



Table of Contents

<i>Benefits of cycling</i>	2
<i>The development of cycling in the Netherlands</i>	3
<i>Accident liability</i>	3
<i>Bicycle parking in the Netherlands</i>	4
<i>E-bike & Speed Pedelec; rules & regulations</i>	4
<i>Impact of bicycle lanes on local business and property</i>	5
<i>DCE projects overview</i>	5
<i>Number of bicycles in the Netherlands</i>	5
<i>Length of cycle paths in the Netherlands</i>	5
<i>How much the Dutch cycle</i>	5
<i>Efforts of Dutch government to improve cycling</i>	6
<i>Cyclist casualties</i>	6
<i>Modal split</i>	6
<i>Cycling facts Amsterdam</i>	7
<i>Traffic violation fines; bicycle vs. car</i>	7
<i>Theft statistics in the Netherlands</i>	8

Benefits of cycling

What are the benefits of cycling? Over the last few years, there has been a growing attention on cycling worldwide. An increasing number of cities are elaborating strategies to increase levels of cycling. Although many cities set ambitious goals, progress is often slow and very localized. Despite these disparities, research on cycling is clear: cycling is good for people and society as a whole. People cycling regularly live longer and healthier lives. People also report feeling happier when they commute by bicycle than with any other form of transport. With an increasing proportion of people living and working in cities, the bicycle represents a practical alternative to the current car-oriented societies we live in. With the appropriate infrastructure and bicycle-friendly policies to make cycling safe in cities, it is possible to reduce and avoid traffic congestion and spend the time saved on more meaningful activities. Because of the small amount of space required to cycle, the bicycle is a more efficient way to move people in the constrained physical space of cities than for example by car. Furthermore, as the visibility of the effects of climate change increases, cycling helps us reduce our impact on the environment. Cycling is also beneficial to the economy. A bicycle is cheaper to buy and maintain than a car, which also makes it more equitable. Businesses in areas with higher levels of cycling tend to perform better than the more car-oriented areas. Taking cycling as a mode of transport seriously, per example by developing cycling friendly policies and comprehensive bicycle infrastructure makes cycling easier and safer for cyclists. Investing in cycling benefits not only cyclists, but also other road users, including car drivers, as cities become less congested and less polluted.

- *Health benefits*

Cycling is good for you! Riding a bicycle is a healthy, fun and low impact form of exercise for all ages. Employees cycling to work are less likely to call in sick. Cycling keeps you fit longer and your immune system young. In conclusion, cycling contributes to living a healthy life.

- *Economic benefits*

Cycling is a low-cost mode of transport for both individuals and society as a whole. Cycling requires a lower individual investment than driving a car. Each trip is free, and maintenance is minimal. Each kilometer cycled yields a benefit to society whereas each kilometer done by car and public transport generates a cost on society.

- *Environmental benefits*

Cycling and walking are the ways to move around which have the least impact on the environment. Switching from driving to cycling reduces carbon emissions and improves air quality. Cycling is good for the planet and for the quality of life in cities.

- *Happiness benefits*

People who cycle to work associate cycling with happiness. Cycling encourages social interactions between different road users. It improves mental health, wellbeing and helps reduce stress.

- *Accessibility benefits*

Cities are struggling for space. As the number of residents is continually growing, there is increasing competition for a limited amount of public space. Given that bicycles take up less space than a car, replacing cars by bicycle frees up space in your city to create more room for green spaces and for people to meet each other.

- *Safety benefits*

Planning for the promotion of cycling and walking creates cities safer for cyclists and pedestrians but more broadly for all road users. Statistically, cyclists are less likely to cause deadly collisions.



- *Social equity benefits*

Cycling is a democratic mode of transportation. It offers greater mobility to virtually everyone regardless of origin, age, income or physical ability. The bicycle increases social participation and is an inexpensive solution to transport poverty.

For more information, facts and figures on the benefits of cycling, please refer to our Dutch Cycling Vision: <https://www.dutchcycling.nl/organization/downloads>

The development of cycling in the Netherlands

How did the Netherlands develop their cycling culture and infrastructure throughout the years? Cycling in the Netherlands hasn't always been taken for granted. The Dutch have been early adopters of building highways. From the end of the 1950s, the car became the dominant mode of transportation and the number of cars on the road increased continuously. The few bicycle paths built at that time were not aimed at bringing comfort to cyclists but intended as a way of moving them to the sides in order to create more space for cars on the roads. What has changed then, to explain that most people see the Netherlands as a cycling paradise these days? Several factors came together in the mid to late 70's. The high number of traffic casualties, particularly amongst children, was a reason for public outrage and demonstrations. The oil crisis made everyone aware that society heavily depended on oil and of the risks that came with it. As a consequence, several grassroots movements were created and called for change. Grassroot movements also became stronger in their pursuit of safer cities and safer cycling. But there was no national policy on cycling yet and differences between cities were vast. As a result of public pressure, urban planning policies gradually evolved and started considering the bicycle as part of mobility. The bicycle regained an importance in city planning which led to an effort to increase the density of urban development and the containment of urban sprawl. It also led to a bicycle infrastructure construction program. As infrastructure for cycling was built, planners started to shift their thinking from considering infrastructure in isolation to designing full networks of cycle paths in cities. The city of Delft was one of the first to create a whole network of cycle paths. These initiatives transformed cities into places where children and the elderly, rich and poor, and even the queen cycled. As a consequence, the number of people cycling started to increase again. Fast forward from there, a national cycling policy was adopted in the 1990's and cycling networks are now present in almost every city in the Netherlands. This led to a large reduction in the number of cyclists killed in traffic. Nowadays, even with a growing population of people in their sixties and seventies, everyone in the Netherlands cycles. The older age group shows a rise in the distance travelled by bicycle every year. This increase is primarily due to the combination of an improvement of the fitness-level of this age group and the growing use of electric assisted bicycles. What happened in the Netherlands is special and it delivers. But it is not that special that it can't be done anywhere else.

Source: https://www.dutchcycling.nl/images/downloads/Dutch_Cycling_Vision_EN.pdf

Accident liability

Are cars by definition liable when involved in an accident with a cyclist in the Netherlands? There is a law in the Netherlands that facilitates "strict liability". This does not imply that when an unintentional accident occurs between a car and a cyclist, the car driver is always liable. The outcome of this law lies a bit more complex. A better understanding of this law can be found on the website of our participant Bicycle Dutch: <https://bicycledutch.wordpress.com/2013/02/21/strict-liability-in-the-netherlands/>

Bicycle parking in the Netherlands

Is there information available about the development and the capacity of bicycle parking in the Netherlands?

There is a big development taking place in the Netherlands concerning bicycle parking in which the government has included extra parking possibilities in their policy, especially specified to (underground) parking at train stations. Utrecht recently opened the largest underground bicycle parking facility that eventually can host 12.500 bicycles. Amsterdam has started building a new underground bicycle parking facility at Amsterdam Central Station which will have a capacity of 7.000 spaces and is set to open in 2021. Maastricht has opened their underground bicycle parking facility as of 2018, which hosts 3.000 parking spots and made parking in front of the station illegal (and redundant). The national government has announced in November 2018 that together with municipalities, it will create another 25.000 bicycle parking spots at train stations. One of our participants, Bicycle Dutch by Mark Wagenbuur, has an abundance of information about different bicycle parking facilities near train stations. You can find this information here:

<https://bicycledutch.wordpress.com/tag/cycle-parking/>

E-bike & Speed Pedelec; rules & regulations

What are the rules and regulations on the E-bike/speed pedelecs in the Netherlands? The Netherlands are facing challenges when it comes to rules and regulations on e-bikes and speed pedelecs. There is discussion about the right place for these bicycles, especially the speed pedelec as it can reach speeds up to 45 km/h. Legislation on this and on other matters are still being developed, but the general rules and regulations applied to e-bikes and speed pedelecs are as follows:

E-bikes: same rules apply as for a regular bike;

- No license needed
- No insurance is obligatory
- No license plate needed
- No minimum age
- No helmet needed
- Cycle roads have to be used

E-bikes are identified by a number of characteristics:

- It enforces pedaling until 25 km/h
- Pedaling is required in order to move
- The electric motor has a maximum power of 250 watt.

Two most important differences between the e-bike and the speed pedelec:

- The e-bike enforces pedaling until 25 km/h, the speed pedelec enforces pedaling until 45 km/h
- An e-bike motor has a maximum power of 250 watt, a speed pedelec motor has a maximum power of 4.000 watt

Speed pedelecs: other rules apply than for regular bikes;

- Driver's license needed
- Insurance is obligatory

- License plate needed
- Minimum age of 16 applies
- Helmet is required
- Cycle roads have to be used
- Maximum speed is 45 km/h
- Driving on the bicycle lane is not allowed

Impact of bicycle lanes on local business and property

Are there any statistics on local shop revenue changes and/or property value changes when bicycle lanes are installed? There has been long debate about the effects of reducing the number of car parking space to make way for bicycle lanes and the effects it has on local business. Although there is no general answer as each city differs, the overall outcome tends to lean towards positive effects on local retail where bicycle lanes occur. The development tends to also show positive effects on property value. Two articles that show the effects in different cities can be found on the following pages:

<https://sustainable.org.nz/sustainable-business-news/cycle-lanes-are-good-for-retail/>

<https://www.citylab.com/solutions/2015/03/the-complete-business-case-for-converting-street-parking-into-bike-lanes/387595/>

DCE projects overview

Have there been bicycle related projects in my country in which the DCE was involved? For an overview of all our past projects, please have a look on the map on the following page: <https://www.dutchcycling.nl/countries>

Number of bicycles in the Netherlands

How many bicycles are there in the Netherlands? There are 22.8 million bicycles in the Netherlands in 2017 of which 1.8 million are e-bikes. In addition, the Dutch own over 14,000 speed Pedelecs. Compared to the Dutch population of 17 Million, that's an average of over 1.3 bikes per person. That is the highest number of bicycles per person in the world. Source: <https://www.fietsersbond.nl/ons-werk/mobiliteit/fietsen-cijfers/>

Currently 3 out of 10 bicycles sold are e-bikes.

Source: Cycling Facts KiM p.9: <https://english.kimnet.nl/publications/publications/2018/04/06/cycling-facts>

Length of cycle paths in the Netherlands

What is the length of cycle paths in the Netherlands? There is around 33.000 km of cycle path in the Netherlands. Source: <https://www.fietsplatform.nl/fietsrecreatiemonitor/cijfers>

How much the Dutch cycle



How much do the Dutch cycle? In total, the Dutch cycle around 15 billion kilometers a year. That is more than 880 kilometers per person, divided over about 250 to 300 bike rides. That makes the average distance traveled by bicycle per trip around 3 km. The number of kilometers travelled by bicycle has increased by 12% since 2005. Source: <https://www.fietsersbond.nl/ons-werk/mobiliteit/fietsen-cijfers/>

Source: Cycling Facts KiM p.5 <https://english.kimnet.nl/publications/publications/2018/04/06/cycling-facts>

The distribution of trips by mode of travel 2016:

Car: 47%
Bicycle: 27%
Walking: 18%
Bus, Tram, Subway: 3%
Train: 2%
Other: 3%

Source: Cycling Facts KiM page 3: <https://english.kimnet.nl/publications/publications/2018/04/06/cycling-facts>

Efforts of Dutch government to improve cycling

What is the Dutch government doing to further improve cycling in the Netherlands? The government sets out objectives to promote and increase the level of cycling. The current bicycle agenda is named 'Tour de Force 2020'. The objective of this plan is to contribute to the ambitious objective to increase the number of kilometers cycled over the period 2017-2027 by 20 percent. To do so, the agenda defines the different actions needed to reach the objective as well as different actors required. This plan follows several other national bicycle plans going back to the early '90s. These plans are then integrated in the regional and local plans. The national plan helps creating a continuity and consistency of the bicycle infrastructure and coordinated action for better cycling. The full "Tour de Force 2020" is found here: <http://tourdeforce2020.nl/en/documenten>

Cyclist casualties

How many cyclist casualties occur annually in the Netherlands? In 2016, there were 189 road deaths among cyclists in the Netherlands. This data refers to all casualties registered as cyclists, and therefore includes riders of pedelecs, racing bikes, speed pedelecs, cargo bikes, etc.

In the past ten years, the number of road deaths among cyclists did not change much, whereas the number of road deaths decreased in most modes of transport during that period. The number of road deaths among car occupants, for instance, showed an average decrease of just over 6% a year during the period 2006-2015

There is no exact data on the number of seriously injured cyclists. It is estimated that in 2015 they were responsible for 63% of the total number of serious road injuries. This would correspond to over 13.000 seriously injured cyclists.

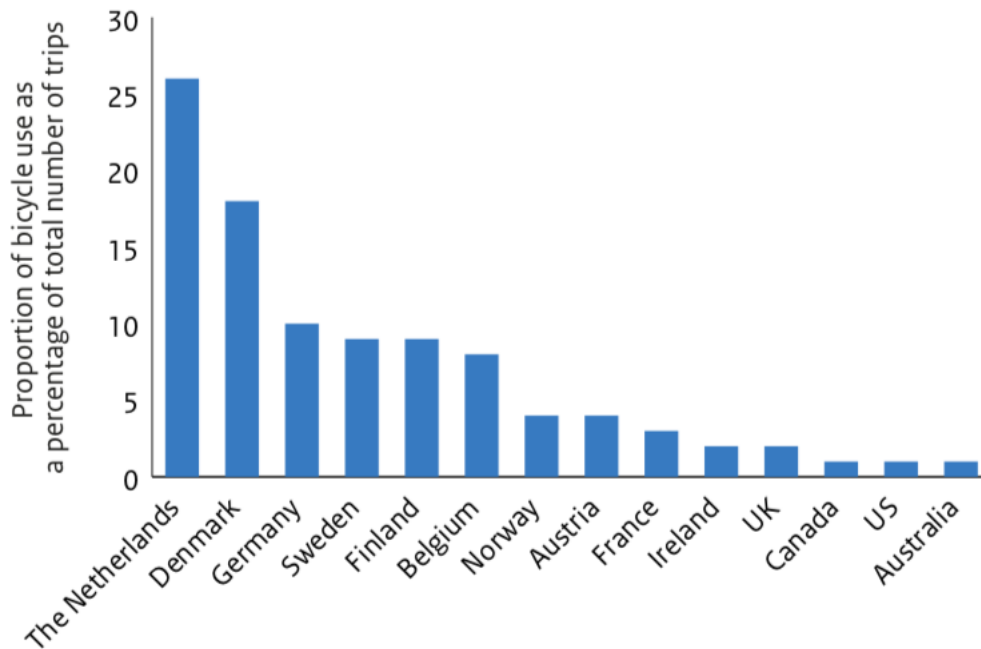
Source: <https://www.swov.nl/en/facts-figures/factsheet/cyclists>

Modal split

How is bicycle use in the Netherlands compared to other countries? Measured by modal split, Netherlands is leading with 27% of all trips taken by bicycle.

The Netherlands is the unrivalled number one bicycling nation⁴

Figure: Proportion of bicycle use as a percentage of total number of trips in several countries.



Source: Cycling Facts KiM page 4: <https://english.kimnet.nl/publications/publications/2018/04/06/cycling-facts>

Cycling facts Amsterdam

How much do people cycle in Amsterdam? A total of 2.2 million kilometers is cycled every day in Amsterdam. Between 1990 and 2016, the number of trips by bike has grown with 50% from 445.000 to 665.000 trips daily. Currently, more than half of all journeys in Amsterdam city center (within the A10 ring road) are by bike. In the historical city center, that figure rises to over 60%. The bike is the most used means of transport in the city.

Source: <https://www.iamsterdam.com/en/our-network/media-centre/city-hall/dossier-cycling/cycling-faq>

What is the length of cycle paths in Amsterdam? There is estimated to be 767 km of bicycle lanes in Amsterdam. Source: <https://www.iamsterdam.com/en/plan-your-trip/getting-around/cycling/amsterdam-cycling-history>

Traffic violation fines; bicycle vs. car



What fines are there for cyclists in the Netherlands? Just like any other mode of transport, cyclists in the Netherlands have to abide the rules. Here are some of the most “popular” fines and their price in 2019, for bicycles and (as comparison) for cars.

	Bicycle	Car
No/ inadequate rear or front lights (when necessary):	€55,-	€95-€140,-
Driving through red traffic lights:	€95,-	€240,-
Parking where it is forbidden:	€35,-	€95,-

As of July 2019, it will be forbidden to use an electronic device (mobile phone included) while riding a bicycle. The fine for this violation is set to be €90,-. For cars, this is already in use and the price (for 2019) is €240,-. Source: https://www.om.nl/onderwerpen/boetebase/?boete_tree=21960,21912#beslissingpad2196021912

Theft statistics in the Netherlands

How many bicycles get stolen per year in the Netherlands? Although the actual number is unknown, the estimate of the number of bicycles stolen (in 2017) is 450.000. The same year, only 96.507 people reported the theft of a bicycle with police. This equals a report percentage of only 25% of all bicycle theft.

Source: <https://www.unive.nl/blog/fietsdiefstal-geschat-op-450-000-per-jaar>