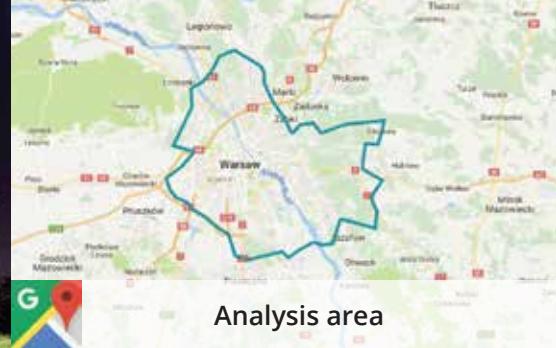


Deloitte City Mobility Index

📍 Warsaw

Analysis area: 517 km² | Population: 1,753,977 (2017) | Population density: 3,391/km²

Definition of analysis area: Warsaw City Area



MOBILITY ANALYSIS



Performance and resilience

GLOBAL LEADER
TOP PERFORMER
CONTENDER
ASPIRING
EMERGING

Congestion	Dark Teal	Medium Teal	Light Grey	Light Grey
Public transport reliability	Dark Teal	Medium Teal	Medium Teal	Light Grey
Transport safety	Dark Teal	Medium Teal	Medium Teal	Light Grey
Integrated and shared mobility	Dark Teal	Medium Teal	Medium Teal	Light Grey
Air quality	Dark Teal	Medium Teal	Light Grey	Light Grey



Vision and leadership

Vision and strategy

Investment

Innovation

Regulatory environment

Environmental sustainability initiatives

Public transit supply

Transport affordability

Versatility

Customer satisfaction

Accessibility



Service and inclusion

KEY MOBILITY STATISTICS

Public transport options*

Metro, bus, light rail, tram, commuter train, bicycle

Monthly public transport pass

US\$32

GDP

US\$141 billion (2014)

Principal transport authorities

Zarząd Transportu Miejskiego (ZTM), Warsaw City Council

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

JOURNEY MODAL SPLIT

PRIVATE CAR



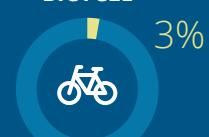
PUBLIC TRANSIT



WALKING



BICYCLE



FUTURE OF MOBILITY CAPABILITY

Warsaw



Significant work to do

Passive environment, a number of barriers

Proactive environment, some barriers

Proactive environment, few barriers

FoM global leader

STRENGTHS

- The city's park-and-ride system decreases on-road parking and increases public transport use; its bikesharing system, Veturilo, was adopted quickly and is growing
- The recently formed Warsaw Public Transport Council aims to enhance collaboration among stakeholders, including urban planners, citizens, and operators
- Dense public transport network and multiple options in the city area, which encourage multimodal journeys

CHALLENGES

- Increasing car ownership with limited road space leads to high peak-hour congestion
- Integrating public transport throughout the entire Warsaw Metropolitan Area to improve coverage
- Defining steps to transition to a 25 percent electric bus fleet by 2030 to improve air quality

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


Assess demand management techniques to reduce congestion and improve air quality


Speed up construction of double tracks for commuter rails and Phase III of the metro expansion


Introduce an integrated mobility card that covers most modes of transport and accompanying services

MOBILITY ANALYSIS FURTHER DETAILS:

Performance and resilience

Warsaw faces high congestion and low air quality due to increased levels of car ownership. Solutions include new shared mobility models and temporary free public transport days.

- Warsaw's city area still experiences congestion despite initiatives to reduce it, such as park-and-ride efforts and a smart parking pilot. The authorities should explore novel approaches, including congestion charging and limiting new registrations.
- The government has experimented with free public transport days to deal with poor air quality. The region needs to adopt stringent longer-term measures, such as phasing out high-emission vehicles.
- Plans are in place to introduce an integrated smart card that covers all modes of public transport, parking, and other municipal services. It will replace plastic/cardboard tickets with a single passenger/citizen account.

Vision and leadership

Warsaw's vision includes using open data to build new transport solutions. It is also redesigning its urban infrastructure to increase cycling and walking.

- The extensive use of open data has led to innovative new startups focused on identifying public transport routes in case of disruptions. Other startups focus on congestion forecasting and smart parking pilots, which could be scaled to improve transport reliability.
- The Polish government recently introduced a bill to legalize testing of self-driving vehicles. The Warsaw Municipal Bus Company plans to make 33 percent of its bus fleet electric by 2020.
- Warsaw is creating more pedestrian- and cycling-friendly spaces. It has invested US\$1.8 million in a new bridge over the Vistula River, thus linking the Powiśle and Praga districts.

Service and inclusion

Warsaw is expanding its public transport supply and has adopted digital measures to increase accessibility and customer satisfaction.

- Further expansions of the Metro Line II linking the eastern and western parts of the city will enhance the already extensive public transport supply with additional options.
- Customer satisfaction has consistently been above 70 percent since 2012, and the metro and trams use accurate digital displays. Similar measures can be adopted for buses serving the peripheral regions to increase ridership and customer satisfaction.
- The city council has installed a network of microtransmitters that, once connected with smartphones, will help visually impaired citizens navigate the system. The entire bus fleet is disabled-friendly, and the metro has elevators and in-station support.

SUMMARY

To realize its vision of future mobility, Warsaw is using open data to facilitate new transport solutions that will help maintain public transport reliability and improve accessibility for the disabled. It has also started to increase electrification of the bus fleet, is redesigning urban infrastructure, and is using shared mobility models. Yet car ownership has been increasing, leading to road congestion and low air quality. The city needs to reenergize its efforts to convert car trips, presently occupying a 32 percent modal share, into active modes of transport. Municipalities do not currently impose congestion charging, but local governments are lobbying for its implementation.

CONTACTS

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

Irena Pichola
Sustainability Consulting Central Europe leader
Partner
Deloitte Advisory sp. z o.o. sp.k.
Tel: +48 502 184 587
Email: ipichola@deloittece.com

Ewa Suszek
Communications manager
Deloitte Poland sp.z.o.o.
Tel: +48 660 459 029
Email: esuszek@deloittece.com

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

Tohmatsu 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