Deloitte City Mobility Index

Seoul

Analysis area: 11,704 km² | Population: 25,600,000 (2016) | Population density: 2,187/km²
Definition of analysis area: Seoul Metropolitan Area (including Seoul, Incheon, and Kyunggi-province)

MOBILITY ANALYSIS

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

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

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

KEY MOBILITY STATISTICS

Public transport options*
- Metro, bus, light rail, BRT (bus rapid transit), commuter train, taxi, bikesharing

Monthly public transport pass
- US$64

GDP
- US$779.3 billion (2015)

Principal transport authorities
- Seoul Metropolitan Government; Incheon Metropolitan Government; and Ministry of Land, Infrastructure, and Transport

*Regulated, licensed, subsidized, and monitored by principal transport authorities.

JOURNEY MODAL SPLIT

PRIVATE CAR 29%  PUBLIC TRANSIT 29%
WALKING 35%  BICYCLE 1%
OTHER: 6%

FUTURE OF MOBILITY CAPABILITY

Seoul

Significant work to do
Passive environment, a number of barriers
Proactive environment, some barriers
Proactive environment, few barriers

STRENGTHS
- Has supportive business environment with global technology leaders to oversee self-driving vehicle testing
- Uses data-centric platforms effectively to manage traffic congestion and provide real-time information
- Offers integrated smart card ticketing for daily commuters across transportation modes

CHALLENGES
- Reducing initial skepticism and lack of awareness of new ridesharing models
- Increasing bicycle infrastructure in the Seoul metropolitan region, starting with the Seoul Central Business District (CBD)
- Shifting the preference for using private cars as the main mode of transportation between the satellite cities and Seoul
Key focus areas to improve city mobility and realize the Future of Mobility:

- Refine the regulatory framework for smooth operations of shared mobility models
- To discourage driving, restrict the use of cars to major roads only and increase pedestrian-prioritized zones
- Expand real-time occupancy information and ensure cashless transactions on all metropolitan region buses

MOBILITY ANALYSIS FURTHER DETAILS:

**Performance and resilience**

Seoul makes use of data analytics to keep a check on road congestion. It also has an advanced integrated payment system.

- Seoul has battled traffic congestion for some time, and has used traffic forecasting based on big data analytics. The integrated system collects data from more than 300 tollgates and 5,760 cameras that record the type of car and time of passage through each gate.
- The region has an integrated ticket system, which not only works on all public transportation modes, but also is valid in other cities such as Incheon, Busan, and Gwangju. The geographical integration of the card is a unique feature.
- While bikesharing and carsharing have grown, ridesharing has not; this is due to public transportation options, established on-demand taxi services, and regulatory concerns.

**Vision and leadership**

Seoul is pursuing its long-term strategy toward electric vehicle (EV) adoption and self-driving cars by building new infrastructure for both. The city is also looking to increase walking and cycling trips.

- The national government is investing US$33.1 billion in the Smart Highway Network 2020, designed with driverless and electric cars in mind. The project is a public-private partnership, and is expected to attract an additional US$31.3 billion through private sector investment. A new US$10 million site, “K-City,” has been built in the region for testing self-driving technology.
- Seoul has introduced unique initiatives, such as transforming old flyovers into elevated gardens and pathways for walking and cycling. The elevated park Seullo 7017, for example, opened in 2017.

**Service and inclusion**

Seoul offers affordable and increasingly versatile public transportation, which is improving thanks to targeted expansion and accessibility plans.

- The extension plan for the metro includes 89.2 km of new lines by 2025, and will put a majority of city residents within a 10-minute walk of entry-exit hubs. The light rail system is also set for expansion to cater to intracity trips.
- Most metro stations are accessible through elevators and mechanical lifts, but only one-third of buses are disabled-friendly. The city’s goal is to achieve full accessibility in both buses and metro by 2020.
- In comparison to other developed countries, public transportation is affordable. A basic fare of about US$1 is used for travel up to 10 km. The metro carriages and stations are spacious and secure, leading to high levels of customer satisfaction.

SUMMARY

Seoul has always experimented with unique ideas to solve its transportation problems. Well-known for its extensive use of big data, Seoul is now building new infrastructure such as smart highways and test cities to become ready for a future of EVs and self-driving vehicles. It is also developing distinctive solutions, such as making use of obsolete infrastructure to develop green spaces for walking and cycling. Some immediate challenges include low accessibility for disabled passengers in the bus network and long intercity commutes. With forward thinking and clear mobility plans, Seoul can explore issues such as monetization of roads based on use.

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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.
For Deloitte’s insights on the Future of Mobility, visit deloitte.com/insights/future-of-mobility.

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