









Annual Report 2016

























































Tu sistema de transportes

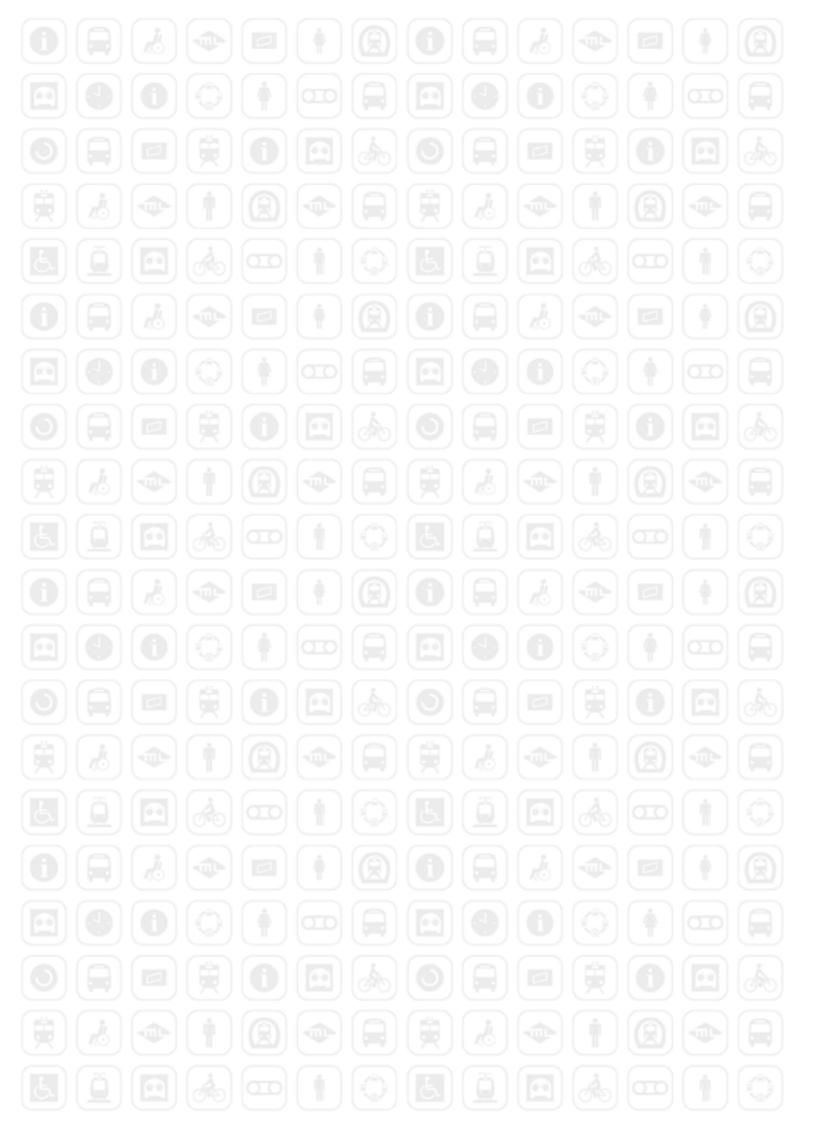














Foreword by Ms. Rosalía Gonzalo

Regional Minister of the Transport, Housing and Infrastructures of the Madrid Region

Every modern, agile, developed and competitive society has a public transport system that lives up to its commitments. In terms of figures and quality of mobility Madrid leads many of the national and international public transportation rankings: it is an example and a reference. This is due, to a large extent, to the coordination and management work of the Regional Transport Consortium, which provides each day effective and specific responses to the needs of the citizens.

In 2016, the Regional Transport Consortium turned 30; at this age, it combines the vigor and strength of the youth with the knowledge of the experience. These 30 years of journey allow us to take stock and, from the perspective of what has been achieved, set challenges for the future.

2016 has been a year in which the growth of the demand for public transport has consolidated, which is the sign of a new economic stage in the region. Once again, Madrid has been the driving force for the economic recovery in Spain and I am sure, that it will remain so in the upcoming years.

This growth has had much to do with this the determined commitment to maintain the freeze on prices for another year. Since February 1st 2013, public transport fares have not changed. On the contrary, the implementation in 2015 of the new Young Travel Pass, extending its age limit from 23 to 26 years old and establishing a flat rate of 20 euro to travel through all zones, has been consolidated this 2016. This is undoubtedly a bold measure aimed to maintain social balance. In this period the Consortium has issued almost 180,000 new travel passes for the younger people, which raises the figure of young passes to over 865,000; this high demand proves the degree of acceptance and use such passes have enjoyed.

Madrid grows in a sustainable and supportive way. Proof of that is the growth of demand, which has increased by 4.3% in 2016, a direct consequence of the good health of the regional economy. This is to say, there has been an increase of almost 60 million trips more than the previous year until reaching the figure of 1,446 million in the year. In absolute terms, Madrid is a benchmark and an example, both in Spain and internationally of the use of the public transport services.

And it is such an example due to, among other reasons, its social commitment. During 2016, the number of travel tickets sold to vulnerable groups has increased by almost 22% in comparison with the previous year. Large families, unemployed people participating in programmes of employment activation, and disabled people have been beneficiaries of this policy, which has led to the issuance of nearly 1,700,000 tickets for these social groups.

The public transportation system is a complex structure with involves technical aspects, operative components and political action. The promotion of intermodality, accessibility, permanent adaptation of infrastructures and the application of new technologies are keys issues for the present and the future. In 2016 the access of bicycles and dogs to facilities and trains of Metro was regulated, we reinforced the system whenever high pollution episodes in the capital city occurred, and the bus fleet was renewed, achieving 89% of environmentally sustainable vehicles.

All these are data that appear in the report are the reflection of a professional, excellent and avant-garde work by professionals who understand the political commitment to make Madrid a competitive region, open to the world and the future.

TABLE OF CONTENTS

THE CRTM	 06 1.1 The institution 07 1.1 a Administrative Board 07 1.1.b Delegate Committee 08 1.1.c Operational framework 	 09 1.2 System Funding 11 1.2.a 2016 Budget and economic result 16 1.2.b Balance sheet 17 1.2.c Statement of economic result 	
SERVICES SUPPLY	22 2.1 Metro of Madrid 24 2.2 EMT 26 2.3 Road Transport Concessions 28 2.4 Renfe-Cercanías	 30 2.5 Light rail and other railway concessions 30 2.5.a Light rail 31 2.5.b Other railway concessions 	
THE FARE SYSTEM	34 3.1 The zoning 34 3.2 Types of Ticket 36 3.3 Social fares 37 3.4 Sales network 38 3.5 Fares 41 3.6 Public Transport Card	43 3.7 Center for Development and Compliance (CDC)	
PASSENGERS	 46 4.1Demand evolution per operators 48 4.2 Demand evolution per ticket type 52 4.3 Transport ticket sales 		
STRATEGIC LINES	 61 5.1 Intermodality 61 5.1.a Interchange stations 64 5.1.b Other transport modes 66 5.2 CITRAM 66 5.3 New technologies 68 5.4 Interventions 	72 5.5 Universal accessibility 74 5.6 Environment 76 5.7 The quality of service 77 5.8 Studies 80 5.9 European projects	
RELATIONS WITH CITIZENS	 84 6.1 User information 84 6.1.a The web www.crtm.es 84 6.1.b The app "Mi transporte" 86 6.1.c Ticket balance inquiry app 87 6.1.d Open Data portal 88 6.1.e "Pide Tu Bus" 	 89 6.1.f Passenger Information Points (PIV) 90 6.1.g Transport maps 92 6.2 Customer service 92 6.2.a The TTP card Management Offices 93 6.2.b The web www.tarjetatransportepublico.es 	93 6.2.c Phone Assistance 94 6.3 Complaints 95 6.4 Corporate social responsibility 95 6.5 Friends Club 96 6.6 The "Ventex20" campaign 97 6.7 Exhibitions
INSTITUTIONAL AFFAIRES	100 7.1 International presence 102 7.2 IV Promotion and Sustainable Mobility Awards 103 7.3 Recognitions		



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 passenger transport. It assumes the integrated management of the public transport in the said

Its functions and priority objectives are, summarized below:

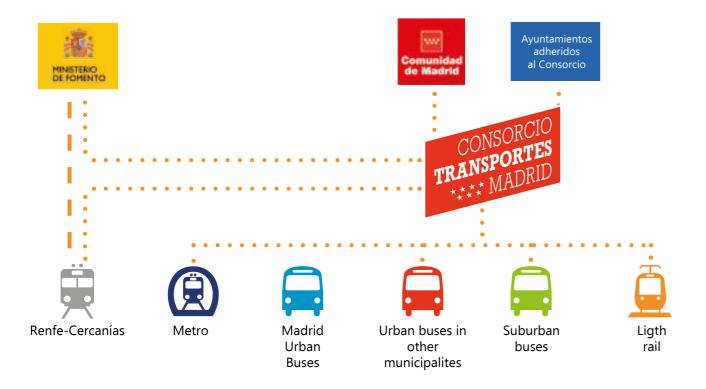
- Planning of public transport infrastructures.
- Planning of services and coordination of exploitation programmes of all public transport modes.
- Definition of a unique integrated fare system for the whole public transport system.
- Establishing a stable financial framework.
- Controlling and monitoring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

6 Annual Report 2016 - THE CRTM Annual Report 2016 - THE CRTM 7

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 Viajeros, 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 2016 the composition of these bodies were as follows:

1.1.a Administrative Board

Position	Name and forenames	Representation
	Pedro Manuel Rollán Ojeda Jesús Valverde Bocanegra Pablo Rodríguez Sardinero Gregorio Moreno López José Trigueros Rodrigo Jesús Mora de la Cruz Miguel Ángel García Martín	Madrid Regional Government
	Inés Sabanés Nadal 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	Rafael Barbadillo López Fco. Javier Carbajo de la Fuente	Business Associations
Board member	Gustavo Samayoa Estrada	Consumers Association
Secretary non-counsellor	José María Ortega Antón	
General Manager	Juan Ignacio Merino de Mesa	

1.1.b Delegate Committee

Position Name and forenames

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

8 Annual Report 2016 - THE CRTM 9

1.1.c Operational framework

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

PASSENGER ROAD TRANSPORT



Madrid Urban Bus (EMT):

This public company held by Municipality of Madrid 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



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 Cercanías de 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 interchange stations of Madrid:

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



1.2 SYSTEM 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 Roadbased 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.

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

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

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

10 Annual Report 2016 - THE CRTM Annual Report 2016 - THE CRTM 11

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 Madrid urban bus, as stated in the Regulatory Agreement that establishes the conditions on which Madrid City Council adheres to the CRTM for the period 2013-2015, extended for 2016. 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 (set of Madrid Region, 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 Regional Governments of Castilla-La Mancha and Castilla y León respectively, in accordance to the corresponding collaboration agreement.

1.2.a Budget 2016 and economic result

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 costs.
- An administrative budget integrated by tax collection and other public law revenues, like so by members' contributions related the subsidy of fare. On the expenditure side, this budget includes all necessary credits to finance personnel expenditure of the entity, current expenses on goods and services, and the reimbursement of the subsidy of fare to the operators.

In 2016, in both cases collected revenues amounted to 2,109.9 million euros, whereas the amount of expenditure by December 31st reached 2,064.3 million euros. The difference between income -recognised revenue- and expenditure -recognised liabilities-produced a budget surplus of 45.6 million euros, according to the following figures.



12 Annual Report 2016 - THE CRTM Annual Report 2016 - THE CRTM 13

CRTM 2016 BUDGET SETTLEMENT

INCOME	Recognised Revenue 2016
Chap. III Taxes and other incomes	€ 836,391.43
Chap. IV- Current transfers	€ 1,257,466,313.16
Chap. V- Property income	€ 5,830.56
Chap. VII- Capital transfers	€ 5,946,753.00
Chap. VIII- Financial assets	€ 9,381.95
TOTAL RESTRICTED INCOME	€ 1,264,264,670.10
Revenue collection	€ 845,637,466.32
TOTAL ESTIMATED INCOME	€ 845,637,466.32
TOTAL INCOME	€ 2,109,902,136.42

EXPENDITURE	Recognised Liabilities 2016
Chap. I- Staff expenditure	€ 6,921,152.81
Chap. II- Current goods and services expense	€ 4,954,949.05
Chap. IV- Current transfers	€ 1,171,046,107.38
Chap. VI- Investment	€ 840,032.46
Chap. VII- Capital transfer	€ 2,828,438.77
Chap. VIII- Financial assets	€ 11,100.00
TOTAL RESTRICTED EXPENDITURE	€ 1,186,601,780.47
Raw material	€ 3,438,856.51
External collaborations	€ 33,095,404.71
Refunds	€ 841,212,712.36
TOTAL ESTIMATED EXPENDITURE	€ 877,746,973.58
TOTAL EXPENDITURE	€ 2,064,348,754.05

Recognised - Recognised Liabilities 2016

I RESTRICTED BUDGET (I)	€ 77,662,889.63
II ESTIMATED BUDGET (II)	€-32,109,507.26
BUDGET RESULT FOR THE PERIOD (I+II)	€ 45,553,382.37

This budgetary outcome takes into account income and expenditure regardless of the year they are generated. By applying accruals a particular economic result is obtained for the financial year, which in 2016 equals to the budget result.

ECONOMIC RESULT

The economic flows of origin and application of funds for the year 2016 are shown in the following charts, which comprise all income and expenditure as well as the economic result 2016.

INCOME (I)	€ 2,186,773,733.05
Contributions to CRTM	€ 1,262,985,976.44
Fare income	€ 922,509,062.95 €
CRTM own income	€ 1,278,693.66 €
EXPENDITURE (II)	€ 2,141,220,350.68
CRTM internal operations	€ 44,752,090.29
Transport operators fare compensation	€ 2,017,710,085.01
Administrative concessions	€ 75,845,085.32
Other current and capital expenses	€ 2,913,090.06
DIFFERENCE (I-II)	€ 45,553,382.37



14 Annual Report 2016 - THE CRTM Annual Report 2016 - THE CRTM 15

FINANCING SCHEME OF THE CRTM CONTRIBUTIONS TO THE NEEDS OF THE TRANSPORT SYSTEM. FISCAL YEAR 2016. Economic result

SOURCE OF FUNDS

CENTRAL STATE

€ 126,647,590.00

MADRID REGIONAL GOVERNMENT

€ 976,491,854.38

MADRID CITY COUNCIL

€ 127,462,722.75

LOCAL AUTHORITIES AND OTHER REGIONS

€ 32,383,809.31

APPLIED REVENUE COLLECTED

€ 922,509,062.95

CRTM REVENUE

€ 1,278,693.66



USES OF FUNDS / REAL NEEDS

METRO DE MADRID, S.A.

€ 820,597,025.09

EMPRESA MUNCIPAL DE TRANSPORTES DE MADRID, S.A.

€ 462,001,575.17

RENFE VIAJEROS € 164,404,217.55

RAIL TRANSPORT CONCESSIONS (TFM, PARLA TRAMWAY, LIGHT RAIL) € 164,404,217.55

ROAD TRANSPORT CONCESSIONS (URBAN AND SUBURBAN BUSES)

€ 446,674,159.27

OTHER NEEDS (ADMINISTRATIVE CONCESSIONS, ETC.)

€ 78,758,175.38

CRTM OPERATION EXPENSES

€ 44,752,090.29

TOTAL SOURCE OF FUNDS 2016 € 2,186,773,733.05

ECONOMIC RESULT FOR € 45,553,382.37

TOTAL USES OF FUNDS € 2,141,220,350.68

€ 0.66 (*) **Average revenue** per trip

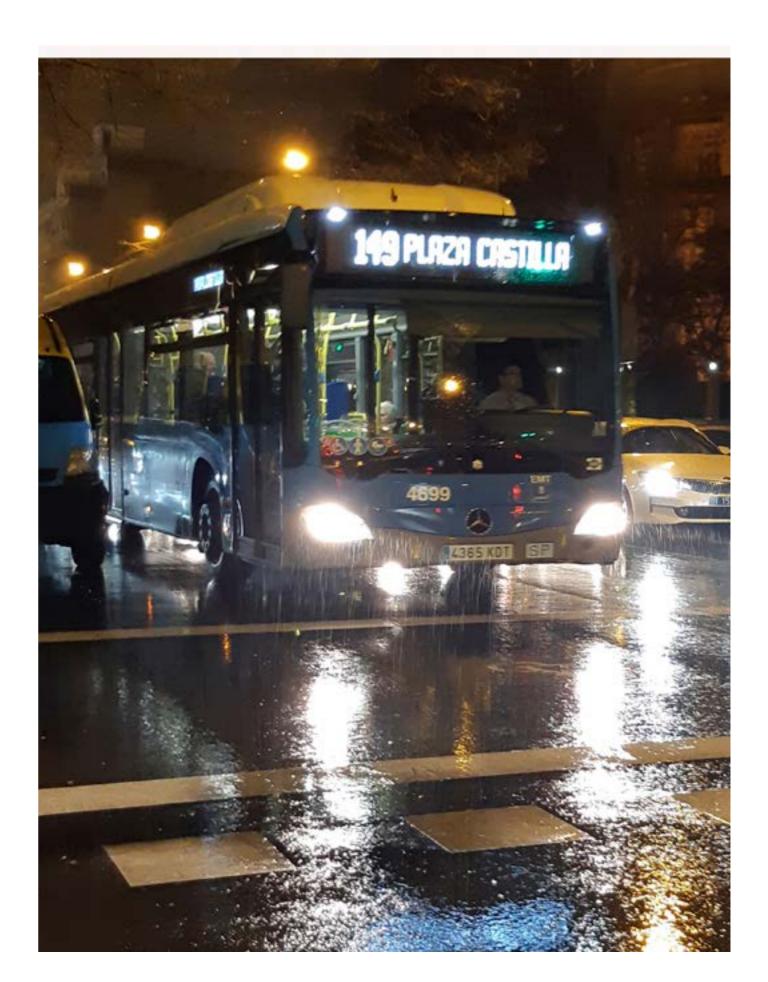
€ 1.54 (*) **Average cost**

per trip

€ 0.88 (*)

Average subsidy per trip

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



16 Annual Report 2016 - THE CRTM 17

1.2.b Balance sheet

Finally, the balance sheet and statement of financial performance for the year ending 31st December 2016 are published as annexes.

ASSETS	€ 298.721,322.53
A. NON-CURRENT ASSETS	€ 23,524,452.88
I. Intangible assets	€ 22,175,090.83
Research and Development	€ 0.00
Intellectual property	€ 1,217.20
IT applications	€ 846,969.07
Leasholds	€ 33,234.14
Other intangible assets	€ 21,293,670.42
II. Tangible assets	€ 1,349,125.54
Constructions	€ 84,651.29
Other tangible assets	€ 1,264,474.25
V. Long-term financial assets	€ 236.51
Other financial assets	€ 236.51
B. CURRENT ASSETS	€ 275,196,869.65
III. Trade and other receivables	€ 232,905,760.51
Budget receivables	€ -112,336,717.43
Other receivables	€ 6,325,146.29
Receivables from public authorities	€ 338,917,331.65
V. Short-term financial investment	€ 10,761.70
Credits and debt securities	€ 10,761.70
VII. Cash and other liquid assets	€ 42,280,347.44
Cash	€ 42,280,347.44
EQUITY AND LIABILITIES	€ 2,298,721,322.53
A. NET EQUITY	€ 4,109,015.41
II. Generated equity	€ 4,109,015.41
Prior periods' profit-loss	€ 77,897,927.06
Profit-loss for the period	€ -73,788,911.65
B. NON-CURRENT LIABILITIES	€ 109,975.01
II. Long-term debts	€ 109,975.01
Other debts	€ 109,975.01
C. CURRENT LIABILITIES	€ 294,502,332.11
II. Short-term debts	€ 25,606.88
Otras debts	€ 25,606.88
IV. Trade and other payables	€ 294,476,725.23
Budget payables	€ 165,729,082.13
Other payables	€ 120,670,891.82
Payable to public authorities	€ 8,076,751.28

1.2.c Statement of economic result as of 31st December 2016

A. TOTAL OPERATING REVENUE	€ 2,109,529,528.16
I. Transfers and subsidies received	€ 1,263,413,066.16
Current year	€ 1,263,413,066.16
Current subsidies	€ 427,089.72
Transfers	€ 1,262,985,976.44
II. Net sales and services rendered	€ 845,640,106.84
Net Sales	€ 845,640,106.84
III. Other financial management income	€ 475,255.60
B. TOTAL OPERATING EXPENDITURE	€ -2,075,320,598.74
I. Personnel expenses	€ -6,921,152.81
Salaries and wages	€ -5,339,347.76
Employee benefits expense	€ -1,581,805.05
II. Transfers and subsidies granted	€ -1,181,968,963.12
III. Supplies	€ -875,540,798.86
Raw materials and other consumables used	€ -875,540,798.86
IV. Other operating expenses	€ -7,019,699.27
External services	€ -7,019,699.27
V. Fixed asset depreciation	€ -3,869,984.68
R. Result from operating activities (A-B)	€ 34,208,929.42
Finance income	€ 365,866.83
Finance expense	€ -5,125.25
	€ -107,992,715.82



598.7 million of vehicles-km

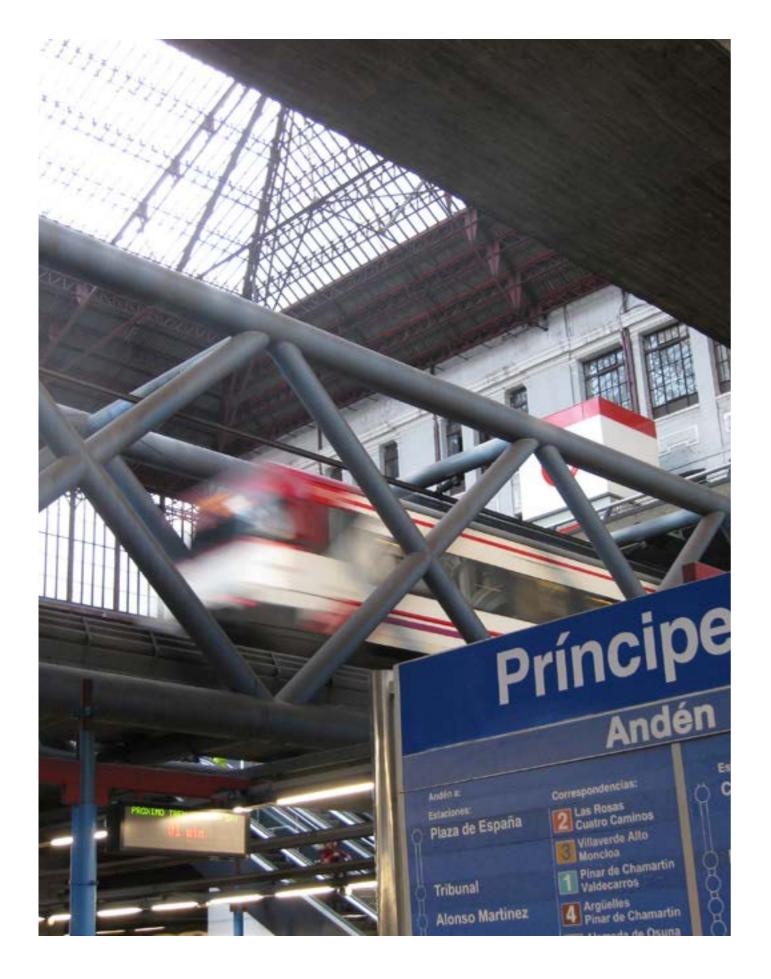
2. SERVICES SUPPLY

The public transport system of the Madrid Region is based on a combination of the railways networks of Metro, Light Rail and Cercanías, and urban and suburban bus networks. This system, on which the CRTM performs its functions of planning and management of transport services, also comprises operators and infrastructures transport modes.

Over the year 2016, the services production of means of public transport as a whole recorded 337.1 million of carriages-km by rail and 261.6 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.

The following chart defines and summarizes the main characteristics of service supplied in 2016 by type of transport operator, in order to provide an analysis of the entire system.













		Madrid		Light rail and	
Transport operators	Metro de Madrid	Urban Bus (EMT)	Road transport		
No. of lines	12+Branch	205	440	5	9
Network length (km)	269.5	1,541.7	8.99	54.8	391
Lines length (km)	269.5	3,655.3	20,847	54.8	778.3
No. of stations- network/ stops-network	236	4.679	8,185	62	94
No. of stations-line/ stops-line	286	10,763	21,064	63	169
No. of vehicles (carriages/buses)	2,320	1,915	1,822	241	1,123
Carriages -Km (millions)	173.9	88.5	173.1	16.1	147.1

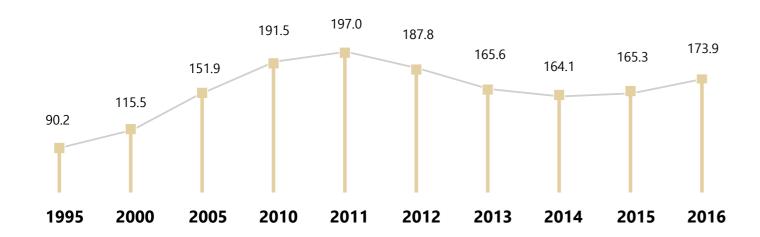
22 Annual Report 2016 - SERVICES SUPPLY 23

2.1 METRO OF MADRID

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.

The production of 2016 records 173.9 million of carriages-kilometres, 5.2% more than the one carried out in 2015, 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)



Over a working day, the morning peak hour supply is composed of 307 trains in service, with an average passing frequency of 4.2 minutes (3.7 if weighted the number of trains) and an average speed of 27.7 km/h (26.5 if weighted).

The rolling stock in service during the year 2016 was composed by 2,320 carriages and the average age is 16 years old.



MORNING PEAK HOUR SUPPLY PER LINE OVER A WORKING DAY

Line	1	2	3	4	5	6 (direction 1)	6 (direction 2)	7	Est Metro	8	9	10	North Metro	11	12 (direction 1)	12(direction 2)	Branch line
Trains	36	19	26	26	32	20	14	20	6	12	23	33	11	5	11	11	2
Carriages per train	6	4	6	4	6	6	6	6	3	4	6	6	3	4	3	3	4
Operating speed (km/h)	21.9	23.5	23.6	21.5	22.7	24.3	26.1	27.6	33.1	42.7	25.1	28.3	38.1	29.4	35.3	35.8	11.6
Travel time (min) (round trip)	119.9	68.0	69.0	80.0	119.0	57.9	54.0	83.0	31.6	44.0	97.9	99.9	48.0	28.0	69.0	68.0	10.0
Interval (min)	3.3	3.6	2.7	3.1	3.7	2.9	3.9	4.2	5.3	3.7	4.3	3.0	4.4	5.6	6.3	6.2	5.0

24 Annual Report 2016 - SERVICES SUPPLY 25

2.2 EMT

The urban buses network of Madrid, operated by Empresa Municipal de Transportes de Madrid (EMT), is formed by a total of 205 lines, being 178 day lines and 26 night lines. It needs to be added the EMT Airport Express bus line in service 24 hours a day.

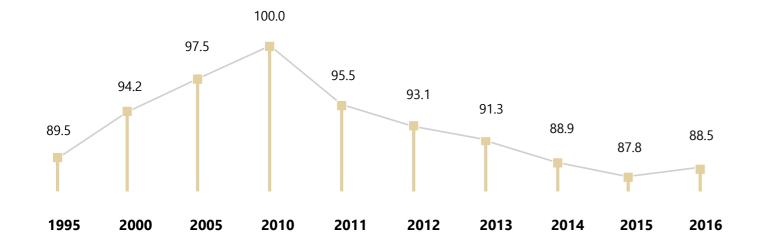
During 2016, significant interventions were carried out in the network:

- New Express line E4 Avenida de Felipe II Pavones.
- Consolidation of line 171 Mar de Cristal Valdebebas (formerly Special Service).
- Extension of lines 49 and 64 to the Pitis station, lines 171 and 174 into Valdebebas and line 85 to Butarque.
- Realignment of lines 142 and 145 in Ensanche de Vallecas.
- Modification of the route of lines 18 and 116 to supply Los Ángeles Health Center.

The total number of kilometres covered in 2016 is 88.5 million, 1.0% above the production of previous year. In this sense, the hours-vehicle (6.7 million) and the trips made (10.3 million) also show a similar relative increase.

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, 30% of the lines operate with a passing frequency below 8 minutes.

EVOLUTION OF ANNUAL PRODUCTION (millions of vehicles-km)

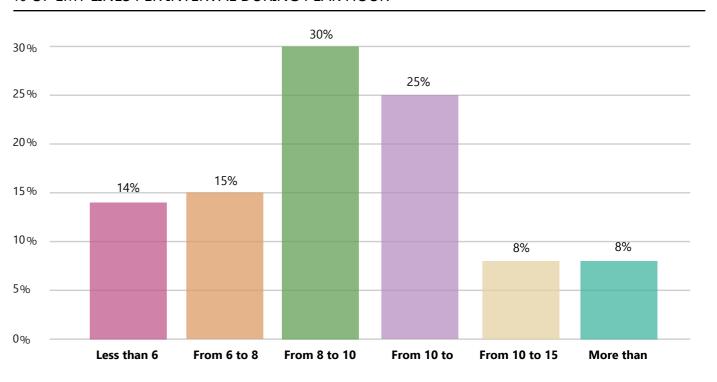


In 2016, the operating average speed is 13.3 km/h, 0.4% below the one recorded last year, due to the adaptation of service panels to the increase of traffic in the city.

In 2016, the EMT rolling stock is composed of 1,915 active vehicles with an average age of 9.4 years, of which 799 work with natural compressed gas, 3 with gas-diesel 27 are hybrids, 18 are electrics and the rest work with biodiesel. Over this year 56 new units have been added to the fleet, including two new models (MAN Lion's City GNC and SCANIA N280 UC GNC), and 49 vehicles have been decommissioned. All the buses have low floor and a ramp for Persons with Reduced Mobility (PRM).



% OF EMT LINES PER INTERVAL DURING PEAK HOUR



26 Annual Report 2016 - SERVICES SUPPLY Annual Report 2016 - SERVICES SUPPLY 27

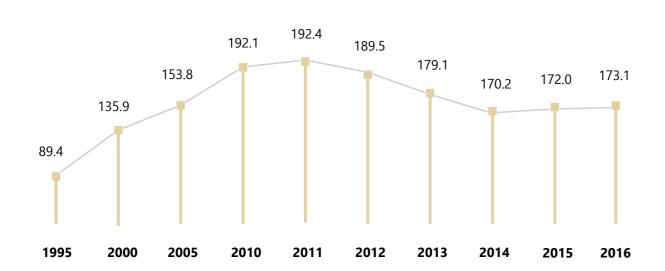
2.3 ROAD TRANSPORT CONCESSIONS

The bus network of the road transport concessions of the Madrid Region is formed on 31st December 2016 by 440 lines, being 297 suburban day lines, 112 urban lines and 31 suburban night lines. Over the year 2016, new lines had been established:

- N807, "Madrid (Atocha) Getafe (Centro Sector III)"
- 290, "Madrid (El Cañaveral) Coslada (FFCC)"
- L3 de Alcorcón, "Alcorcón Central Parque El Lucero"
- L1 de Paracuellos, "Urb. Altos de Jarama Miramadrid"
- L2 de Paracuellos, "Picón del Cura Urb. Los Berrocales"

This set of lines is operated by 31 different companies, under 36 administrative concessions and an agreement with a City Council. 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.

EVOLUTION OF ANNUAL PRODUCTION (millions of vehicles-km)

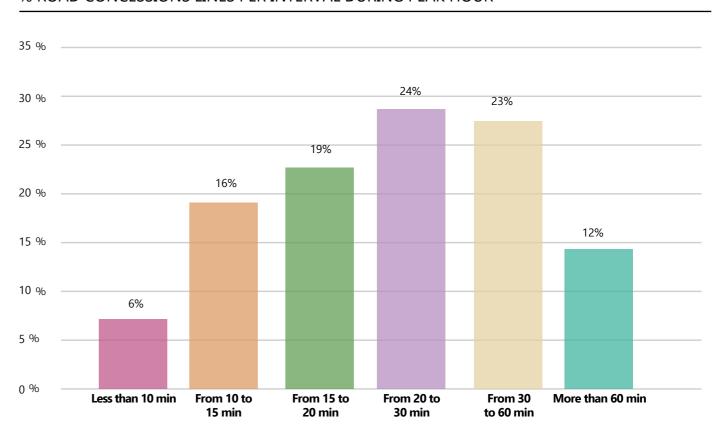


As a consequence, the real urban transport supply is far superior to what it can be deduced examining the urban network itself. The specific urban network for zone B and C reaches 35 municipalities, although only in 6 of them there is an administrative concession for independent urban service. Moreover, 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 26,883 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 1,822 buses. Over the year 2016, 162 buses have been renovated, being the average age of 4.6 years old. As a result of these changes and improvement in the fleet, there are 181 available vehicles that work with natural gas and 166 hybrid vehicles. Also, 100% of the bus fleet is adapted to persons with reduced mobility (PRM).

% ROAD CONCESSIONS LINES PER INTERVAL DURING PEAK HOUR





28 Annual Report 2016 - SERVICES SUPPLY 29

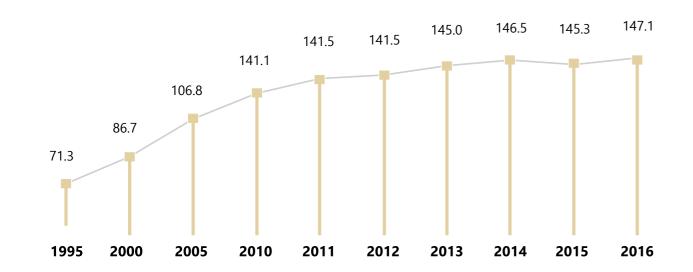
2.4 RENFE-CERCANÍAS

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 of the population centres of the region and with the city of Guadalajara.

The Cercanías Madrid suburban rail network operates a total of 9 lines with 94 stations-network and it is developed on 391 km, including the Azuqueca, Cotos and Guadalajara stations outside of the territorial jurisdiction of the Madrid Region.

Of the total stations (94 network stations), 36 service at least 2 Cercanías suburban railways. Considering 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	Number of stations-line	Number of trips	Number of trips peak hour	Carriages per train	Peak operating speed (km/h)
C-1	11	74	12	5	38.2
C-2	19	192	38	6/10	53.9
C-3	23	168	32	5/10	58.9
C-4 (a-b)	18	285	59	10	51.7
C-5	23	296	65	6	46.6
C-7	31	101	23	6/10	50.2
C-8	22	46	8	6	55.4
C-9	3	10	1	2/4	26.6
C-10	19	164	37	6/10	39.2
Total	169	1,336	275		49.2

In 2016 the programmed transport supply for the Madrid suburban railway services recorded 1,336 trips by day, being the annual production of 147.1 million of carriages-km, 1.2% more than 2015 production.



30 Annual Report 2016 - SERVICES SUPPLY 31

2.5 LIGHT RAIL AND OTHER RAILWAYS CONCESSIONS

2.5.a Light rail

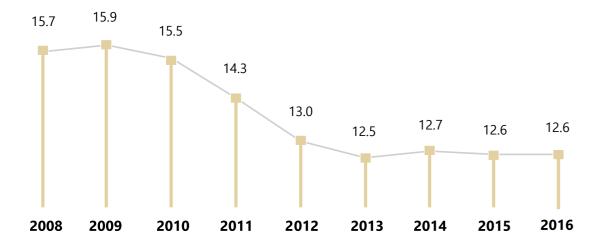
The light rail network consists of 4 lines, whose description is shown below:

- 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 S.A., which operates line ML1; Metro Ligero Oeste S.A, which operates lines ML2 and ML3; and Tranvía de Parla S.A., which operates line ML4.

On balance, the production for year 2016 remains at 12.6 million of carriages-kilometre

EVOLUTION OF ANNUAL PRODUCTION (millions of carriages-km)



Over a working day, the peak hour supply consists of 35 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 DAY

Line			Operating speed (km/h)	(min) (round trip)	
ML1	7	5	18.0	34.0	5.0
ML2	9	5	23.5	44.0	6.0
ML3	12	5	25.4	64.0	6.0
ML4 (s1)	3	5	20.1	24.5	10.0
ML4 (s2)	4	5	19.6	25.0	7.0

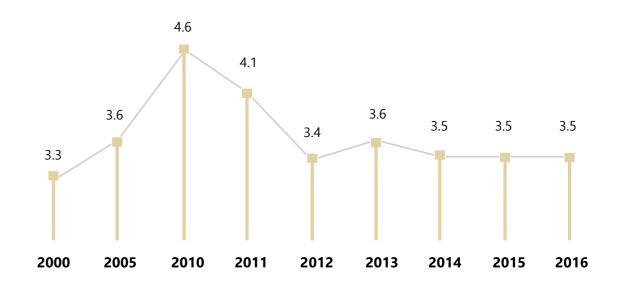
2.5.b Other railway concessions

That is a section of line 9 located between Puerta de Arganda and Arganda del Rey stations which is operated by company Transportes Ferroviarios de Madrid S.A. It stretches over 19.0 km and 6 stations-line, being the Puerta de Arganda station its link with the rest of line 9.

Adding this section to the Metro de Madrid would be a network of 288.5 km and a total of 241 stations-network and 292 stations-line.

The production for year 2016 remains at 3.5 million carriage-kilometre.

EVOLUTION OF ANNUAL PRODUCTION (millions of carriages-km)



MORNING PEAK HOUR SUPPLY PER LINE OVER A WORKING DAY

Line	Trains	Carriages-train	Operating speed (km/h)	Journey Time (min) (round trip)	Interval (min)
TFM o 9b	7	4 double and 3 triple	54.4	42.0	6.0

More than 3.1 million active cards

3. THE FARE SYSTEM

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

According to the Creation Act of the Consortium, those tickets used by more than an operator belong to the CRTM, who is the 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.

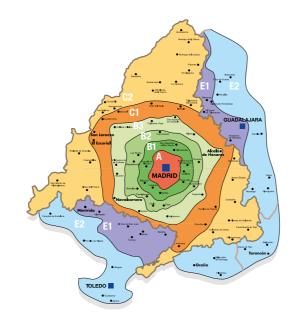
In regards to the technology, in 2016 almost all the personal tickets load on the Public Transport Card, with a contactless microprocessor, while the rest of the tickets keep the magnetic card format.

34 Annual Report 2016 - THE FARE SYSTEM Annual Report 2016 - THE FARE SYSTEM 35

3.1 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.



3.2 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-trip ticket, destined to intermediate users and bought in advanced. In the A zone there are two types of ten-trip tickets: one multimodal (Metrobus), valid equally for Metro, EMT, ML1, and the Prisei and Alacuber concessions inside the municipality of Madrid; and the another, a ten-trip 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. In zones B and C the multi-operator ten-trip tickets (united bus passes) are valid for all 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-trip combined ticket. They are all

tickets incorporating magnetic technology and Edmonson format, except for 10 trips EMT + EMT which is a disposable contactless one.

• A personal multimodal card, with unlimited use in the period and area of validity, named Public Transport Card, destined to frequent users and which is also bought in advance. 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 validation. The travel passes have different prices depending on the user's age establishing three categories: young (under the age of 26 years); standard (between 26 and 64 years) and senior (from 65 years ahead).

Outer Metro lines and Metro Ligero Oeste lines have a unified fare zone for non-personal tickets, 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 any Public Transport Card or a tourist ticket. Finally, the Airport Express bus line from EMT 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 five time options: 1,2,3,5 and 7 calendar days after the first validation.

75.7% of all trips are made using Travel Pass





36 Annual Report 2016 - THE FARE SYSTEM Annual Report 2016 - THE FARE SYSTEM 37

3.3 SOCIAL FARES

There are four types of groups that benefit from a reduction regarding of the general price established:

- 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, and then 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 (7,455.14 euro per year in 2016), with a specific travel pass, the Blue
 Card, valid for Metro de Madrid (area A), ML1 and EMT Madrid urban bus.
- Travel Pass for unemployed people participating in the Employment Activation Programme.

Finally, the Children Travel Pass permits children of 4, 5 and 6 years of age a free use of public transports service of the Madrid Region.



3.4 SALES NETWORK

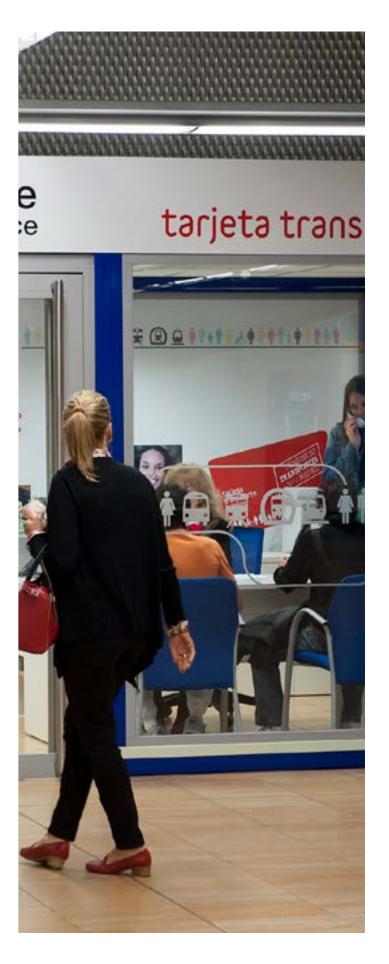
There are two main groups of vendors:

- 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 (more than 1,200 automatic ticket machines), on the interchange stations (10-trip ticket for suburban road operators), and on three external networks: the network provided by Logista, which basically consists on tobacco shops, and other officially licensed agents 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 450 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 travel passes (around 1,400 available points).

The tourist tickets are distributed in the Metro de Madrid network, and on request directly to CRTM at a sale specialised network for groups which includes tour operators, congress wholesalers, etc.



38 Annual Report 2016 - THE FARE SYSTEM 39

3.5 FARES

Over the year 2016, 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 passes.

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)

	А	B1	B2	В3	C1	C2	E1	E2
Standard (26-64 years old)	€ 54.60	€ 63.70		•				
Young (under 26 years old)				€ 20				
Senior (65 years old or more)				€ 12.30				

INTERZONAL (EXCEPT ZONE A)

	2 zones	3 zones	4 zones	5 zones	6 zones	7 zones
Standard (26-64 years old)	€ 47.90	€ 54.60	€ 63.70	€ 72.00	€ 82.00	€ 89.50

There are annual travel passes for the calendar year whose prices are equal to 10 times a corresponding travel pass 30 days, with the exception of the pass for unemployed persons. Children under the age of 4 years old can travel without a ticket.

SINGLE TICKET AND 10-TRIP TICKET OF METRO AND LIGHT RAIL

	Metro Zone A + ML1	North Metro	East Metro	South Metro		Combined metro and I. rail
Zone	А	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

SINGLE TICKET AND 10-TRIP TICKET OF URBAN AND SUBURBAN BUSES

	EMT	Α	1 zone	2 zones	3 zones	4 zones	5 zones	6 zones
Single	€ 1.50	€ 1.50	€ 1.30	€ 2.00	€ 2.60	€ 3.60	€ 4.20	€ 5.10
10 trips	€ 12.20-€ 18.30	•••••••••••••••••••••••••••••••••••••••	€ 8.50	C	€ 16.10	€ 23.00	C = 3 C	001.10

Airport Express bus line € 5.00

TOURIST 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

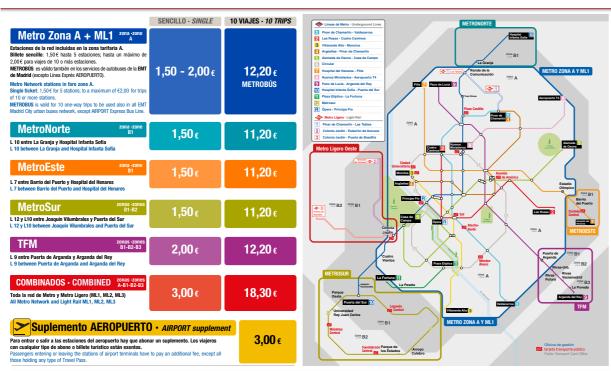
50% Discount for children under 11 years old





40 Annual Report 2016 - THE FARE SYSTEM Annual Report 2016 - THE FARE SYSTEM 41

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

La tarjeta transporte público es el soporte para cargar los títulos de transporte. Actualmente, todos los The tarjeta transporte público (Public Transport Card) is the support to load tickets. Currently, trav abonos de 30 días se cargan en la tarieta. Los niños de 4, 5 y 6 años vialan gratis por toda la Comunidad pass for 30 days can be loaded onto the card. Children aged 4, 5 and 6 can trayel for free throughout the Madrid Region with the tarjeta transporte público infantil (Children Travel Card). Amhas tarietas nueden solicitarse a través de Internet, en estancos autorizados o mediante cita previa en las. These two Travel Cards can be ordered via Internet, officially licensed tobacco shops or by prior a

oficinas de gestión de la tarjeta transporte público (www.crtm.es).

in the tarjeta transporte público management offices (www.crtm.es).

ABONO TRANSPORTES · TRAVEL PASS

validez es de 30 días a partir de la primera utilización, y su precio depende de las zonas incluidas. Para hacer uso Region, with 30 days validity and fares depending on the included zones. It must be charge

Titulo personal, de utilización illimitada en todos los servicios de transporte público de la Comunidad de Madrid. Su A travel pass is a ticket for personal and unlimited use on every public transport mode in the Madrid

	Α	B1	B2	В3	C1	C2	E1	E2		INTERZONA	LES ENTRE I	LAS ZONAS	B1 y E2		Sen Lorenzo
									2 zonas	3 zonas	4 zonas	5 zonas	6 zonas	7 zonas	ti tacorial
RMAL - <i>REGULAR</i> - 64 años - <i>years</i>	54,60 €	63,70 €	72,00 €	82,00 €	89,50 €	99,30 €	110,60 €	131,80 €	47,90 €	54,60 €	63,70 €	72,00 €	82,00 €	89,50 €	
VEN - <i>YOUNG</i> · 25 años <i>- years</i>						20,	00 €								San Martin de Salamana Namagan
EDAD - <i>ELDERLY</i> sde- <i>from</i> 65 años- <i>years</i>			12,	30 €											E2 E1
bono Transportes no es válido p	ara la Línea Evni	rés ΔERΩPLIERT	O de la FMT · T	his travel nass i	s not valid for the	he AIRPORT Fyr	oress FMT Bus I	ine							



BILLETE TURÍSTICO · TOURIST TICKET

Título personal con validez para: 1, 2, 3, 5 o 7 días A personal ticket to be used 1, 2, 3, 5 or 7 cal 7ona A: Todos los servicios de esta zona - Zone A. for all trins in Madrid City

zones except railway to Toledo.

Zona T: Todos los servicios de la Comunidad, más zonas - Zone T: for all trips in the Madrid Region, plus E1 and E2 F1 v F2, excepto servicios RENEE a Toledo. lo es válido en la Línea Exprés AEROPUERTO de EMT. Is not valid for the AIRPORT Express EMT Bus Line

	Dias liaculates y colls	ecativos - calellaal collis	ecouve asys		
	1 día <i>day</i>	2 días <i>days</i>	3 días <i>days</i>	5 días <i>days</i>	7 días days
	8,40 €	14,20 €	18,40 €	26,80 €	35,40 €
,	17,00 €	28,40 €	35,40 €	50,80 €	70,80 €
an.	Descuento del 50º	% para niños meno	res de 11 años	50% Discount fo	r children under 11



6,20 TARJETA AZUL • BLUE CARD

Titulo personal, de utilización ilimitada durante 30 días a partir de su primera utilización en los servicios de la A Blue Card is a ticket for personal and unlimited use during 30 days from its first use, valid for Zone A zona A (excepto Renfe y Línea Exprés AEROPUERTO de la EMT). Para obtener la tarjeta es preciso acreditar el (Except RENFE and the AIRPORT Express EMT Bus Line). Certain requirements must be accomplished and cumplimiento de las condiciones requeridas. accredited to apply for this card.

odos los tipos de billetes se pueden adquirir en las máquinas expendedoras de las estaciones. El Metrobús se vende
ambién en los estancos y los quioscos de prensa del municipio de Madrid. La tarieta transporte público se puede
tobacco shoos or news-stands in Madrid City. The tarieta transporte público can be loaded at Metro automatic

cco shops or news-stands in Madrid City. The tarjeta transporte público can be loaded at Metro autor







Información de Transporte Público - Public Transport Information:
112 Lunes a viernes de 8:00 a 22:00 h - Sábados y festivos de 10:00 a 22:00 h
Monday to Friday: 8:00 to 22:00 h - Saburdays and bank holidays:10:00 to 22:00 h

Información de Metro de Madrid 902 444 403

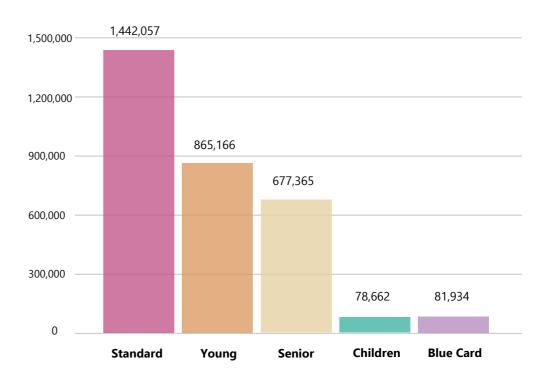


3.6 PUBLIC TRANSPORT CARD

Once entirely implemented in 2016 and consolidated the utilization of the new Young Travel Pass created in October of the previous year, the number of active cards by 31st of December reached the figure of 3,145,184 million, 16% more than in 2015, with a growth of young users by 26% and 16% more for standard passes.



ACTIVE CARDS PER PROFILE



42 Annual Report 2016 - THE FARE SYSTEM Annual Report 2016 - THE FARE SYSTEM 43

ISSUED CARDS PER PROFILE / CHANNEL

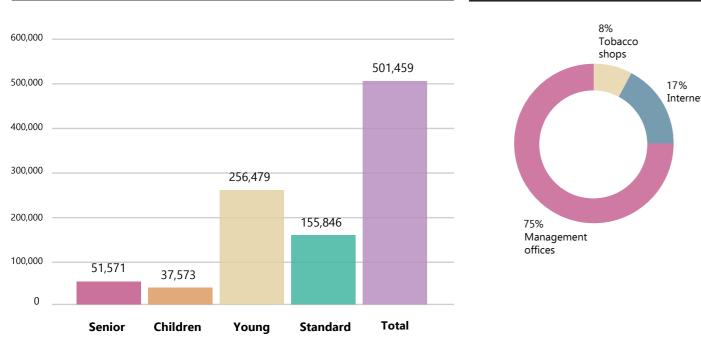
In 2016, a total of 501,459 new cards were issued, 23% less than the previous year. This sharp decrease is concentrated in the last four months of the year, due to the boost of the new Young Travel Pass at that time. The following table shows the distribution by issuance channels for each user profile. The management offices, with 75% of the cards issued, are the preferred channels for users, while the internet is 17% and the tobacco shops take part only 8%.

However, these averages differ according to the profile in question reaching the on line channel the highest share in the case of children's travel passes (24%), followed by profiles of young (21%), standard (13%), and lastly senior (6%).

	Tobacco shops	Internet	Management offices	Total
Senior	10,958	3,377	37,236	51,571
Children	10,632	8,977	17,954	37,563
Young	13,922	52,960	189,597	256,479
Standard	6,590	20,705	128,551	155,846
Total	42,102	86,019	373,338	501,459

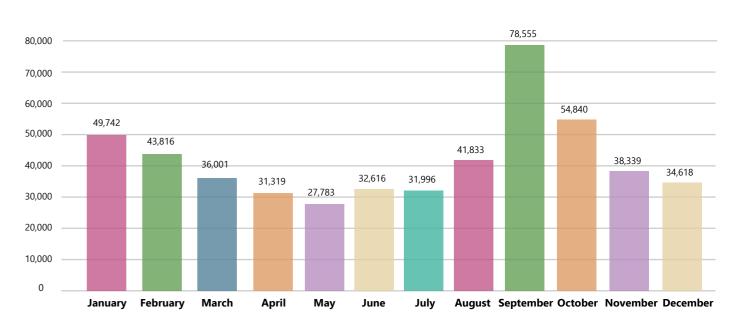
ISSUED CARDS PER PROFILE





The monthly average of cards requested is 41,788, which has been exceeded widely in the month of September; mainly the most common cause is both the accumulation of new requests and the start of the new academic year.

REQUESTED CARDS



3.7 CENTRE FOR DEVELOPMENT AND COMPLIANCE (CDC)

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 Ticketing System of the Madrid Region.

Over the year 2016, validation tests were performed with the suburban buses operators to guarantee the correct incorporation of both the extension of journey as well as the single ticket (one trip) in the system. Also in all transport operators was verified the correct implementation of visual and acoustic notices for travelers with a discount on their fares, and were started developments for the issue of contactless cards in automatic machines, in order to replace tickets with magnetic technology format. Finally, contactless card emulation tests were performed on smart mobile phones using the NFC communications protocol.



1,446 million trips

4. PASSENGERS

In 2016, the total of trips made within the public transport system of Madrid Region amounted to the number of 1,445.7 million, which represents an increase of 4.3% compared to the last year, 59.9 million in absolute terms.

This figure means an average of 223.6 trips per inhabitant and year, an indicator which is increasing by 5.1% over the previous year, and this stills positions the Madrid Region as a benchmark for public transport in the country.





4.1 DEMAND EVOLUTION PER OPERATOR

DEMAND EVOLUTION PER TRANSPORT OPERATOR, (MILLIONS OF TRIPS) PERIOD 1990-2016

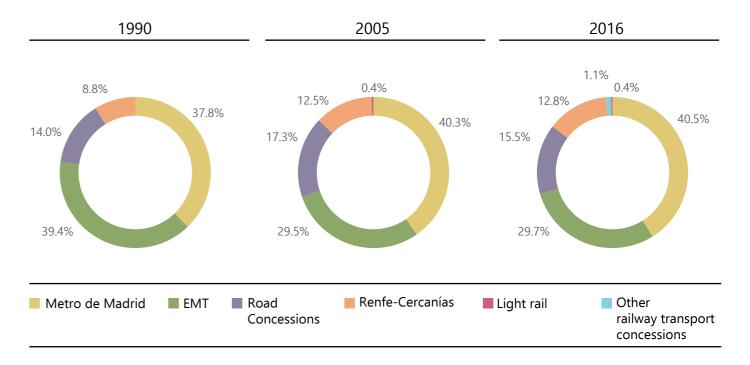
YEAR	Metro de Madrid	EMT	Road Concessions	Renfe- Cercanias	Light rail	Other railway transport concessions	TOTAL
1990	416.3	433.3	154.1	96.3			1 100 0
•••••••••••••••••••••••••••••••••••••••			••••••	• • • • • • • • • • • • • • • • • • • •			1,100.0
1995	397.2	521.5	191.6	126.0	•••••		1,236.2
2000	518.9	531.2	270.1	161.2		4.7	1,486.1
2005	643.6	470.2	275.6	199.0		6.7	1,595.1
2010	627.1	423.4	235.8	181.6	1.3%	6,4	1,491.6
2011	634.9	426.6	232.1	182.0	17.4	6.6	1,499.6
2012	601.6	405.5	223.3	180.3	15.8	6.2	1,432.7
2013	557.9	404.1	211.7	179.0	14.5	5.9	1,373.0
2014	560.9	402.2	205.5	182.7	13.9	5.9	1,371.1
2015	569.7	405.9	207.3	182.2	14.7	5.9	1,385.8
2016	584.8	430.1	224.1	184.6	15.8	6.2	1,445.7
% VAR 16/15	2.7%	6.0%	8.1%	1.3%	7.5%	5.3%	4.3%

The presented figures as trips are referred to the commercial stages carried out by the users, so then changes are counted as trips except in the cases they taking place in Metro de Madrid and Renfe-Cercanías, not affected from a fare point of view. Exceptionally, and despite the fact that a similar fare adjustment treatment occurs in changes between Metro de Madrid and Light Rail (line ML1), inasmuch they are different modes and operators, they are counted as trips.

All operators without exception have growth of demand, clearly highlighting in this increasing result the surface modes regarding the railway ones. The impact of the new Young Travel Pass consolidation that was introduced in October of the previous year is surely the first cause of this differentiating evolution, adding the younger people segments to the public transport, with a higher component of short trips where the bus has proved to be more accessible. To these effects light rail performed in a similar way to buses, with a growth significantly above than the average.

As a consequence of these outputs, the demand evolution per operators is slightly deviated in favor of the bus mode that overall shows by a one percentage point growth on the whole demand, accounting 45.2% of the total. Metro de Madrid and EMT Madrid urban bus gather 70.2% of the total system trips.

TOTAL DEMAND EVOLUTION PER TRANSPORT OPERATOR





4.2 DEMAND EVOLUTION PER TICKET TYPE

With regards the demand evolution by ticket type there is a significant increasing of trips made with the Travel Pass, raising 75.6%, as consequence of the impact of the Young Travel Pass that last year engrossed a great part of trips made with other types of tickets, the most were ten-trip tickets but also single tickets. The surface modes operators were affected to a greater extend 80% participation of travel passes of the total trips.

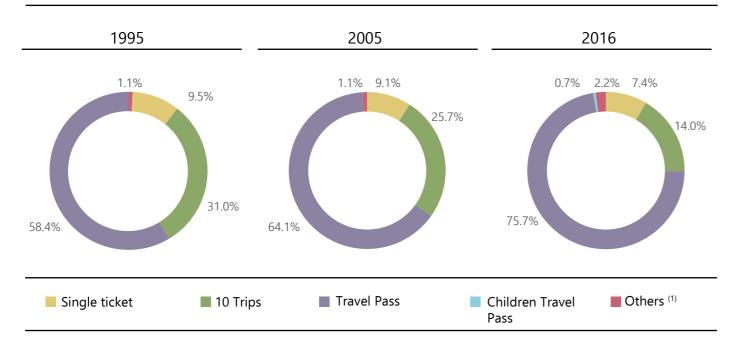
ANNUAL TRIPS DISTRIBUTION PER TICKET TYPE

	Single tid	cket	10 Tr	ips	Travel	Pass	Travel	Pass	Other	(1)	Tota	I
Operator	Trips	% Total	Trips	% Total	Trips	% Total	Trips	% Total	Trips	% Total	Trips	% Total
Metro de Madrid	35,407,895	33.3 %	118,621,265	58.7 %	426,947,728	39.0 %	3,842,169	36.8 %	26,887	0.1 %	584,845,945	40.5 %
EMT	23,388,949	22.0 %	48,240,163	23.9 %	343,612,196	31.4 %	3,463,993	33.1 %	11,404,430	35.1 %	430,109,731	29.8 %
Road transport con- cessions	24,922,321	23.4 %	19,350,785	9.6 %	178,253,171	16.3 %	1,598,103	15.3 %	0	0.0 %	224,124,380	15.5 %
Renfe - Cercanías	21,055,659	19.8 %	12,821,070	6,3 %	129,001,370	11.8 %	1,312,083	12.6 %	20,455,049	62.9 %	184,645,231	12.8 %
Light rail	964,633	0.9 %	2,135,505	1.1 %	11.915,945	1.1 %	197,490	1.9 %	612,444	1.9 %	15,826,017	1.1 %
Other railway transport concessions (TFM)	598,853	0.6 %	991,270	0.5 %	4,551,841	0.4 %	41,652	0.4 %	0	0.0 %	6,183,616	0.4 %
Total	106,338,310	100.0 %	202,160,058	100.0 %	1,094,282,251	100.0 %	10,455,490	100.0 %	32,498,810	100.0 %	1,445,734,920	100.0 %

(1) Included: Metro de Madrid and Madrid Light Rail fine tickets Special Services (EMT)

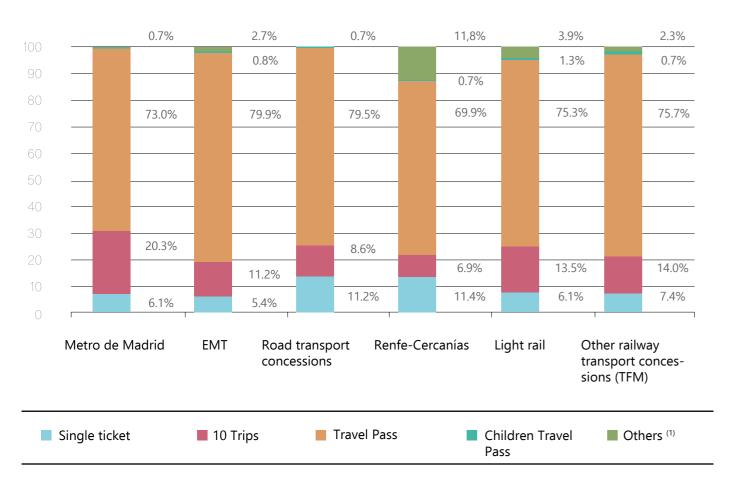
Renfe monthly travel pass, Carnet Renfe (Renfe-Cercanías)

EVOLUTION OF THE ANNUAL TRIPS DISTRIBUTION PER TICKET TYPE





DEMAND EVOLUTION PER OPERATOR



(1) Included: Metro de Madrid and Madrid Light Rail fine tickets Special Services (EMT) Renfe monthly travel pass, Carnet Renfe (Renfe-Cercanías)

The monthly amount of trips that each user makes is 59.8 on average, 3% lower of last year number, once again explained as a consequence of the new Young Travel Pass for the incorporation of less mobility users. The single ticket contributes 7.4% of the total and effectively the ten-trip tickets represent almost the double.











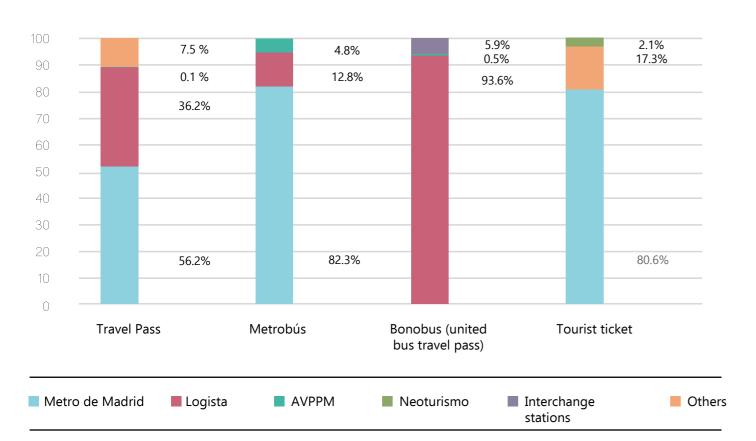


4.3 TRANSPORT TICKETS SALES

An analysis of sales for every type of travel pass is shown below. Information regarding the rest of ticket types issued by the CRTM (i.e., single tickets and combined ten-trip tickets from metro and light rail networks, and ten-trip tickets Metrobus or suburban operator bus passes), does not offer any significant added value to trips distribution already introduced 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 82.3% of Metrobus, the 10-trip ticket of Zone A. The point of sales network provided by Logista plays also a main role as external sales support to the transport network, with a travel pass sale by 36.2%, 12.8% of Metrobus and 93.6% of Bonobus the bus passes of suburban bus services. Bankia ATM's network is a minor contributor in travel pass sales, included as "other" in travel passes section, the only transport ticket in whose sale participates.

TICKETS SALES DISTRIBUTION PER DISTRIBUTOR



In 2016, a total volume of 18,300,490 travel passes for all zones and types have been sold. This figure, which clearly represents an increase of 15.8% 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 PERIOD 1990-2016

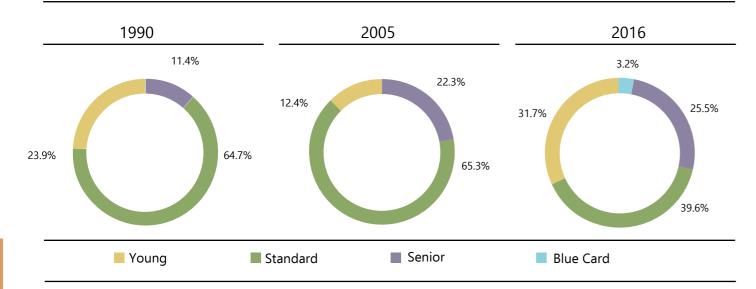
Year	Standard	Young	Senior	Blue Card	PAE	TOTAL
1990	3,404,593	1,260,108	599,477			5,264,178
1995	5,254,389	2,248,617	1,634,361	•	•	9,137,367
2000	7,732,219	2,079,622	2,647,205	••••••	••••••	12,459,046
2005	9,075,624	1,723,581	3,091,332	•••••	••••••••••	13,890,537
2010	8,386,456	1,724,270	4,102.935	377,426	•••••	11,591,087
2011	8,308,420	2,120,291	4,396,898	464,185	••••••	15,289,794
2012	8,366,074	2,449,268	4,642,104	600,350	•••••	16,057,796
2013	7,909,291	2,428,193	4,826,377	620,475	••••••	15,784,336
2014	7,755,454	2,481,955	5,067,495	529,446	••••••	15,834,350
2015	7,545,684	3,133,459	4,560,714	565,863	503	15,806,223
2016	7,243,501	5,794,760	4,662,945	549,615	4,669	18,300,490
% VAR. 16/15	-4.0%	85.0%	2.2%	5.1%	828.2%	15.8%

The comparative results with the previous year are consequence of timing appearance of new travel passes introduced in 2015. Thus, the decreasing of sales of standard pass by 4.0% is due to the transfer of users of 23, 24 and 25 years old that previous year were included to this category until the month of October. This together with new users' incorporation from other ticket types, even including users of the private vehicle, has led to 84.9% increase in sales of Young Travel Pass. The PAE travel pass for unemployed people participating in the Programme of Employment Activation started on November 15th 2015, and for this reason a comparison with the previous year is not significant.

As a result, less than half of the travel passes (39.6%) are purchased by the users of 26 to 64 years, while 25.5% corresponding to users aged 65 and over, 3.3% are blue card users and the remaining 31.7% are those under 26.

More than 18 million of Travel Passes sold

TRAVEL PASS SALES PER USER PROFILE



The complementary territorial perspective is offered through the evolution of the sales per zone, and a first conclusion must be noted is that due the significant role of the unified fare travel passes, whose already account 57% of the total sales, there is a limitation of zonal perspective to standard passes exclusively, and this fact conditions the comparative view.

EVOLUTION OF TRAVEL PASS SALES PER ZONES

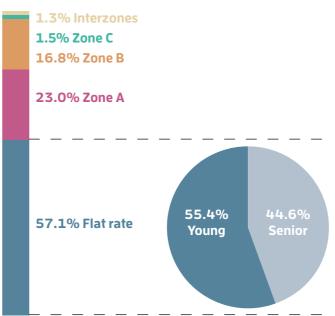
	Zone A ⁽³⁾	Zones B	Zones C	Inter- zones ⁽¹⁾	Zones E ⁽²⁾	Senior	Young	PAE	TOTAL
1990	2,742,169	1,828,803	93,729			599,477			5,264,178
1995	3,678,086	3,589,307	235,613			1,634,361			9,137,367
2000	4,150,359	5,273,279	388,203			2,647,205			12,459,046
2005	4,527,608	5,691,174	496,577		83,846	3,091,332			13,890,537
2010	4,918,640	4,696,330	438,939	354,046	80,197	4,102,935			14,591,087
2015	5,088,904	3,921,637	370,518	375,532	83,712	4,560,714	1,404,703	503	15,806,223
2016	4,215,656	3,060,871	264,507	238,352	59,366	4,662,945	5,794,124	4,669	18,300,490
%VAR 16/15	-17.2 %	-21.9 %	-28.6%	-36.5%	-29.1%	2.2%	312.5%	828.2%	15.8%

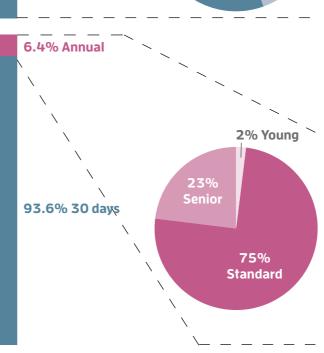
- (1) B1-B2, B2-B3, B3-C1 and C1-C2 passes. Until 2007 the B1-B2 pass was included in Zones B
- (2) Zone exterior to the Madrid Region, whose influential area corresponds with a part of Castilla-La Mancha
- (3) Blue Card included since 2007

Taking into account this observation, the resulting new distribution per zones has lent a specific weight to Zone A, representing 23% of the total with regard to 19.7% of the rest of zones. That is means that the travel passes that previously corresponding to metropolitan areas have mostly transfer to the flat rate young pass, in other words, the major boost of that measure happened in the metropolitan area, undoubtedly in coherence with the different demographic composition of population per age in the territory.

The 93 percent of the total sales of travel pass are 30 days passes in comparison to 7% of annual travel passes, from which 75% mainly belong to standard passes users, whilst users of annual senior passes 23% and only 2% are annual pass young holders.

TRAVEL PASS SALES PER PROFILE AND ZONES





The Young Travel Pass effects are also reflected in seasonality changes, compensating to a large extend deviations among the different months, so that differences between October, the greatest sales month of this year 2016, and the second month and the annual average have been reduced (1% y 11% respectively).

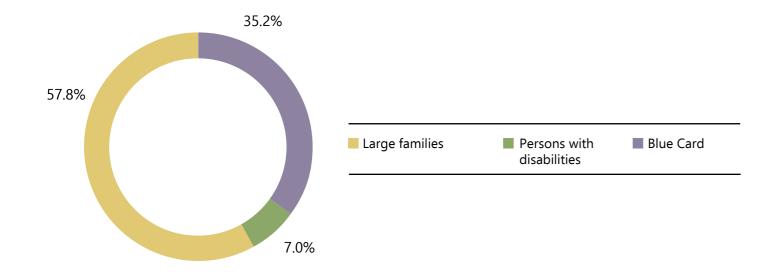
By linking the peak month for sales with the total population of the Madrid Region aged between 4 and 85, a penetration of 28.5% is achieved, in other words, 30% of Madrilenians is a regular travel pass user. This value raise to 41.5% considering travel card holders whose at least once over 2016 have charged their Travel Pass.

With regard to social tickets, over the year 2016 a total of 1,688,782 of all categories has been sold, 21.7% more than the previous year.

More than the half of the sales corresponds to the different large family categories (57.8%) with an increase by 37.5% respecting previous year; 35.2% to Blue Card beneficiaries, and the remaining 7.0% to persons with disabilities.

SALES OF SOCIAL TICKETS

	Large	Large families		Persons with disabilities		Blue Card		Total	
	Sales	% over total	Sales	% over total	Sales	% over total	Sales	% over total	
2016	975,660	57.8%	118,507	7.0%	594,615	35.2%	1,688,782	100.0%	
2015	709,433	50.7%	112,468	7.6%	565,863	41.8%	1,387,764	100.0%	
% 16/15	37	7.5%	5.	4%	5	.1%	21	1.7%	



Concerning the sales of the different tourist tickets (Standard, Children, and Congress), over the year 2016 it reached the figure of 400,473 tickets sold, 28.8% lower than the previous year, mainly due to a drop in tickets sales of congress wholesales groups.

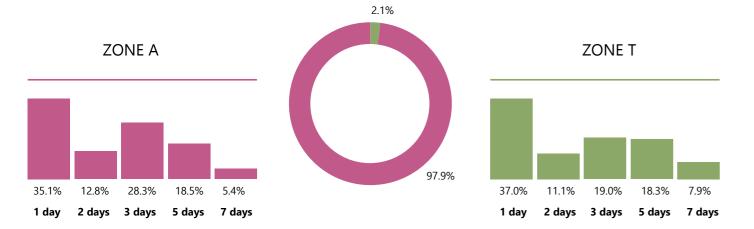
SALES OF TOURIST TICKETS PER PROFILE AND ZONE

Days	Standard	Children	Congress	Total
1 day, zone A	138,597	13,912	352	152,861
2 days, zone A	49,631	2,813	136	52,580
3 days, zone A	100,723	4,579	819	106,121
5 days, zone A	54,894	2,592	3,582	61,068
7 days, zone A	17,780	1,122	104	19,006
Total zone A	361,625	25,018	4,993	391,636
1 day, zone T	2,888	303	0	3,191
2 days, zone T	923	74	0	997
3 days, zone T	2,012	106	282	2,400
5 days, zone T	1,430	68	0	1,498
7 days, zone T	594	37	120	751
Total zone T	7,847	588	402	8,837
Total 2016	369,472	25,606	5,395	400,473
Total 2015	516,801	31,156	14,299	562,256
%16/15	-28.5%	-17.8%	-62.3%	-28.8%

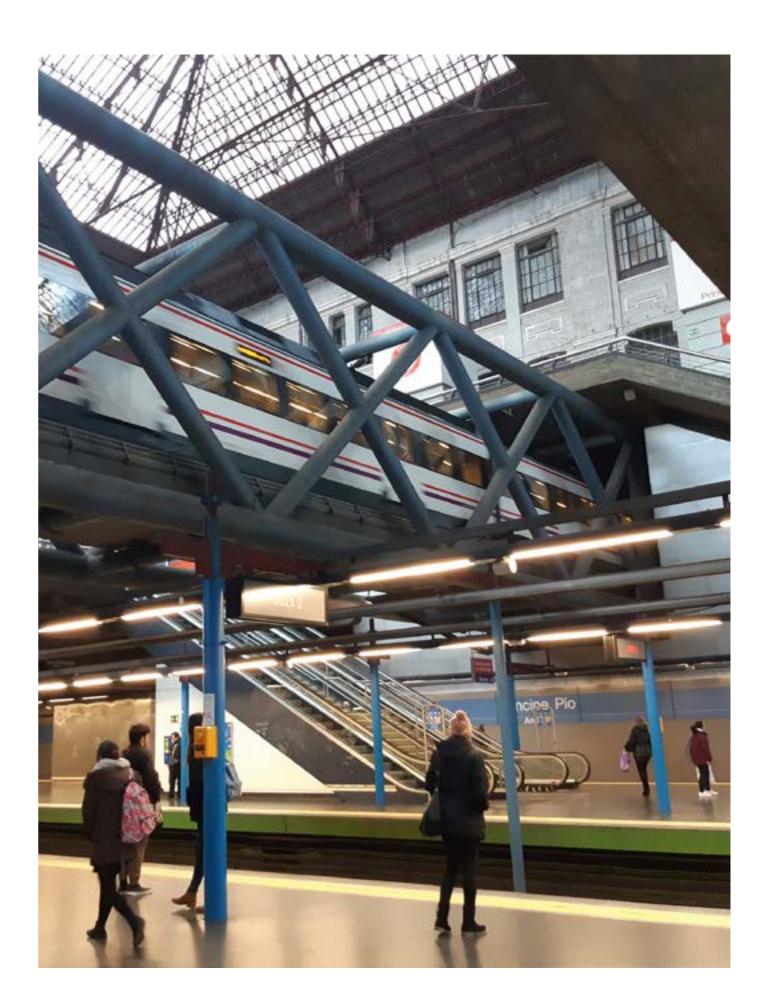


Zone A slightly improves its proportion compared to previous year with 97.9% of total sales, whilst per the period of validity, 1-day tickets achieved the higher circulation, although in this case there are notable differences among the zones, being the highest concentration of 1-day tickets on the category valid for travelling to all zones.

SALES DISTRIBUTION OF TOURIST TICKETS PER ZONE AND PERIOD OF VALIDITY







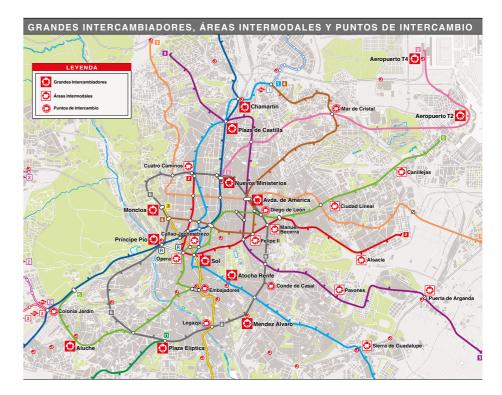
100% of accessible buses

5. STRATEGIC LINES

5.1 INTERMODALITY

5.1.a Interchange stations

The interconnection of the different modes involved in the transport system is reflected on the infrastructures developed for modal integration. These facilities permit the different transport networks articulation that either serves to streamline intermodal mobility and to make easier connections with the high capacity modes, whether it is metro or railway, efficiently with additional services for the travellers.

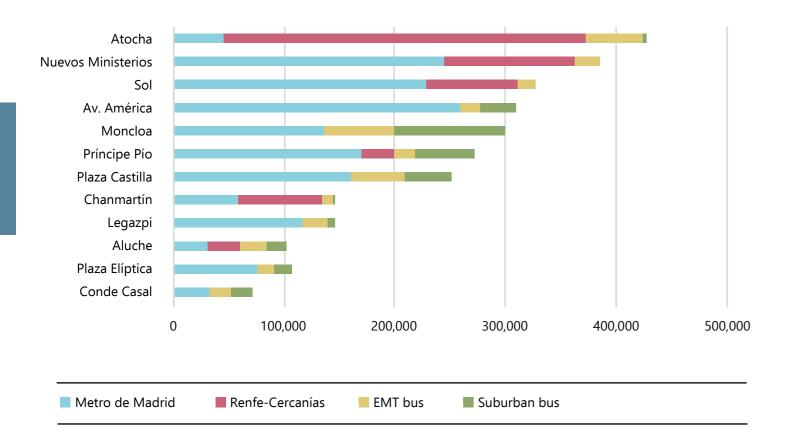


62 Annual Report 2016 - STRATEGIC LINES 63

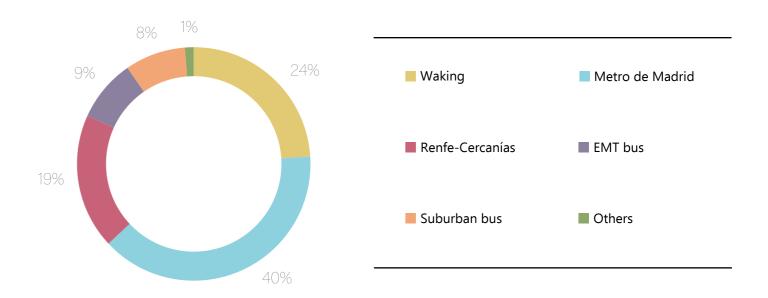
According to the characteristics of their infrastructure, the great intermodal points are classified in three groups: interchange stations, intermodal areas and exchange points. The interchanges stations play the most relevant role in access and dispersion of metropolitan trips, while the intermodal 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 is up twelve principal metropolitan intermodal points located in the city of Madrid. More than 1.8 million of passengers use these large nodes every day. From them 57% make some transfer or connection between modes of transport, while the remaining 43% are passenger who access/egress on foot. Virtually, one in two trips 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	Renfe-Cercanías lines	Suburban bus lines	Urban bus lines
Atocha - Renfe	1	8	3	26
Nuevos Ministerios	3	7	-	11
Sol	3	2	-	10
Avenida de 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

Incluye líneas de autobús con cabecera en el punto intermodal o en el entorno y líneas pasantes.

5.1.b Other transport modes

Into the framework of overall economy the new social behavior and the development of the Smart Cities concept have favoured new mobility services like car sharing systems, which undoubtedly are a complementary to public transport and lead to a collaborative mobility in a flexible and sustainable basis. Thus, the CRTM has initiated a working line which encourages and supports these initiatives.

CAR SHARING

With regard to Car Sharing or Multi-User Vehicle Systems (MUVS), the CRTM has signed agreements with two operating companies in Madrid: Respiro and Bluemove. In particular the adopted agreements allow discounts to the public transport users on services prices of these companies, in addition to the utilization by holders of the Public Transport Card (TTP) as an alternative support card to unlock and use their vehicles.

CYCLYING

In recent years the bike use has taken a qualitative leap forward the quotidian mobility in the Madrid Region. The CRTM has initiated several working lines to promote this vehicle as a complementary alternative mode of the transport system in the region. Accordingly, three initiatives were undertaken in 2016:

- Bicycles Routes Network (RIB Plan). It is a descriptive inventory to identify potential actions to improve the cycling itineraries that enable favourable conditions on a basis of rapidity, accessibility and safety from or towards stations of the public transport network.
- Bicycle Parking Network (REB Plan). The main purpose consists in the implementation of parking spaces for bikes in stops and stations of the public transport network. They are placed in points with good cyclist accessibility and favourable modal transfers bicycle + public transport. With regarding racks location, preferably are indoors and provided of guard system. In each REB point there is available a U-lock and information panel on regulations and use tips.
- Use of the Public Transport Card (TTP) in the public bike sharing systems. As in case of car sharing there are initiated agreements to apply discounts and benefits to the TTP card users, in addition to the utilization of this card as operative supporting in those public bike sharing systems provided of compatible technology in the Madrid Region, like is the case G-Bici in Getafe municipality.





66 Annual Report 2016 - STRATEGIC LINES 67

5.2 CITRAM

Over the year 2016 the public transport innovation and management centre CITRAM continued to strengthen and deepen a management model based on mobility at the service of users and a high degree of coordination among transport operators and other organizations.

On this regards, over the year 2016 more than 25 social events involving the public transport have been undertaken. Among them are remarkable the entire closure of the Line 1 of Metro and one section of Line 5, labour strikes in operator companies, special actions for Christmas time, sport events (football matches, bicycle rides, marathon) and cultural events (music, local holidays and fairs, parades, etc.).

In addition, during 2016 the CITRAM actively participated in many transport operators simulations together with the emergency services, security agencies and local civil protection, in which was clearly recognized the importance of real time coordination among all the actors involved. During this year also encouraged coordination with other management centres through a working group formed among the different Management Centres of Madrid (EMT, Calle 30, DGT and the Madrid City Council). As a result some communication and action plans protocols were established with a multimodal approach to face up special events relevant for the public transport.

On the other hand, first steps on protection against cybercrime are taking, thanks the specific agreement signing with the National Center for the Protection of Infrastructures and Cybersecurity (CNPIC), and the Institute for Cybersecurity Technologies, besides the drawing up of an external report on Information Security Assessment.

All this sets CITRAM as a pioneer for its way of management of mobility, as showed by the numerous Spanish and international organizations visitors interested in finding out the operation of the centre.

5.3 NEW TECHNOLOGIES

In an increasingly digital stage, The Regional Transport Consortium keeps undertaken projects aimed to implement new technologies in the transport system with the following priority actions:

- 1. Actions have been made aimed to optimize communications and computer network of the CRTM to supply a better response to the management offices by resizing the system in order to increase the processing capacity; simultaneously, good practices have been developed in security policies.
- 2. Inner works have been implemented to monitor and analyze the quality of data, which represents a great effort for the CRTM and all the transport operators.
- 3. Meticulous work has been done to initiate integrating supply and demand in terms of data, starting integral processes of geo-localization of information.

- 4. On 28 October 2016, the CRTM activated the open data platform to disseminate information on services managed by this institution so that companies, non-profit organizations and the citizens at large enable to find and reuse the information related to the public transport network of the Madrid Region.
- 5. Also during this year a new set of technical specifications has been developed regarding non-personal tickets to allow all transport operators and sales network to adequate their systems in order to face the challenge of the total migration, scheduled in 2017. Accordingly, the CRTM will manage to transfer all ticket types to contactless cards and get rid the magnetic technology.
- 6. A SAM is a secure element implemented in SIM card form inserted in the validation and inspection devices of the Madrid Region enabling cards authentication. The new SAM type 4 will allow for insertion of multiple sets of keys, and new authentication mechanisms and encryption algorithms needed to face the challenges of future. In this year the specifications of these new devices have been defined.



68 Annual Report 2016 - STRATEGIC LINES 69

5.4 INTERVENTIONS

5.4.a Refurbishment and modernization works in line 1 of Metro

In 1919 Metro line 1 was inaugurated and today is one of the longest lines (22 km) of the network, with the greatest number of stations, which runs in transversal axis from north to south of Madrid City supplying service to 85.5 million passengers per year, being the second line most demanded in the network. To improve the line exploitation and provide the appropriate security levels and regularity guarantees to maintain the quality of the service, several actions have been undertaken as waterproofing works, tunnel structure consolidation and rigid catenary installation, together with renewal and improvement of track and the communication systems.

The works were continuously carried out during 4 months from 3 July to 12 November 2016, which meant the closure of the section Plaza de Castilla - Sierra de Guadalupe both stations operating together with the rest of the line. In total the partial cut on Line 1 affected 23 stations and 13.5 track-km.

The investment of the Madrid Regional Government was 69.8 million euro, the most important one for a line renewal in last ten years. As a result of this intervention the transport capacity of line increased but reduced 50% the number of incidents.

The Regional Transport Consortium in collaboration with the Madrid City Council and the agents and operators involved drafted a Mobility Plan to minimize the inconveniences caused to users of Metro and guarantee the public transport mobility. In this framework, three alternative Special Services of EMT were implemented, at no extra cost to the user of Metro with similar frequency and schedule of Metro line 1. In sections north and south two of the three services reproduced the same surface route while the third one was designed to provide a quick alternative to passengers of Villa de Vallecas, Palomeras and Portazgo stations until Conde de Casal.

These services were enough flexible to adapt the supply and routes according to monitoring and subsequent partial openings of Metro as the works were concluded. Complementary, the most involved lines of Metro, EMT, and Cercanías were reinforced, especially in the area of Vallecas to meet the affected passenger demand, and ensuring the proper functioning of all the transport modes and their intermodality.

Also, a bus lane was enabled in the Albufera avenue to right priority way to public transport, which allowed to avoid traffic jams and maintain the planned operating speed of the especial service and EMT lines operating this axis.

This alternative service of public transport was the widest never supplied to serve the partial closure needs of a Metro line that enabled to reduce the inconveniences of refurbishment works and guarantee the mobility of users through an economic, effective and sustainable transport system.

As a result, the Special Services of EMT were daily used by 100,000 passengers in days of peak demand and, in total, they transported nearly 8 million.

5.4.b Review and adaptation of access rules to the Metro de Madrid network

Since its inception, the Regional Transport Consortium of Madrid has boosted regulation framework amendments of the different public transport operators in the region to adapt them to new demand and necessities of the society.

Since July 2016, was modified the Rules and Regulations for Underground Railway Users to extend access of bicycle to entire Metro network. Among the changes introduced there is the possibility of users of taking their unfolded bicycle with them right to the station platform without any time restriction, whatsoever peripheral sections. In all other sections of the network, except the peak hours, travelling with a bicycle is permitted during service hours. On Saturdays, Sundays and public holidays access is possible throughout the service.

Another modification made has to do with users travelling with pet animals. Access to Metro network is permitted to dogs with the properly identification by microchip, so pets and owners can travel together in Metro except peak hours, besides fulfill requirements and travel rules: only one dog is allowed per passenger, fitted with muzzle and leash maximum 50 cm length; they have to travel in the rear carriage of each train and can use the lifts but for safety reasons not escalators. Like bicycles, access is possible throughout all hours of service on Saturdays, Sundays and public holidays.



5.4.c Reinforcement and promotion of public transport system for pollution episodes in the Madrid city

On 21 January 2016 the Madrid City Council implemented the Protocol for Measures Against Episodes of High Pollution by nitrogen dioxide (NO2), and three levels of action were established: (prewarning, warning and alert), depending on the recorded levels NO2 concentration, and introduced four types of measures in terms of information, promotion of public transport, and restriction on parking within the M-30 ring.

Within this context, to introduce a significant change in mobility pattern that aim the reduction of private vehicle use during high levels pollution, the Regional Transport Consortium of Madrid has carried out the promotion, planning and reinforcement of the public transport supply in the urban transport networks of Madrid City, all geared towards requirements of any scenario.

In this way, in a high air pollution scenario when the action protocol attempts to manage a significant transfer from private vehicle to the public transport (scenario 2, 3 and 4), the CRTM plans to extend the Metro network supply covering the city centre, the most sensitive from an environmental point of view, and simultaneously reinforce up 55 EMT bus lines to enhance transversal connections and less covered areas by high capacity networks.

These measures were implemented over 2016 on October 31, and 28, 29 and 30 of December.



5.4.d Special measures for public transport in Christmas

Commonly at Christmas time there is an increasing of mobility associated to shopping and leisure. In 2016, as a novelty, the Madrid City Council established special measures either in vehicles access restrictions and the partial pedestrianisation of streets Gran Vía, Mayor and Atocha, due to the easily congestion of the pedestrian areas and the large number of motorised journeys in the centre district during Christmas.

For this reasons, in order to guarantee the public transport access to urban centre during the days of traffic restrictions, the Regional Transport Consortium of Madrid drew up an special plan for public transport to enhance the supply of Metro and EMT services; also Cercanías network is added to the special measures corresponding to the days and events with a higher people concentration like San Silvestre Vallecana Run, New Year's eve celebrations and the Cabalgata de Reyes parade.



5.5 UNIVERSAL ACCESSIBILITY

Over the year 2016, the CRTM has continued its work promoting accessibility and elimination of barriers, participating in different forums like the Transport Engineering Congress, the Course on Universal Accessibility and Design for all of the Madrid Region, 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, and has also pursued boost of inclusive transport, working on its support through a sustained engagement.

The main intervention is worth highlighting is the initial drafting for the Master Plan of Accessibility in the Public Passenger Transport of the Madrid Region. The CRTM wants to provide itself with an instrument aimed future actions on Universal Accessibility basis and to be developed in the period 2018-2026. One of the main purposes of this plan is: "To achieve the universalization of the Public Passenger Transport and increase its utilization by all persons without exclusions, or avoiding them at maximum, provided the differential fact of the own people mobility capacity and their functional differences accounted, whichever is physical functional difference, sensorial or cognitive".

In addition, it is remarkable the achievement of total accessibility in the Sol Station of Metro by the installation of a lift that enables persons with reduced mobility to use line 1 direction to Pinar de Chamartín station, as well as new measures aimed to improve its signaling and information. On the other hand, there is a contribution to the new edition of the Map of Metro Network, incorporating significant improvements on accessibility information.

Pursuant to the decrees 13/2007 and Royal Decree 1544/2007 and within the Plan for Equipment and Signaling of Suburban Bus Shelters, the following accessibility interventions have been executed: 18 shelters have been relocated to guarantee a better pedestrian accessibility, the conventional pavement have been replaced by another with a distinct colour and texture in 132 shelters and 176 stops, and installed 482 and 485 armrest and ischiatic supports respectively.

Over 2016, the Accessibility Improvement Project was also executed on bus stops in the city of Madrid, in collaboration with the Madrid City Council and the EMT, with expenditures of 50,000 euro from the CRTM budget, involving a total of 35 stops in 12 districts of the capital.

Likewise, the works into the frame of the III Action Plan for Persons with Disabilities in the Madrid Region made together with the Regional Ministry of Family and Social Policies have been concluded, and initiated new collaborations to incorporate proposals into the Strategy for Attention to Elderly/Dependent 2016-2021.

ACCESIBILITY OF THE PUBLIC TRANSPORT MODES

Accessible Metro de Madrid Stations	63%
Number of lifts in Metro de Madrid	509
Accessible light rail stations	100%
Accessible urban and suburban buses	100%



5.6 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 2016 the incorporation of 162 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 89% of the concessions fleet supplying regular passenger road public transport 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, the CRTM as Task Force member of the "Protocol for Measures Against Episodes of High Pollution by nitrogen dioxide (NO2) in the Madrid city", entering into force on 1 February 2016, is the responsible of boost the identified actions to implement them in terms of public transport. Thus, the information measures are disseminated throughout the CRTM web and the variable information panels of the different transport networks and interchange stations, while the measures of reinforcement of service of public transport will be applied when required according to the planning of CRTM for these cases.

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 2016 with regard to the implementation of reduction measures of the greenhouse gas emissions in the region.

Its calculation has been obtained based on the carbon footprint of each operator that integrate the CRTM (Metro of Madrid, light rail, EMT Madrid urban bus, 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 as in the vehicles that provide the regular passenger public transport system in the region.

The carbon footprint thus obtained amounts to **502,765 tons of CO2eq,** of which 75% corresponds to the road mode of transport, 22% to the railway mode and the rest to the ones who operate in the interchange stations.

It is estimated that, with the public transport operation in Madrid in 2016, it was avoided the emission into the atmosphere of more than 1 million of tons of CO2eq that would have been additionally generated in case the trips were carried out in private vehicle.

Thus, it is evident the main role of public transport concerning the fight against the climate change, being the most sustainable mobility option for journeys that cannot be done by bicycle or on foot.

BUS FLEET (AS OF DECEMBER 31ST 2016)

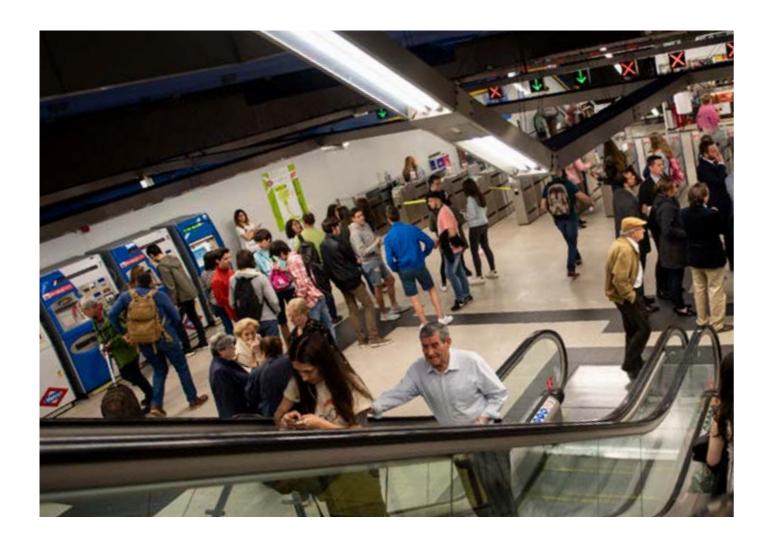
	Diesell	Natural gas	Natural gas / diesell	Hybrid	Electric	TOTAL
Madrid urban buses (EMT)	1,068	799	3	27	18	1,915
Road transport concessions	1,475	184	0	163	0	1,822

5.7 THE QUALITY OF SERVICE

Over the year 2016 the CRTM developed actions in its different management areas in order to guarantee its commitment with quality of service of the public transport network provided to users. For that purpose, one of the key aims is the improvement and update standards of quality defined in contracts for the provision of services, either operational or complementary like commercialization, etc. Accordingly, in addition to monitoring of quality services indicators already accomplished, the work has continued to establish and implement this type of indicators in the new contracts or agreements throughout the year, as well as in amendments arising from the renewal of existing ones.

Moreover, in the development of its competencies, continuously inspections of transport services were performed, which meant the execution of more than 6,000 inspections in the transport network. These supervision measures affected not only the transport operator network but internal inspections prior to bringing into service new services or products implemented by the CRTM throughout the year. Whilst inspection activity owns a preventive role, significant efforts have made to strengthen coordinated works with the custom assistance services to improve the user experience of public transport.

From the point of view of perception of the user, in order to complete the evaluation cycle of quality of service, opinion surveys were performed among users of road transport network in 2016, Public Transport Card users and those that required services of the TTP card in the Management offices.



5.8 STUDIES

The studies and projects that the CRTM executes respond to the functions and aims of the different activity areas of this organization in the development of its competencies.

5.8.a Study of characterisation of the working day demand of suburban buses network day lines in the Madrid Region.

Between February and March 2016, a gauging study and an autocompleted survey were performed on board suburban buses in the Madrid Region. A total of 117 lines were investigated and 78,812 users surveyed, which represents a sample by 17.7% of the total of the users in a working day.

An amount of 112,304 passengers (22.3% of total per day) were accounted for. The maximum intensity depends on the line, achieving the maximum in line 223 with 96 passengers on board, followed by lines 521 and 725 with 91 passengers on board each. In the investigated lines the bus passenger on board is 4% on average, but varies according to lines. The average covered length is 13.3 kilometres per trip.

5.8.b Data collection works of the working day demand of suburban railway network of the Madrid Region.

The study aims to get a precise knowledge of occupancy level in the different suburban railway lines to reach corresponding supply adequacy indicators to the passengers demand. The data collection was carried out on a working day from 6.30 to 21.30 hours.

5.8.c Origin-Destination survey to users of Metro de Madrid at multiple stations

This study is framed within the CRTM competencies concern to monitoring of the modes demand operating in the region, where Metro de Madrid is particularly relevant. The priority aims of the study focus on obtaining the entry tickets distribution coefficients per turnstile among travelers of the different lines that share stations, as well as the origin-destination matrix of this network.

5.8.d Study of characterisation of the Young Travel Pass users between Madrid y Castilla-La Mancha

Since the introduction of the new Young Travel Pass in October 2015, with a flat rate of 20 euro extending its age limit to 26 years old and to be used through all zones, included the exterior areas of the Castilla-La Mancha region, uncertain queries emerge associated to distribution of the cost funding of this measure between both regions, being the aim of this study to clarify the most significant ones. To this end, from this study an estimate of users who buy the young pass in November should be obtained, its distribution according to the region of residence, as well as a mobility schedule of the week, including the number of trips from Monday to Sunday in different transport modes.

5.8.e Study of characterisation of the private vehicle users

The purpose of this study was to characterize with an adequate degree of depth to the recurrent and regular users of private vehicles to stablish policies aimed to attract them to the public transport, which is a priority objective of the Regional Transport Consortium of Madrid. The study was divided in two phases:

- An identification of the user profile types that will concentrate at least 80% of car trips.
- A quantitative research to a total sample of 1,200 individuals that are users of private vehicle in order to collect data on habits, motivations and justified behavior of their modal choice, their perception and aware of the public transport. This stage was completed with the qualitative research to a group of regular private vehicle users representative of different age profiles and mobility habits.

5.8.f Study for implementation and monitoring of a pilot test to Introduce the 10 trip-ticket into contactless card technology.

By the introduction of the personal tickets into the contactless card the migration of magnetic coupons technology that supported the transport fare system of the Madrid Region was completed.

Previously to ticketing incorporation, which the CRTM scheduled for the year 2017, it was considered necessary to make a pilot test among effective users of this type of tickets.

For these purposes, two studies were come through consisting of development and monitoring of the two pilot tests with the following functions:

- Introduction of the ten-trip ticket called metrobús in contactless cards on both personal and non-personal cards.
- Introduction of 10 trips ticket bonobus of the suburban bus services in the non-personal contactless cards.

In the first test were included Metro de Madrid users (zone A) and Madrid EMT, and in the second test regular suburban services users from ten different transport operators.

The two studies provided significant information on use experience according the potential operational incidents, being very useful in the field of communications to the transport operators, users and more extensively to all actors involved.

5.8.g Study for realignment of the Madrid EMT bus network

In 2016 was dealt a study of the realignment of the Madrid EMT bus lines in Madrid City that due its wide nature, it was divided into three working areas: North, South and Centre. The main objectives were as follows:

- Analyze the public transport situation, its development over time and extend it to a city perspective focus.
- Analyze the future urban development, considering the transport demand associated to each neighbourhood or district.
- Make a diagnosis and stablish alternative road transport networks to meet the mobility needs.
- Analyze the suitability of the different alternatives from the point of view not only of the mobility resolution expected, but also according to the impact on the territorial articulation of districts and its integration in the transport networks of the city.
- Assess different alternatives and select proposals capable of application.

5.8.h Control of occupancy of travelers in peak hour on working day in the Madrid EMT network

The main purpose was an intensity assessment of EMT urban bus passengers in the different day lines. The completed measurement and associated parameters are the basis to make the necessary adjustments in this network according to pre-established quality criteria.

5.8.i Survey to users of Public Transport Card

In October 2016, a survey was performed among 2,650 users of the public transport card to assess its image besides to learn more on the impact of the new young travel pass introduced the previous year. The level of satisfaction with the card and its features is high, which is highlighted in averaged rating by 8.8 and 76.5% of users would recommend its use.



80 Annual Report 2016 - STRATEGIC LINES Annual Report 2016 - STRATEGIC LINES 81

5.9 EUROPEAN PROJECTS

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







OPTICITIES (2013-2016)

SIMON (2014-2017)

IN LIFE (2015-2018)

the validation of strategies and tools multimodal trips for older and mobility solutions for persons with cognitive based on ITS for multimodal integrated impaired people in general, laying disabilities. The aim is to permit management of the transport network. the foundations of an accessible trip them to carry out their daily tasks,

planner

It is focused on the development and The project gives specific solutions on The project provides technologic like public transport mobility.

www.opticities.com

www.simon-project.eu

www.inlife-project.eu







City4Age (2015-2018)

EBSF-2 (2015-2018)

OASIS (2016-2018)

on ICT tools adapted for an easy use Future-2 Project moves forward and re-use of data in the area of in the city for elder people and for solutions for the buses of the future, public services, either offered by people with motor, cognitive or other highlighting innovations to reduce local entities or the public transport disabilities that complicate their social fuel consumption and improve energy sector, favouring the creation of relations.

efficiency, and lead to make the bus applications that improve the systems comfort more attractive for information to the user. users.

The project provides services based The European Bus System of the The project focuses on opening

www.city4ageproject.eu

www.ebsf2.eu

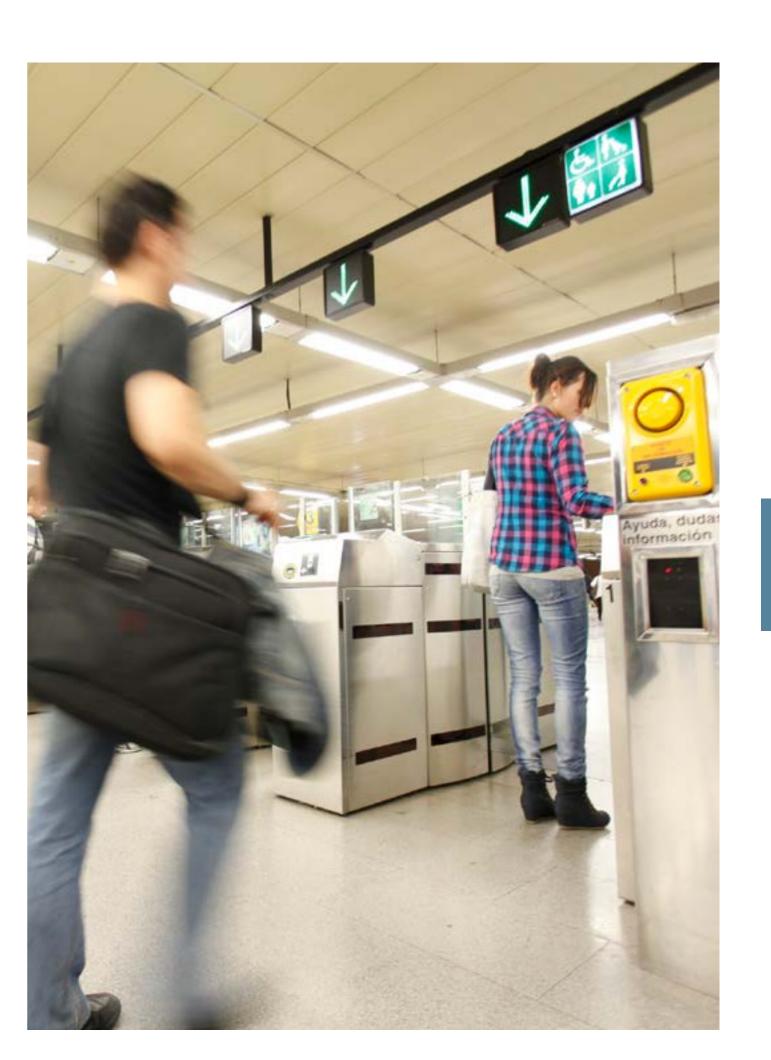
https://oasis.team/



CIVITAS ECCENTRIC (2016-2019)

This project focuses on facing challenges of mobility in peri-central districts of the cities and their urban logistics in terms of clean, silent and CO2-free of cities Madrid, Stockholm, Munich, Turku and Ruse, by building capacities and test of replicability in solutions, technologies and urban policies to achieve the objectives of sustainable urban mobility.

www.opticities.com



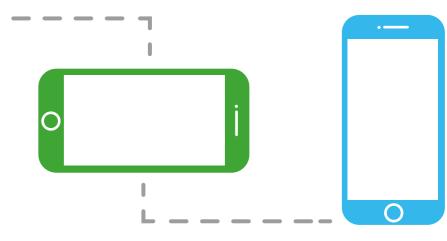
PZA DE CIBELES More than 4.8 million queries to app "Mi transporte"

6. 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, apps for real time and tickets balance inquiry of TTP card, the creation of Open Data portal or the project "Pide Tu bus".

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 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, Ventex20 web, agreements with NGO, exhibitions, etc.) help to improve significantly the perception of the Madrid Transport System by the user's trip experience.



6.1 USER INFORMATION

6.1.a The web www.crtm.es

The CRTM Website (www.crtm.es) is the major source of information about the public transport system of the Madrid Region thanks to the continual work of actualization of its contents (modifications of the service, transport network design novelties, maps and publications, etc.). A sample of this is the amount of visits that the web site received, more than 5.2 million over 2016.

Two new tools have been introduced on the web this year: on the one hand, an interactive map to consult real time information of the lines and shelters of the public transport system, which makes users to optimize their routes; on the other hand, an integrated map "bici + transporte público", on which it can see the REB stations, the location of the parking areas of Madrid public bicycle sharing system and the bike rack points linked to the public transport system in the Madrid Region.

Furthermore the available information of Green Routes has also been improved, the program directed to promote routes on foot or bike in natural areas and parks within our region and from the public transport stations that includes a technical sheet and its corresponding map.

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. Thus, during 2016, the institutional web site has published 206 press (121 in label "Press office" and 85 in "Current news") releases with their photographic support.

6.1.b The app "Mi transporte"

"Mi transporte" app is the CRTM new application for mobile devices that permits obtain in real time information on the whole public transport system of the Madrid Region. 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. Over the year 2016 it had been downloaded more than 148,000 times and had more than 4.8 million of visits.

This new app 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 railways 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 (during 2016 the number information queries raised to 3.4 million), 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), Public Transport Card recharge points, tourist point, park-and-ride parking facilities at public transport stations and cyclist green routes among others.

The app provides users real time information of the more than 700 lines of all transport modes, and also exact location and schedule of the more than 5,000 vehicles that daily provide services in the public transport system of the Madrid Region (EMT, Metro, Light rail, Cercanías suburban railways, and suburban buses, 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.

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 Regional Ministry of Economy. 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 the entire public transport system group.



6.1.c Ticket balance inquiry app

The CRTM launched the first version of the application for smartphone named "Public Transport Card" that permits to know the loaded tickets on the TTP card. Also, thanks to an interactive map, the user can locate the TTP card Management Offices and the closest ticket loading points. It is worthwhile noting that balance inquiry allows two modalities: an estimated one, by introducing the TTP card number the app connects with a CRTM web service and returns consolidated information up to the moment; and a real reading modality in such a way the mobile phone is effectually into a TTP card reader by using the NFC protocol and LAT-SECU architecture of the CRTM, which is the element that permits to access, read and interpret the contactless card content.

This app is very useful for the users, and this is supported by 80.000 downloads during 2016.





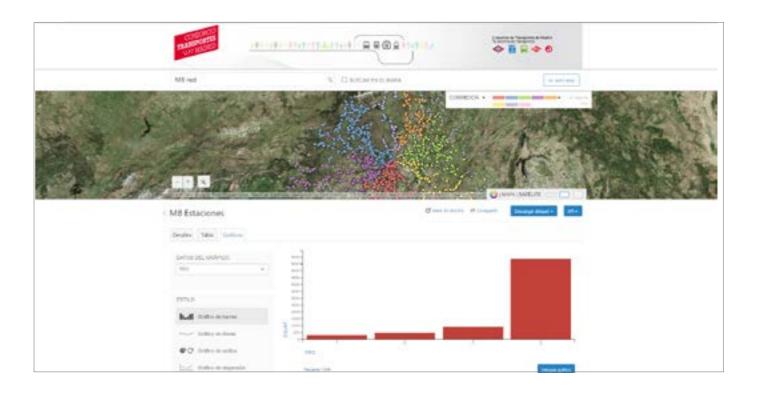
6.1.d Open Data portal

With the purpose of disseminate the information on the public transport system of the Madrid Region; the Regional Transport Consortium of Madrid is addressing an innovative and highly complex project consisting of the integration and homogenization of transport data of all the operating companies that form part of this public transport system.

With this clear target, an open data strategy was established within which licenses for the use of data have been developed and where reuse data sets regulated by these licenses established.

It is a pioneering initiative within the Madrid Region, which today can see its success reflected in the Open Data Platform of the CRTM (http://datos.crtm.es), and in the reuse of information by companies, non-profit organizations, universities and in general all citizens. The data generated by CRTM are being used as raw material, providing value-added services and innovative products to citizens. Since its launch in 2016, the portal has received 15.5 million requests.

On the other hand, the CRTM has achieved the integration and homogenization of information of all modes of public transport operating in the Madrid Region. The heterogeneity of data sets has led to create a data model enable to characterize the reality of the transport system, the "Madrid standard", representing a clear and simplified manner mobility in all modes of transport that are present in the region.



6.1.e "Pide Tu Bus"

"Pide Tu Bus" is the first on-demand bus service app for smart phones of the Madrid Region. Initially installed in a bus shelter in the Municipality of Valdemorillo all over 2016, its second operating year, a number of 6,900 requests have been registered, thus evidences its good enjoyed acceptance by the users.

By "Pide Tu Bus" the users can inform that are waiting at the bus stop to be picked up. They may send an SMS or scan the QR code to notify bus drivers to stop in that point and simultaneously users can get information on waiting time left.

In this way, this stop with 20 daily services of the suburban bus line 641 (Valdemorillo-Moncloa) counts another 25 expeditions of the line 642 (Colmenar de Arroyo-Madrid), which means a significant increase of transport supply to the users of this area.

6.1.f Passenger Information Points (PIV)

The real-time information panels are one of the main technology gambles of the CRTM.

The so-called Passenger Information Point (PIV) is a panel that has been placed on bus shelters and provides real-time bus arrival information, as well as possible incidents or other crucial information for the passengers.

Over this year, 29 bus shelters located in different municipalities of the Madrid Region have been equipped with these panels, including the municipalities of Moralzarzal and San Lorenzo de El Escorial bus stations, managing a total of 378 real-time information points (corresponding to 466 screens) installed at the end of 2016. In the case of the EMT network, the figure of installed panels over the last year is 12, managing a total of 461 devices, of which 155 are connected to WiFi.





6.1.g Transport 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 2016 the following informative publications have been edited:

Serie 3. Map of Madrid Transports

The current paper edition remains from 2015 accompanied by a special non folded PVC edition destined to be installed on the EMT shelters in the municipality of Madrid. During 2016 this edition keeps updated as PDF file for the CRTM website.

Serie 4. Map of the Madrid Region Transports

The current paper edition dated 2015 remains and it is accompanied by a special non folded PVC edition destined to be installed in suburban bus network shelters of the Madrid Region. Throughout 2016 this edition is kept updated in a PDF file for the CRTM web.

Serie 5. Maps of the Madrid Districts transports

Updates to web maps carried out in districts of Latina and Carabanchel

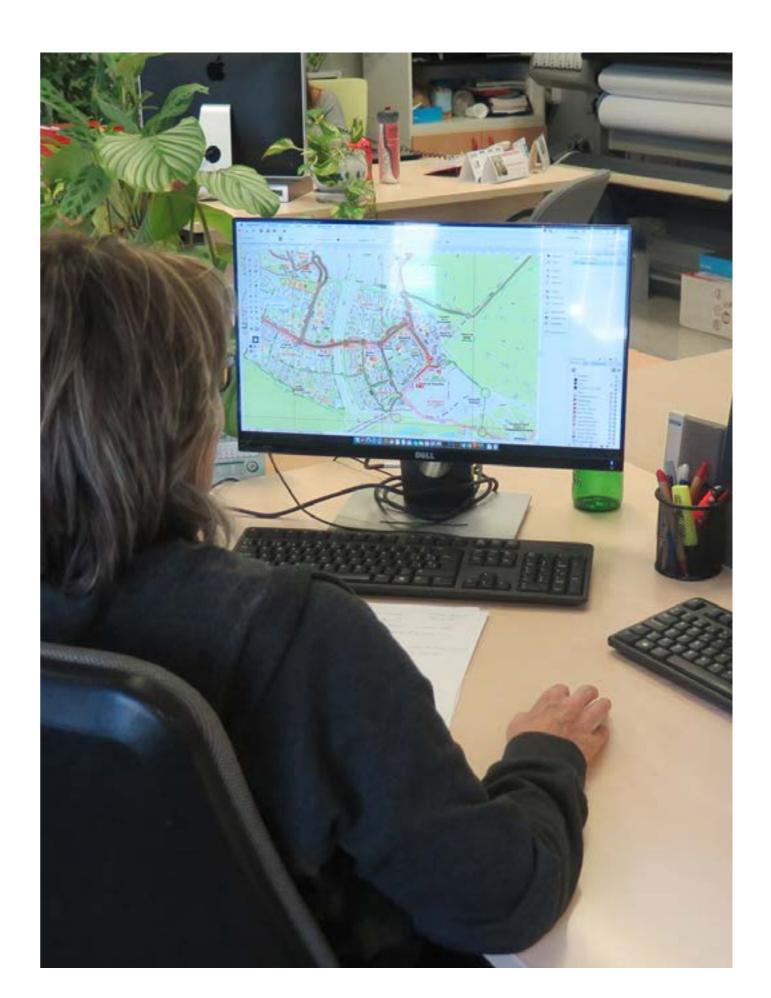
Serie 6. Maps of the Madrid Region municipalities transports

During 2016 the updating process of many maps of the Serie 6 are maintained to be included as a PDF file on the CRTM website. This update of maps respond to the programming established by the CRTM and also in response to changes and improvements in the networks of Municipal transport. Among these maps: Alcalá de Henares, Alpedrete, Boadilla del Monte, Brunete, Cercedilla, Collado Villalba, Colmenar Viejo, Daganzo, Guadarrama, Majadahonda, Manzanares El Real, Meco, Móstoles, Paracuellos, Parla, Pinto, Pozuelo and Villarejo de Salvanés.

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 2016 on public transport.
- Annual report of the Regional Transport Consortium of Madrid 2015.
- Map of the circuit and accessibility options for the Carrera de la Mujer (web sersion).
- Map of the circuit and accessibility options for the Carrera de Papá Noel (web sersion).
- Informative materials about the Metro interruptions during 2016.
- Elaboration of the Contingency Plan for Transport Interchange Stations.
- Brochure of the new night lines in Municipality of Getafe.
- Brochure of the new 191 and 193 suburban bus lines.



6.2 CUSTOMER SERVICE

The main Madrid Region public transport personalised service channels are:

- Public Transport Card Management Offices
- On line on website www.tarjetatransportepublico.es
- Phone Assistance

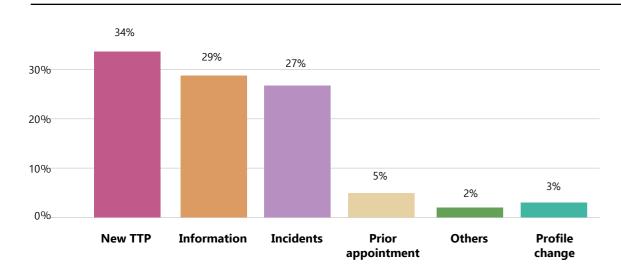
Through these channels 1.703.661 users were attended and made among others operations: obtaining TTP and previous appointment, after-sales services, information and complaints.

6.2.a The TTP card Management Offices

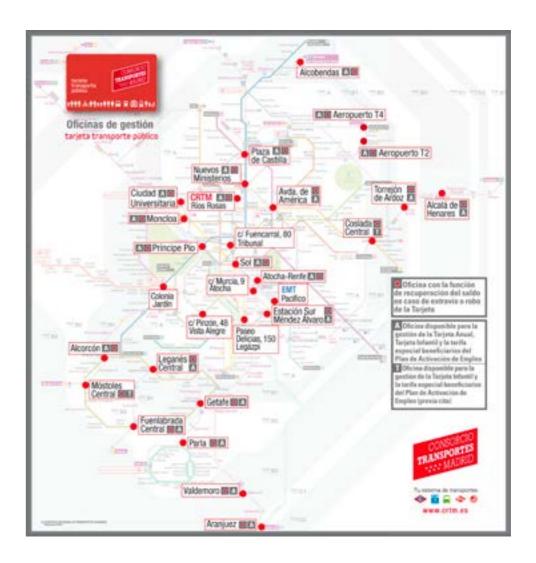
This in-person service channel is formed by 30 Management Offices strategically located in the Madrid Region. Over the year 2016, these management offices performed 1,052,012 operations related to the different services. The opening of three new offices in the Madrid Airport is worth highlighting. Additionally in the last trimester of the year has incorporated the office of the Municipality of Alcobendas contributing to extend the cover in the North area of the Madrid Region and providing the management of the TTP card for an important sector of the population.

Among the operations related to TTP card, 34% of them correspond to the incorporation of new users (new TTP cards), followed by 66% of operations related to after-sales services.

TYPE OF OPERATIONS PERFORMED BY MANAGEMENT OFFICES (2016)



The management offices that have made the higher number of interventions during 2016 were Sol which accounts for 208,786, followed by Airport with 151,441, Moncloa with 116,382, Atocha Renfe with 101,302 and the CTRM central office with 89,987.



6.2.b The web www.tarjetatransportepublico.es

Through this website were attended 430,834 users, 71% of them requesting prior appointment and 19% used this channel to apply for a TTP card. The remaining 10% corresponds to information services and resolution of incidents through email tarjetatransportepublico@crtm.es.

6.2.c Phone Assistance

During the year 2016, a total of 220,815 calls related to the Public Transport System of the Madrid Region have been received via the 012; the average waiting time is 28 seconds and average service time is 3.7 minutes. This service works in coordination with the CRTM to answer the necessities of information of the users of the Madrid Region transport.

Through this channel is available information for the users, claims are received and registered, and can be obtained a prior appointment for the Management Offices. This last service received 140,887 calls that if added to those of telematics channel, a total of 450,046 prior appointments were requested, with an average processing time of 1.5 days.

6.3 COMPLAINTS

Over the year 2016, the transport system of the Madrid Region received a total of 54,415 complaints, which is 4.3% lower than the previous year (56,865), meaning an average of 38.1 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 card (13%), sale points functioning (10%), lifts functioning (6%)
- EMT: Service frequency (15%), attention received (12%), safety and accidents (10%).
- Road transport concessions: Schedule non-compliance (25%), attention received (10%), service frequency (9%).
- Light rail: Fraud control (23%), schedule non-compliance and service frequency (9%).
- Renfe-Cercanías: Service incidents (28%), stations and equipment (23%), transport tickets (16%).
- CRTM: TTP card financial compensation (25%), service frequency (11%).



6.4 CORPORATE SOCIAL RESPONSIBILITY

In the past few years the CRTM has been continuously concern with its contribution to the sustainable development, economic, environmental and social, making the Corporate Social Responsibility (CSR) into a strategic issue as a response to the demand of the society, which requires ethical behaviour based on transparency.

The CRTM is an institution with social responsible nature concerned to mitigate the negative impacts in the social field, and it is enhanced by a permanent relationship with the stakeholders, municipalities, transport operators, companies and employees.

In this context, the CRTM has implemented different measures and agreements lead to achieve that mobility of the public transport users become an increasing satisfactory experience. It has to be noted the collaboration with the main agents on accessible mobility, particularly with the Associative Movement for Disability. In this framework of good relations, on the occasion of the CRTM 30th anniversary it was dedicated the ONCE lottery coupon of December 1st, and five million and a half coupons were disseminated throughout Spain.

The CRTM continues working on the renewal of the urban and suburban bus fleet, undertaking constant improvements on accessibility and promoting alternatives of mobility by the boost of the intermodality, bicycles and public transport, along with agreements with car sharing companies. The consolidation of the Young Pass € 20 of the Madrid Region is already a fact and more than 1,000,000 of young people are beneficiaries of this measure.

In addition, the institutional relationship with the Social Client deserves particular mention: many NGOs are linked to CRTM as strategic allies for its social and cultural activities, it being understood that the System it is a great opportunity like a communication channel to broadcast its corporative values, such as the organizations Children's Villages, Spanish Heart Foundation, Down Syndrome Foundation, Spanish Red Cross, Real Madrid Foundation, Excelentia Foundation, Aladina Foundation, the Women's run, etc.

Finally, it is worthy highlight the CRTM social commitment during specially crowded events by planning, drawing up and realignment the transport system for a better mobility of the Madrid people.

In summary, the CRTM is aware that citizens are requesting for socially committed institutions, transparent and sustainable and that is the aim of our management.

6.5 FRIENDS CLUB

Over the last few years, the evolution of the Public Transport Friends Club is consolidated as a communication platform between the Regional Transport Consortium and the Madrid society becoming an effective communication channel that provides discounts and extra advantages on cultural and leisure activities and sports events.

The perception of the Friends Club among the different companies, public institutions and users of the public transport is increasingly positive, all they participating of a common objective, which is the promotion of the Madrid public transport like added value of the transport system enable to improve the user experience.

During 2016, varied proposals and events for the users of the public transport were available, among them it can be highlighted: different Disney films premiers, the Film Symphony Orchestra and the Excelentia Foundation concerts both held at the Auditorio Nacional de Música or La Noche de Cadena 100 and the charity concert "Por ellas" at the Winzink Center of Madrid. In addition, they were also relevant the premiere of Mayumaná 2016, the DCODE and Las Noches del Botánico festivals, and the tribute concert to Plácido Domingo, "Plácido en el Alma" held at the Santiago Bernabéu stadium.

In terms of sports events, the "Corazón Classic Match", the Women's run and Papá Noel run have turn into classics in the Friends Club right for their popularity and social commitment.

It is worthy of mention the existing agreements between the Friends Club and Warner Park Madrid in the past years, which either applies 50% entry tickets discount to TTP card users and provides tickets to be raffled throughout the season among the partners of the Friends Club.

All these promotions are published online at the website www.clubdeamigos.crtm.es that more than 90,000 users have visited during 2016.

6.6 THE "VENTEX20" CAMPAIGN

On its first anniversary, implementation and consolidation of the Young Pass have enhanced this communication channel with the young users of Madrid, a positive measure with a high degree of social impact among families.

Both the many promotions offered to the Madrid young users through the monthly newsletter, and the annual average of 150 promotional events bolster the public transport young users acceptance.

The promotions deal with plays, movies, musicals, sport events and visits to museums, such as Las Noches de El Club de la Comedia, Cibelespacio, Mulafest, Tribute concert to Mecano, etc. On the first anniversary of the Young Pass it was also significant the special promotional event consisting of 2,000 cinema tickets to be raffled among the users to be validated at different movies and times of the year.

All these promotional campaigns are available on the website www.ventex20.com and social networks of Metro de Madrid, with more than 85,000 registered users and over 280 promotions carried out over the year. The web site has received 220,000 visits in the same period.

6.7 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. Accordingly, in 2016, year of 30th anniversary of the CRTM an interesting exhibition has been organized:

Exhibition: "30 years working for you. History of the Regional Transport Consortium of Madrid 1986-2016"

In 2016 the Regional Transport Consortium of Madrid turned 30 and, to commemorate its anniversary a compilation of graphic materials was carried out and point out the chronological major milestones. The exhibition was a created story prevalently provisioned with photos from the own archive of the CRTM, as they are samples of the history of public transport in the Madrid Region. This exhibition was held in the main transport interchange stations of Madrid for several months and its contents can be retrieved in PDF format on the CRTM web.



7. 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.











O Annual Report 2016 - INSTITUTIONAL AFFAIRES Annual Report 2016 - INSTITUTIONAL AFFAIRES 101

7.1 INTERNATIONAL PRESENCE

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

UITP (International Association of Public Transport)

UITP is an association that promotes the exchange of knowledge and experiences among the different public transport agents at European and global level, being the leading association in the sector.

The CRTM takes part in in different committees and boards of this association like the Transport Authorities Committee, in addition is a member of the UITP Executive Board. This active presence has allowed CRTM to give the organization a greater weight at European and global level.

EMTA (European Metropolitan Transport Authorities)

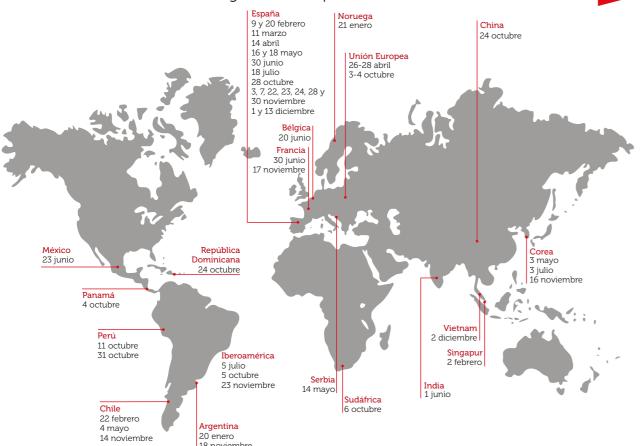
The CRTM holds the post of Treasurer of EMTA, and since its creation in 1998, takes part actively in meetings, forums and working groups that this association sponsors, in addition of being the member responsible for the elaboration of the Barometer of Public Transport in the European Metropolitan Areas.

In 2016 two meetings of the General Assembly were held; the first took place in May in Budapest (Hungary), and the second one in October in Warsaw (Poland).

El Sistema de Transporte Público de la Comunidad de Madrid: un referente mundial Visitas de delegaciones de países en **2016**



El CRTM es miembro de los organismos internacionales UITP v 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 2016, the regional organization has participated in the XIII MMO Technical Seminar, "Smart mobility, strong economy", held in Saragossa the 21st of June.

International advice and visits

The CRTM experience and the integrated transport system model of the Madrid Region attract a large number 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 2016, the CRTM, the CITRAM and the interchange stations received 48 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: Argentina, Belgium, South Korea, Chile, China, Spain, France, India, Mexico, Norway, Panama, Peru, Dominican Republic, Serbia, Singapore, South Africa, Vietnam, European Union and Latin America.



7.2 IV PUBLIC TRANSPORT PROMOTION AND SUSTAINABLE MOBILITY AWARDS

Like in previous editions of this competition, the Regional Transport Consortium of Madrid wanted to award those initiatives that have been launched over the year 2016, and which contributed in a positive way to the collective transport and the sustainable mobility, and to the development of an efficient, integrated and accessible system. In addition, this edition commemorated the 30th anniversary of the CRTM with an historical review between the yesterday and today of the transport system and its evolution in the Madrid Region along these 30 years, with the leitmotiv "Your future, our challenge. Innovation, Collaboration, Transparency.

During the event hold in 2016, a total of 21 companies of the public transport sector, institutions and particular persons had been awarded within the IV Public Transport Promotion and Sustainable Mobility Awards, in the ceremony led by the Transport, Infrastructure and Housing Regional Minister, Pedro Rollán.

The awards are divided into five categories: private companies, public institutions or non-profit associations, municipalities, and persons and events that spread the sustainable mobility value, including employees of the public transport sector.

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 AISA Company, whose project "The bus visits the school" aimed to the promotion of the use of public transport among the students of educational centres in the municipalities where the company operates.

In the category of public and non-profit institutions, the Madrid Chamber of Commerce, Industry and Services was awarded for undertaking a transport plan where included the Annual Travel Pass acquisition to all its employees.

The Municipality of Alcobendas was awarded in the category of municipalities for an interactive map design that combines the municipality interesting sociocultural sites with the local public transport network.

In the category of persons or events, we awarded the project named "DesAUTOxícate", undertaken by the Asociación de Ciencias Ambientales (ACA) aimed to promote actions related to the sustainable mobility, including mobility options like car sharing or electric bike.

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, Renfe-Cercanías, interchanges, suburban buses and light rails) whose exemplar behaviour has helped to turn the Madrid Region transport into a quality reference.

7.3. RECOGNITIONS TO THE REGIONAL TRANSPORT CONSORTIUM OF MADRID

In the framework of the European Mobility Week 2016 the Regional Transport Consortium of Madrid was awarded the prize "Muévete Verde" granted by the Madrid City Council in the category of Campaign for Communication and Environmental Awareness, in recognition of its Green Routes programme that foster sustainable transport modes and intermodality in trips linked to leisure.



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Plaza del Descubridor Diego de Ordás, 3 28003 Madrid

prensa.crtm@crtm.es www.crtm.es

