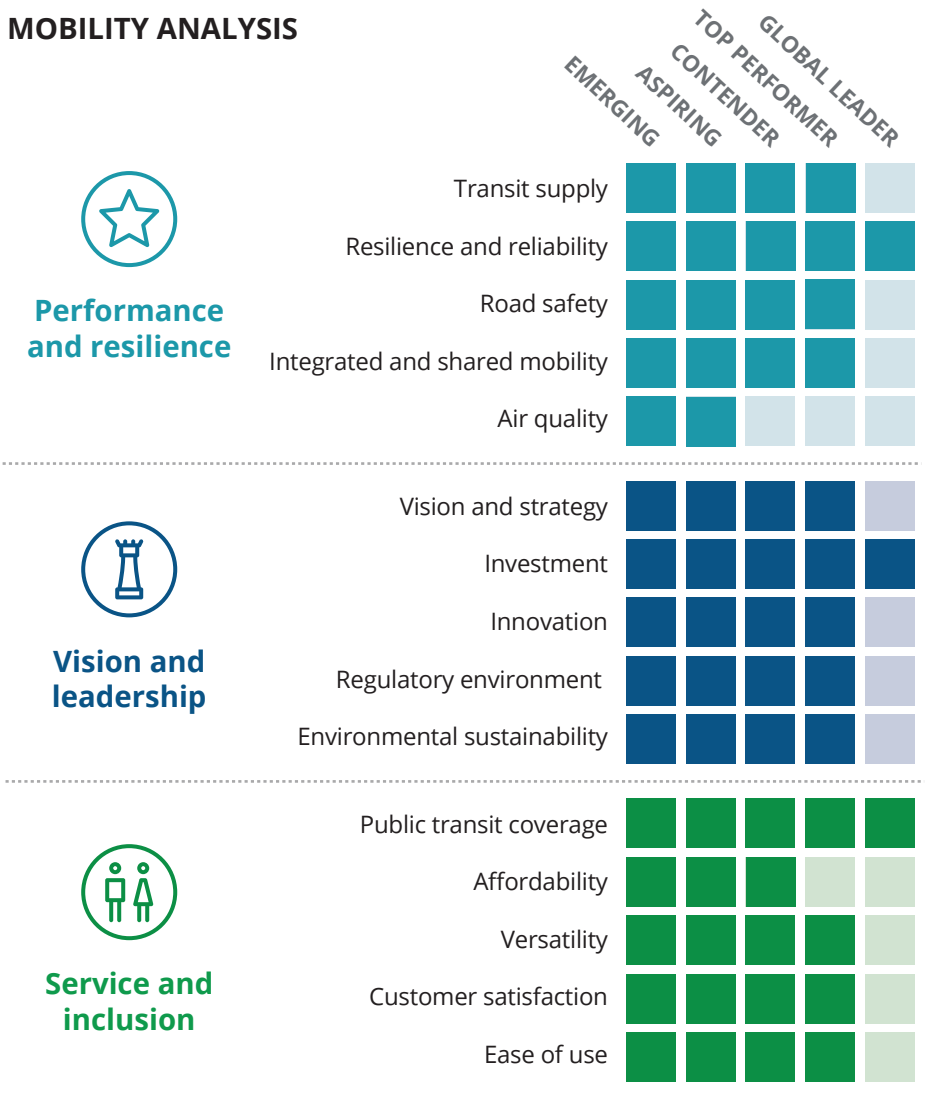


Analysis area

Analysis area: 892 km<sup>2</sup> | Population: 3,520,031 (2015) | Population density: 3,948/km<sup>2</sup>

Definition of analysis area: Greater Berlin that includes some parts of Brandenburg region

### MOBILITY ANALYSIS



### KEY MOBILITY STATISTICS

Metro, tram, bus, rail  
Public transit options

39.8 hours/year  
Time spent in congestion

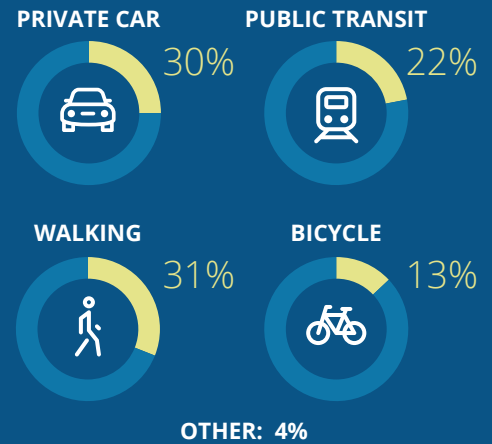
\$117 Average public transit pass/month

\$165.38 billion GDP (OECD report, 2012)

Major transit authority  
Berliner Verkehrsbetriebe (BVG)

Note: All dollar amounts are in USD.

### JOURNEY MODAL SPLIT



### FUTURE OF MOBILITY ANALYSIS



#### STRENGTHS

- A number of open data portals covering a range of transport indicators
- Strong network of universities, research labs and private sector operators developing new mobility solutions, including autonomous vehicles
- Growing network of start-ups in transport and a number of meet-up events

#### CHALLENGES

- Regulatory upgrade around autonomous vehicles related to liability, safety issues and data collection
- National reliance on coal for power generation is affecting air quality with high carbon dioxide emissions per capita
- Berlin has a well-designed tram network 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 leverage the new self-driving vehicle law to become a leader in developing the AV technology



Offer wider range of accessibility options to access network



Implement customer journey analytics to address demand pinch points

## MOBILITY ANALYSIS FURTHER DETAILS:



### Performance and resilience

Berlin is regarded as a global leader for its excellent transport system that scores highly across all aspects of performance.

- Modal mode split: With 70 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.
- Successful modal shifts: Berlin has induced 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.
- Excellent safety and reliability: Heavy investment in infrastructure and public transport have made Berlin's transport system one of the safest and most reliable.



### 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 & leadership.

- Visionary 2030 transportation strategy: 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 self-driving vehicles law in 2017 will clear the way for the development and testing of autonomous vehicles and make road traffic safer and more efficient.
- A national mandate: 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 for accessibility for its extensive transport network but due to high fares and relatively low median income, affordability remains problematic for some users.

- Easily accessible public transport: Berlin has good access to public transport due to the metropolitan heavy rail network (the second-densest in our sample), and an extensive bus and tram network.
- Interlinking and re-designing of entry and exit points from major transit hubs to the city road network can be improved. For example, roads leading to Berlin Tegel Airport and Berlin Schönefeld Airport are often congested during the peak hour.
- No smart cards for travel: 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 overall 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 network.

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. Furthermore, changing the landscape in the regulatory regime is likely to support the city's ability to take advantage of the new mobility solutions and become a global leader in developing mobility technologies.

## CONTACTS

### Simon Dixon

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

### Haris Irshad

Strategy & Operations  
Senior manager  
Deloitte MCS Limited  
Tel: +44 7879 487623  
Email: [hirshad@deloitte.co.uk](mailto:hirshad@deloitte.co.uk)

### Justine Bornstein

UK Future of Mobility Insight lead & program manager  
Deloitte MCS Limited  
Tel: +44 20 7303 2569  
Email: [jbornstein@deloitte.co.uk](mailto: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](https://deloitte.com/insights/mobility-index).

For Deloitte's insights on the Future of Mobility, visit [deloitte.com/insights/future-of-mobility](https://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

Tohmatu 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](https://www.deloitte.com/about) to learn more about our global network of member firms.

© 2018 Deloitte MCS Limited. All rights reserved.