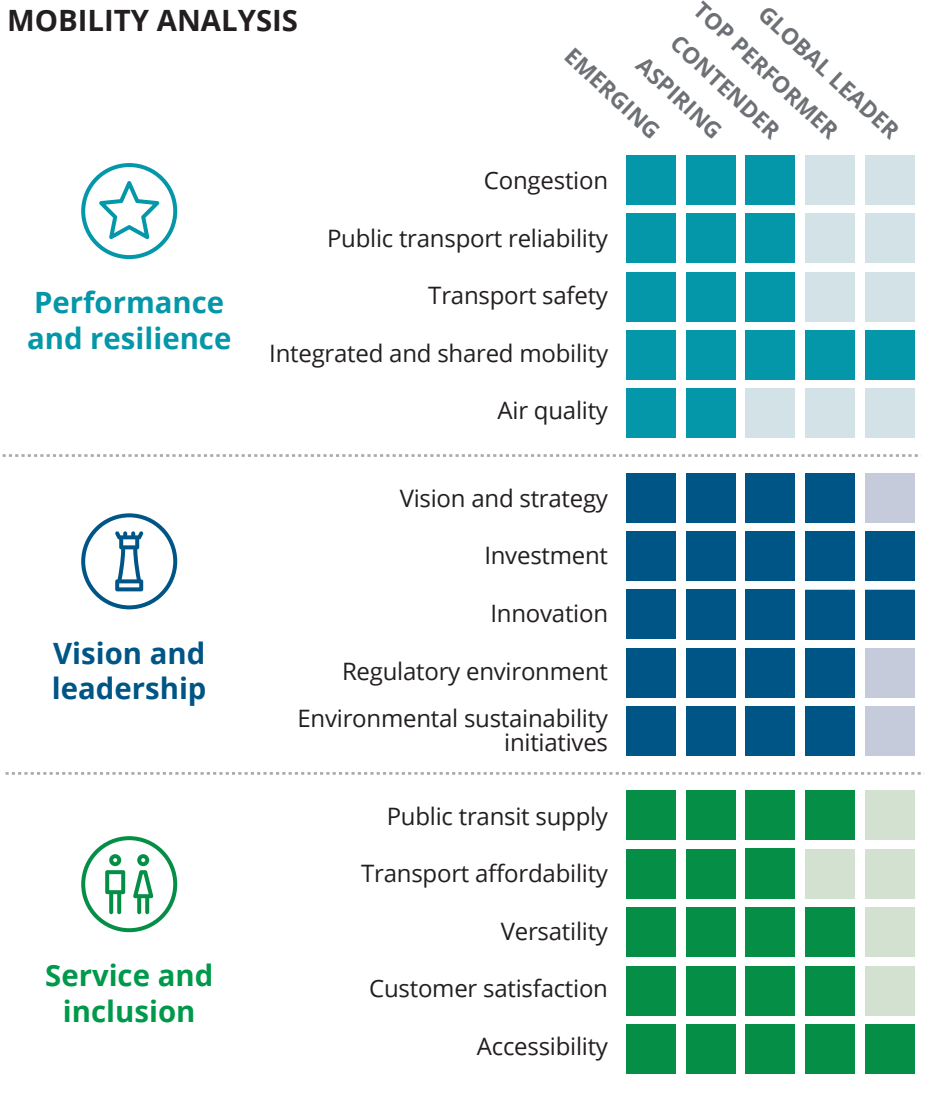


Analysis area

Analysis area: 892 km² | Population: 3,574,830 (2016 estimate) | Population density: 3,948/km²
 Definition of analysis area: Greater Berlin, including some parts of Brandenburg region

MOBILITY ANALYSIS



KEY MOBILITY STATISTICS

Public transport options*
 Metro, tram, bus, rail

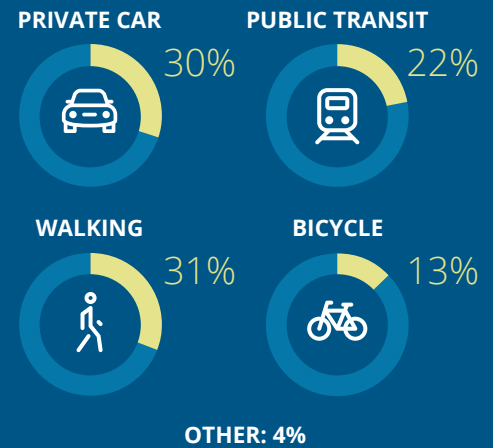
Monthly public transport pass
 US\$98

GDP
 US\$168.4 billion (2017)

Principal transport authorities
 Berliner Verkehrsbetriebe (BVG)

Planned, regulated, licensed, and monitored by principal transport authorities.

JOURNEY MODAL SPLIT



FUTURE OF MOBILITY CAPABILITY



STRENGTHS

- A number of open data portals covering a range of transport indicators, providing timely insights for decision-making
- Strong network of universities, research labs, and private operators developing new mobility solutions
- Growing network of transport startups and a number of meet-up events, indicating rising interest in the sector

CHALLENGES

- National reliance on coal for power generation affects air quality, with high carbon dioxide emissions per capita
- Ensuring new regulations can fully capture novel issues arising from the deployment of autonomous vehicles (AVs), such as liability and data collection
- Berlin has a well-designed tram system but the majority of the network covers only the eastern half of the city

Key focus areas to improve city mobility and realize the Future of Mobility:



Partner with private players to become a leader in developing AV technology



Connect residential areas to major hubs through new transport exchange hubs



Implement customer journey analytics to address demand pinch points

MOBILITY ANALYSIS FURTHER DETAILS:



Performance and resilience

Berlin has a well-integrated transport system and has been promoting active modes of transportation and shared mobility to curb air pollution.

- With 66 percent of trips made by public or active transport, Berlin has developed a system that facilitates efficient and sustainable urban mobility, as demonstrated by its low congestion and traffic fatality rates.
- While air quality remains a significant issue, Berlin has achieved a 20 percent decrease in car travel and a 25 percent increase in active transport since 1998 through measures such as the introduction of a low-emission zone and investment in the cycling infrastructure.
- Berlin has a thriving shared mobility infrastructure. Many major private automobile companies have their carsharing services, with large fleets of environmentally sustainable cars, in Berlin.



Vision and leadership

As the capital of a country well-known for its innovation in the automobile sector and, more recently, in sustainability policies, Berlin achieves top scores in vision and leadership.

- Berlin has an ambitious and comprehensive plan focused on anticipating future needs of residents, aiming to meet their needs while improving the quality of life for citizens and making the city more sustainable.
- The approval of the self-driving vehicles law in 2017 will clear the way for the development and testing of AVs and make road traffic safer and more efficient.
- By 2030, all new cars made in Germany will be electric. Berlin already has a large number of operational charging points, wirelessly charged electric buses, and has developed an action plan for Electromobility 2020.



Service and inclusion

Berlin scores well in terms of accessibility of its extensive transport network, but due to high fares and relatively low median income, affordability remains an area of concern.

- Berlin has good access to public transport due to the metropolitan heavy rail network, and an extensive bus and tram network.
- Entry and exit points from major transport hubs to the city road network need to be redesigned to more seamlessly connect. For example, roads leading to Berlin Tegel Airport and Berlin Schönefeld Airport are often congested during the peak hour.
- The city does not have a physical smart card system and is reliant on a mobile app for smart ticketing; while benefiting some riders, it is less convenient for others, such as those without smartphones, or tourists unwilling to incur roaming charges.

SUMMARY

The outlook for Berlin's transport network is bright, with a number of innovative schemes undertaken or planned. These can further enhance Berlin's strong position in the mobility index due to its integrated and extensive transport network. Changing the regulatory landscape will support the city's ability to take advantage of the new mobility solutions and become a global leader in developing mobility technologies.

However, there is no room for complacency. The various problems connected to the opening of Berlin Brandenburg Airport and continued delays and uncertainty surrounding Tegel and Schönefeld Airports lead to continued pinch points in the network.

CONTACTS

Simon Dixon

Global Transportation leader
Partner
Deloitte MCS Limited
Tel: +44 (0) 207 303 8707
Email: sidixon@deloitte.co.uk

Haris Irshad

Technical director, Economic Consulting
Deloitte LLP
Tel: +44 20 7007 3297
Mobile: +44 7879 487623
Email: hirshad@deloitte.co.uk

Justine Bornstein

UK Future of Mobility Insight lead
and program manager
Deloitte MCS Limited
Tel: +44 20 7303 2569
Email: jbornstein@deloitte.co.uk

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.

About this publication

This publication has been written in general terms and we recommend that you obtain professional advice before acting or refraining from action on any of the contents of this publication. Deloitte MCS Limited accepts no liability for any loss occasioned to any person acting or refraining from action as a result of any material in this publication.

About Deloitte

Deloitte MCS Limited is registered in England and Wales with registered number 03311052 and its registered office at Hill House, 1 Little New Street, London, EC4A 3TR, United Kingdom.

Deloitte MCS Limited is a subsidiary of Deloitte LLP, which is the United Kingdom affiliate of Deloitte NWE LLP, a member firm of Deloitte Touche

Tohmtsu Limited, a UK private company limited by guarantee ("DTTL"). DTTL and each of its member firms are legally separate and independent entities. DTTL and Deloitte NWE LLP do not provide services to clients. Please see www.deloitte.com/about to learn more about our global network of member firms.

© 2018 Deloitte MCS Limited. All rights reserved