MOBILITY ANALYSIS

Performance and resilience
- Congestion
- Public transport reliability
- Transport safety
- Integrated and shared mobility
- Air quality

Vision and strategy
- Vision and strategy
- Investment
- Innovation
- Regulatory environment
- Environmental sustainability initiatives

Service and inclusion
- Public transit supply
- Transport affordability
- Versatility
- Customer satisfaction
- Accessibility

FUTURE OF MOBILITY CAPABILITY

STRENGTHS
- Extensive use of intelligent transport systems (ITS) such as passenger information, bus management, and incident management systems
- Extensive network of metro rail and commuter train covering the city as well as suburban areas
- Single transportation standards for taxi operations and a thriving shared mobility market

CHALLENGES
- Longer travel times due to sprawling nature of the city and a hub-and-spoke model where all metro lines meet at the center
- Lack of road capacity to accommodate the increasing number of private cars
- Increasing the share of active modes—such as walking and cycling—can be challenging given the harsh winter weather conditions

Analysis area: 3,000 km² | Population: 12,404,000 (2018 estimated) | Population density: 4,135/km²
Definition of analysis area: Moscow City and nearby suburban areas
MOBILITY ANALYSIS FURTHER DETAILS:

**Performance and resilience**

Moscow has a highly integrated public transport system and is investing in creating pedestrian- and cycling-friendly infrastructure. It uses ITS to improve the free flow of vehicles but remains one of the most congested cities.

- Moscow's Troika card has contactless payment options and is highly integrated and convenient for commuters; more than 85 percent of public transport trips are paid for using the Troika card.
- Moscow has a thriving shared mobility scene, thanks to its bicycle rental system with 3,750 bicycles and 380 stations, including 150 electric bicycles, and a single citywide carsharing standard, which achieved over 1.6 million bicycle trips and 2.5 million carsharing trips in 2016.
- Moscow is still one of the most congested cities in the world. This situation has improved somewhat thanks to the use of various traffic management systems to improve flow and despite an increase in the number of cars in the last five years.

**Vision and leadership**

Moscow's transportation vision includes expanding and improving the existing infrastructure for the Football World Cup 2018 and beyond.

- The city is investing US$112 billion on its Transport Infrastructure Development Program (2012–2020) to construct new stations, improve road conditions, and expand parking capacity. Out of this, US$29 billion will be contributed by private investors.
- Moscow has invested US$5 billion to provide special trains and logistical arrangements for the World Cup, building on the infrastructure developed when it hosted the 2017 FIFA Confederations Cup.
- The Russian Ministry of Transport is discussing the introduction of a zero transport tax for hybrid and e-cars, linking the tax to the environmental class of the car. Tax rebates and other initiatives are being introduced to increase production of electric vehicles (EVs) domestically.

**Service and inclusion**

Moscow provides a versatile transport network and is expanding to improve connectivity between city districts.

- Newly constructed metro stations are accessible for disabled people, but most of the city center stations are old and require new infrastructure to be disabled-friendly. The city also runs a “Social Taxi” for low-mobility citizens, such as the elderly and disabled.
- Moscow is testing wearable ticketing technology to reduce processing time and make commutes hassle free.
- The government built a 54-km commuter rail, the Moscow Central Circle (MCC), which rings the city area and connects all metro lines. The city also launched a bus network called Magistral that uses data collected from mobiles, traffic systems, and the city's smart card.

SUMMARY

Moscow’s transportation tipping point came in 2019. The city had been marred by extremely congested traffic, public transport with inconvenient routes and poor service quality, and a lack of space for pedestrians and cyclists. After the introduction of the Transport Infrastructure Development Program in 2010, the city government increased the number of new metro stations by 32 percent, invested in newer carrier fleets, introduced a smart card system, promoted active modes and shared mobility through new programs, and regulated its taxi industry. Moscow has become a global leader in ITS by using data gathered from sensors, smart cards, and traffic cameras to tackle traffic and improve transport safety. It has made significant progress but needs to go further to address ongoing challenges around congestion, air quality, and affordability.

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About the Deloitte City Mobility Index

The Deloitte City Mobility Index reviews major cities on key aspects of mobility and the resulting relationship to economic performance. Drawing on publicly available data, client conversations, and bespoke Deloitte analyses, we assess each city's ability to transport its citizens both now and in the future and therefore its potential to bring prosperity to the city.

As we receive feedback, we will update and expand the analysis, which may mean the results shown in this document may change.

For the full interactive index, visit the Deloitte City Mobility Index at deloitte.com/insights/mobility-index.

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