



1. Our Company

1.1 Corporate Identification Information

Company Name

Empresa de Transporte de Pasajeros Metro S.A.

Business Name

Metro S.A.

Company Type

Sociedad Anónima

Address

Avda. Libertador Bernardo O'Higgins N° 1414, Santiago

Tax ID No.

61.219.000-3

National Securities Registry

N° 0421, de 22 de septiembre de 1992

Independent Auditors

KPMG Auditores Consultores LTDA.

Incorporation Documentation

Act No. 18,772, published in the Official Gazette on January 28th, 1989, establishes the regulations to turn Dirección General de Metro, under the purview of Ministry of Public Works, into a public limited company. Act No. 18,772 was amended by Article 55 of Act No. 18,899, published in the Official Gazette on December 30th, 1989, and by Article 3º, letter a), of Act No. 19,046, published in the Official Gazette on February 20th, 1991.

Incorporation Papers: public deed dated January 24th, 1990 executed before Raúl Undurraga Laso, Notary Public.

An excerpt thereof was published in the Official Gazette on January 25th, 1990, and amendments were published in the Official Gazette on January 26th, 1990.

Registration: The Company was registered on January 25th, 1990 on page 2,681, under No. 1,427 of the Trade Registry at the Santiago Office of Property Registration.



Corporate Headquarters

Corporate Headquarters: Avda. Libertador Bernardo O'Higgins N° 1414

City: Santiago de Chile

Municipal District: Santiago

Phone Number: 2 2937 3000 - 2 2937 2000

Website: www.metro.cl

E-mail: equipocomunicaciones@metro.cl

Repair and Maintenance Shops

Neptuno: Avda. Dorsal N° 6252

Municipal District: Lo Prado

Phone: 2 2937 2490

Lo Ovalle: Callejón Lo Ovalle N° 192

Municipal District: San Miguel

Phone: 2 2937 2975

San Eugenio: San Eugenio N° 997

Municipal District: Ñuñoa

Phone: 2 2937 2979

Puente Alto: La Balanza N° 1018

Municipal District: Puente Alto

Phone: 2 2937 7357

1.2 Our History

In 2016, Metro commemorated 41 years of operations. The underground train has grown and expanded alongside Santiago and its inhabitants, thereby becoming part of its history. On average, in 2016 Metro made more than 2.3 million rides on workdays, amounting to 2.4 in months of peak demand.



1968

On October 24th, Eduardo Frei Montalva, President of the Republic, signed the decree that gave birth to Metro de Santiago, a vital means of transportation in the history of Chile. The Administration commissioned the Planning Department of the Office of Public Works with the project.

On May 29th, works began on the San Pablo-La Moneda section of Line 1 and the Neptuno Workshop, marking the beginning of a subway network that originally consisted of five lines for a total length of approximately 80 kilometers.

1969



1975

May 15th marked the beginning of the commissioning period, with the first train rolling down the tracks between San Pablo and Central Station. In September, Metro de Santiago officially opened its doors and began operations on lines running between the San Pablo and La Moneda stations.



The month of March marked the delivery of the first network expansion project: the continuation of Line 1 up to the Salvador Station.

1977



Expansion works on Line 1 were completed up to the Escuela Militar station, resulting in a total network of 25 kilometers.

1980



1978

Line 2 from the Los Heroes to Franklin Stations was opened, resulting in an additional six stations on December 21st that same year up to Lo Ovalle Station.





1987

On September 15th, two new stations were added: Santa Ana and Mapocho. The name of the latter was subsequently changed due to the remarkable discovery of the remains of the Cal y Canto Bridge during ensuing excavations. August marked the beginning of the Metrobus system, with 11 bus lines departing from the Escuela Militar, Lo Ovalle and Las Rejas stations.

In January, Act 18,772 was enacted, whereby Dirección General de Metro, so far under the purview of the Ministry of Public Works, became a public limited company, whose shareholders were Corporación de Fomento de la Producción (Corfo) (Chilean economic development agency) and the State, represented by the Ministry of Finance.

1989



1990

Starting in 1990, Metro de Santiago implemented a cultural affairs policy, which would make the company a unique benchmark in art promotion and endorsement in our country.



The first MetroArte project was formalized by public art exhibitions at Metro stations. The first show entitled "Interior Urbano" by Hernán Miranda, was placed on display at the Universidad de Chile station.

1993



1996

By way of an agreement between the Council on Libraries, Archives and Museums (Dibam) and Metro de Santiago, the BiblioMetro initiative took off, a book lending system comprising of several booths located at different stations with a view to promoting reading among Metro users.

The first section of Line 5 was opened in April, running from Vicuña Mackenna Av. Stop No. 14 (Bellavista de La Florida station) up to Plaza Italia (Baquedano station), for a total length of 10.3 kilometers.

1997





1998

In February, the company began expansion works on Line 5 up to the Santa Ana station. The method used in this project was the NATM (New Austrian Tunneling Method), consisting of inter-station and station tunneling, that is, no surface excavations were conducted, thereby minimizing disturbance in the community and making works more efficient.

In keeping with its commitment to make the most diverse artistic expressions available to all Chileans, Metro de Santiago created the MetroArte Cultural Trust (Corporación Cultural MetroArte).

1999



2000

Three new stations running through Santiago's historic district were opened on March 21st on Line 5: the Bellas Artes, Plaza de Armas and Santa Ana stations, connecting Line 5 with Line 2. At the time, Metro's ridership amounted to one million passengers per day along its 40.4 kilometers and 52 stations.



As announced one year earlier, construction began on Line 4 to Puente Alto, connecting 11 municipal districts and serving more than one million inhabitants.

2002



2004

On March 31st, the westbound expansion of Line 5 was opened, thereby adding two new stations, Cumming and Quinta Normal. The underground crossing of the Mapocho River completed on September 8th became a new landmark, in order to commission two new stations named Patronato and Cerro Blanco on the northbound track of Line 2.

On December 22nd, the El Parrón and La Cisterna stations on Line 2's southbound track began operations. This expansion process also involved intermodal or hub stations that improved the connectivity between the underground train and other means of transportation, mainly buses. Nowadays, these facilities are also available at the Vespucio Norte, Pajaritos, La Cisterna, Lo Ovalle and Bellavista de La Florida stations.

On November 25th, the Cementerios and Einstein stations were commissioned on Line 2's northbound track. Meanwhile, on November 30th, the first section of Line 4 was opened. It comprised an underground stretch between the Tobalaba and Grecia stations and an elevated railway between Vicente Valdés and Plaza de Puente Alto.

2005





2006

The last section of Line 4 was opened in March, finally connecting the Puente Alto and Tobalaba stations. Up until then, that was the longest stretch of the entire subway system running 24.7 kilometers with 22 stations, connecting the districts of Providencia, Ñuñoa, La Reina, Peñalolén, Macul, La Florida and Puente Alto.

The Line 4A opening was conceived as a supplement to Line 4, which allowed Metro to connect lines 2 and 4 as of that year. Finally, the section between the Dorsal and Vespucio Norte stations was added in order to complete the Line 2 expansion to date.

The capital's new transit system, Transantiago, was inaugurated in 2007, with Metro in a leading role. Expansion works on Line 1 eastbound and Line 5 westbound began simultaneously, as well as construction of the new San José de La Estrella Station on Line 4.

2007



2008

During the year of Metro's 40th anniversary, the Vespucio Norte intermodal station was inaugurated, and the first bicycle storage racks (BiciMetros) and SubCentro underground shopping district were opened at the Escuela Militar Station. In terms of operations, the Metro Expreso service hours were extended along Line 4 and the system was also implemented on Line 5. Green and Red routes were launched in 2007. That same year, the Chilean Transportation Engineering Society presented Metro with an award for the best Transportation System Intervention, in recognition of this measure.



In November, in the midst of a major consolidation phase, the company inaugurated the San José de La Estrella Station (in La Florida district) on Line 4.

2009



2010

Three new stations: Manquehue, Hernando de Magallanes and the Los Dominicos terminal were added to the eastern end of the line. The first section of Line 5 expansion up to Pudahuel entered into operation, adding five new stations: Gruta de Lourdes, Blanqueado, Lo Prado, San Pablo and Pudahuel.

2011



Line 5 expansion was opened in February with seven new stations: Barrancas, Laguna Sur, Las Parcelas, Monte Tabor, Del Sol, Santiago Bueras and Plaza de Maipú, for a total of 8.6 kilometers. Total Line 5 demand (Quinta Normal - Plaza de Maipú) amounted to 80 million rides annually, some 300,000 daily. In July, the company announced the layout of two new lines: Lines 3 and 6. Scheduled for completion in 2017 and 2018, respectively, this expansion represents the integration of five new districts, improved travel performance and better quality of life for citizens. Early engineering works and technical processes began for the development of the new lines.



The tunneling and drives excavation phase began on the Lines 3 and 6 Project. The contract for trains and a modern driving control system was awarded.

Metro is responsible for managing the prepaid card (bip!) for the entire transit system citywide. In December 2012, the company signed a contract with the Ministry of Transportation and Telecommunications appointing Metro as the sole operator of the bip! card until 2019. Transantiago Financial Administrator (AFT) originally performed this task. The formal handover began on July 1st, 2013 and by September of that same year Metro has assumed full control.



2012

Metro began on-site works for Lines 3 and 6 by officially opening preliminary works in various districts of Santiago. Citizens were involved in the process as required by the Environmental Impact Declaration for Shafts and Drives. As a clear sign of service improvement and in keeping with citizen demands, the first trains with air-conditioning started operating on Line 1 during the second semester.

2013



2014

During 2014, construction of Lines 6 and 3 continued its progress: bidding processes were completed for the tunnels, shafts and drives, as well as most of the main system components. Furthermore, in order to fund the construction of new lines and other improvements to the existing network, Metro carried out a bond placement on the international market for US\$500 million, and also signed the largest international banking contract of its history for a total of US\$800 million.

In December 2014, Metro de Santiago unveiled its High-Impact Failure Improvement Management Plan. This plan is framed by the company's new administrative approach and it became a reflection of the suggestions made by an Expert Committee, the workers' perspective and best international practices.



In keeping with its Improvement Plan, Metro worked on decreasing its failure rate, nearly cutting in half the number of high-impact failures while also reducing the time impact on customers, resulting in a quicker turn around time for restoring service. Progress continued on the construction on lines 6 and 3, with complete tunnel connection on line 6. Relations with the community were strengthened and more than 400 community activities were carried out. Regarding cultural aspects, work was completed on Mario Toral's mural "Memoria Visual de una Nación," after the artist added a piece alluding to a case of burn victims entitled "El martirio de Carmen Gloria Quintana y Rodrigo Rojas" (the martyrdom of Carmen Gloria Quintana and Rodrigo Rojas). Moreover, the company added 400 new bip! Card loading kiosks to the Full Carga network and 169 at retailers for a total of over 2,200 card loading centers in 2015.

2015



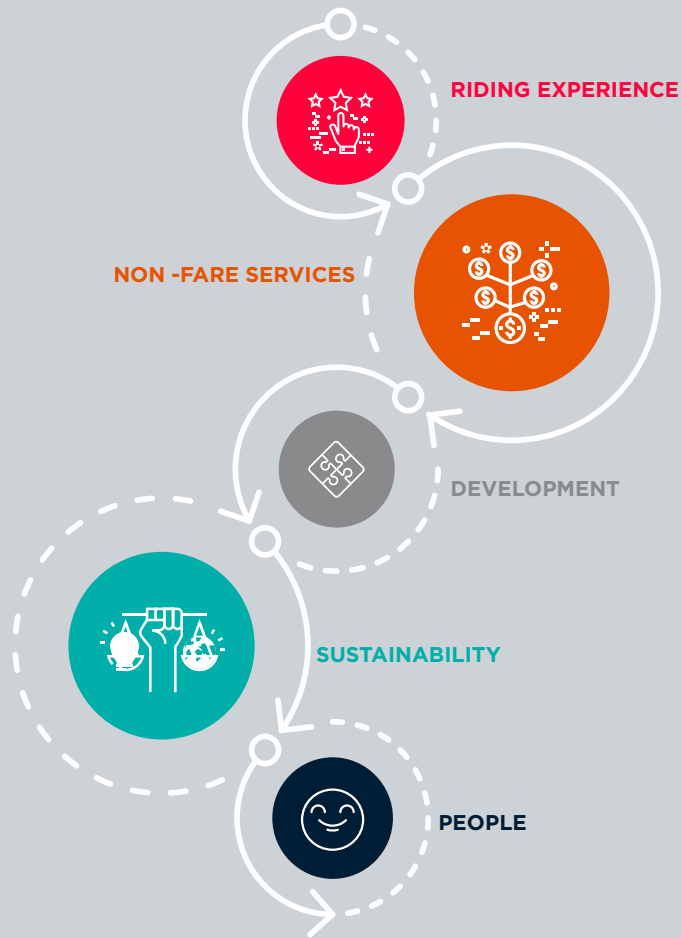
2016

This year marked the start up of the CBTC project on Line 1. CBTC is a communications-based train control system that made it possible for the company to increase its transportation supply by 12% on the network's most widely used line during peak hours. Additionally, 520 new 400 new bip! Card loading kiosks were added to the network thanks to agreements with retailers, resulting in a 24% increase in the street level network. In terms of sustainability, Metro signed two contracts that will enable the company to supply nearly 60% of its electric power needs with non-conventional renewable sources. Regarding cultural affairs, the company launched a musical program involving contests in which 60 of the best applicants were selected as standing musicians authorized to perform at certain stations in specially equipped designated areas.



1.3 Prioridades Estratégicas de Metro

Metro defined the following five strategic areas of action for 2016:



- 1 Better quality of life through a satisfactory **RIDING EXPERIENCE**
- 2 Developing profitable **NON-FARE SERVICES**
- 3 Contributing to the **DEVELOPING** of an integrated mass public transit system
- 4 Guaranteeing financial, social and environmental **SUSTAINABILITY**
- 5 Fostering **PEOPLE's** development in a setting marked by collaboration and happiness



Mission, Vision & Values

Mission y Vision

Our 2020 strategic plan provides structure and guidance for our work, bearing in mind that our present role in the city and the importance of our service to the community in that we are part of the integrated mass public transit system. Moreover, our strategic plan clearly states that all rides matter to Metro workers and every customer alike.

The company's mission and vision are defined as follows:



MISSION

As a leading player in the integrated mass public transit system, sustainability and efficiently guarantee a reliable and safe travel experience that contribute to making the city a better place.



VISION

Our vision is to be a company that all citizens can be proud of.

Our Values

Our values are based on five core principles defined by Metro's own workers. These values help us reinforce the decisions and actions adopted by all company employees; they are complementary in nature and reflect who we are as Metro personnel and what we aspire to become.

These values are summarized as follows:

Customer Orientation: we strive to be one of the best service-based companies in the country.

Safety and security: Your safety comes first.

Operational Excellence: Predictable, safe and efficient transit.

Collaboration: By working together we learn and progress quicker.

Transparency: Transparency is at the core of all our actions .



1.4 Industrial Sector

The company operates in the Greater Santiago passenger mass transit market, which consists of users looking for a quick and safe way to get around the city. At present, more than 60% of all public transportation trips in Santiago involve Metro.

In addition, as of July 2013, Metro took full responsibility for the prepaid bip! card reloading services performed in the system, adding street-level reloading stations to the underground card-loading network.

The company also operates in other areas: renting advertising space, leasing retail premises and commercial space, and a new international consulting business area.

1.5 Activities and Businesses

1.5.1 Corporate Objective

Law No 18,772 from 1989, passed by way of an amendment to Article 55 of Law No. 18,899 and Article 3, Paragraph A, of Law No. 19,046 from 1991, contains the regulations governing changes that transformed Metro into a public limited company. In keeping with said regulations, the Empresa de Transporte de Pasajeros Metro S.A. was established in a public deed dated January 24th, 1990 executed before Santiago Notary Public Raúl Undurraga Laso, the Chilean Treasury and the Corporación de Fomento de la Producción (CORFO).

On November 30th, 2015, Law No. 20,877 was published in the Official Gazette, providing for improvements to the fare-based public passenger transit system, and authorizing Metro S.A. to expand its scope to business to include the provision of street-level transit services by bus or by any other vehicle technology.

Pursuant to the corresponding legal authorities, Article Two of the text constituting the company's bylaws defines the company's corporate objective as follows:

The company's corporate objective as "to carry out all activities pertaining to passenger transit service on metropolitan railways or other supplementary electric means, and the provision of street-level transit services by bus or by any other vehicle technology, in addition to activities connected to such lines of business thereby entitling Metro to set up or take part in companies and perform any action or operation related to its social purpose. However, pursuant

to that which is set forth under Article 2, Law No. 18,772, the company shall not give up nor transfer any ownership rights over its main line of business which are the transportations services it currently renders on the Metro de Santiago tracks or tracks built exclusively by this company.

Regarding street level transportation services, the company may provide public passenger transit services under a concession for use of tracks as provided under Law No. 18,696 or another modality, directly or indirectly through a related company or subsidiary, under the terms established in the paragraph hereinabove."

Metro's scope of action is confined to the Santiago Metropolitan Region, specifically, Greater Santiago, where it carries out the following business:

- **Transportation:** Passenger transit on Lines 1, 2, 4, 4A and 5 of Metro's network.
- **Non-fare Related Business:** LNon-fare business accounted for 20% of the company's total income in 2016.

The growth and operation of non-fare related business lines have provided the community with numerous benefits and services, resulting in greater wellbeing, more business, and services that enhance our customers' riding experience.



- Metro S.A.'s non-fare businesses are as follows:



Retail Space: Retail and store space are leased throughout Metro's network consisting of over 300 stores, primarily mini-markets, bakeries, fast food, services, etc.



Advertising: This business makes use of Metro's infrastructure and trains as advertising venues seen by a wide audience with broad coverage. JCDecaux and SubTV are responsible for managing and marketing static and dynamic advertising, respectively.



Telecomunicaciones: Technology-related business, i.e., antennas providing indoor and outdoor coverage throughout Metro's network, fiber optics in our network piping, and free Wi-Fi hotspots for our users.



Services and ATMs: These make space inside Metro's network profitable by placing vending machines, ATMs, pay phones and mobile phone recharge kiosks at Metro facilities in order to provide our customers with more services.



Land Leases: Provide the company a profit from the residual land owned by Metro.



Intermodal Operations: Manage and make a profit out of intermodal connections within Metro's network.



International Consulting: This line of business was developed as a result of expertise the company has gained over 40 years of service. Metro provides support to public and private entities in charge of operating rail systems and integrating Public Transit systems. Metro provides integrated strategic and technical consulting services for all project development stages ranging from design to start up and operations. Since 2012, Metro de Santiago has consulted on projects that foster integrated and sustainable public transit systems.



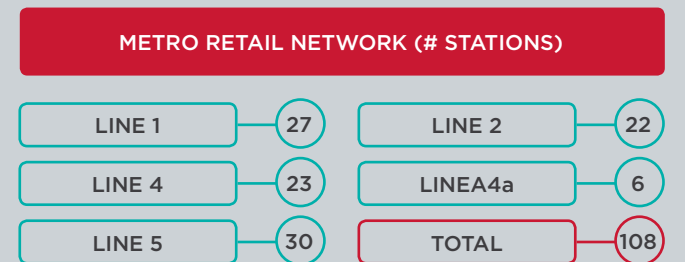
Sales Channel (Method of Payment Division): Meets contractual obligations between the Ministry of Transportation and Telecommunication and Metro, in regards to issuing access cards, post sales service and operations of the reloading network for the card (bip! card) that provides users with access to Santiago's Public Passenger Transit System.

This sales channel is responsible for manufacturing and selling the bip! card in its various formats including the Tarjeta Nacional Escolar (Student Discount Card). They manage the bip! card reloading network, both in the brick and mortar and remote channels. The brick and mortar networks is comprised of tickets counters in the Metro, and the street level card loading network whose card-loading sites are broken down as follows:

As of 2016 year-end, the Street-level Network for the Sale of Transport Quotas and Means of Access consisted of more than 2,800 loading points located at Centros Bip!, Puntos Bip!, supermarket service centers, and self-service machines, as follows:

- 2,179 bip! sites on the Full Carga network.
- 160 bip! sites on the Servipag and ServiEstado networks
- 76 bip! centers on the Servipag, ServiEstado and Full Carga networks.
- 253 retailers with loading sites at supermarkets.
- 192 new self-service kiosks.

Likewise, the Underground Network for the Sale of Transport Quotas and Means of Access is made up of 108 stations, as follows:



1.5.2 Network Operations

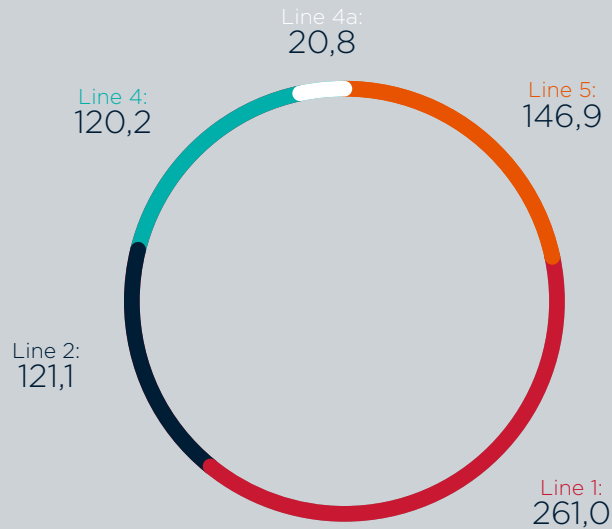
Ridership

In 2016, network ridership totaled 670.1 million rides, representing a 1.3% increase when compared to 2015. Thirty point seven percent (30.7%) of all rides took place during peak hours while 69.3% took place during non-peak hours. The underground train continues to be a leading player in the capital city's mass transit system.

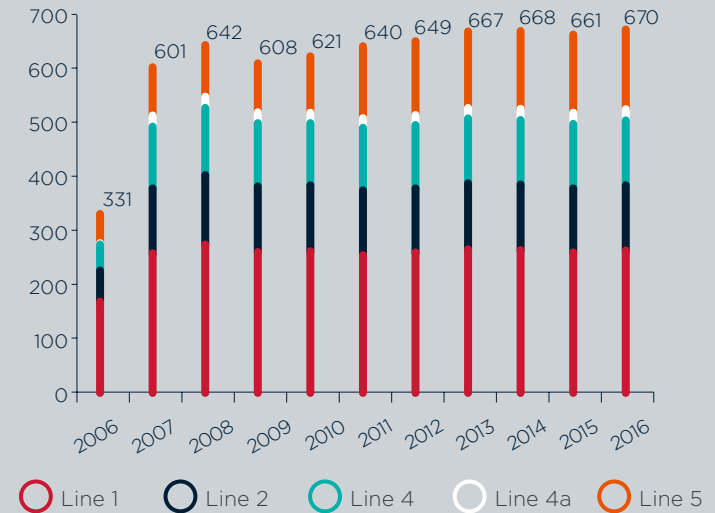
The 2016 ridership breakdown is as follows: Line 1, 38.9%; Line 2, 18.1%; Line 4, 17.9%; Line 4A, 3.1%; and Line 5, 21.9%. Mean ridership per working day in 2016 amounted to 2,266,000 rides.

Metro ridership has undergone an 81% increase since implementation of the Santiago Mass Transit System in 2007.

2016 RIDERSHIP BY LINE
(Millions of Passengers)



ANNUAL METRO S.A. RIDERSHIP
(Millions of Rides)



Transit Market

As far as kilometers are concerned, in 2016 more than 134.8 million car/kilometers were recorded on the network.

Meanwhile, the train breakdown index per million cars/kilometer of trains, with an impact greater than five minutes (all hours), amounted to 0.81 breakdowns/MMCkm, down 5% from last year. Moreover, in 2016 we recorded a total of four failures classified as failures with a high impact on operations (energy, track

and system failures), resulting 56% fewer failures than in 2015. However, when assessed in terms of impact on our users (measured as minutes per passenger affected), the index was 28.6% higher than 2015. The latter is the result of a specific breakdown in August 2016 that forced the company to shut down the most heavily travelled stretch of Line 1 for three hours during peak hours.



1.5.3 Vendors

The following is a list of Metro's top vendors in 2016:

PRINCIPALES PROVEEDORES AÑO 2016		
Nº	VENDOR	\$ AMOUNT
1	FAIVELEY TRANSPORT CHILE LTDA.	1.043.382.445
2	ALSTOM CHILE S.A	988.424.822
3	VOSSLOH COGIFER	905.263.374
4	GEINSE INGENIERIA S.A	754.819.825
5	SUMINISTROS Y SOLUCIONES TECNICAS S	478.925.694
6	COMP. FRANCAISE DE PROM.INDUSTRIELLE	471.733.836
7	THYSSENKRUPP ELEVADORES S.A	430.596.768
8	MERSEN CHILE LTDA.	393.913.800
9	ELECTRONICA INDUSTRIAL SOCOMEL LTDA	301.966.826
10	IND.ROLLOS TELEX Y PAPEL ENG ALPINA	288.316.056
11	METALOCAUCHO, S.L	255.640.690
12	PRECISION TECNICA Y MECANICA LTDA.	243.514.192
13	MGVALDUNES	242.410.910
14	ADMNISTR. DE SERVICIOS CENCOSUD LTDA	229.168.234
15	LUDWIG WUNKHAUS Y CIA. LTDA.	160.509.461
TOTAL		7.188.586.933

1.5.4 Customers

Metro's main customers are riders of Lines 1, 2, 4, 4A and 5, as well as the companies advertising in the network through JC Decaux—a company that markets advertising space on trains and at stations—and lessees of stores and retail space at stations. Additionally, since 2013 all passengers using bip! cards are among our customers.



1.5.5 Trademarks and Patents

As of December 31, 2016, the company owns 273 registered trademarks and one request for renewal corresponding to the following brand names registered under various classes with the National Industrial Property Institute of Chile, as follows:

- a. a) Denominative trademarks (36 denominations, corresponding to 118 registered trademarks and one request for renewal under processing) "Bici Metro"; "Metro Bici"; "Club Metro"; "Metro Club"; "Cuentos Metro"; "Cuentos en el Metro"; "Cuentos Urbanos"; "Cuentos Urbanos de Metro"; "Cuentos Urbanos en el Metro"; "Metrocuentos"; "Metro Cuentos Urbanos"; "El Ferrocarril Metropolitano"; "El Metro te cuida cuida el Metro"; "Metro"; "Metro a Metro"; "Metro Chile"; "Metro-Chile"; "Metro de Santiago"; "Metro Red"; "Red Metro"; "Metroboutique"; "Metrobus"; "Metromatico"; "Metropolitana"; "Metropolitano"; "Metropublicidad"; "Metrovisión"; "Multired"; "Multitrans"; "Multivia"; "Red de Clientes Metro"; "Subterráneo"; "Te llevo bajo la piel"; "Te-Guio"; "Centro Bip!"; "Punto Bip!".
- b. b) Figurative trademarks (Labels) (two labels, corresponding to seven registered trademarks)



- c. Mixed Brands (42 labels, corresponding to 132 registered trademarks) "Bip!"; "Bip!"; "Bip! AFT"; "Red Bip!"; "Tarjeta Bip!"; "Carga Fácil"; "Conozcámonos"; "El Metro en la Cultura"; "Metro"; "Metro a Metro" (3 different designs); "Metro Bici" (2 different designs); "Metro de Santiago"; "Metro S.A."; "Metroarte"; "Metrobus" (2 different designs); "Metrociudadano" (2 different designs); "Metrocultura"; "Metroexpreso"; "Metroexpress"; "Metroinforma" (2 different designs); "Metronet"; "Metrored" (2 different designs); "Redmetro"; "Metroservicios"; "Metrotaxi"; "Metrotren"; "Metrotv"; "Tvmetro"; "Multired"; "Multitrans"; "Música a un metro"; "Santiago matemático un desafío entretenido"; "Te llevo bajo la piel"; "Ventana Cultural".
- d. d) Slogans (four slogans, corresponding to 16 registered concepts)

- 1 EL METRO TE CUIDA CUIDA EL METRO
- 2 METRO CIUDADANO PASA POR TI
- 3 METRO DE SANTIAGO, PASA POR TI
- 4 METRO PASA POR TI

Patents for Inventions

In 2016, Metro continued to process its patent applications in Venezuela for invention patents related to Tarjeta Multivía (“A Security and Control Device that records loading and electronic charging of fares on a contactless Card with a predefined amount in a Passenger Transit System”).

Patent applications submitted in other countries for the same invention were granted in the United States, (Registration No. 7,229,016, February 9th, 2007); Mexico (Registration No. 253570, December 3rd, 2008); Peru (Registration No. 5070, August 22th, 2008); Argentina (Registration No. ARO48314B1, June 14th, 2010); and, finally, in Ecuador toward the end of 2011 (Registration No. PI-11-2072, on September 30th, 2011).

In Chile, a patent was granted on August 11th, 2009 under Patent Registration No. 45,663, thereby completing the patent application process for the invention entitled, “System and Method used for Detecting Brushes or Negative Contacts for Train Positioning on a Railway Track, specifically for trains with rubber tires.”

A patent was previously granted on December 31th, 2008, under Patent Registration No. 44,277, which completed the patent application process for the invention of a “tire pressure control system for drive rubber tires as well as horizontal guiding wheels on metropolitan trains.”

1.5.6 Property and Equipment

The company is the sole owner of all the facilities and equipment it utilizes in performing its activities, such as: stations, tunnels, rolling stock, tracks, electrical equipment, tools, spare parts, retail space and buildings, etc., and they are located in the Metropolitan Region.

Buildings owned by Metro are, among others:

1. Corporate Building and SEAT: The Company’s main office is located on an 11,250-m² plot with close to 33,781 m² of built building floor area on the corner of Lord Cochrane Street and 1414 Alameda Ave., right above La Moneda Metro Station, in the District of Santiago.
2. Workshops and Rail Yards for Train Maintenance and Storage: The following facilities make up the total surface area of 488,539 m²:
 - c. L1 Neptuno Workshop: Located on #6252 Dorsal Ave., Lo Prado, with a total surface area of 220,455 m².
 - d. L2 Lo Ovalle Workshop: Located on #1001 Lo Ovalle Ave., San Miguel District, with a total surface area of 54,038 m².
 - e. L4 Intermediate train yards: Located on #3652 Américo Vespucio Sur Ave., Peñalolén District, with a total surface area of 59,486 m².

- f. L4 Puente Alto Workshop: Located on Nemesio Vicuña Ave., Puente Alto District, with a total surface area of 104,000 m².
- g. L5 San Eugenio Workshop: Located on #1290 Vicuña Mackenna Ave., Ñuñoa District, with a total surface area of 50,560 m².

Metro’s network covers 103.5 kilometers, and consists of 108 stations, four workshops, seven cultural areas and facilities. It also has six types of trains, the difference being the kind of rolling undercarriage (rubber-tired or steel-on-steel) and the assembly date. Metro has a total fleet of 1,078 cars, all of which operate in the Metropolitan Region.

Two new workshops and rail yards will be added when lines 3 and 6 are completed, one for each new line.

L3 Los Libertadores Workshop: Located on the corner of Av. Américo Vespucio and the Los Libertadores Highway (Route CH 57), Quilicura District, with a total surface area of 133,806 m²

L6 Cerrillos Workshop: Located on the corner of Av. Pdte. Salvador Allende S/N, Cerrillos District, with a total surface area of 47,886 m²



1.5.7 Seguros

Metro S.A. currently has several valid insurance policies described below: a **general liability insurance** policy is held with Compañía QBE Chile Seguros Generales S.A.; **fire and additional risks insurance** policy covering the Main Administrative Building, Metro S.A Offices on Miraflores, Neptuno Workshop, Lo Ovalle Workshop, San Eugenio Workshop, Puente Alto Workshop, Intermediate Rail Yards Line 4, Vasconia Warehouse, Pajaritos Intermodal Station, Vespucio Norte Intermodal Station, Estación del Sol Intermodal Station, La Florida Intermodal Station, and Lo Ovalle Intermodal Station, with additional earthquake risk coverage only for Edificio Casona and General Management Offices is held with Mapfre Seguros Generales de Chile S.A.; a **Life Insurance Policy for Senior Management** at Metro S.A. is held with Compañía Metlife Chile Seguro de Vida

S.A.; a **Passenger Accident Insurance** Policy is held with Bice Vida Compañía de Seguro S.A.; a **Life Insurance Policy for Private Security Guards** is held with Compañía Metlife Chile Seguro de Vida S.A.; and a Floating Insurance Policy for Transporting Cargo is held with RSA Seguros Chile S.A.

Metro S.A. also keeps the following current and valid policies for Projects on Lines 3 and 6 covering specific risks pertaining to those works: a **Civil Liability** Policy is held with RSA Seguros Chile S.A., and a **Fully Comprehensive Construction and Assembly Insurance** Policy is held with Seguros Generales Penta - Security S.A.

1.5.8 Contracts

The company has entered into various contracts with third parties, the most significant of which are described as follows:

- Contract with JCDecaux for leasing advertising space at Metro stations and on trains.
- Contract with Banco Santander Chile for checking accounts and other banking services.
- Contract with Banco del Estado de Chile for Metro's Financial Investment Portfolio Management.
- Contract for network hardware maintenance, user support and network administration with Integración de Tecnologías ITQ Ltda. and an ERP SAP Financial and Accounting Support contract with Novis S.A., among others.
- Contracts with cleaning and maintenance service providers for workshops, trains, stations, tracks and buildings, and other services: Servicios de Aseo y Jardines Maclean Ltda.; Consorcio Rojas Sinel S.A.; Alstom Chile S.A.; CAF Chile S.A.; ISS Servicios Integrales Ltda.; Balfour Beatty Chile S.A.; Asesoría y Servicios Integrales San Luis SPA.; Sometec S.A.; Thyssenkrup Elevadores S.A.; Siemens S.A.; Bitelco Diebold Chile Ltda.; Inversiones Cosenza Ltda.; Proyectos y Productos Profesionales Ltda., among others.
- Contracts with catering service providers, security guards, telephone operators, auditing and other general services: Central Restaurantes Ltda.; Support Services Ltda.; Securitas S.A.; Esert Servicios Integrales de Seguridad Ltda.; GTD Telesat S.A.; Entel PCS Telecomunicaciones S.A.; KPMG Auditores Consultores Ltda.; Dimacofi S.A., among others.
- Contracts with underground-level Points of Sale operators: EME Servicios Generales Ltda., Consorcio GSI SPA e Ingeniería en Electrónica Computación y Medicina S.A.
- Contracts with street-level Sales Channel operators: Soc. de Recaudación y Pagos de Servicios Ltda. (Servipag); Fullcarga Chile S.A.; BancoEstado Centro de Servicios S.A.



1.6 Financial Activities

The company has checking accounts at Banco Santander Chile, Banco de Chile, Banco BICE and Banco del Estado de Chile, in order to facilitate payment of its obligations with different vendors for goods and services, as well as with its workforce. The company's main financial assets are term deposits and repurchase agreements (fixed income securities), the details of which are provided in the company's financial statements. Local banks with credit ratings equal to or higher than NI+ and AA- for short and long-term deposits, respectively, manage these operations, or they are managed by brokerage firms that are jointly or severally liable with those banks, and by international banks with a credit rating equal to or higher than A1 or equivalent. As of December 31, 2016, all financial investments are carried out in accordance with the Financial Investment Policy set forth by Metro S.A., which in turn is pursuant to regulations provided for by

the Ministry of Finance to that effect. As of December 31, 2016, the company's financial investment portfolio is managed by the Banco del Estado de Chile, as a third party.

Risk Rating

In 2016, Metro received an international risk rating of A+ by Standard & Poor's and A by Fitch Ratings. The company's local risk rating is AA+ with Fitch Ratings and AA+ with Feller-Rate.

1.7 Strategic Analysis: Risk Factors

Metro is exposed to a variety of market-related and business-specific risks. In order to address this matter, the company has developed organizational structures to develop strategies that help minimize those risks and reduce the potential adverse effects thereof.

Regarding passenger demand, strategies must take into consideration Chile's economic activity, its unemployment and inflation rates, as well as other the relevant factors. In terms of Metro's technical fare, its purpose is to cover the company's costs, which consist of operating costs, and asset replenishment and debt for a 40-year horizon. The technical fare is updated on a monthly basis by way of a polynomial, which reflects variations in the variables making up the company's long-term cost structure (CPI, dollar, euro, price of power and electric power). This allows for a natural indexation to cost variations resulting from an increase in any one of the variables making up the polynomial.

It must be noted that the fare paid by riders is different from the fare that Metro receives per transported passenger. Although in December 2016 customers paid

a fare of \$740 during peak hours, \$660 during intermediate hours and \$610 during off-peak hours, on average the company received a technical fare of \$402.98 per passenger that month.

The risks described below constitute the most significant ones that could possibly affect Metro's performance:

1. Financial Risk: This category includes market, liquidity and credit risks.

At December 31st, 2016, 59% of Metro's financial debt was denominated in UF (inflation adjusted units) and the remaining 41% in US dollars. The latter exposes the company to exchange-rate risk, which results in a "natural hedge" for long-term because of the polynomial used to update the technical fare in the event of dollar and euro fluctuations, among other variables.

Regarding interest-rate risks (Libor) associated with the company's variable interest rate loans, Metro has a Hedging Policy that allows for



trading derivatives such as cross currency swaps (CCS) and placing fixed-rate UF denominated bonds.

In September 2016, Metro S.A. placed bonds in the local financial market for UF 3.8 million at a rate of 2.46%, the lowest achieved among the issuances not secured by the Government. Additionally, it achieved a historical milestone, as it is the lowest for a corporate issuance at a term exceeding 20 years. Regarding liquidity, income from tariffs associated with Metro passenger transportation is discounted daily from the funds collected by the Company's sales channel, generating the liquidity necessary to cover the Company's commitments.

Additionally, the Company has duly approved bank credit lines, which reduces liquidity risk

There is very little credit risk arising from accounts receivables or commercial debtors, in connection with income from retail space leases, advertising or invoices due, since this income only represents 20% of the company's regular income. The remaining 80% comes from the technical fare, and there is very limited delinquency related to this type of debtors.

Likewise, the company's Financial Investment Policy establishes the level of exposure to financial asset risk the company is allowed to accept. The purpose of this policy is to reduce risk by diversifying the portfolio and by setting maximum investment levels permitted per bank, in addition to taking into consideration lender banks' minimum credit risk ratings.

- 2. Capital Risk:** Regarding capital management, Metro aims to have an optimal capital structure by reducing its costs and ensuring long-term financial stability, in addition to overseeing the fulfillment of its debt-related financial obligations and covenants.

Every year Metro holds a Special Shareholders' Meeting in order to capitalize on capital and Treasury contributions linked to its expansion projects. Additionally, the company controls its capital structure by keeping a watchful eye on its financial leverage position.

- 3. Electric Power Supply Risk (Commodity Risk):** In the event of a power outage, Metro has power supply systems directly connected to two points on the Central Interconnected System (SIC) supplying Lines 1, 2 and 5, as well two other connection points supplying Line 4. Moreover, these power supply systems are redundant and designed according to redundancy criteria, in other words, they work in "stand by" mode so that when one goes off line the other one immediately comes on line, providing the system with constant back up so that it can maintain ongoing power supply for normal network operations.

In terms of the power supply for Lines 1, 2 and 5, in the event of a power outage on the SIC's main grid, by definition, the power utility company's first priority involves restoring power to the government sector in downtown Santiago. The latter makes it possible for Metro's network to simultaneously resume operation since Metro's power supply comes from the same system.

Likewise, it must be noted that in addition to the current electric power supply agreement the company holds with Enorchile S.A., effective until March 31st, 2017, in September 2015 the company entered into a new electric power supply agreement with Chilectra S.A. at a fixed rate for up to 40% of Metro's total demand curve. The effective term of this agreement begins on October 1st, 2015 and expires on December 31st, 2023.



1.8 Investment Plans

1.8.1 Investment and Financing Policies

Metro de Santiago allocates significant resources to studies and investment projects aimed at expanding our network in addition to up keeping and improving our current infrastructure. Investments in network expansion seek to consolidate Metro as the leading player in the capital city's public transportation system, whereas our investments on maintenance and infrastructure improvements are earmarked for the following areas: improving the quality of our services; bolstering operational safety and stability; preserving and maintaining our facilities and grounds; and updating, renewing and modernizing technology used by our equipment and systems, all with a view to better serve our customers.

In 2016, infrastructure and equipment improvements and renewals were financed by operations and capital contributions. Regarding network expansions, however, generally speaking Metro S.A. finances imported equipment and parts through borrowed funds, which are paid back through increases in Metro S.A.'s technical fare, whereas domestically-obtained components—consisting of infrastructure, civil works and other expenses, in addition to entry import duties and tariffs placed on imported goods—have been financed by Treasury contributions, which are subsequently capitalized.

1.8.2 Metro's Development Plan

- **Construction of New Lines 3 and 6**

The most challenging project undertaken by Metro since founded was still underway in 2016. The investment that culminates in the start up of 2017 (Line 6) and 2018 (Line 3), involves a financing structure consisting of partner contributions (Treasury and Corfo), amounting to two thirds of the total investment, and Metro contributions for the remainder.

This is a high-level project involving the best international practices in areas such as: platform doors, overhead electric-power cabling, automated train control system, cameras on-board cars, air conditioning, passenger information systems, and universally-accessible stations throughout the entire network including the new transfer stations involved in this project.

Line 3 tunnel excavation (22 kilometers) was completed in 2016 and construction on line 3 stations was tendered with construction planned to begin during the last quarter. The civil works on Line 6 workshops were completed in 2016 and work continued moving forward on the civil works for Line 6 stations, as well as systems assembly. Regarding rolling stock, the first train left the Cerrillos Workshop en route to the future Los Leones station, marking the first step in the testing of every system and system connections, in order to ensure they all work correctly. To date, tracks and overhead electric-power cabling have been fully assembled, and all platform doors at Line 6 stations are properly working.

Progress on Lines 6 and 3 amounted to 74% as of December 2016 (specifically, 90% cumulative progress on Line 6 and 63% cumulative progress on Line 3). The weighted cumulative progress on rolling stock and systems came in at 49%.

- **Expansion of Lines 2 and 3**

On May 27th, 2016 Metro announced that the route of Lines 2 and 3 will be entirely underground and run to three districts (Quilicura, El Bosque and San Bernardo). The project will add 8.9 more kilometers to the network, and will benefit 600,000 inhabitants, thereby cutting travel times up to nearly 80%.

Regarding the expansion of the existing Line 2 (El Bosque and San Bernardo), 5.1 new kilometers of track and four stations will be built, expanding the Line beyond the La Cisterna station to the El Pino Hospital along Avenida Padre Hurtado, bordering the districts of San Bernardo and El Bosque. It will take 28 minutes to travel by Metro from Los Héroes to Hospital El Pino.

As far as the future Line 3 (Quilicura) is concerned, it will add 3.8 new kilometers to the existing network, as well as three new stations, and will provide service to the area surrounding Quilicura's civic center along Avenida Manuel Antonio Matta.

It will take 19 minutes to travel by Metro from Universidad de Chile to Plaza Quilicura. This section will also be integrated with other means of transportation such as rail services at EFE's future train station in Quilicura.



1.8.3 Operations-Related Projects

In 2016, the following improvements were made to Metro's current network:

- **Refurbished Trains: new air conditioning systems**

Started in October 2013, this project aimed to improve riders' experience on underground trains by installing air conditioning on all Line 1 cars. To this end, train manufacturers were hired to install AC equipment on the entire Line 1 fleet.

The air conditioning retrofit on the last NS93 Alstom train was completed in March 2016, for a total of 15 AC-equipped NS93 trains running on Line 1.

Likewise, AC was installed on the last NS07 CAF train in late September 2016, bringing the total number of first series NS07 trains equipped with air conditioning up to 20, in addition to the 14 second series NS07 CAF trains put into operation back in 2011 and 2013 with factory installed air-conditioning systems.

In summary, as of October 2016 the entire Line 1 fleet has air-conditioning systems.

- **Universal Access Project (Elevators)**

The Universal Accessibility Plan (and specifically the elevator project) consists of an ambitious plan to install elevators at 28 existing stations in 2016 and 2017. We began construction works at the Line 1 Neptune station, and intend on starting work at the El Golf and Alcántara stations soon. By mid-2016, elevator installation works were already underway at the following stations: San Alberto Hurtado, Universidad de Santiago, Unión Latinoamericana, República, La Moneda, Santa Lucía, Pedro de Valdivia, and Estación Central.

Line 2 works began at the Parque O'Higgins, Toesca, El Llano and Lo Ovalle stations, with works slated to begin soon at Lo Vial, Departamental and Santa Ana L2.

Regarding Line 5, construction works began at the Bellas Artes, Parque Bustamante, Santa Isabel, Rodrigo de Araya, Carlos Valdovinos, Camino Agrícola, San Joaquín, Pedrero, Mirador and Santa Ana L5 stations.

All in all, the Company expects to have elevators operating throughout the entire Metro network by the end of 2018, thereby making it easier for individuals with reduced mobility to get around.

- **Implementation of the Automatic Train Control System**

One of the project milestones was successfully met in 2016 when the CBTC system began operating on Line 1, marking the Commercial Startup of the CBTC system on L1 during weekend operations in the first half of 2016. Another milestone was reached in July when the company moved ahead with Commercial Operations on a weekday, that is, operating Monday through Sunday on the CBTC system. Despite a satisfactory outcome, the company identified some opportunities for improvement in terms of supply and commercial speed. The benefits associated with the complete implementation of the project consist of shorter travel times, lower energy consumption, greater availability, and operational flexibility.

- **Integrating NS16 Trains**

In 2011 we announced a project aimed at modernizing our NS-74 trains as part of an investment plan aimed at improving the quality of our services. The goal of the initiative was to prolong the service life of the cars by 20 years and make some design improvements on the trains. However, while carrying out the pilot project the company decided that it was not feasible to continue moving forward with the original project concept because of issues regarding safety, schedule and cost.

As a result, we have been working on a different solution that will create value for the investment already made by Metro. The Company has reached an agreement with the contractor to assemble in Chile, for the first time ever, 245 rubber tire cars for Lines 2 and 5.

Assembly will begin in 2017 on the 35, seven-car trains that will replace the oldest trains in the network. These trains will run on Lines 2 and 5 and will have air conditioning, aisles for passenger circulation, and a series of improvements that will enhance the riding experience of our users. One of the new features of this operation is that this is the first time trains will be assembled in Chile. For this purpose Metro built a Train Integration and Assembly Workshop, equipped with cutting-edge technology, at its Neptuno Workshop.



- **Improvement Plan**

The High-Impact Failure Plan recorded its first wins in 2016. One of the most remarkable ones was a reduction in the failure rate of Metro's critical systems as a result of the immediate actions taken since implementing the Plan. This outcome directly benefits our customers in the form of better service.

As far as the actual activities entailed in the Plan's projects are concerned, in 2016 the Company focused on defining the overall strategic and technical aspects of each project as part of a major effort aimed at organizing and managing administrative activities.

In terms of the individuals working on the projects, Metro has set up multidisciplinary teams of individuals from across all corporate managements, which made it possible for the company to move most of the initiatives into the tender or implementation phases.

The year 2017 will be full of new and demanding challenges related to these commitments that the Company has taken on, since a very large percentage of the projects will be under development, involving multiple work fronts, and the majority of the project's allocated budget committed.

- **Energy Efficiency Plan**

As part of its commitment to sustainability and the efficient use of resources, in August the Company launched its energy efficiency plan which entails updating light fixtures in 19 stations on Line 1 with energy efficient solutions that will save the equivalent of energy consumed in 1,300 homes.

The project consists of replacing older technology with high-efficiency solutions, in addition to changing the location of the fixtures for optimal use. As a result, the Escuela Militar, Alcántara, El Golf, Tobalaba, Los Leones, Manuel Montt, Salvador, Baquedano, Universidad Católica, Santa Lucía, Universidad de Chile, Los Héroes, República, Unión Latinoamericana, Estación Central, Universidad de Santiago, Alberto Hurtado, Ecuador and Las Rejas stations will have efficient lighting solutions, cutting the company's lighting consumption by 60%.

This energy efficiency project is one of many initiatives launched by Metro in its effort to contribute to the environment. In May Metro announced that it would be signing two electric power supply contracts that will allow the company to supply 60% of its energy requirements with renewable sources as of 2018.

As part of the latter, the Company is working on two Non-Conventional Renewable Energy (NCRE) projects: the "El Pelicano" photovoltaic plant

and the "San Juan de Aceituno" wind farm. By signing these two NCRE contracts, starting in 2018, only 40% of Metro's power grid will come from conventional energy sources (Chilectra) while roughly 42% will be solar power (from the Pelicano photovoltaic plant) and 18% wind power (from the San Juan wind farm). These new contracts will make it possible for the company to work with a stable energy price at competitive rates less than 100 USD/MWh.

According to estimates, these two new contracts will enable the Company to reduce national emissions by approximately 130,000 tons of CO2 annually, which is equivalent to planting 7,800,000 trees. Therefore, when people decide to ride the Metro they will be making a concrete contribution to fighting climate change since the underground train will be an even cleaner means of transportation.

