Deloitte. Insights

Deloitte City Mobility Index

Rotterdam–The Hague

Analysis area: 990 km² | **Population:** 2,300,000 (2017) | **Population density:** 2,323/km²

Definition of analysis area: De Metropoolregio Rotterdam Den Haag (The Metropolitan Area of Rotterdam and The Hague) (MRDH)

MOBILITY ANALYSIS

	EMERGING	ASPIRING	CONTENDER	TOP PERFORMER	GLOBAL LEADER
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, tram, light rail, ferry

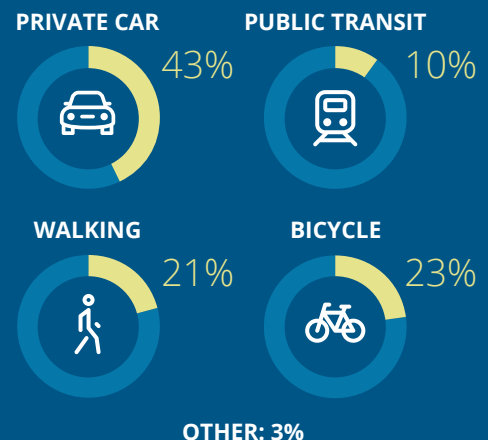
Monthly average public transport pass
US$91

GDP
US$117 billion (2017)

Principal transport authorities
MRDH Transport Authority, HTM, RET, Connexxion, Nederlandse Spoorwegen

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

JOURNEY MODAL SPLIT



FUTURE OF MOBILITY CAPABILITY

Rotterdam–The Hague

STRENGTHS

- Extensive electrical vehicle (EV) infrastructure, with one of the lowest EV-per-public charge point ratios in the world (2:1)
- Strong public-private partnerships are researching issues such as safety concerns, the use of autonomous vehicles (AV) for freight transport, and traffic-related effects
- The region's forward-looking roadmap, recognized as best practice by the European Union, focuses on cleaner energies and technological solutions to overcome challenges

CHALLENGES

- Port-related transport and traffic, and high population density in the urban areas, create high per capita carbon dioxide emission levels
- The regional airport, popular with low-cost carriers, cannot be reached easily by public transport
- Low-income areas need better transport options to improve employment prospects

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

- **Integrate mobility planning with transit-oriented real estate development**
- **Develop a comprehensive open data policy for transportation across all modes**
- **Deploy nudging and dynamic pricing to reduce car use**

MOBILITY ANALYSIS FURTHER DETAILS:

Performance and resilience

Despite an active cycling culture similar to most Dutch cities and a safe and reliable public transportation system, car use remains higher in the region than in other areas. This causes congestion, especially at major entry and exit points.

- Currently heavily dependent on its two main highways, The Hague's new road project, Rotterdamsebaan, should ease congestion at major bottlenecks in and around the larger area. Begun in 2014 for a total cost of EUR 595 million (USD 673 million), the highway is expected to open in July 2020.
- The regional municipalities' targeted investments to ensure traffic safety have been successful. The Zuid-Holland province, which includes the MRDH, saw fewer than 20 road fatalities per million inhabitants in 2016, far smaller than the EU average of 50.
- Many app-based bikesharing companies operate in the two cities, as does the national bikesharing scheme run by Nederlandse Spoorwegen.

Vision and leadership

Targeting a 30 percent reduction in carbon dioxide traffic emissions by 2025, the MRDH has mandated operators to develop concrete plans to make public transport completely emission-free in the next few years.

- HTM and RET are piloting electric and hydrogen-powered vehicles, and local authorities are setting up almost 3,000 vehicle-charging stations.
- Municipalities are partnering with private firms and knowledge institutions on last-mile solutions. The Innovation Network for Last Mile Automated Transport (Automatisch Vervoer Last Mile) has EUR 15 million (USD 17 million) available for research and development of AV testing locations.
- A public-private partnership between the cities and the harbor, The Traffic Entrepreneur (De Verkeersonderneming) conducts research on traffic and related issues. It recommends solutions that individual public entities cannot undertake on their own but can cooperate on jointly.

Service and inclusion

MRDH municipalities have created a highly accessible public transport system but need to improve supply in more remote areas of the region.

- To improve ease of travel between Rotterdam and The Hague, the Randstad light rail network is being expanded and the Sprinter train is increasing its frequency. New trams have been introduced in the Hague region.
- The MRDH runs a taxi service specifically designed for disabled people. Around 1,100 people use this service per day in the conurbation around The Hague. Rotterdam has a similar service that makes around 70,000 journeys a month.
- Remote municipalities such as Midden-Delfland and Westland connect to the rest of the region primarily through buses, which operate far less frequently. As a result, more people in these areas use private cars.

SUMMARY

The main cities in the MRDH region have very different cultural and economic characteristics, which makes resolving mobility issues in an integrated manner a challenge. Rotterdam is very spread out, is bisected by a river, and has Europe's largest port. Cars are much more prevalent here. The Hague, by contrast, is the seat of the national government; most of its civil servants travel by rail, public transport, and bikes. Both cities are congested but for different reasons. Rotterdam's busy port generates a large amount of truck traffic; The Hague is situated at the end of two motorways, which creates frequent bottlenecks during rush hours. The transport authority is focused on creating a reliable and accessible public transportation system by improving integration and increasing the use of electric and autonomous vehicles.

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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 www.deloitte.com/insights/mobility-index.

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