



National Institute for Public Health
and the Environment
Ministry of Health, Welfare and Sport

Cycling in the Netherlands



Facts & Figures¹

Inhabitants	: 17 million
Number of bicycles	: 23 million
Cycling trips	: more than 25% of all trips
Cycling trips < 7.5 km	: one-third of all trips < 7.5 km
Increase in e-bike use	: Possession and use of e-bikes is on the rise: of the 23 million bicycles, 2 million are e-bikes.

Netherlands the unrivalled number one cycling nation

In the Netherlands, more than 25% of all trips is made by bicycle, which is relatively high compared to other countries (Figure 1). Even with an ageing population, a very large majority cycles. The number of bicycles in the country outnumbers the amount of people; Cycling is part of our way of life. Cycling and sport participation are the most important contributors to adhering to the physical activity guidelines.⁵ The three maps together show geographical patterns of cycling for recreational and transport purposes and cycling as a sport complementing each other building up to adherence to the physical activity guidelines. (Figure 2).

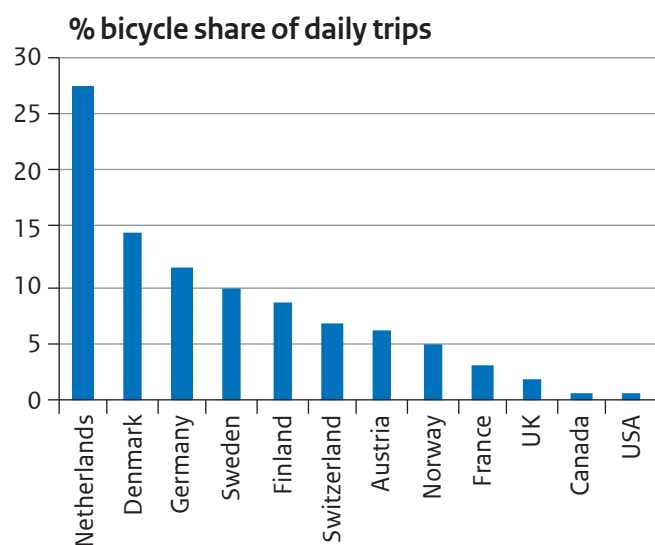
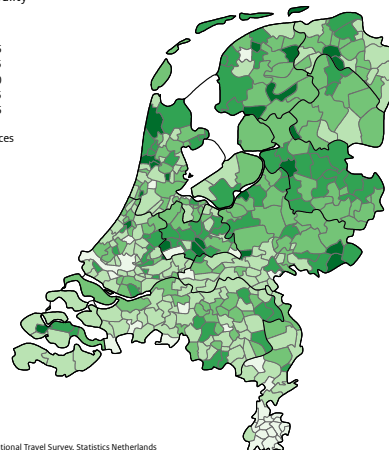
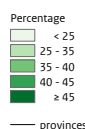


Figure 1. Bicycle share of daily trips in selected countries.²

Cycling is a crucial part of daily physical activity in the Netherlands

Cycling as mode of transport < 7.5km 2010-2013

By municipality



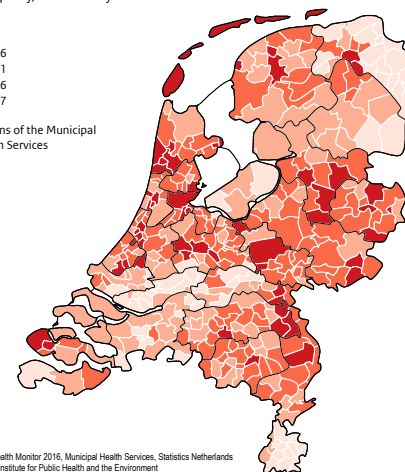
Source: Dutch National Travel Survey, Statistics Netherlands

Adherence to physical activity guidelines 2016

By municipality, adults ≥ 19 years



Regions of the Municipal Health Services



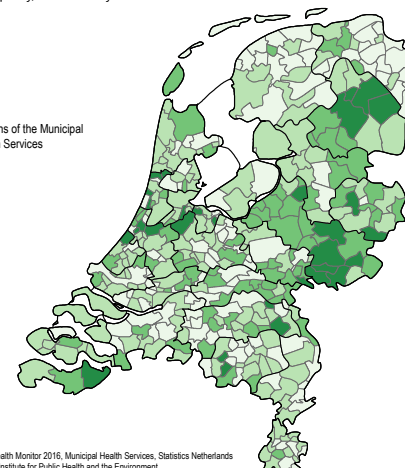
Source: Dutch Health Monitor 2016, Municipal Health Services, Statistics Netherlands and the National Institute for Public Health and the Environment

Cycling as sport 2016

By municipality, adults ≥ 19 years



Regions of the Municipal Health Services



Source: Dutch Health Monitor 2016, Municipal Health Services, Statistics Netherlands and the National Institute for Public Health and the Environment

Figure 2. Geographical images of cycling and adherence to the physical activity guidelines in the Netherlands (www.sportopdekaart.nl)

Examples of how cycling is implemented in Dutch society

Joint Bicycle Agenda 2017-2020

In this Agenda, the Dutch government utilizes the power of cycling in an integral implementation process based on mobility, spatial planning, sustainability and health. The Ministry of Infrastructure and Water Management has a leading role and works closely with the Ministry of Health, Welfare and Sport, the Ministry of the Interior & Kingdom Relations and the Ministry of Finance. Clear links are set up with the Sports Agreement and the Prevention Agreement. The modal share of cycling in the Netherlands is high. However, there still is room for further growth.

The Tour de Force entails a comprehensive coalition of governments, companies, civil society organisations, research institutes and associations responsible and involved in the bicycle policy of the Netherlands. This coalition aims to increase the number of kilometres cycled in the period 2017-2020 by 20 percent. For this purpose, nine goals were installed:

1. Netherlands as the leading bicycle country
2. More room for the bicycle in cities
3. Boosting the quality on busy and important regional cycling routes
4. Optimize the transition between modes, public transport bike and car-bike
5. Targeted promotion of cycling
6. Less cycling accidents
7. Less bicycle theft
8. Increase knowledge
9. Environmental visions



The Dutch Cycling Embassy published the Dutch Cycling Vision³ to assist cities and regions around the world making cycling an option for everyone.



Public Transport-Bicycle (OV-fiets)

This is a Dutch bike sharing initiative, which provides bicycles at train stations and some other spots, for public transport users. They can use the bicycle to reach their final destination. Users have to return the bicycle at the end of the day at the (un)guarded storage of the station from which they picked up the bicycle. Users are able to lock the bicycle anywhere at any time during their day. This way it is possible to rent a bicycle for a low fee. Evaluations show that these kinds of programmes stimulate cycling. It is difficult though to assess the impact on modal shift.



Promoting cycling among children in low socio-economic areas.

The municipality of Rotterdam wanted to improve air quality and increase bicycle use in a poorer, multi-cultural area of Rotterdam. This led to the development of the Programme 'Cycling on the South Bank of Rotterdam'. This program has a focus on portraying cycling as a fun and cool form of transportation, as opposed to many other initiatives, which portray it as sustainable and environmentally friendly. They collected information from parents and a local elementary school to get insights into problems and they mapped the local environment surrounding the school in terms of safe travel routes. The number of children who came to school by bike increased from 20% to 35%.



Cycling highways

These bicycle paths have their own recognizable infrastructure, with a good flow, meaning no cross overs with motorized traffic, better asphalt, no traffic lights. The ambition is to realise a network that connects living and working areas with each other; stimulating car drivers living within 15 kilometres from work to use their bicycle to work and to reduce congestions. In 2006, Cycle Congestion Free started as one of the forty projects of the ‘Congestion proof’ programme of the Dutch Ministry of Transport, Public Works and Water Management (now the Ministry of Infrastructure and Water works). It is an intersectoral cooperation with multiple road managers, pro active process management and a strong communication strategy. Currently, it has grown to be a platform around bicycle stimulation. Users tend to rate the highways very positively, but results for a change in modal split towards cycling vary highly depending on the location. There is an accompanying website (www.fietsfilevrij.nl) providing cycling routes for several distances and for all parts of the country.



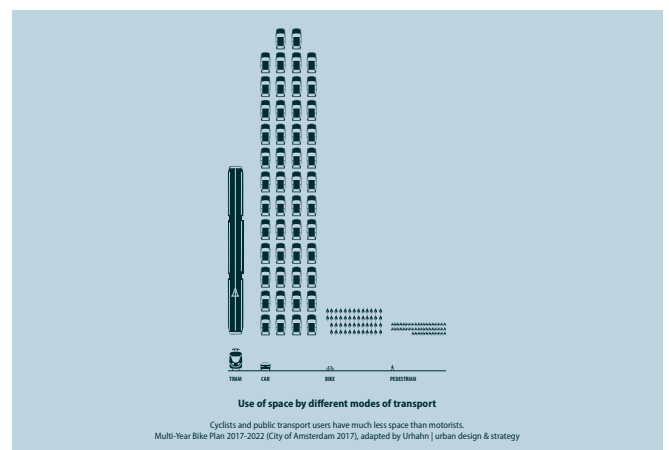
‘CycleOn’ (Doortrappen)

Cycling is of great importance for the Dutch elderly society. Unfortunately, after a bicycle accident elderly often stop riding their bikes. Therefore, giving up cycling inevitably leads to isolation and dependency. The Dutch program ‘CycleOn’ motivates elderly to continue living a healthy life and enjoying the pleasure of riding their bicycles, at the same time emphasising safety measures. The program collaborates with representatives of local social networks. Examples of interventions are special exercises that can be incorporated in the weekly gym class and posters in bike shops to catch the attention of the elderly. CycleOn has been tested in four municipalities in 2017 and is now implemented in several regional areas in the Netherlands.



More efficient use of space

In the Netherlands and in other parts of the world, more and more people live in cities. This often leads to densification of cities. To keep cities liveable, and to have room for all the activities one wants to host in a city, smart use of space is essential. The figure below presents the use of space for different transport modes. It shows that bikes use much less space than for example cars. Replacing short car trips by cycling therefore not only results in better health, but it also enables a more efficient use of space.



What cycling brings to society



Environment^{3,4}

- Decrease in air and noise pollution and greenhouse gas emissions. For example, Carbon dioxide emission of a cyclist is more than 90% lower than the emission caused by a car driver.
- Less congestion (if shift from motorized transport to active transport).
- Cycling stands for an easy means of transport; within the urban environment locations are more easy to reach by bike than by motorized transport.
- Cycling-friendly cities develop safe cycling infrastructure and have fewer casualties among cyclists.



Health^{3,4,5}

- Cycling stands for physical activity of at least a moderate intensity, which is associated with lower body mass index and decrease obesity, reduced prevalence of type 2 diabetes, reduced cardiovascular morbidity/mortality and improved mental health. For example, irrespective of age, active individuals have an 18% lower risk of depressive symptoms than inactive individuals and among adults, 150 minutes of moderate intense leisure-time physical activity is associated with an 18% lower risk of cardio metabolic diseases.⁵
- Cycling is associated with Increased self-sufficiency and social activity.
- Positive effects related to less noise/air pollution (only if more active transport is accompanied by a decrease in motorised transport).
 - Decreased rates of respiratory and cardiovascular diseases.
 - Improved sleeping patterns.
 - Less noise.



Equity^{3,4}

- Reduced exposure of social disadvantages groups to traffic, air pollution and related adverse effects.
- Increased physical activity among low income and ethnic minority adults.
- Cycling is associated with higher levels of social activity and interaction; it keeps the elderly socially connected and requires social interaction with other road users.



Economy^{3,4}

- Cyclists more frequently than car users visit shops and city centres.
- Bicycles take up less space than cars and motor cycles.
- The annual costs of riding a bicycle are only 25% of the annual costs of driving a car.
- The (economic) benefits of cycling are larger than the costs of cycling measures.

Cycling delivers on the Sustainable Development Goals (SDGs), which gives yet another reason to invest more in cycling. Cycling is directly linked to eleven out of the seventeen SDGs⁶



The Netherlands

The Netherlands is a decentralized unitary state in which different tasks are carried out at different levels (Central, Provincial and Municipal). The Netherlands has 12 provinces, different in size and population. The climate is typically maritime with mild summers and cold winters. The Netherlands features flat landscapes and wind and rain are common throughout most of the year.

Colofon

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References

1. Harms L, Kansen M. *Cycling Facts*. Netherlands Institute for Transport Policy Analysis. The Hague, 2018.
2. Buehler R. *Bicycling levels and trends in Western Europe and the USA*, GEOAGENDA, 2018, No. 1, pp. 10-13.
3. Dutch Cycling Embassy. *Dutch cycling vision*. 2018.
4. Staatsen B et al. *Exploring triple-win solutions for living, moving and consuming that encourage behavioural change, protect the environment, promote health and health equity*. 2017 (www.inheret.eu).
5. Health Council of the Netherlands. *Physical activity guidelines 2017*. The Hague, 2018. No. 2017/08e.
6. World Cycling Alliance and the European Cyclists federation. *Cycling delivers on the Global Goals. Shifting towards a better economy, society, and planet for all* (www.ecf.com/global-goals).

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