Shared Two-Wheelers: a Pleasure or a Burden?
Shared and active mobility data available in the Netherlands

Hermine Molnár-in ’t Veld
Statistics Netherlands (CBS)

Working Party on Transport Statistics (WP.6) - 75th session
Geneve 24-26 april 2024
Active mobility data: Dutch National Travel survey

Purpose
To compile statistical information on the daily mobility of the Dutch population

In addition, ample attention is being paid to background variables for mobility patterns such as: age, sex, equivalised income, students(railroad card), level of education, participation in society, passenger car availability.

Topics:
Trips, Distance travelled, Time travelled (per person per day/year), and Total transport performance

Periods available:
2018, 2019, 2020, 2021, 2022 (2023 is available in July 2024)
Active mobility data: Dutch National Travel survey

Average number of trips per person per year, the Netherlands

<table>
<thead>
<tr>
<th>Year</th>
<th>Bike</th>
<th>Walking</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>289</td>
<td>162</td>
</tr>
<tr>
<td>2019</td>
<td>276</td>
<td>155</td>
</tr>
<tr>
<td>2020</td>
<td>229</td>
<td>191</td>
</tr>
<tr>
<td>2021</td>
<td>232</td>
<td>224</td>
</tr>
<tr>
<td>2022</td>
<td>274</td>
<td>213</td>
</tr>
</tbody>
</table>

Average distance travelled (PKM) per person per year, the Netherlands

<table>
<thead>
<tr>
<th>Year</th>
<th>Bike</th>
<th>Walking</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>1155</td>
<td>328</td>
</tr>
<tr>
<td>2019</td>
<td>1098</td>
<td>322</td>
</tr>
<tr>
<td>2020</td>
<td>955</td>
<td>411</td>
</tr>
<tr>
<td>2021</td>
<td>979</td>
<td>505</td>
</tr>
<tr>
<td>2022</td>
<td>1108</td>
<td>441</td>
</tr>
</tbody>
</table>
Active mobility data: Dutch National Travel survey

Modal split (% trips), 2022

- Walking: 22%
- Passenger car (driver): 32%
- Bike: 28%
- Bus/tram/metro: 2%
- Train: 2%
- Passenger car (passenger): 10%
- Other: 4%

Modal split (% passenger kilometres), 2022

- Walking: 4%
- Passenger car (driver): 50%
- Bike: 10%
- Bus/tram/metro: 3%
- Train: 9%
- Passenger car (passenger): 18%
- Other: 6%
Active mobility data and shared mobility data

If you would like to combine the results of research into active mobility with the results on shared vehicles, there are a number of points to consider:

• Differences in the definition used for ‘trip’

Definition of ‘trip’ in **active mobility**:
• A trip is a journey or part of a journey made with one motive. For example, the distance travelled from home to work is one trip, regardless of whether one or more means of transport are used.

Definition of ‘trip’ used in relation to **shared vehicles**
• If a vehicle is loaned or shared, this is considered as a ‘trip’. This lasts from the time of loan to the time the vehicle is returned.
Dashboard shared mobility

The knowledge platform **CROW** in the Netherlands has conducted extensive research into shared vehicles.

They have put together a dashboard with data and graphs about almost all shared vehicles in the Netherlands.

The data is provided by almost all companies that offer shared vehicles in NL.

Unfortunately, it is not possible for Statistics Netherlands to obtain the raw data because it is owned by the individual companies.

CROW has offered to provide aggregated data in consultation.
Dashboard shared mobility

Table of Contents of the Dashboard

**Vehicles**
- Vehicle Types
- Propulsion Types
- Vehicle Status

**Events**
- Event Times

**Telemetry**
- GPS Data

**Stops**
- Stop Status

**Trips**

**Reports**
Dashboard shared mobility

Presented in this map are the number of shared bicycles in clusters. There are also heat maps and zone maps available in the Dashboard. For more information see: Dashboard Deelmobiliteit | Een project van CROW
The state of shared mobility

In addition to the Dashboard, CROW has also published a publication named the State of shared mobility of which I present you a number of results.

Some vehicle types mentioned:

<table>
<thead>
<tr>
<th>vehicle type</th>
<th>propulsion_type</th>
<th>max_permitted_speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycle</td>
<td>human</td>
<td>-</td>
</tr>
<tr>
<td>Bicycle with pedal assist</td>
<td>electric_assist</td>
<td>25</td>
</tr>
<tr>
<td>Moped &lt;= 25 km/h</td>
<td>electric</td>
<td>25</td>
</tr>
<tr>
<td>Moped</td>
<td>electric</td>
<td>45</td>
</tr>
<tr>
<td>Scooter</td>
<td>electric</td>
<td>25</td>
</tr>
<tr>
<td>Human powered cargo bike</td>
<td>human</td>
<td>-</td>
</tr>
<tr>
<td>Electric cargo bike</td>
<td>electric_assist</td>
<td>25</td>
</tr>
<tr>
<td>Shared combustion car</td>
<td>combustion</td>
<td>-</td>
</tr>
<tr>
<td>Shared electric car</td>
<td>electric</td>
<td>-</td>
</tr>
</tbody>
</table>
The state of shared mobility

There are several variations in both the pick-up and drop-off options after a ride with a shared vehicle such as:

• **Round trip**: A service that requires several vehicles to be transported to the same parking lot or zone where they are picked up. This is also the case with shared bicycles Called 'Back-to-One'.

• **Free Floating**: Service where vehicles do not have to be welcomed to the location where they are picked up.

• **Back-to-Many**: Service where vehicles can be adapted to a network of designated locations.
The State of shared mobility

Offer of shared vehicles in the Netherlands

In the year 2023, the Netherlands had more than 47,000 shared vehicles.

The majority of these vehicles are shared bicycles (59%).
The State of shared mobility: bicycles

The total number of shared bicycles throughout the Netherlands will have risen to more than 27,500 in 2023, that is an increase of 10% compared to 2022. This includes electric bicycles.
Shared cargo bicycles

The shared cargo bike is a relatively new form of shared mobility, the first providers active in the Netherlands are less than five years old. Like the other sharing modalities they are mainly concentrated in the big cities, especially in Rotterdam and The Hague. In 2022 there were only six municipalities and in 2023 ten municipalities with shared cargo bikes.
Shared mopeds (scooters)

Instead of investments the market for shared scooters are now increasingly focusing on returns. In some areas this has led to withdrawal. This had a direct major impact on the national figures.

The total number of shared scooters has fallen to 10,500 in 2023, a decrease of 29% compared to 2022. This decrease is due to the withdrawal of one of the scooter sharing providers in a large number of cities in the Netherlands after bankruptcy. This provider now has one restarted,

Utrecht and Leiden banned the shared scooter from their towns. Utrecht argued that they focus on walking and cycling in the city. An electric bicycle has a comparable range as the shared scooter. Municipalities are taking more control over shared transport.

• Results: a shift from mainly Free Floating offerings to a Back to Many system.
• Providers introduce initiatives to prevent illegal parking, alcohol consumption and nuisance.

Since January 2023, a helmet has been mandatory also for light mopeds.
Shared vehicles: a Pleasure or a Burden?

Although the use of shared two-wheelers can provide benefits for the environment and convenience for the user, there are also disadvantages.

Cities are struggling with electric bicycles, scooters, etc. In different cities there is a maze of different rules for using them. Sometimes vehicles are allowed on the cycle path and sometimes they are banned from the road or even not allowed.

Kick scooters are not allowed in traffic in the Netherlands. There are no traffic rules yet.
Two wheeler vehicle fleet

**Bicycle fleet**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>17,8</td>
<td>18,0</td>
<td>20,0</td>
<td>20,8</td>
<td>22,3</td>
<td>22,5</td>
<td>22,7</td>
<td>22,8</td>
<td>22,8</td>
<td>22,9</td>
<td>22,9</td>
<td>23,1</td>
<td>23,4</td>
<td>23,5</td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Estimation RAI Vereniging*

**Sales of new bicycles**

<table>
<thead>
<tr>
<th>Total (x 1.000)</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>297</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Of which e-bikes (x 1.000)</td>
<td>957</td>
<td>1.011</td>
<td>1.007</td>
<td>1.098</td>
<td>923</td>
<td>855</td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: GFK, edit RAI vereniging*

Only the bicycle fleet is shown here, but this source also has figures for other two-wheelers. Statistics Netherlands does not know how the fleet is composed. Source: [kerncijfers-tweewielers-2023.pdf](/kerncijfers-tweewielers-2023.pdf)
facts that matter