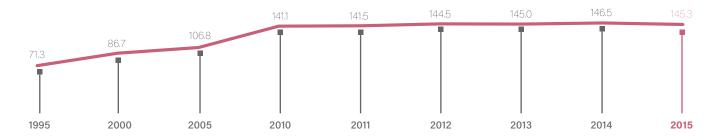
214. Renfe-Cercanías

Cercanías-Madrid is a railway service operated by Renfe Viajeros on ADIF infrastructure, which connects the city of Madrid with its metropolitan area and the populated centres of the region and with the city of Guadalajara.

Over the year 2015, two new stations have been installed: Soto del Hernares (C-2 and C-7) and Valdebebas (C-1). In consequence, the Madrid suburban rail network operated a total of 9 lines with 94 stations-network developed on 391 km, including the Azuqueca, Cotos and Guadalajara stations outside of the territorial jurisdiction of the Madrid Regional Government.

36 stations of the total number of them serve at least 2 suburban railways. Taking into consideration the total of connections to other railway modes (metro and light rail), the figure rises to 49.

■ Evolution of annual production (millions of carriages-km) ■





■ Supply per line over a working day ■

Line	No. stations-line	No. Trips	Nº Trips peak hour	Vehicles per Carriages	Peak operating speed (Km/h)
C-1	11	74	11	5	34.1
C-2	19	139	34	6 / 10	50.6
C-3	23	115	26	5 / 10	56.2
C-4 (a-b)	18	284	61	10	50.7 – 45.3
C-5	23	301	72	6	46.1
C-7	31	98	25	6 / 10	44.6
C-8	22	46	11	6	50.9
C-9	3	10	2	2/4	16.8
C-10	19	83	19	6 / 10	44.3
Total	169	1.150	144		49.5

*peak hour: from 7:00 to 9:00.

In 2015, the programmed transport supply for the Madrid suburban railway services recorded 1,150 trips by day; being the annual production of 145.3 million of vehicles-km.



2.1.5. Light rail

The light rail network consists of 4 lines, whose description is shown below:

ML1: Pinar de Chamartín – Las Tablas

ML2: Colonia Jardín – Estación de Aravaca

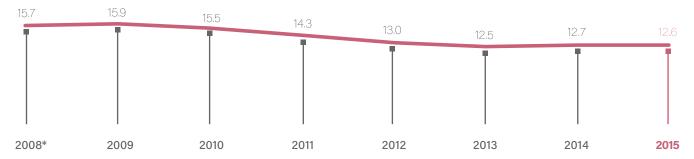
ML3: Colonia Jardín – Puerta de Boadilla

ML4: Tranvía de Parla (circular line)

The provision of light rail services corresponds to three companies: Metros Ligeros de Madrid (MLM), which operates line ML1; Metro Ligero Oeste, which operates lines ML2 and ML3; and Tranvía de Parla, which operates line ML4.

On balance, the production for year 2015 is 12.6 million of carriages-kilometre.

■ Evolution of annual production (millions of carriages-km) ■



^{*}Light rail network started its operations in 2007

Over a working day, the peak hour supply consists of 37 trains in service, being the average interval of 6.6 minutes and the average speed 21.5 km/h.

■ Supply per line during morning peak hour on a working d ay ■

Line	Trains	Vehicles-train	Operating speed (Km/h)	Journey Time (min) (round trip)	Interval (min)
ML1	7	5	18.6	34.0	5.0
ML2	10	5	23.5	44.0	5.5
ML3	13	5	25.4	64.0	5.5
ML4 (s1)	3	5	20.1	24.8	10.0
ML4 (s2)	4	5	19.6	24.8	7.0



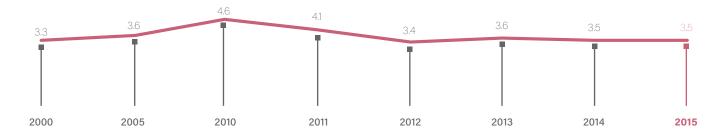
2.1.6. Other railway concessions

It is a section of line 9 located between Puerta de Arganda and Arganda del Rey stations. It stretches over 19.0 km and 5 stations-network, including the Puerta de Arganda station of Metro de Madrid.

The production for year 2015 is 3.5 million of carriage-kilometre.

Over a working day, the peak hour supply consists of 7 trains in service, being the average interval 6.0 minutes and the average speed 54.4 km/h.

■ Evolution of annual production (millions of carriages-km) ■

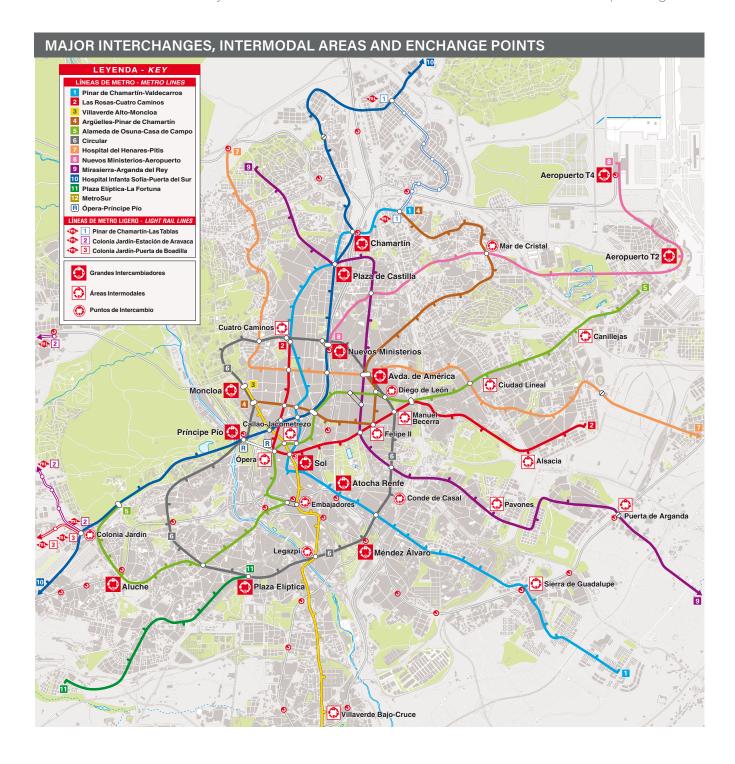


*Line 9 started its operations in 1999



2.1.7. Intermodality

The interconnection of the different modes included in the transport system is reflected on the infrastructure destined to the intermodality. These infrastructures destined to articulate the transport networks serve to streamline intermodal mobility and enable connection with the high capacity modes, whether it is metro or railway, in an efficient manner and with additional services for the passenger.

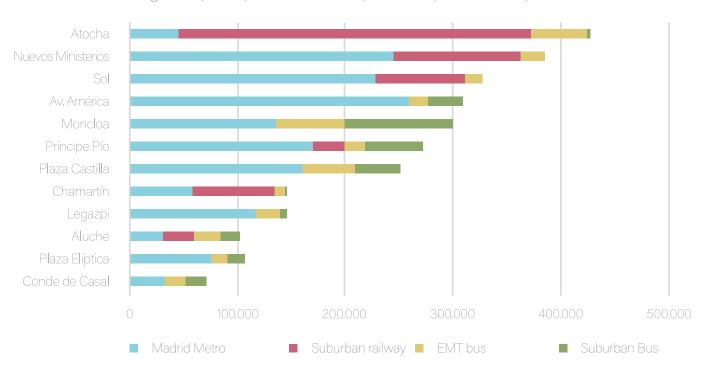


According to the characteristics of their infrastructure, the intermodal points are classified in three groups: interchanges, intermodal areas and exchange points. The most relevant interchanges and exchange points play an important role in the access and dispersion of metropolitan trips, while the intermodal

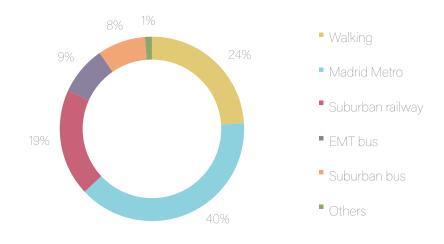
areas and the rest of exchange points supply trips in the urban area. In total, each day, almost 16,000 suburban trips and more than 17,000 urban trips depart from these points.

There exists up to twelve principal metropolitan intermodal points located in the city of Madrid. More than 1.8 million of passenger use these large nodes diary. 57% of them make some transfer or correspondence between modes of transport, while the 43% remaining are passenger who access or disperse on foot. Virtually, one in two trips made by public transport in the entire region goes through one of these twelve nodes.

■ Number of stages in principal intermodal points in public transport ■



Access modes to the principal intermodal points



Public transport supply in the principal intermodal points

	Metro lines and light rail	Suburban railway lines	Suburban bus lines	Urban bus lines
Atocha - Renfe	1	8	3	26
Nuevos Ministerios	3	7	-	11
Sol	3	2	=	10
Av. América	4	=	12	11
Moncloa	2	=	47	16
Príncipe Pío	3	3	21	11
Plaza de Castilla	3	-	34	21
Chamartín	2	7	2	2
Legazpi	2	-	9	20
Aluche	1	1	17	9
Plaza Elíptica	2	-	11	9
Conde de Casal	1	=	15	8

^{*} Includes bus lines with terminals in the intermodal point or in the surroundings, and passing lines.



2.1.8. CITRAM

Over the year 2015, the CITRAM, the public transport innovation and management centre, made the first steps towards a model based on the mobility as user service (MaaS Aliance) through diverse developments and applications.

PideTuBus

Nuevo servicio de solicitud de parada

Escanea el código

Para conocer los próximos servicios:

19347

al 674 324 883

Si quieres que la línea 642 se desvíe y pase por esta parada:

19347-642

al 674 324 883

unimos Personas

CONSORCIO TRANSPORTES

Para conocer los próximos servicios:

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unimos Personas

CONSORCIO TRANSPORTES

Para conocer los próximos servicios:

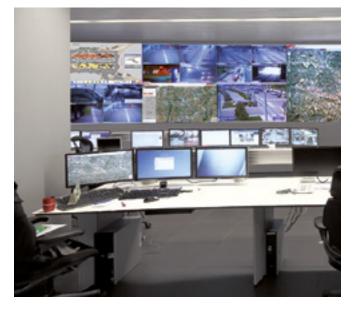
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service supplied by the operators (journey times, distance travelled, emission reduction, etc.).

On the other hand, during 2015 and in order to keep delving into the necessity of providing greater resilience to the public transport system, contingency plans have been developed in the event of exceptional incidents for the large transport interchanges of the Madrid Region. The development of these plans meant a great deal of coordination work among all the involved agents for the planning of a reclassification of the public transport system, and the creation of transport alternatives for the users in case of closure of the interchanges. At the end of 2015, a consensus document is negotiated between the CRTM and the transport operators, which is in analysis phase by the civil protection services of the Madrid Region.

Within this new mobility model at the service of the user, initiatives like the creation of a new on-demand service "PideTuBus" have been accomplished. Thanks to it, the user can ask interactively for a bus to stop by a selected shelter, being informed in real time about the evolution of his request and an estimation of the passing frequency per shelter. "PideTuBus" permits to explore the effects that a more interactive, intelligent and efficient transport can present for the transport system in the future, as much in the adjustment of supply depending on the user demand as in optimizing the



2.1.9. The quality of service

Over the year 2015 the CRTM continued with its improvement plan concerning the supervision measures for the quality of service of the transport operator network in different areas. First of all, the plan resulted into an intensification of the inspection of transport operators, which meant the execution of more than 5,000 inspections of the transport network.

Moreover, the transport system monitoring has also been improved through the user's perception by increasing the number of services evaluated. This way, this last year the measuring of the Madrid Region urban and suburban road transport has been completed. In addition to these works, and taking into account that the process to introduce the contactless card ended in 2014, over the year 2015 its acceptance among new and old Pass Transport users has been tested. The adaptation of the management offices to provide the services required for the Public Transport Card (TTP) incidents has also been tested.

Besides, the CRTM is developing a Quality Plan for the whole Passenger Public Transport System of the Madrid Region that will permit to homogenize the quality of service provided by the different operators of the system; establishing priorities among the improvement activities, and actively involving the operators...



2.2. The fare system

The fare system for the public transport in the Madrid Region is defined as a zone system, where the price of the trip is calculated according to the number of zones crossed. Moreover, there are three types of travel tickets aimed at as many general passenger categories.

According to the Creation Act of the CRTM, the tickets used by more than an operator belong to the CRTM, who is responsible for their issue and commercialization.

All modes and operators are included within this framework, which finally forms a system with a high degree of integration.

In regards to the technology, in 2015 almost all the personal tickets use the Public Transport Card, with a contactless microprocessor, while the rest of the tickets keep a magnetic card format.

Over the year 2015, on the other hand, a series of decisions regarding tariff policy have been taken which have had a significant impact on the system: the creation of the Children Public Transport Card, the modification of the young travel pass, and the implementation of a pass for unemployed people who meet certain requirements.

2.2.1. The zoning

The Madrid Region is divided in six fare areas:

- · A central area (A), which almost coincides with the municipality of Madrid.
- Three metropolitan areas (B1, B2, B3), with 8, 14 and 27 municipalities respectively.
- Two areas (C1 and C2), in order to reach the administrative limits of the Madrid Region, which contains a sparse population in the 129 remaining municipalities.
- In addition to this, two exterior areas has been defined (E1 and E2), inside the bordering Region of Castilla-La-Mancha, covering a distance from the capital of 59 and 85 kilometres respectively.

2.2.2. Types of tickets

There are three main types of public transport tickets:

A single ticket, for each operator, destined to the occasional user that can be acquired at the
moment of its utilization. In the case of Metro de Madrid and the metro and light rail concessions
connected to it, there is a single combined ticket valid for any combination of these services.



A **ten-trips ticket**, destined to intermediate users and bought in advanced. In the A zone there are two types of ten-trips tickets: one multimodal (Metrobus), valid equally for Metro, EMT, ML1, and the Prisei concession inside the municipality of Madrid; and another ten-trips ticket with transfer included, only valid for the EMT, which allows for changing of lines in a period of one hour after the first validation. Finally the multioperator ten-trips tickets (united bus card) are valid for all the urban and suburban road transport operators. Additionally, and by analogy with the single combined ticket for the metro and light rail connected services, there is a ten-trips combined ticket. They are all tickets incorporating magnetic technology and an Edmonson format, except for the EMT+EMT 10-trip ticket, which is a disposable contactless one.



A **personal multimodal card**, with unlimited use in a period and a zone of validity, named Public Transport Card, destined to frequent users and which is also bought in advanced. Since the introduction of the contactless technology, the period of validity of the travel pass passed from one calendar month to 30 days after the first use. The travel pass has different prices depending on the user's age: people under the age of 23 years and from October under the age of 26 years (Young Travel Pass); between 26 and 64 years old (Standard Travel Pass) and people over the age of 65 years old (Senior Travel Pass).

Outer Metro lines and Metro Ligero Oeste lines have a unified fare zone, a functional exception to the fare system. On the other hand, the use of the stations that provide services to the airport terminals is charged with a supplementary ticket, except in the use of a travel pass or a tourist ticket. Finally, the Airport Express EMT bus line has its own special ticket.

Tourist tickets are also personal tickets that allow for a limitless use and destined to the floating population. They are issued in only two zone categories: A and T (all zones, outer zones included), and both of them in 5 time options: 1,2,3,5 and 7 calendar days after the first validation.

72.2% of all trips are made using Travel Pass



2,2,3, Social fares

There are four groups that can benefit from a price reduction:

- Large families (respectively 20 and 50 % of discount in general and special categories concerning the travel pass).
- Persons with a disability equal or higher than 65% (20% of discount concerning the travel pass)

If the person meets the two previous conditions, the corresponding discounts will be accumulated.

- Persons of 65 years old or more and disabled persons who reside in the municipality of Madrid and whose personal incomes are lower than a certain amount related to the Spanish Public Income Indicator of Multiple Effects (IPREM) which is the reference indicator for determining social benefits (7,455.1 euro per year in 2015), with a specific travel pass, the Blue Card, valid for Metro de Madrid (area A), ML1 and EMT Madrid urban bus.
- Pass for unemployed people participating in the in the Employment Activation Programme introduced in November of 2015, which will be described in the following section.



2.2.4. New interventions in fare policies over the year 2015

Creation of the Children Public Transport Card

Destined to people aged 4, 5 and 6 years old, it permits its owners to use the Madrid Region public transports. The potential beneficiaries reach the approximate quantity of 220,000 children meeting the age requirement. The acquiring of this pass is free and it is a contactless card whose exterior is customized with the picture of the owner. With this measure, the age for free use of public transports has been extended 3 years, making the public transport use easier for families and also educating and guiding the youngest in this direction.





Creation of the new Young Travel Pass

The period of validity of the previous pass has been changed, extending it 3 years to include people aged 23, 24 and 25 years old until the 26th birthday. A unique fare of 20 euros has been established for the areas of pass validity as a whole, including the two areas belonging to the Castilla-La Mancha Region. The potential beneficiaries reach 1,200,000 persons – the Madrid inhabitants being between 7 and 25 years old, of which close to 530,000 ones were already owners of a transport card. The measure came into effect the 1st of October, and meant an important budget outlay due to an important decrease of the current passes fare, between 33 and 80% depending on the area. The activation, which had a great social impact, meant a significant contribution to increase young people's engagement with the use of public transport.

Creation of a specific pass for unemployed people

In November, the Transport Pass for unemployed people who meet the requirement of participating in the programme of employment activation was introduced. With a unique fare of 10 euros to travel during 30 days through the entire Madrid Region, this pass is expected to favour long-term unemployed people, facilitating mobility without restrictions for their active job search.

2.2.5. Sales network

There are two main groups of vendors:

- · The transport operators
- · Networks external to the operators

The transport operators, in general, commercialize tickets to be used exclusively on their network.

Multimodal and multi-operator tickets, property of the CRTM, are commercialized on the metro network (around 1.500 automatic vending machines), on the interchange stations (10-trip tickets for suburban road operators), and on three external networks: the network provided by Logista, which basically consists on tobacco shops and other approved establishments that distributes all the tickets on a network that includes more than a thousand of points of sale; the newspapers stands agents network of Madrid, AVPPM (more than 500 points of sale that commercialize the Metrobus); and Bankia ATM's of the Madrid Region, where the Public Transport Cards can be recharged with 30-day passes (around 1,000 available points).

Tourist tickets are sold on the Metro network and through the Internet and a specialized network which includes tour operators, travel wholesalers, etc.



2,2,6, Fares

Over the year 2015, the prices remained the same as on the 1st February 2013, date on which the last fare revision took place and that only had consequences on the price of the travel pass.

For its part, the Ministry of Public Works is the one in charge of approving the corresponding fares for the Renfe-Cercanías railways tickets.

■ Travel Pass (30 days) ▮

	Α	B1	B2	B3	C1	C2	E1	E2
Standard (23-64 years)	€54.60	€63.70	€72.00	€82.00	€89.50	€99.30	€110.60	€131.80
Young (under 23 years old)	€35.00	€39,60	€45.00	€51,60	€56.20	€61.80	€78.30	€97.40
Young (under 26 years old) From 1th of October of 2015				€2	0.00			
Senior (65 years old or more)				€1	2.30			

■ Interzonal (except zone A) ■

	2 zones	3 zones	4 zones	5 zones	6 zones	7 zones
Standard (23-64 years old)	€47.90	€54.60	€63.70	€72.00	€82.00	€89.50
Joven (under 23 years old)	€30.30	€35.00	€39.60	€45.00	€51.60	€56.20

Valid until the 30th of September of 2015

There are annual travel passes, valid until the 30th of September 2015, whose prices are equal to 10 times a corresponding 30-day travel pass, with the exception of the pass for unemployed persons. Children under the age of 4 years old can travel without a ticket.

■ Single and 10-trip ticket ■

Ticket	Metro Zone A + ML1	North Metro	East Metro	South Metro	TFM	Combined
Zone	A	B1	B1	B1-B2	B1-B2-B3	A-B1-B2-B3
Single	€1.50€-€2.00	€1.50	€1.50	€1.50	€2.00	€3.00
10 trips	€12.20	€11.20	€11.20	€11.20	€12.20	€18.30
AIRPORT supplement	3.00€					

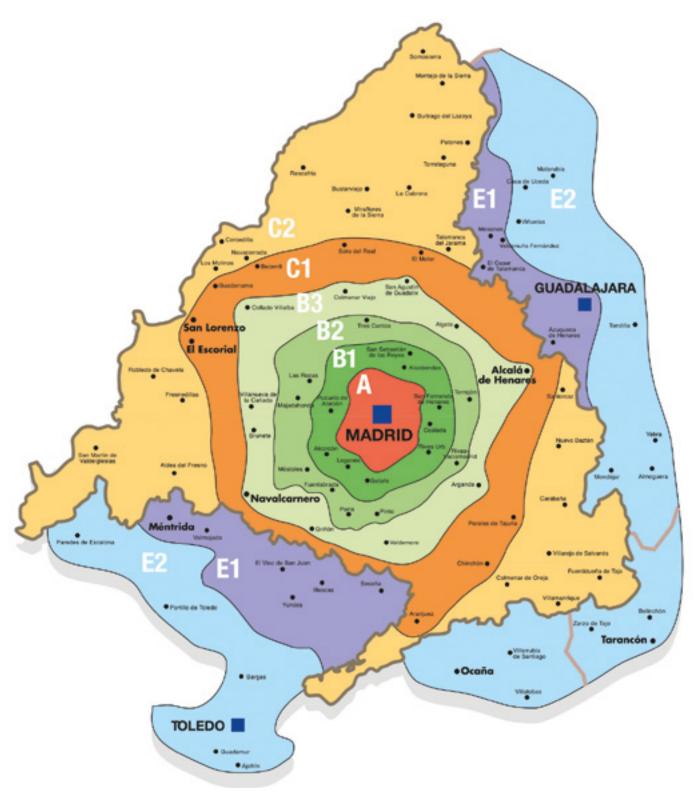
Suburban buses

Ticket	Α	1 zone	2 zones	3 zones	4 zones	5 zones	6 zones
Single	€1.50	€1.30	€2.00	€2.60	€3.60	€4.20	€5.10
10 trips	-	€8.50	€12.20	€16.10	€23.00	€29.70	€37.40

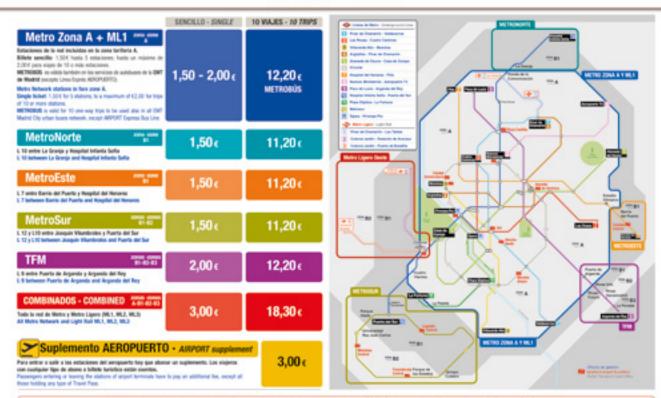
Tourist ticket

Ticket	1 day	2 days	3 days	5 days	7 days
Zone A	€8.40	€14.20	€18.40	€26.80	€35.40
Zone T (all zones)	€17.00	€28.40	€35.40	€50.80	€70.80

50% Discount for children under 11 years old.



TARIFAS . FARES



Los niños menores de 4 años pueden viajar sin billete · Children under 4 can travel free of charge



TARJETA TRANSPORTE PÚBLICO - PUBLIC TRANSPORT CARD

con la tarieta transporte público infantil.

Anthes tarjetes purden solicitanse a travis de Internet, en estanços autorizadas o mediante cita previa en las. These two Travel Cardo can be ordered sia Internet, officially licensed tobacco shape or by prior appoints oficinas de gastion de la Carijeta transporte público (www.ortm.ee).

Le teriste transporte público es el sporte para para las titulos de transporte. Actualmente, todos los. The Esrista transporte público Public Transport Cardi in the support to lossi Sciente. Currente, transporte público de del sporte para para la seguina de la seguina above do 30 days or cargon on its taylots. Los nifees de 4, 5 y 6 after vieiges gratte por toda is Comunicated pass for 30 days can be leaded onto the card. Children aged 4, 5 and 6 can travel for three throughout the can is tarjets transporte público infantii.

Maddid Region with the tarjets transporte público infantii.

in the Carjeta transporte público management offices (www.ortm.es).

ABONO TRANSPORTES - TRAVEL PASS

Titule personal, de utilización limitada en todos los servicios de transporte público de la Comunidad de Mitatrict. Su ... A travel guas is a ticket for personal and unlimited use on every public transport mode in the Madrid wildor es 630 dies a partir de la primera utilización, y su presci depende de les zonas recluides. Para hacer un de este titule hay que cargarto en la farjeta tr'ansporte público. También estes un abono con validor anual.

Hegian, with 30 days validity and farre depending on the incluidor zones. It must be charged on the England zones. It must be charged on the incluidor zones. It





BILLETE TURÍSTICO - TOURIST TICKET

Titulo personal con validez pare: 1, 2, 3, 5 e 7 dias. A personal ticket to be used 1, 2, 3, 5 er 7 calendar

Zona A. Todos los servicios de esta zona.

Zama 1t: Todos los servicios de la Comunidad, más ponas -- Zama 1t: for all trips in the Machid Region, plus E1 and E2 🐊 E1 y E2, excepto servicios RENFE a Toledo.

No es válido en la Linea Exprés ADROPUDITO de EMT. In not valid for the ARPORT Express EMT Bus Line.

consecutive days.

- Zone A: for all trips in Marrid City

zones except railway to Toledo.



1 dia day	2 dies days	3 dies days	5 dies days	7 dias days
8,40 €	14,20 €	18,40 €	26,80 €	35,40
17,00 €	28,40	35,40 €	50,80 €	70,80



6201 TARJETA AZUL - BLUE CARD

This personal, de utilización limitada durante 30 dias a partir de su primera utilización en los servicios de la: A Stue Card is a tichet for personal and unlimited use during 30 dias from its first use, valid for Zinne A cumplimiento de las condiciones requeridas.

one A (except Rente y Lines Expris ADROVERTO de la EMT). Para obtener la tarjeta es precisa acreditar el (Except RENT) and the AMPORT Express EMT Bus Line). Certain requirements must be accomplished and accredited to apply for this card.

as los tipes de billetas se puedes adquirir en las múquinas expendedoras de las estaciones. El Metrobús se sende bién en les estimos y los quisocos de presa del municipio de Madrid. La Tarjeta transporte público se puede par en las múquinas expendedoras de Metro, los estances y puedes autoricades, y los cajoros automáticos de licitad muchines, efficially licensed tobacco shops, and the indicated Bankin ATMs.







Información de Transporte Público - Public transport Información:

012 Lunes a verses de 800 a 2200 h - Situados y testes de 1000 a 2200 h

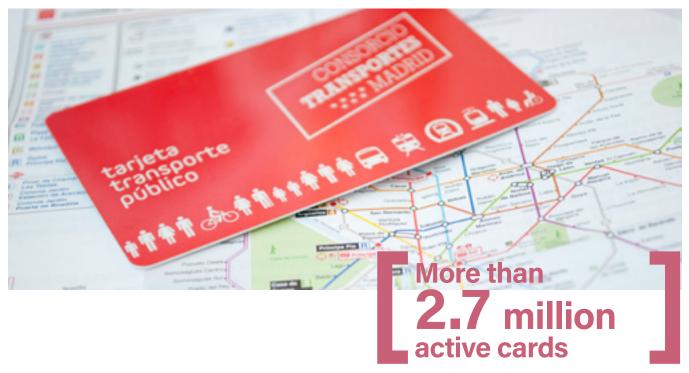
Morday to Friday 800 to 2200 h - Situados y testes de 1000 a 2200 h www.crtm.es

Información de Metro de Madrid 902 444 403 www.metromadrid.es

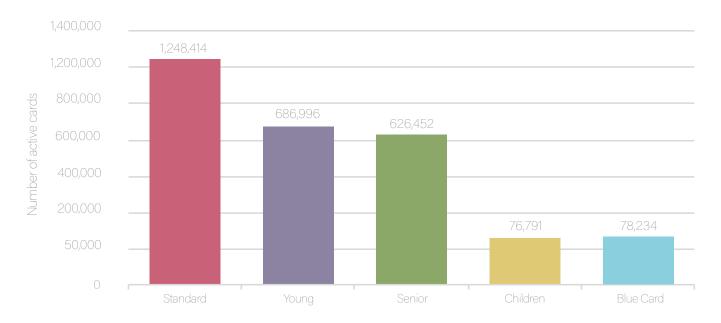


2.2.7. Public Transport Card

Widespread implemented in 2104 as the standard format for all personal passes, its introduction has been completed over the year 2015 with the incorporation of the valid passes for the Castilla-La Mancha zones. On the other hand, the boost for the transport system that the creation in October of the new young passes has meant that, by the 31st of December, the number of people owning a transport pass reached the figure of 2,716,887, 45% of the Madrid Region population aged between 4 and 85 years old.



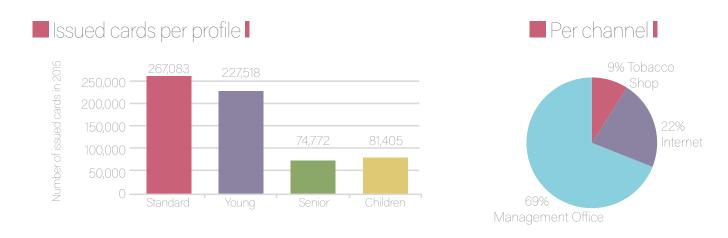
Active cards per profile



The following chart shows the number of issued cards over the year, ordered by card distribution channels, for every user profile.

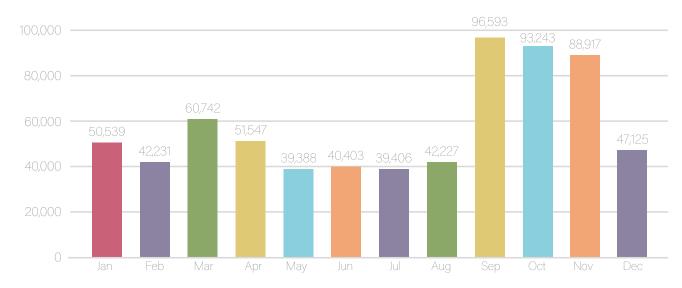
PROFILE/CHANNEL	Tobacco Shops	Internet	Management office	Overall Total
Senior	542	14,662	59,568	74,772
Children	52,311	15,375	13,719	81,405
Young	4,548	36,193	186,777	227,518
Standard	2,234	77,621	187,228	267,083
Total General	59,635	143,851	447,292	650,778

In 2015, 69% of the more than 650,000 issued cards have been provided via the management offices, and 22% have been processed by internet. The less used channel is the tobacco shops with 9%.



The average of requested cards is 57,697 per month, figure widely exceeded in the months of September, October and November due to both the accumulation of new requests and the beginning of the school year, but above all due to the implementation of the new young pass.

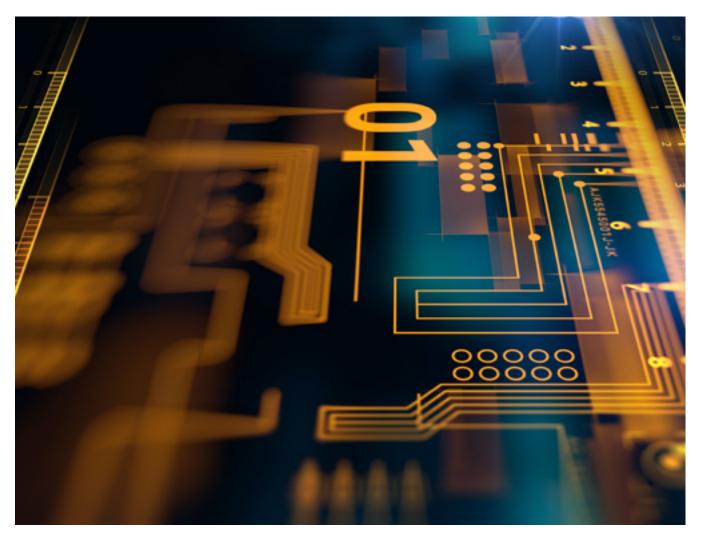
Requested cards



2.2.8. CDC (Centre for Development and Compliance)

The Centre for Development and Compliance (CDC) began to operate in 2006 and its essential objective is to be the reference centre of technology which guarantees the compatibility of all elements, equipment and systems, both hardware and software, which form or may form part of the Intelligent Transport Systems of the Madrid Region.

Over the year 2015, to accomplish the CRTM travel pass implementation plan for the Public Transport Card (TTP), tests were performed in all the applications to guarantee the correct incorporation of the young and children profile users into the contactless TTP card, also test were performed regarding urban tickets and production and supply of contactless cards. Finally, test protocols were performed in order to verify the different ticket sales networks.



2.3. Interventions

Paco de Lucía Metro Station

Over the month of March 2015, a new metro station opened in the Mirasierra district, named Paco de Lucía, becoming the number 301 of the Metro de Madrid network. The new station corresponds to the fare zone A, and it is planned to provide services to 50,000 potential users from the zone and to the more than 300,000 passengers of the railway lines C3, C7 and C8.

The new station, excavated with traditional methods, also has a peculiarity that makes it unique in Spain, because it is the first Metro station decorated with urban art, more specifically, with a 300 square metre mural wall which represents the face of the great artist from Cádiz, Paco de Lucía, neighbour of the Mirasierra district and deceased in 2014. The mural wall was executed by the artists Okuda and Rosh333 in collaboration with the architect Antonyo Marest, and under the supervision of Madrid Street Art Project.

To build this new infrastructure, which provides services to important districts of the capital and to hospital centres, schools and residences of the area, the regional government invested 191 million euros.



Soto del Henares Railway Station

The public transport in Corredor del Henares, and especially in the municipality of Torrejón de Ardoz, has notably improved thanks to the building of the new Soto del Henares Railway Station, whose implementation happened over the month of August.

This new railway stop, together with the refurbishment works and the modernization of the Torrejón central station, allowed the neighbours of Torrejón to discard the use of their private vehicle, improving this way the municipality air quality. The station, where 3.2 million euros have been invested, has a passenger building, platforms, shelters and an underpass that connects them.



Valdebebas Railway station

The third of the grand inaugurations of public transport infrastructures in the Madrid Region was the Valdebebas railway station over the month of December. This new station belongs to line C1, that connects Príncipe Pío with the Atocha, Nuevos Ministerios, Chamartín and Aeropuerto T4 stations, among others. The railway infrastructure supports the growth of the new Valdebebas district, which harbours prominent facilities like Real Madrid Sport City, Felipe VI Garden or the new Valdebebas residential area.

To bolster the connection between different modes of transport, the CRTM has installed a bus stop for the Special Service of Mar de Cristal-Valdebebas and close to the new railway station, extending also the bus fleet of this line and consequently reducing the waiting times.

2.4. Universal accessibility

Over the year 2015, the CRTM continued its work promoting accessibility and elimination of barriers, through a full-time work and the development of different interventions.

CRTM kept delving into the functional analysis of the access conditions of different groups of people that have been joining the public transport of the Madrid Region, and into its influence on the regulations and the application protocols. The execution of an inventory work concerning the accessibility conditions of the Public Transport Card management offices, in order to develop accessibility improvement plans for its facilities, is worth highlighting.

Pursuant to the decrees 13/2007 and Royal Decree 1544/2007 and within the Plan for Equipment and Signalling of Suburban Bus Shelters, the following accessibility interventions have been executed: 63 shelters have been relocated to guarantee a better accessibility, the conventional pavement have been replaced by another with a distinct colour and texture in 245 stop points, and armrest and ischiatic supports have been installed in 536 shelters

Also, the works into the frame of the III Madrid Regional Governtment Action Plan for Persons with Disabilities has been continued. Among other actions, the available information for the accessibility management in the metro stations with elevators has been updated.

Over this year, the CRTM has also participated in different forums like the Transport Engineering Congress, the CEAPAT work groups about cognitive impairment or the different Accessibility Technical Commissions of the Council for the Promotion of Accessibility and Removal of Barriers in the Madrid Region, where speeches have been given, technical documents have been elaborated, and important agreements on different actions in the accessibility field have been achieved.

The collaboration with other relevant agents concerning the accessible mobility and, in particular, with the Disability Associative Movement, has been permanent and fruitful.

CRTM has also continued the work of development of the European Projects SIMON (Assisted Mobility for Older and Impaired Users), and INLIFE (for the development of an application that supervise the bus trips of persons with cognitive impairment) and the promotion of the City4Age (for the prolongation of the active life) has started, on which relevant institutions and technological companies of the continent collaborate.

Accesibility of the public transport modes

Accessible Metro de Madrid stations	62%
Number of lifts in Metro de Madrid	508
Accessible light rail stations	100%
Accessible urban and suburban buses	100%



2.5. Environment

The CRTM keeps a strong commitment with the environment, being one of the main agents with responsibilities on the implementation of the measures that, related to the public transport of Madrid, are considered in the "Air Quality and Climate Change Strategy of the Madrid Region 2013-2020 (Blue Plan +)".

Among them, and in application of the Modernization Plan(1) for the suburban buses of the Madrid Region, there is noted in 2015 the incorporation of 192 new high-technology vehicles in terms of emissions that replaced models incorporating less evolved technologies and consequentially more contaminating.

Once the renovation had been done, more than 80% of the suburban fleet achieved the established levels in the Euro V, Euro VI or EEV regulations. For this reason, the fleet of Madrid is confirmed to be the most modern in Spain in its category, with a vehicle fleet whose average age is less than 5 years old and positions itself as a benchmark in terms of environmental sustainability.

On the other hand, and in the context of the battle against climate change, the CRTM, in collaboration with the operators that form part of the Madrid Region public transport system, has made the calculation of the regional public transport carbon footprint for 2014.



Its calculation has been obtained based on the Organisation's Carbon Footprint of each operator that integrate the CRTM (Metro of Madrid, light metros, EMT of Madrid, other municipalities urban and suburban road concessions and interchange stations) taking into account the greenhouse gas emissions generated as a consequence of fossil fuels, fluorinated gases and electricity consumption as much in permanent installations (offices, garages, repair shops...) as in the vehicles that provide the regular public transport system in the region.

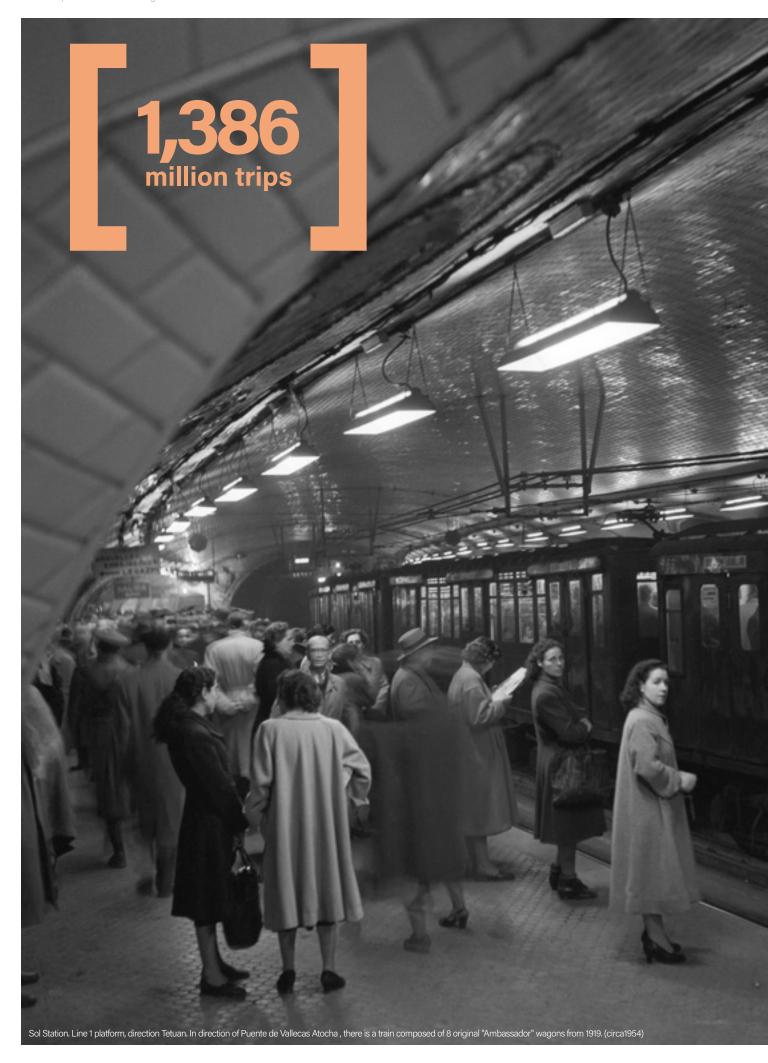
The carbon footprint thus obtained amounts to **473,675 tons of CO2eq**, of which 86% corresponds to the road mode of transport, 12% to the railway mode and the rest to the ones who operate in the interchange stations...

■ Bus fleet ■

	Diesel	Natural Gas	Natural Gas /diesel	Natural Gas/ gasoline	Hybrid	Electric	TOTAL
Madrid urban buses (EMT)	1,093	765	3	0	27	20	1,908
Road transport concessions	1,595	141	0	4	70	0	1,810

⁽¹⁾ Plan for the Modernization of the Permanent Regular Passenger Public Transport of General Use by Road.







3. Passengers

In 2015, the total of trips made within the public transport system of Madrid Region amounted to the number of 1,385.7 million, which represents an increase of 1.1% compared to the last year, 14.7 million in absolute terms.

This figure means an average of 215.3 trips per inhabitant and year, slightly above last year number. This stills positions the Madrid Region as a benchmark for public transport in the country.



3.1. Demand evolution per operator

■ Demand evolution per transport operator, 1990-2015 (millions of trips) ■

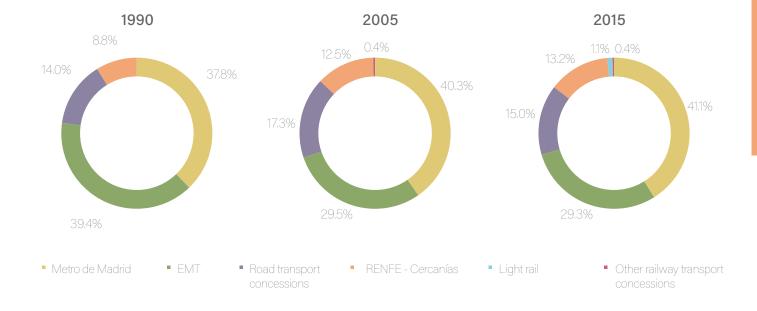
YEAR	Madrid Metro	EMT	Road transport concessions	RENFE- Cercanías	Ligth Rail ⁽¹⁾	Other railway transport concessions ⁽²⁾	TOTAL
1990	416.3	433.3	154.1	96.3			1,100.0
% VAR 90/89	5.5%	-4.7%	10.5%				2.8%
1995	397.2	521.5	191.6	126.0			1,236.2
% VAR 95/90	-4.6%	20.3%	24.4%	30.8%			12.4%
2000*	518.9	531.2	270.1	161.2		4.7	1,486.1
% VAR 00/95	30.7%	1.9%	40.9%	28.0%			20.2%
2005	643.6	470.2	275.6	199.0		6.7	1,595.1
% VAR 05/00	24.0%	-11.5%	2.0%	23.5%	0,0%	42.9%	7.3%
2010	627.1	423.4	235.8	181.6	17.3	6.4	1,491.6
% VAR 10/05	-2.6%	-10.0%	-14.4%	-8.8%	0.0%	-4.8%	-6.5%
2011	634.9	426.6	232.1	182.0	17.4	6.6	1,499.6
% VAR 11/10	1.2%	0.8%	-1.6%	0.2%	0.8%	3.8%	0.5%
2012	601.6	405.5	223.3	180.3	15.7	6.2	1,432.6
% VAR 12/11	-5.2%	-4.9%	-3.8%	-1.0%	-9.4%	-6.6%	-4.5%
2013	557.9	404.1	211.7	179.0	14.5	5.9	1,373.0
% VAR 13/12	-7.3%	-0.3%	-5.2%	-0.7%	-8.2%	-5.3%	-4.2%
2014	560.9	402.2	205.5	182.7	13.9	5,9	1,371.1
% VAR 14/13	0.5%	-0.5%	-2.9%	2.0%	-3.8%	0.0%	-0.1%
2015	569.7	405.9	207.3	182.2	14.7	5.9	1,385.7
% VAR 15/14	1.6%	0.9%	0.9%	-0.2%	5.7%	0.0%	1.1%

^(*) Over the year 2000, the calculation of trips procedure was modified (validations instead of household surveys). (1) Include the following operators: MLM, MLO and Tranvía de Parla. (2)TFM

In view of the chart, only Renfe Cercanías presents a negative evolution, with a decrease of 0.2%, while light rail operators are the ones which experience the best results (5.7% increase). Metro of Madrid, whose participation accounts for 41.1% of the overall demand, raises five tenths above the average, and the surface operators register an increase of 0.9%. Regarding demand distribution per ticket type, and fares being unchanged, variations in relation to previous year are in general irrelevant, although the Transport Pass participation increases again to represent 72.2% of the total, especially by the creation of the new Young Pass over the last trimester.

This increase seems to happen at the expense of the 10-trip ticket, whose percentage share drops by more than a point.

Demand evolution per operator





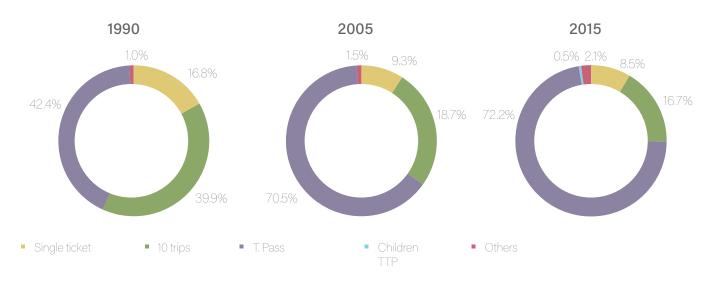
3.2. Demand evolution per ticket type

Annual trips distribution per transport ticket type

	Single	ticket	10 7		
Operator	Trips	% Total	Trips	% Total	Trips
Metro de Madrid	39,265,448	33.5%	134,844,446	58.3%	393,332,418
EMT	23,878,173	20.4%	53,355,120	23.1%	319,602,972
Road transport concessions	28,148,358	24.0%	24,079,699	10.4%	154,182,086
Renfe - Cercanías	24,136,317	20.6%	15,294,230	6.6%	119,173,086
Light rail	1,102,142	0.9%	2,536,702	1.1%	10,344,276
Other railway transport concessions (TFM)	712,325	0.6%	1,189,295	0.5%	3,946,908
Total	117,242,763	100.0%	231,299,492	100.0%	1,000,581,74

⁽¹⁾ Penalty Fare (Metro of Madrid), Special Services (EMT), Renfe Monthly Pass, Renfe Carnet (Renfe-Cercanías)

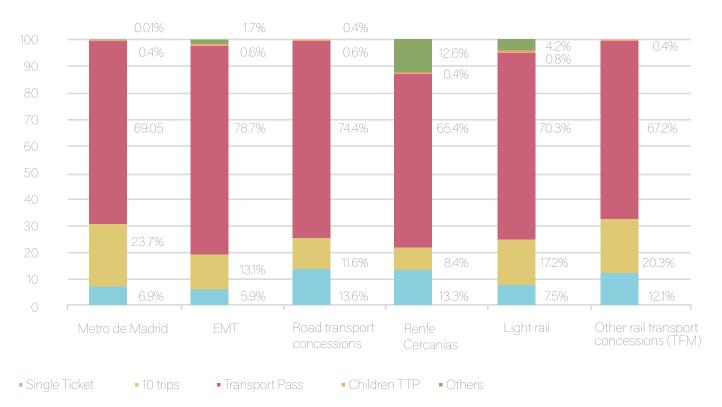
■ Evolution of the annual trips distribution per ticket type ■



T. Pas	S	Childre	en TTP	Oth	Others (1) Total		otal
	% Total	Trips	% Total	Trips	% Total	Trips	% Total
3	39.3%	2,243,844	35.3%	47,832	0.2%	569,733,987	41.1%
)	31.9%	2,362,889	37.2%	6,723,893	22.2%	405,923,047	29.3%
	15.4%	884,816	13.9%			207,294,959	15.0%
	11.9%	732,251	11.5%	22,891,626	75.6%	182,227,510	13.1%
	1.0%	113,264	1.8%	619,761	2.0%	14,716,145	1,1%
	0.4%	23,073	0.4%			5,871,601	0.4%
5	100.0%	6,360,137	100.0%	30,283,112	100.0%	1,385,767,249	100.0%



Demand composition per operator





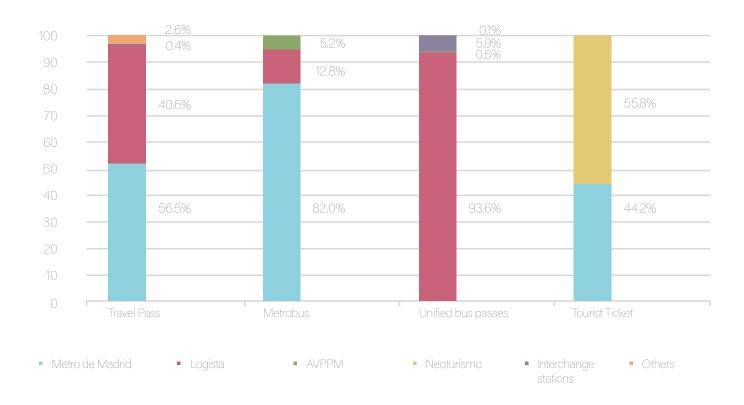
As a consequence, trips made with the Travel Pass have exceeded the billion threshold, practically exceeding three quarters of all trips made through surface operators (79 and 74% in EMT of Madrid and road concessions respectively), accordingly with the fare adjustments of changes between lines. In other words, the monthly number of trips that each user makes is 63 on average, more than 2.4% above last year number. The single ticket contributes with 8.5% of the total and the ten-trips tickets represent 16.7%. For their part, the trips made with the Children Public Transport Card raised to 6.4 million.

3.3. Transport tickets sales

An analysis of sales for every type of travel pass is shown below. The information regarding the rest of ticket types issued by the CRTM does not offer any significant information apart from what has already been discussed in the last section.

Nonetheless, the following chart shows the distribution per commercial network of all ticket sales issued by the CRTM. It is worth highlighting Metro de Madrid, which sells around half of all travel passes and 81.1% of Metrobus, the 10-trips ticket of Zone A.

■ Tickets sales distribution per distributor

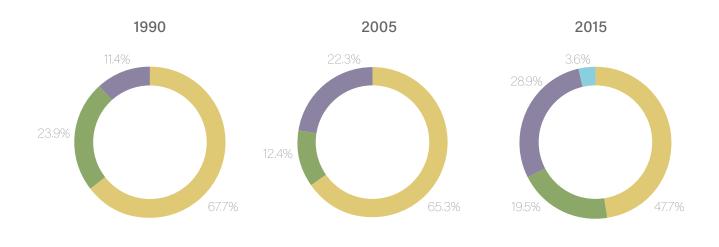


In 2015, a total volume of 15,806,223 travel passes for all zones and types have been sold. This figure, which represents a decrease of 0.2% over the last year, includes the recharge of 30-day travel passes on contactless technology cards, and annual travel passes calculated on a monthly basis.

■ Travel Pass sales per user profile ■

	Standard	Young	Senior	Blue Card and others	Total
1990	3,404,593	1,260,108	599,477		5,264,178
1995	5,254,389	2,248,617	1,634,361		9,137,367
%VAR. 95/90	54.3%	78.4%	172.6%		73.6%
2000	7,732,219	2,079,622	2,647,205		12,459,046
%VAR. 00/95	47.2%	-7.5%	62.0%		36.4%
2005	9,075,624	1,723,581	3,091,332		13,890,537
%VAR. 05/00	17.4%	-17:1%	16.8%		11.5%
2010	8.386.456	1,724,270	4,102,935	377,426	14,591,087
%VAR. 10/05	-7.6%	0.0%	32.7%		5.0%
2011	8,308,420	2,120,291	4,396,898	464,185	15,289,794
%VAR. 11/10	-0.9%	23.0%	7.2%	23.0%	4.8%
2012	8,366,074	2,449,268	4,642,104	600,350	16,057,796
%VAR. 12/11	0.7%	15.5%	5.6%	29.3%	5.0%
2013	7,909,291	2,428,193	4,826,377	620,475	15,784,336
%VAR. 13/12	-5.5%	-0.9%	4.0%	3.4%	-1.7%
2014	7,755,454	2,481,955	5,067,495	529,446	15,834,350
%VAR. 14/13	-1.9%	2.2%	5.0%	-14.7%	0.3%
2015	7,545,684	3,133,459	4,560,714	566,366	15,806,223
%VAR. 15/14	-2.7%	26.2%	-10.0%	6.9%	-0.2%

Evolution of Travel Pass sales per user profile



Standard

Young

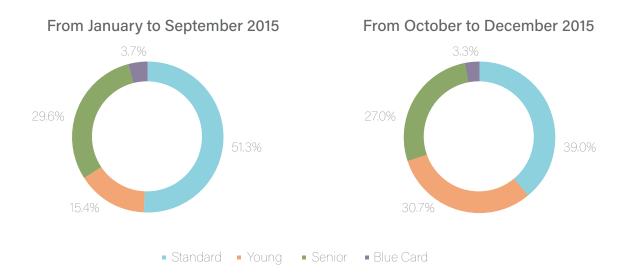
Senior

Blue Card and others

The actions performed on the pass structure during 2015 and the consolidation of the contactless card are the causes of the diversity shown on the comparison among the sales of the different profiles. On the one hand, the decrease of the standards pass and the increase of the young pass can be explained by the raise of age of eligibility for young pass. On the other hand, the setback of the senior pass has to do with the greater performances of the contactless technology, which prevent certain incorrect practices.



The following charts show the two 2015 subperiods, before and after the implementation of the young pass. As shown below, between January and September the Standard Travel Pass amounted to a bit more than 51% of total sales, while this figure is reduced to 39% in the last trimester as a consequence of the extension of the young pass age limit from 23 to 26 years old. In the meantime, young pass increased its share in total sales, from 15.4 to 30.7%. This percentage, along with the 27% contribution of Senior Travel Pass, means that the proportion of travel pass users of Madrid Region benefiting from a flat rate represents 58% of total sales in the third trimester of 2015.



The evolution of the sales per zone also shows, and even with a greater impact, the changes that happened after the introduction of the new young pass, considering that all zones without exception show negative results as a consequence of the new young passes being regrouped in a flat-fare category. The greatest setbacks happened in the metropolitan and surrounding areas, which can be interpreted as result of the greater attraction for the new young pass in these areas, where the usual trips are in general longer and thus more expensive.

Evolution of Travel Pass sales per zones

	Zone A	Zones B	Zones C	Interzones	Zones E	Senior	Young Flat Rate	PAE ⁽⁶⁾	TOTAL
1990	2,742,169	1,828,803	93,729			599,477			5,264,178
1995	3,678,086	3,589,307	235,613			1,634,361			9,137,367
%VAR. 95/90	34.1%	96.3%	151.4%			172.6%			73.6%
2000	4,150,359	5,273,279	388,203			2,647,205			12,459,046
%VAR. 00/95	12.8%	46.9%	64,8%			62.0%			36.4%
2005	4,527,608	5,691,174	496,577		83,846 ⁽²⁾	3,091,332			13,890,537
%VAR. 05/00	9.1%	7.9%	27.9%			16.8%			11.5%
2010	4,918,640 ⁽³⁾	4,696,330	438,939	354,046 ⁽¹⁾	80,197 (2)	4,102,935			14,591,087
%VAR. 10/05	8.6%	-17.5%	-11.6%		-4.4%	32.7%			5.0%
2011	5,182,281 ⁽³⁾	4,775,936	456,704	387,683 ⁽¹⁾	90,292 (2)	4,396,898			15,289,794
%VAR. 11/10	5.4%	1.7%	4.0%	9.5%	12.6%	7.2%			4.8%
2012	5,617,832 ⁽³⁾	4,812,524	472,725	416,700 (1)	95,911 (2)	4,642,104			16,057,796
%VAR. 12/11	8.4%	0.8%	3.5%	7.5%	6.2%	5.6%			5.0%
2013	5,436,538 ⁽³⁾	4,539,671	460,744	426,125 ⁽¹⁾	94,881 ⁽²⁾	4,826,377			15,784,336
%VAR. 13/12	-3.2%	-5.7%	-2.5%	2.3%	-1.1%	4.0%			-1.7%
2014	5,320,247 ⁽³⁾	4,468,454	446,653	437,469 ⁽¹⁾	94,032 (2)	5,067,495			15,834,350
%VAR. 14/13	-2.1%	-1.6%	-3.1%	2.7%	-0.9%	5.0%			0.3%
2015	5,088,904 ³⁾	3,921,637	370,518	375,532 ⁽¹⁾	83,712 ⁽²⁾	4,560,714	1,404,703 ⁽⁴⁾	503 ⁽⁵⁾	15,806,223
%VAR. 15/14	-4.3%	-12.2%	-17.0%	-14.2%	-11.0%	-10.0%			-0.2%

⁽¹⁾ B1-B2-B3, B3-C1 and C1-C2 passes. Until 2007 the B1-B2 pass was included in Zones B

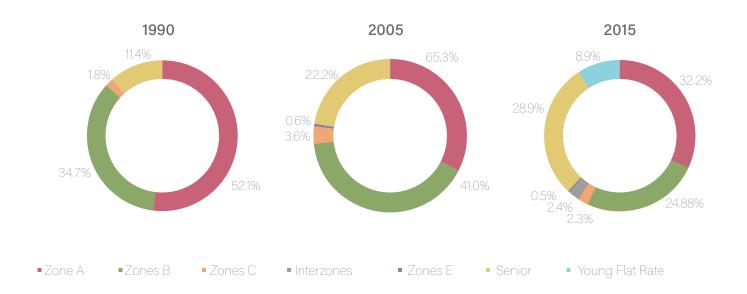
⁽²⁾ Zone exterior to the Madrid region, whose influential area corresponds with a part of the Castilla- La Mancha territory

⁽³⁾ Blue Card included

⁽⁴⁾ Since October 2015. This data includes 503 PAE (Programme of Employment Activation)

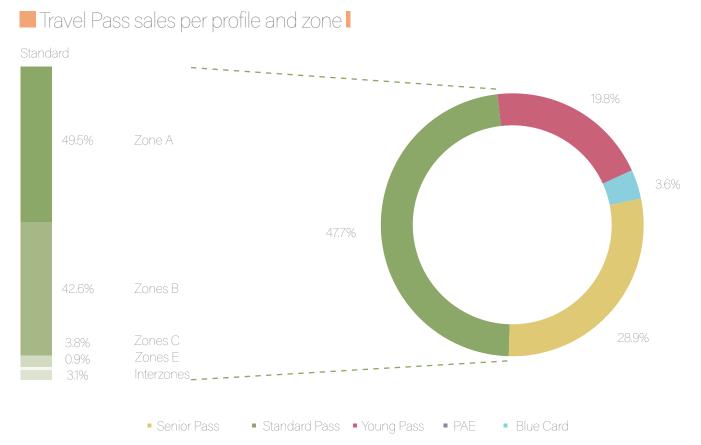
⁽⁵⁾ Since November 2015

⁽⁶⁾ Programme of Employment Activation (PAE)



As a result, the adopted tariff measures lead to a redistribution of the passes per zones in 2015, where the unique-fare passes (Senior, Young and Unemployed) represent a majority with 48% of total sales, percentage that will increase significantly over the next year, as the new young pass only affected the last trimester of 2015. The boost that this measure implies for the sales of passes also meant that the months of October, November and December represent the greatest sales of the year, in this very order, with a difference between the month of October and the annual average of almost 19%.

Linking the peak month for sales with the total population of the Madrid Region with ages between 4 and 85, a penetration of 25.6% is obtained, in other words, one out of four Madrilenians is a regular travel pass user.

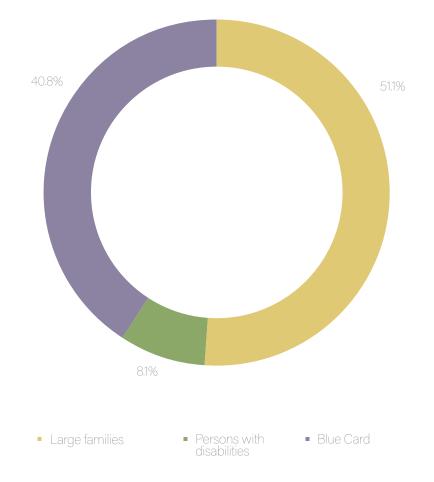


Sales of social tickets

Regarding social tickets, over the year 2015 a total of 1,387,764 tickets of all categories has been sold, 9.7% more than the previous year, a result derived especially from the increase of sales corresponding to the persons with disabilities.

More than half of the sales corresponds to the different large family categories (51.1%), 40.8% to Blue Card subscribers, and the remaining 8.1% to persons with disabilities.

	Large	Large families		Persons with disabilities		Card	Total	
	Sales	% over total	Sales	% over total	Sales	% over total	Sales	
2015	709,433	51.1%	112,468	8.1%	565,863	40.8%	1,387,764	
2014	640,468	50.6%	95,542	8.7%	529,446	41.8%	1,265,456	
% 2014 / 2015	10).8%	17	7.7%	6.	9%	9.7%	

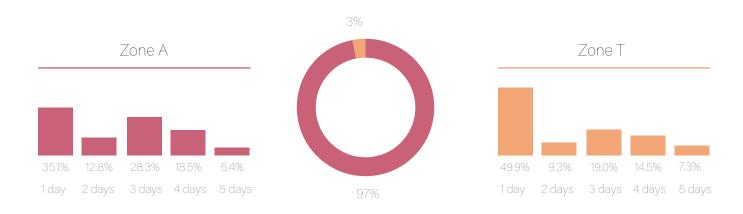




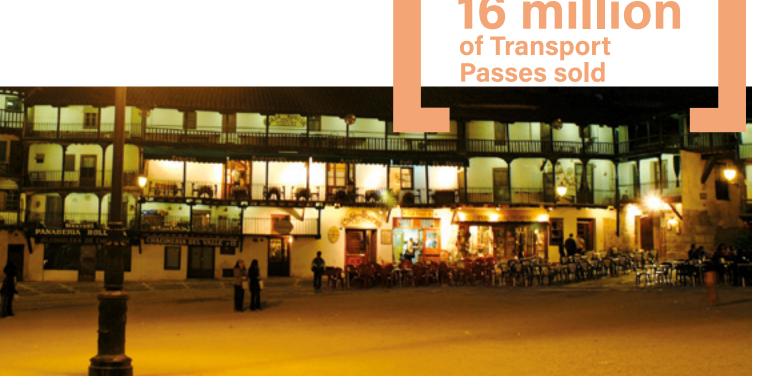
Concerning the sales of the different tourist tickets (Standard, Children, and Congress), over the year 2015 it reached the figure of 562,256 tickets sold, 17.2% higher than the previous year.

Zone A keeps the biggest proportion with 97.3% of total sales, whilst for the period of validity 1-day tickets achieved the higher circulation, although in this case there are notable differences among the zones, being the highest concentration of 1-day tickets on the category valid for travelling to all zones.

■ Sales distribution of tourist tickets per zone and period of validity ■



Around



■ Sales of tourist tickets per profile and zone ■

Days	Standard	Children	Congress	Total
1 day, zone A	175,419	15,555	944	191,918
2 days, zone A	65,790	3,371	696	69,857
3 days, zone A	147,149	5,906	2,027	155,082
5 days, zone A	87,532	3,793	9,649	100,974
7 days, zone A	27,106	1,430	796	29,332
Total zone A	502,996	30,055	14,112	547,163
1 days, zone T	6,800	725	2	7,527
2 days, zone T	1,300	74	23	1,397
3 days, zone T	2,674	164	35	2,873
5 days, zone T	2,034	77	80	2,191
7 days, zone T	997	61	47	1,105
Total zone T	13,805	1,101	187	15,093

Total 2015	516,801	31,156	14,299	562,256
Total 2014	431,888	30,242	17,766	479,896
%15/14	19.7%	3.0%	-19.5%	17.2%











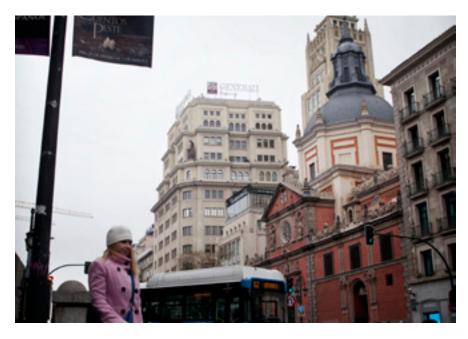


4. Studies and projects

The studies and projects that the Regional Transport Consortium of Madrid (CRTM) executes respond to the functions and aims of the different activity areas of this organism in the development of its competencies.

For years, the CRTM have been developing an important activity related to technologic innovation applied to multiple areas of development such as information to the user in real time, ticketing systems, integration of data from different operators and incident management.

The CRTM also participates intensively in multiple European projects destined to the investigation and the technologic development in the mobility and transport fields, encouraging the cooperation and the experience exchanges with its European counterparts.



4.1. Studies

■ Study for the definition and evaluation of alternatives to the current fare structure of the public transport system of Madrid Region ■

The definition of the current fare structure of the public transport system of the Madrid Region has been unaltered in its basic conceptual elements since the creation of the integrated pass, the Transport Pass. However, the changes that happened since then at all levels (infrastructure, location of economic activities and urban developments, socio-demographic, habits and behaviour), together with the impact of the economic crisis, and the substitution of the previous technology by the contactless card, suggest the need to analyse and evaluate different alternatives with the capacity of solving the distortions and absorb the new possibilities in mobility management, enhancing the public transport system of Madrid Region as the base for a global strategy of sustainable mobility.

The study performed can be classified in this context, and it has been designed as follows: one initial chapter with a description of the present situation and a comparative study with other metropolitan areas; a second chapter with different suggestions of modification, divided into 3 sections (frequency of use, zoning and social aspects); a chapter of reflections around the relation between the fare system and the demand of public transport, and a forth one describing the economical sustainability of the fare system. The study is completed with four annexes developing the calculation tools that were used, the characteristics of the compared fare systems, the initial information and the one specifically exploited to perform the study, and the result table of the evaluated alternatives. Also, an executive synthesis of the study has been performed.

Synthetic Mobility Survey 2014

During the month of November 2014, the field works for the Synthetic Mobility Survey (ESM2014) were performed, being the first one to be developed with these characteristics by the CRTM. The survey had as objective to characterise the mobility of the residents of Madrid Region during a working day. The polls were made using two methods: a Panel and a CATI, and a total of 4,898 individuals between 14 and 80 years old were surveyed, of which 19% hadn't made any trip on the reference day. Previously, the study of the mobility of the residents of Madrid Region was made by household surveys, known as household mobility surveys.

In 2015, the exploitation and delivery of results are finished, emphasising that there are 12,925,051 trips in the Madrid Region on a working day, which represent a relative mobility of 2.4 trips per person, being 1.7 by mechanised modes and 0.7 on foot. Two out of three trips are made by mechanised modes (70.1%), with a superior proportion of private vehicle use versus public transport use (57.8% and 42.2%, respectively). The modal distribution of the different stages on public transport shows a higher proportion of Metro use (40.5%) versus the rest of the modes: EMT (29.3%), suburban buses (15.1%), suburban rail (14.1%) and Light Rail (1.1%).

Analysis of intermodal flow of passengers in the municipality of Madrid

In the fourth trimester of 2015, a study about the characterisation of users of the main intermodal stations and intermodal areas in the municipality of Madrid was conducted. This characterisation is based upon the result of a field data collection that consisted on a face-to-face survey on 31,838 intermodal users that get on a suburban bus in these intermodal areas, the sample represents 19.7% of passengers on board. It was completed with a research on the number of passengers that got on and off in those infrastructures.

The study was made in the interchange stations of Avenida de América, Moncloa, Plaza de Castilla, Plaza Elíptica y Principe Pío; and the intermodal areas of Aluche, Legazpi, Canillejas, Vilaverde Bajo Cruce, Ciudad Lineal, Conde de Casal and Oporto terminal. 188 suburban lines were investigated and 8,951 trips were made in the period of time from 6:00 to 22:00 on a working day.

■ Study of characterisation of the demand of urban buses in the metropolitan municipalities of Zones B and C ■

Between October and November 2015, a gauging study and an autocompleted survey were performed on board urban buses in the municipalities of zones B and C. 38,855 users were surveyed, which represents 63% of the total demand of the lines investigated. All passengers getting in or off in each stop of all 113 lines were accounted for. The study included the 36 municipalities from zones B and C of Madrid Region, between 6:00 and 22:00 h, which meant the control of 2,669 circulations (42.6% of all circulations on that day).

This subnet, which includes 113 lines, transports near 160,000 passengers on a working day. In total, with different variations depending on the municipality, 90% of all trips are related to the residence, and 64% correspond to forced mobility (due to work and/or studies). 74.5% of passengers use the Transport Pass, being 32.3% Young Pass users, 32.1% Standard Pass users and 10.1% Senior Pass users.





4.2. New technologies

The implementation of the new Young Pass has meant a technological challenge, this is, to modify the conditions of the user's profile in a skilful way, with the aim of reducing the inconvenience caused and avoiding the throng of users overwhelming the management offices. For this reason, and taking into account that more than 250,000 card users had to proceed with this change, a structure was developed where the access points could perform the function of updating the user profile during the charging process, being in permanent connection with the back office and the servers, which were provided with these capabilities.

The approach of using the charging/recharging network was a success, and the effective response given to the massive ticket demand from the citizens is proof of that.

In parallel to these developments, the CRTM made important progress in the data processing. On the one hand, a pilot project has been launched in the BIG DATA field in order to evaluate architectures and tools, and on the other hand, different tests have been made through the use of ontology in a SPARQL ENDPOINT environment, to inspect the CRTM infrastructure for a future OPEN DATA website.

Finally, over this year some automatic vending machines of contactless cards (DETA) have been installed in the airport Adolfo Suarez Madrid-Barajas and in IFEMA. Those machines can sell contactless cards making the charge of tourist tickets possible.



4.3. European projects

Since its creation, the CRTM had an important activity in development and investigation projects. Over the year 2015 the active projects in the European context are shown below:



3iBS (2012-2015)

It is focused on the improvement of the bus image in the urban environment, looking for key solutions and innovative concepts, and knowledge exchanges at a global scale.

www.3ibs.eu



NODES (2012-2015)

New tools for the design and Operation of Urban Transport Interchange Stations. Its aim is to develop tools for the design and operation of new urban interchange stations, as well as its validation in different European cities

www.nodes-interchanges.eu



OPTICITIES (2013-2016)

It is focused on the development and the validation of strategies and tools based on ITS for multimodal integrated management of the transport network.

www.opticities.com



SIMON (2014-2016)

The project gives specific solutions on multimodal trips for older and mobility impaired people in general, laying the foundations of an accessible trip planner.

www.simon-project.eu



IN LIFE (2015-2018)

The project provides technologic solutions for persons with cognitive disabilities. The aim is to permit them to carry out their daily tasks, like public transport mobility.

www.inlife-project.eu



City4Age (2015-2018)

The project provides services based on ICT tools adapted for an easy use in the city for elder people and for people with motor, cognitive or other disabilities that complicate their social relations.

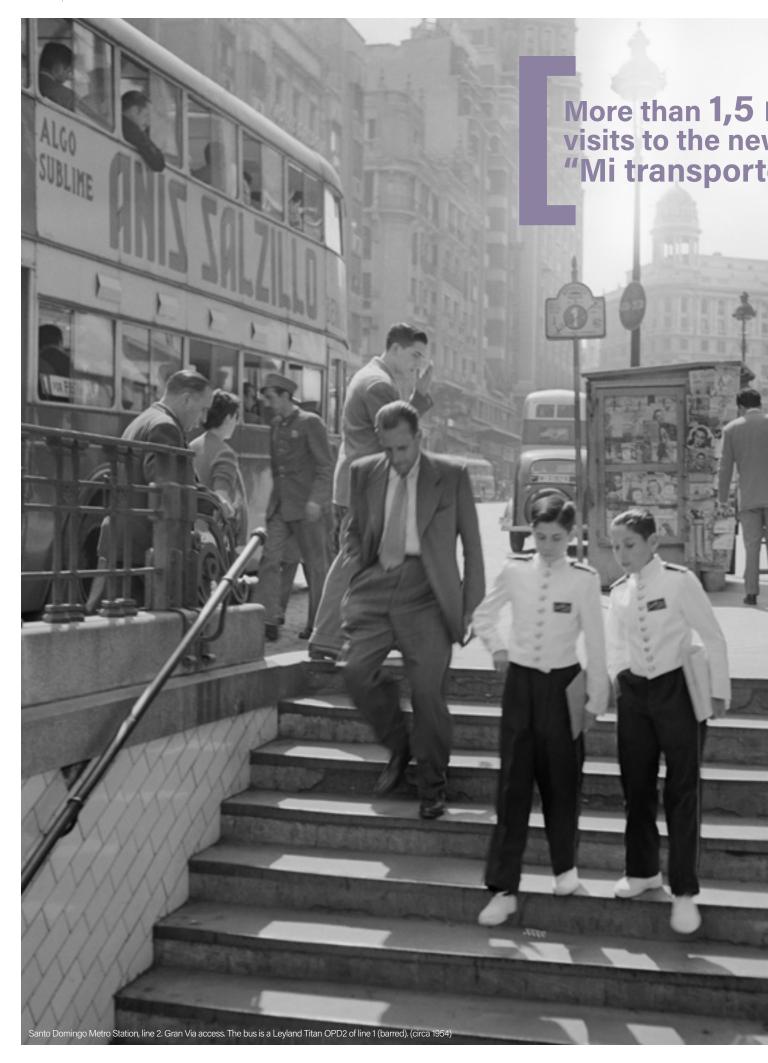
www.city4ageproject.eu



EBSF-2 (2015-2018)

The project is advancing in the solutions for the buses of the future emphasizing the innovations to reduce the use of combustible and energy efficiency, as in the search for an added comfort for the users.

www.ebsf2.eu





5. Relations with citizens

The CRTM attaches great importance to keep the citizens informed about the actions undertaken by the organism, not only to inform of the new services that are at the disposal of users of public transport, but also to make them aware of its management and activities. Some good examples of this are the institutional CRTM web, the creation of the real time app "Mi transporte", the creation of a transparency portal, the edition of maps and publications or the installation of information panels for the user in multitude of shelters.

Also, the CRTM have a strong commitment with the vocation of service to the public transports users and for this, it defined a user care policy whose main objective is to make easier for the citizens the access to the public transport card and to the services and information relating to it, as well as the attention to complaints.

The Corporate Social Responsibility and the initiatives included (Public Transport Friends Club, agreements with NGO, exhibitions, etc.) help to improve significantly the perception of the Madrid Transport System by the user's trip experience.



5.1. User information

The CRTM Website (www.crtm.es) is the major source of information about the Madrid Region public transport system thanks to the continual work of actualization of its contains (modifications of the service, transport network design novelties, maps and publications, etc.). A sample of this is the number of visits that the web site received, more than 4 million over 2015.

Two new tools have been introduced on the web this year: on the one hand, an interactive map to consult the location and characteristics of the parking network linked to the public transport that the Madrid Regions offers, which makes the access to the city easier by informing the drivers of the different areas where they can park their vehicles and get access to the public transport system; on the other hand, a map on which a person can see, in real time, the level of NO2 in the municipality of Madrid, thanks to it the users can consider which days it is particularly important the use of public transport, to minimize the trips in private vehicle and contribute to the drop of pollution levels.

Also great efforts have been made to facilitate the flow of information about the most significant actions and news about this institution toward the media. Therefore, during 2015, the institutional web site has published 96 press releases with their photographic support.



5.1.1. The new real time app "Mi transporte"

Over the month of May, the CRTM presented its new application for mobile devices. The app permits to know where the nearest stop or station to the user's location is, and how much time is left before the next service, among other utilities. At the end of the year it had been downloaded more than 130,000 times and had more than 1.5 million of visits.

This new official tool, named "Mi Transporte", means the integration of data from the 40 operators which provide public transport services in the region, and it permits to know in real time all the metro, urban and suburban buses, suburban train and light rail schedules.

Thanks to this application the user can know the passing frequencies per stop or station of all modes of transport in an integrated way, search for the nearest stops and stations and be guided to them through the use of augmented reality, or, thanks to the Notice module, know if there is a perturbation in the public transport system that could affect his trip. In addition to information about the public transport, "Mi Transporte" integrates other type of information very helpful for the users among them, the location of the parking areas of Madrid public bicycle sharing system (BiciMad), tourist points, car parks linked to the public transport and green bicycle routes.

The app provides the exact location and the schedule of the more than 5,000 vehicles that daily provide services for the Madrid Region public transport system, and filters all this information to make it easier, more intuitive and attractive for the frequent user and even for the tourists. Considering the latter, the app comes both in Spanish and English versions and provides data of touristic interest like museum locations, tourist offices, among other information, as well as the Public Transport Card recharge points.

The application is official and free of charge, and can be downloaded both from Android Google Play and from Apple App Store. This tool has been developed by the CRTM using its own means, and it has been part-financed with European funds, managed through the Consejería de Economía. Also, all of these developments have been made possible thanks to the existence of the CITRAM, in charge of integrating the information in real time of all the public transport system group.



5.1.2. Transparency portal

In order to guarantee the transparency of the activity of the CRTM, as a public organism of the Madrid Region, as well as to assure the right of access to associated information, this organism has published in November 2015 its Transparency Portal: **transparencia.crtm.es**. Also, all the information contained in this portal has been published in the Madrid Region Transparency Portal, in accordance with Act 19 of 9th December 2013, Transparency, Access to Public information and Good Governance.

In this portal the citizens can access to a wide variety of public information, arranged in 5 categories: Institutional Information, Legislation and Regulations, Budget, Contracts and Outlays, Government Plan and Open Data.

In addition, through this portal the citizen can exercise its Right of Access, which guarantees the possibility of submitting a query about public information and data. To this end, an online form exists, which is made available digitally, even if the official application form can be downloaded and submitted in person at any registration office of the Madrid Region.

5.1.3. Transports maps

The CRTM developed the Informative Transport Publication Programme (ITPP), in compliance with one of its basic functions, "the information to the users" (art.2.2.) of the Law establishing the CRTM). Over the year of 2015 the following informative publications have been edited:

Serie 3. Madrid Transports Map

A paper edition accompanied by a special non folded PVC edition destined to be installed on the EMT shelters of the municipality of Madrid.

Serie 4. Map of the Madrid Region transports

Paper edition accompanied by a special unfolded laminated edition destined to be installed in the suburban network shelters of the Madrid Region.

Serie 5. Maps of the Madrid Districts transports

Update of the districts of Latina and Carabanchel web maps.

Serie 6. Maps of the Madrid Region municipalities transports

During 2015 the updating process of many maps of the Serie 6 are maintained to be included as a PDF file on the CRTM website. Among these maps: Alcalá de Henares, Alcobendas, Ajalvir, Aranjuez, Arganda del Rey, Cercedilla Getafe, Griñón, Leganés, Majadahonda, Meco, Mejorada del Campo, Móstoles, Parla Pinto, Pozuelo de Alarcón, San Sebastián de los Reyes, Torrejón de Ardoz, Valdemoro, Velilla de San Antonio, Villanueva de la Cañada and Villanueva del Pardillo.



Serie i. Brochures and information publications

There are brochures of diverse formats edited in order to support diverse events or to give information about specific news concerning the transport network.

- · Map of Madrid Marathon on public transport.
- New Public Transport Card instructions brochure.
- Annual report of the Regional Transport Consortium of Madrid 2014.
- · Tourist Ticket instructions brochure.
- Proposals for the Strategic Sustainable Mobility Plan of the Madrid Region 2013-2025.
- · Map of the circuit and accessibility options for the Carrera de la Mujer.
- · Informative materials about the Metro interruptions during summer 2015.
- Elaboration of the Contingency Plan for Transport Interchange Stations.

5.1.4. Passenger Information Points (PIV)

The real-time information panels are one of the main technology gambles of the CRTM. Known as passenger information points (PIV), these panels have been placed on bus shelters, and they provide real-time bus arrival information, as well as possible incidents or other crucial information for the passengers.

Over this year, 30 bus shelters located in different municipalities of the Madrid Region have been equipped with these panels, managing a total of 347 real-time information points (corresponding to 429 screens) installed at the end of 2015. In the case of the EMT network, the figure of installed panels over the last year is 85, managing a total of 449 devices.

5.2. Customer service

The main Madrid Region public transport personalised service channels are:

- · Public Transport Card Management offices
- · Phone support

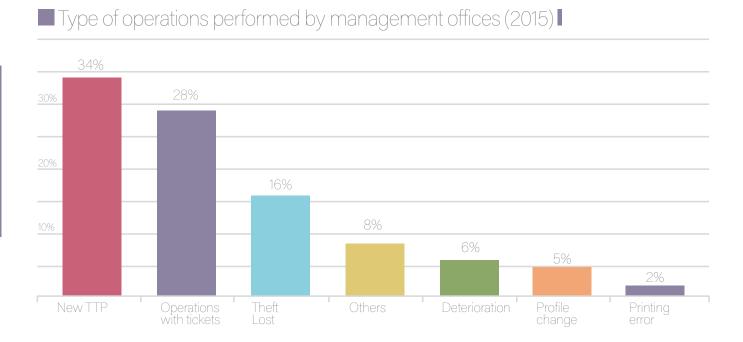
5.2.1. Management Offices

The Public Transport Card (TTP) can be obtained online or in person at management offices.

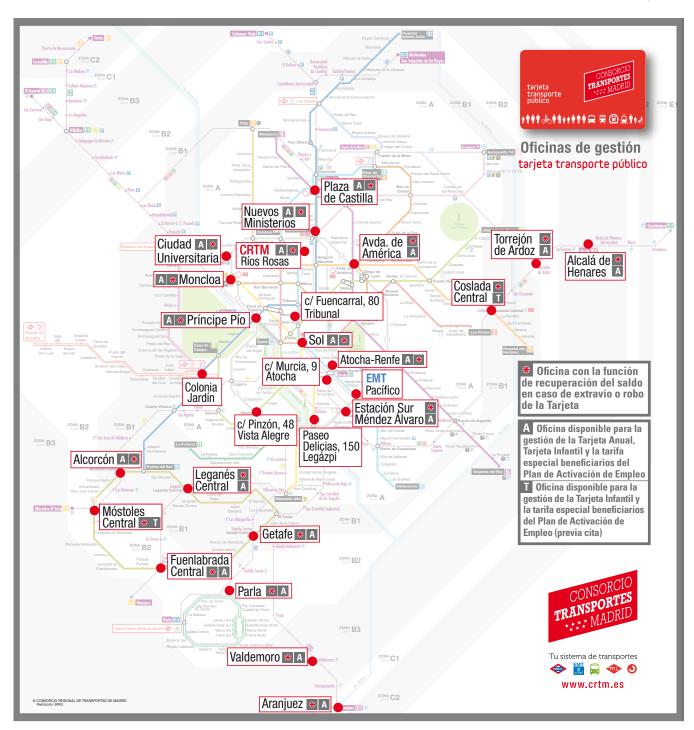
Over the year 2015, 27 strategically located offices in the Madrid Region were available, where aspects related to the level of service have been considered, like the accesibilitity and opening hours, the number of users served and the facilities location, etc.

During 2015, the CRTM management offices performed 997,965 operations related to the Public Transport Card (TTP), almost duplicating the number of operations of the previous year (502,554 operations). This increase was due to the tariff actions like the new young pass and the children TTP.

Among the 997,965 operations related to TTP, 34% of them (339,324) correspond to the incorporation of new users, followed by operations related to the tickets that include these cards, which amount to 28% (282,813).



The management offices that have made the higher number of interventions during 2015 were Sol which accounts for 169,735, followed by Moncloa with 96,160 and the CTRM central office with 90,170.



MUNICIPIO DE MADRID

- ATOCHA-RENFE **○** ☐ ◆ 1
- Lunes a viernes de 7 a 22 h; Sábados de 10 a 22 h
- A S AVENIDA DE AMÉRICA ☐ ☐ ◆ 4679
- Lunes a viernes de 7 a 22 h; Sábados de 10 a 22 h
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- Lunes a viernes de 7 a 22 h
- COLONIA JARDÍN ◆23 ◆10
- Lunes a viernes de 7 a 22: Sábados de 10 a 22 h
- ™ CONSORCIO REGIONAL DE TRANSPORTES DE MADRID Plaza Descubridor Dlego de Ordás, 3 · 28003 Madrid Lunes a viernes de 8 a 20 h
- - Lunes a viernes de 7 a 22 h; Sábados de 10 a 22 h
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OTROS MUNICIPIOS

- ALCALÁ DE HENARES Estación de Autobuses Lunes a viernes de 8 a 20 h; Sábados: de 10 a 14h
- Lunes a viernes de 6 a 20 h, Sabados. de 10 a 14h ALCORCÓN Ayuntamiento Lunes a viernes de 8:30 a 20 h; Sábados: de 8:30 a 14h
- A RANJUEZ Estación de Autobuses
 Lunes a viernes de 10 a 14 y 16 a 20 h; Sábados: de 10 a 14h
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- Lunes a viernes de 7 a 22 h; Sábados de 10 a 14 h

 FUENLABRADA CENTRAL ◆

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- Lunes a viernes de 7 a 22 h; Sábados de 10 a 14 h

 GETAFE Ayuntamiento
- Lunes a viernes de 10 a 14 y 17a 20 h; Sábados: de 10 a 14h
- Lunes a viernes de 7 a 22 h; Sábados de 10 a 14 h
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- Lunes a viernes de 7 a 22 h; Sábados de 10 a 14 h 💵 PARLA 💠 🛂 - Lunes a viernes de 9 a 16 h
- **△** TORREJÓN DE ARDOZ Estación de Autobuses
- Lunes a viernes de 8 a 20 h; Sábados: de 10 a 14h
- VALDEMORO Ayuntamiento Martes y jueves de 9 a 14

ESTANCOS:

CALLE FUENCARRAL, 80. 28004 Madrid Lunes a viernes: 9 a 14 h y 17 a 20:30 h; Sábados: 9 a 14 h CALLE MURCIA. 9 - 28045 Madrid

CALLE PINZÓN, 48 - 28022 Madrid

PASEO DELICIAS, 150 - 28045 Madrid

The prior appointments for management offices can be made by means of the online service or via the 012. In 2015 and considering both channels, 416,138 prior appointments have been taking into account, with an average processing time of 3.6 days.

5.2.2. Phone support

During the year 2015, a total of 365,985 calls related to the Public Transport System of Madrid Region have been received via the 012. This service works in coordination with the CRTM to answer the necessities of information of the users of the Madrid Region transport.

The average waiting time is 1.2 minutes and the average service time is 3.6 minutes.

5.3. Complaints

Over the year 2015, the transport system of the Madrid Region received a total of 56,865 complaints, which is similar to 2014 (56,829), meaning an average of 41.4 complaints per million of passengers. These numbers represent the complaints received via the different channels available to the user: CRTM complaints web, by means of the public transport operators, 012 (SUQUE) and other organisms.

The main causes of complaints by transport mode are:

- · Metro: Operations with TTP (21%), service frequency (12%), sale points functioning (14%).
- · EMT: Attention received (13%), service frequency (16%), driving irregularity (11%).
- Road transport concessions: Schedule non-compliance (18%), attention received (10%), service frequency (8%).
- Light rail and other rail transport concessions: Fraud control (21%), sale points functioning (16%), service frequency (10%).
- · Renfe-Cercanías: Stations and equipment (38%), service incidents (19%), transport tickets (14%).
- · CRTM: TTP financial compensation (44%), attention received (7%).

During this year an ambitious project to improve the management of the official complaints book has been undertaken, where the different transport complaints books have been replaced by a new model: a unique complaints book/sheet for all the operators. This permitted to simplify and unify the complaint process and to improve its management.

5.4. Corporate social responsibility

The addition of all the responsible behaviours improves the image and the reputation of an institution, for this reason, the Corporate Social Responsibility (CSR) of the Regional Transport Consortium is increasingly transversal.

The social nature of the Public Transport System of the Madrid Region and the implementation of numerous measures with economic, environmental and social impact lead to an increase of the Regional Transport Consortium perceived value by the different groups of interest.

Over the last year, a responsible management approach has been straightened by the launch of multiple strategic initiatives, like the transparency portal, the renewal of the urban and suburban bus fleet, the constant accessibility improvements, the promotion of the intermodality between public transport and the use of bicycles, the implementation of sustainable facilities, the development of the different Madrid Green Routes and the creation of applications focused on making the user's daily mobility easier.

In addition to the consolidation of the Public Transport Friends Club, the different actions carried out in relation to the public transport user deserve particular mention. Among these, Madrid Region young pass, with a flat-price of 20€ for all zones, is particularly noteworthy because of its remarkable social nature, thanks to a clear economic benefit to families, and also because of the considerable increase in the number of passengers on this segment. In both cases, the economic and social impact and the client trip experience have considerably improved the perception of the Madrid Transport System.

On the other hand, the Madrid Transport System integrates social concerns in its management, it being understood that it is a great opportunity to bring greater benefits to the society. In this responsible management framework, many companies, institutions and NGOs are linked to the Transport Consortium as strategic allies for its social and cultural activities, being the System like a communication channel to broadcast its corporative values. A good example of that is Aldeas Infantiles, Fundación Española de Corazón, Fundación Síndrome de Down, Cruz Roja Española, Fundación Real Madrid, El Corte Inglés (Día Internacional contra el Cáncer de Mama), Fundación Excelentia, Parque Warner, etc.

The effort made to give solutions to all the interest groups of the CRTM, makes our Corporate Social Responsibility transversal, efficient and sustainable.



5.5. Friends Club

Within the framework of our Corporate Social Responsibility, the CRTM continued with the promotion of sociocultural activities through the Public Transport Friends Club. This club, launched in the year 2013, has the objective of encouraging sustainable mobility and the use of the public transport via exclusive benefits for the regular users. Simply by having the Public Transport Card, the users can sign up on the platform (www.clubdeamigos.crtm.es) participate in many raffles and get several discounts on cultural and leisure activities and sports events of the Madrid Region. Hence, it provides an added value to the public transport system, benefiting the ones who choose a sustainable way to move around the region.

During 2015, the platform has received more than 125,000 visits. Among the events that the partners of the Friends Club have been able to enjoy, the following ones can be highlighted: the Film Symphony Orchestra concerts or the Fundación Excelentia, the charity concert "Por ellas" of Cadena 100, or the Eurobasket 2015 matches, an event where the CRTM organized a campaign to promote the Public Transport Card.



5.6. The "Ventex20" campaign

On the occasion of the implementation the new young pass, an informative and promotional campaign was carried out under the heading of "Vente x 20". Its objective was to encourage the public transport users under the age of 26 years old to get this pass, which permits them to travel all over the region, by any mode of transport and with no trip-limits.

To this effect, the 20th day of each month raffles and promotions are distributed among the owners of these passes, in which cultural and leisure proposals are proposed by the Madrid Region. These raffles are performed through a digital platform specially created to this end: www.ventex20.com.

Since its launch in October 2015 and until the end of the year (meaning in only 3 months), the web site of the "Vente x 20" campaign received 200,000 visits. Among the promotions that have been included over the first trimester, the most relevant are cinema tickets raffle, theatre plays, musicals, and great national artists' concerts.



5.7. Exhibitions

The CRTM follows a line of work which places value on aspects that links the public transport with the culture or the visual arts. In this sense, in 2015, two interesting exhibitions have been organized, in which the transport is focused, but from different angles.

Exhibition "From Cardboard to Microchip. 150 years of transport ticket history".

In 2015, the first migration phase of the ticketing system to the contactless technology finished, with the disappearance of the last magnetic coupons that accompanied the personal tickets (transport passes) since its creation in 1987. To this end, the exhibition organized by the CRTM with the collaboration of the Real Casa de la Moneda, gives documentary evidence of an interesting trip concerning the history of our city and that already lasts for more than 150 years.



Exhibition "Madrid transport through Català-Roca's lens".

The Catalá-Roca's evocative black-and-white pictures have a common denominator, the existence of public transport elements. The artistic and historic values of these pieces of art are being contrasted with another picture of the same place in 2015, made by the photographer Miguel Berrocal. On the exposed panels, already inexistent pictures are reflected, like the double-deck buses or the tramways, that, however, represented at that moment the modernity and the evolution of the public transport.



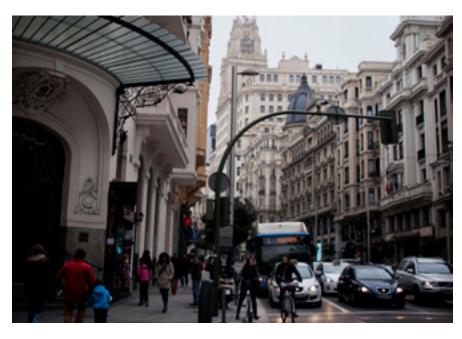




6. Institutional affaires

The CRTM experience and the integrated transport system model of the Madrid Region have made of this organization a valuable member of the most distinguished associations of the sector.

Among them there are included the International Union of Public Transport, which encompasses the main operators representing the industry and the public transport authorities at a global level; the European Metropolitan Transport Authorities, forum of experience and information exchanges between the main European Public Transport authorities; or the Metropolitan Mobility Observatory, that counts among its members the main authorities in the sector of the principal Spanish cities. Also, the quality of the services provided over its 30 years of history has made this organization an attractive example for numerous of public transport and mobility delegations of experts, interested in learning the methodology developed by the CRTM and its management system.



6.1. International presence

The CRTM is present in the most important associations of the sector:

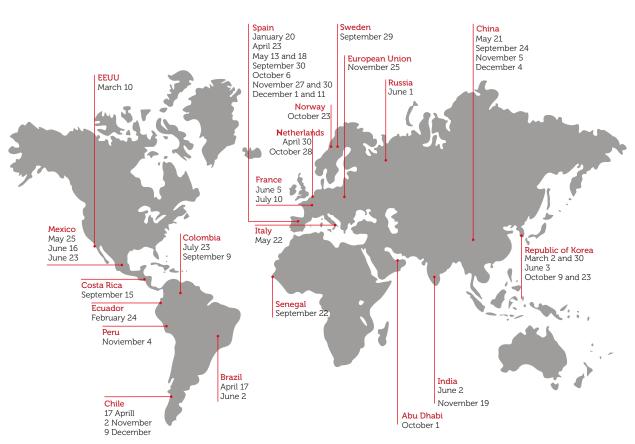
■ UITP: International Association of Public Transport ■

As a member of the UITP, the CRTM takes part in the Organising Transport Authorities Committee, the Transport and Urban Life Committee and Light Rail Committee. Also, the CRTM is a member of the UITP Executive Board.

EMTA (European Metropolitan Transport Authorities)

The CRTM holds the post of Treasurer of EMTA, and since its creation in 1998, takes part actively in meetings, forums and working groups that this association sponsors, in addition of being the member responsible for the elaboration of the Barometer of Public Transport in the European Metropolitan Areas.

In 2015, two meetings of the General Assembly were held; the first took place in May in Oslo (Norway), and the second in October in Vilnius (Lithuania).



The CRTM is a member of the international organizations UITP and EMTA

Metropolitan Mobility Observatory (MMO)

The Metropolitan Mobility Observatory (MMO) is an initiative that promotes analysis and reflection, comprised by the Public Transport Authorities (PTA) of the main Spanish metropolitan areas, Ministry of Agriculture, Food and Environment, the Ministry of Public Works, the Ministry of Industry - through the Institute for Energy Diversification and Savings (IDAE) - and the Ministry of Internal Affairs - through the Directorate General of Traffic (DGT) - with the aim of reflecting the public transport contribution to the improvement of the quality of life and the sustainable development in cities...

The MMO publishes an annual report in which mobility of the participating metropolitan areas is analysed, that is then presented in technical seminars where aspects related to the sustainable mobility are also debated.

Since the beginning of this initiative, the presence of the CRTM in its annual meetings has been constant. In 2015, the regional organization has participated in the XII MMO Technical Seminar, Efficiency and technology of urban and metropolitan transport, held in Grenade the 21st of April.

International advice and visits

The CRTM experience and the integrated transport system model of the Madrid Region attract a large number of of delegations, interested in learning the methodology of planning and construction of the regional infrastructure, and the integrated management system of Madrid public transport. Specifically, in the year 2015, the CRTM and its infrastructures received 46 visits from all over the world.

The countries that showed interest for the Madrid Public Transport have of various geographical origins. During this year, the CRTM has received delegations of experts and researchers from the following regions and countries: Abu Dhabi, Brazil, Republic of Korea, Colombia (Bogota), Costa Rica, Chile, China, Ecuador (Cuenca), Spain, United States, France (Paris), Netherlands, India, Italy, Mexico, Norway (Oslo), Peru, Russia, Senegal, Sweden and European Union.



6.2. III Public Transport Promotion and Sustainable Mobility Awards

Like in previous editions of this competition, the Regional Transport Committee of Madrid wanted to award those initiatives that have been launched over the year 2014, and which contributed in a positive way to the collective transport and to the development of an efficient, integrated and accessible system.

During the event hold in 2015, a total of 23 companies, institutions and particular persons had been awarded within the III Public Transport Promotion and Sustainable Mobility Awards, in a ceremony led by the Transport, Infrastructure and Housing Regional Minister, Pablo Cavero. The awards are divided into three categories: private companies, public institutions or non-profit associations and persons and events that spread the public transport value.

To reward the different companies and institutions, factors like the innovative nature of the established measures or its degree of implementation are valued. Among the awarded, it is worth highlighting the KPMG Company, the Castrosúa group and the SEUR group, for the introduction of innovative elements especting the environment in their productive processes, and the promotion of the public transport use to travel to the workplace.

The focus on bicycle transport has been one of the reasons to award diverse programs of the City Councils with a prize. Boadilla del Monte, Alcorcón and Madrid have been the chosen municipalities this year, for the construction of bicycle lanes or the promotion of bicycle loan systems, among other measures.



The Spanish Red Cross has also been awarded for the promotion of activities with access via public transport; the Ignacio Zuloaga School for the diffusion of bicycle transport use in the educational community; and the Film Symphony Orchestra for its flashmob concerts in the Moncloa interchange.

In the category of persons or events, we awarded José Antonio García, a tobacco shop owner, for its collaboration to the sale of magnetic coupons; and Juan Merallo, a former president of the Pedalibre Association for 8 years, for his work as a coordinator of the document "Directives for a National Bicycle Plan". It is also worthy to mention the idea of a couple, Jorge Granado and Arancha Bautista, of taking elements of the Metro of Madrid to thematising their marriage, considering that this mode of transport has played a key role during their engagement.

Finally, during the ceremony it was also recognised the career of the employees that turned 25 years of dedication to the organization, as well as employees from different operators (Metro EMT, Cercanías-Renfe, interchanges, suburban buses and light rails) whose exemplar behaviour has helped to turn the Madrid Region transport into a quality reference.

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© Frances Catalá Roca. By courtesy of Arxiu Fotografic of COAC (Barcelona). Pages 4, 18, 50, 62, 68 and 80. Catalá Roca is one the most well-known Spanish photographers of the twentieth century. During 2015, the Regional Transport Consortium organized an exhibition based upon those Catalá's pictures taken in Madrid in the fifties and sixties and in its modes of transport. The presence of a selection of his pictures in this publication serves as an epilogue for that exhibition.

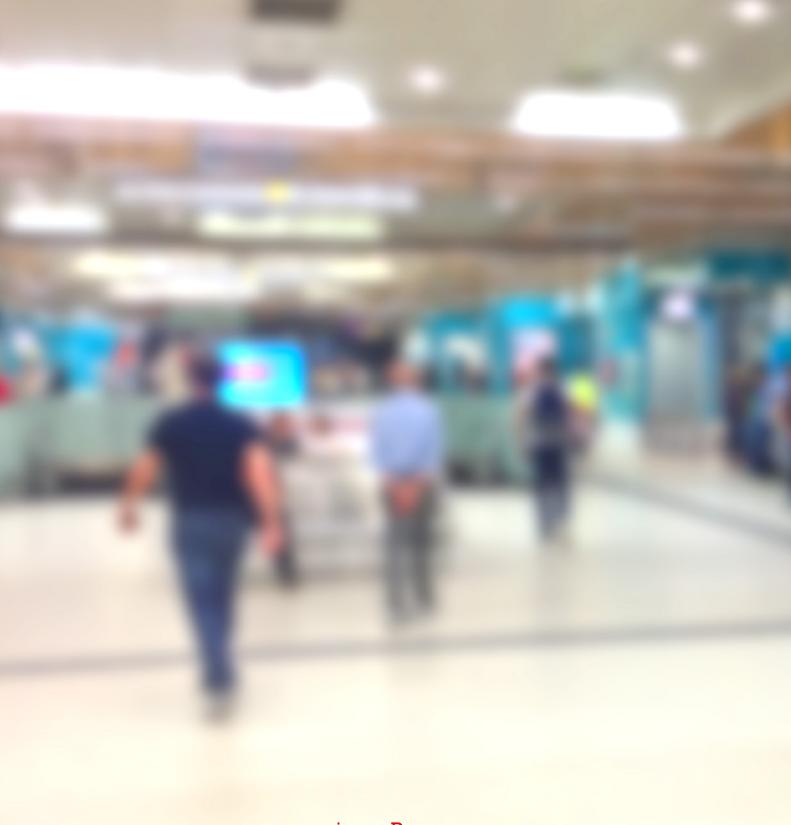
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unimos Personas



Tu sistema de transportes









