SUSTAINABLE TRANSPORT AWARD 2025

2025 STA Spotlight:

Integrating Mobility in Mexico City, Mexico

Honorable Mention

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Background

Mexico City, the capital of and largest city in Mexico, faces enormous demand on its physical infrastructure because of a growing influx of people and increasing pressure on the city's authorities for planning projects. Spikes in mass tourism and the concentration of major business districts and employment centers at the city's core has, in recent years, increased issues of overcrowding (Rey, 2025). Public transportation networks operate primarily in the central areas of the city, forcing communities in peripheral neighborhoods to spend more time and money on transportation. Some households allocate up to a third of their total income for transportation (ICLEI, 2019).

The city has undergone rapid urbanization and a population surge, from 3 million residents in the 1950s to 14 million by the 1980s (Massey, 2017). This has brought about increased vehicle use and traffic congestion. Indeed, in 2016, Mexico City earned the unfortunate moniker of "Most Traffic-Congested City" and consequently experienced 16 days of high air pollution alert levels. Emissions from diesel- and gasoline-powered vehicles contributed to high levels of particulate matter (PM) at 2.5 and 10 recorded that year. Exposure to PM is a main contributor to poor health and often associated with an increased risk of several diseases.

Mexico City continues to display high automobile dependency, with cars accounting for 76% of the city's overall modal split, while public transportation covers 15% of trips. This ongoing reliance on motor vehicles has significant implications—92% of the city's emissions come from private car usage, while only 7% are from public transit and the remaining 1% from two-wheelers (Oliver Wyman, 2022).

Recognizing the significant role of transportation to these growing pollution levels, the city kicked off an Environmental Contingency Plan with "*Hoy No Circula*" ("No Driving Today"), a car-free initiative aimed at curbing vehicle use one day a week as well as one additional Saturday per month (National Science Conservancy).
The city also planned to expand high-capacity, low-emission transport systems such as its Metrobús bus networks (Climate and Clean Air Coalition, 2018).

Mobility Challenges and Goals

To address these urban mobility challenges, in 2019 Mexico City debuted a Strategic Mobility Plan, among other measures, placing an emphasis on the expansion of electric vehicles, the integration of different systems, a redistribution of road space for transit and active mobility, and the formulation of sustainable financing strategies. Over the past several years, Mexico City has focused on the development and scaling of sustainable transport infrastructure to improve air quality, reduce greenhouse gas emissions, enhance road safety, and ensure equitable access. Mexico City has also taken steps to diversify its investments and integrate policies that prioritize sustainable transport while decreasing demand for private vehicle use.

At the beginning of the city's previous mayoral administration (2018–2024), government-led studies indicated three main structural problems for transport in Mexico City:

1. The institutional fragmentation of different mobility systems and agencies;
2. Service gaps across public, nonmotorized, and freight transport infrastructure that reduce system effectiveness; and
3. Inequities in transfer times and travel conditions across neighborhoods.

Before the 2018–2024 administration, there were several efforts to promote sustainable mobility, accompanied by the creation of new regulatory frameworks. However, the coordination problems were not resolved, and institutional fragmentation prevented the establishment of a comprehensive mobility policy for the city. This resulted in poor planning and oversight of infrastructure networks and the many public and private transport services that rely on them.

One of the key issues identified during the analysis was the fragmentation and disconnect between key systems and services, such as buses, metro, cable car, and bikeshare. Using more than one of these systems on a single trip involves inefficient transfers, and often it forces people to spend more money and time, making public transport less comfortable or reliable.

To address these conditions, the Ministry of Mobility in Mexico City aims to promote physical, operational, and payment integration among the different transport systems. Through a SITP (Integrated Public Transport or Mobility System) approach, it has been possible to focus on intermodal options, accessibility, and simplified fare collection. The government has also focused on essential transit modes that were not prioritized because of the overdependence on private vehicles.

The results of these efforts have become visible in recent years—shorter travel times, interconnectivity between public transport options, improved air quality, and safer streets for road users. Some of these key tactics have been catalyzed by assessing the linkages between mobility services and the broader landscape of Mexico City's social, economic, and environmental policies.

The Movilidad Integrada card provides access to Mexico City's various mobility systems. CREDIT: Secretaría de Movilidad de la Ciudad de México.

Strategies for Integrating Mexico City's Transport

Mobility as a Connected Network:

Unlike the central area of Mexico City, which has greater coverage of structured public transport, coverage is lower in the city's peripheral neighborhoods. Therefore, a greater number of multimodal trips are made by residents who live further from the city center. Fragmentation being a key issue, Mexico City's SITP has been crucial in advancing the integration of public transport modes in the city under a single platform, fostering efficient travel for users. This initiative focuses on three priorities for facilitating this assistance:

1. Through operational, IT, branding, and payment mechanisms.
2. Improving connectivity of Modal Transfer Centers (CETRAM).
3. Strategic plan for gender and mobility.

Certain parts of the public transport system are operating on dated techniques of user information systems and payment control, causing delays on major lines and stations. An additional downside is the reduction in the number of vehicles that can be aggregated simultaneously into the framework. The acquisition of new metro trains has been an important step in achieving faster service, as it not only guarantees more service on the most traveled lines, but also offers the modernization of signaling and control systems on multiple corridors (UNOPS, 2019). The city has been working on upgrading Metro Line 1 to offer service reliability, reducing waiting times and increasing capacity by 30% (improving headways to 100 seconds) by installing a new track system, Communication Based Train Controlling (CBTC) signaling, and a new energy supply system (COMET, 2022).

Introducing supplementary transport options to support the main modes has been another important step. In 2020, a Revised Master Plan included a critical update for integrating nine light rail lines with the main subway, making the core metro system more accessible to suburban neighborhoods. The Xochimilco Light Rail has been installed as a feeder system connecting the southern part of the city (Tasqueña) with Metro Line 2 (Urban Transport Magazine, 2023). The elevated trolleybus connects passengers with Mexico City Passenger Transport Network (RTP) bus lines, underground line 8, and surrounding minibus routes.

Hence, in 2021, when the modernization plans for Line 1 of the Metro began, the partial closure of this line did not affect the service received by its users, as the Integrated Transportation Network proved beneficial for providing alternatives. The citywide transport system is now characterized by an Integrated Mobility Card, which allows access to different modes of transportation with a single payment. The Card is designed for passengers using the Metro, Metrobús, Cablebús, RTP, Trolleybús, Light Train and Ecobici systems. To enable smooth implementation of this service, all new units of the Electric Transportation System (STE) and the RTP are equipped with validation systems (Eje Central, 2024).

Overall, this ongoing integration of the mobility system has reduced travel times by 50%, which has allowed people to access twice as many sources of work as 20% more commercial and recreational establishments.

Electrification as a Key Incentive:

The STE is responsible for the routes using electrically powered vehicles, including light rail and trolleybuses. The trolleybus network was brought back through a feeder system known as Access Roads, which improved ridership during peak hours. This resurgence encouraged the Government of Mexico to transition to electromobility and reduce travel time by half.

The original tram lines were phased out when only 20% of the population was using trams in the 1950s. However, in response to the surge in private car usage and to provide a faster alternative to buses in high-density areas, the existing tram infrastructure was repurposed for the Xochimilco Light Rail. The service is the only line to currently operate through the Mexico City Electric Transport Service; it was modified by installing electromechanical systems and renovating the tracks.

The electrification of the Bus Rapid Transit (BRT) system started with a fleet of Metrobuses on Line 3, as well as the addition of 60 articulated buses, which now carry over 200,000 passengers daily. In 2024, Line 4, which had a capacity of up to 130,000 passengers, was the next to undergo this transformation with 55 buses. The city has also worked with the ZEBRA Alliance (Zero Emissions Bus Rapid Accelerator) to work toward the electrification of the Metrobús system. Within just five months of Line 3's launch, the fully electric line has reduced CO_2 emissions by more than 2,900 tonnes (Ciudad de Mexico, 2025).

With the addition of electric vehicles to RTP in 2024, all services in the Integrated Mobility Network have electric vehicles. CREDIT: Secretaría de Movilidad de la Ciudad de México.

"Peseros," one of CDMX's largest informal transport systems, use old buses and vans that lack modern emission-control technology. Peseros drivers have become infamous for aggressive driving, competing with other drivers dangerously and driving in a less fuel-efficient way. As part of an effort to establish standards for cleaner vehicles, the Ministry of Mobility (SEMOVI) has launched a program to scrap obsolete minibuses and individual concessions.

Through the Programa de Modernización del Transporte Concesionado, more than 2,500 minibuses have been replaced by new buses under the operation of zonal companies and corridors, changing the operating scheme for the benefit of users. These new buses will be equipped with card payment systems, video surveillance cameras, and accessibility for people with disabilities. Dealers will have access to low interest rates in collaboration with the National Financial Institution (NAFIN) (C40 Cities, 2021).

Mexico City's first cable bus line was inaugurated in 2021, and three more lines have been added since then. CREDIT: Secretaría de Movilidad de la Ciudad de México.

New units have been added to Mexico City's light rail system since 2019, reducing waiting times and increasing capacity. CREDIT: Itzel Neri.

Impact by the Numbers

Public transportation:

- Between 2019 and 2024, the city expanded its **trolleybus** network to 12 lines with 550 vehicles, serving over 350,000 daily passengers and surpassing 7.2 million users since the launch of Line 12 in June 2024.
- The **elevated trolleybus system** reports that more than 213,000 people benefit from it within 800 meters from its stations.
- The **light rail** from Taxqueña to Xochimilco introduced 9 new train lines, increasing ridership by 50,000 and reducing wait times from 7 minutes to 3 minutes. The corridor moves more than 90,000 passengers.
- Mexico City has the second-busiest **metro system** in the Americas, recording daily ridership of 5 million passengers and serving 15 boroughs.
- Line 3 of the city's **cable car** system, **Cablebús**, launched in the fourth quarter of 2024. It accommodates an additional 40,000 passengers and reduces travel time by 60% (according to SEMOVI).
- **Cablebús Line 1** decreased travel times by 45% and Line 2 by 49% without raising the Cablebús system fare (0.4 USD).
- The expansion of **BRT** Lines 3, 4, and 5 by 34 kilometers has benefited more than 2 million people, with user satisfaction at 87%.

Active Mobility:

- Ecobici, one of the largest **bikeshare** systems in North America, has been integrated with the Integrated Mobility Card, which can also be used to access transit stations including trains, buses, and metros.
- The service has expanded by 43%, from 480 to 697 stations, offering 9,300 bicycles in 118 neighborhoods and registering more than 71,000 daily trips.
- As of 2023, Mexico City had over 420 kilometers of bicycle lanes, of which 339 kilometers are physically protected (ITDP, 2024).

CREDIT: Guido Enríquez.

Environment, Safety, and Access

- **Trolleybus**
  - Line 12 saves an estimated 19,000 tonnes of CO_2e per year.

- **Elevated Trolleybus**
  - Replaced 250 polluting minibuses

  - Traveling times reduced from 60 to 20 minutes.

  - Serves more than 213,000 people living within 800 meters of its stations, 72% of whom fall within the low and very low bands of the Social Development Index (SDI).

- **Light Rail**
  - Incorporates components from 1940s-era PCC streetcars, including their bodies and propulsion systems.

- **Cablebús**
  - Line 1 and Line 2 improved access for 140,000 families in the Cuautepec and Iztapalapa neighborhoods, making it easier for them to access schools, markets, and other metro and bus/BRT corridors. - CO_2 emissions have been reduced by 18,000 tonnes from 2021 to 2023 (ITDP, 2024).

  - Green spaces of 21,388 square meters, including 961 trees and 183,524 plants and bushes, have been planned around Cablebús stations. Close to Line 1 and Line 2, planners carved out spaces for sports (1,512 square meters), markets (2,599 square meters), and 7,400 murals. To ensure the safety of users, 9.77 kilometers of safe paths were created on Line 1 and 33.73 kilometers on Line 2. The stations connected to C5 (Command, Control, Computing, Communications, and Citizen Contact Center of Mexico City), also include 2,648 LED lights and surveillance cameras for advanced security.

- **Bus Rapid Transit**
  - Through the electrification and replacement of BRT buses, the Metrobús saves more than 56,000 tonnes of CO_2e annually.

  - Following the guidelines for universal accessibility, all Metrobús stations are designed to ensure protection of users, safe crossings in the station vicinity, and appropriate traffic light phases for users, cyclists, public transit, and vehicles.

- **Active Mobility**
  - With nearly 50 million kilometers traveled between 2022 and 2024, Ecobici bikeshare prevented 2,000 tonnes of CO_2 emissions; it is set to save 8,300 tonnes in five years.

  - Cycle trips, supported by more than 400 kilometers of cycle lanes, have mitigated an estimated 14,000 tonnes CO_2e (per year).

Lessons learned

Mexico City has set an example to other cities that it is possible to plan for an integrated mobility system that is resilient, reduces travel times, and promotes the reduction of pollutant emissions. The most important lesson from Mexico City's efforts to improve transport connections and integration is that they prioritized access for the people who need it the most. As a result, the lines and modes of public transport that offer the best quality of travel have been positioned around communities with the highest population density and a high degree of marginalization, as seen in the region of Iztapalapa.

Under the city's current mayoral administration, the different components of Mexico City's SITP integration have helped public transportation to function in a coordinated and resilient manner, as an integrated network. In summary, these actions succeeded in creating an identity between citizens and transportation under the "integrated mobility" concept, which has now become an identifying brand for the city.

CREDIT: Secretaría de Movilidad de la Ciudad de México.

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