

# Dutch Cycling Vision - The Wellbeing of Cycling

ENGLISH

This publication explores the Dutch perspective on cycling and the many benefits it has provided to people around the world today and in the future.



CYCLING FOR EVERYONE, EVERYWHERE.



# Colophon



Photo: Modacity Creative

## Dutch Cycling Vision

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# 01.

# Cycling - The Foundation for Happier Places

Cycling is an expression of human movement – an innate act without borders that brings people and places together. The Netherlands has long been a global leader, having embraced cycling as part of the cultural experience, and leading to happier, healthier, and more socially connected people of all ages.

In the face of all of today's global challenges, the Dutch experience of policy, design, and development over the last 50 years provides a glimpse into the potential for global communities. For those rediscovering cycling not only as a vehicle but as a tool for social connection, resilience and joy.

Humane and inclusive mobility is possible when societies prioritise collective forms of mobility over individual needs, and when cohesive networks planned for all modes support greater accessibility and vibrant public spaces.

The Dutch story is not perfect. It is the result of decades of experimentation, trial and error, public and political will, design innovation that prioritises human scale mobility, and a continuous spirit of learning and adapting to an ever-evolving mobility landscape.

The Dutch Cycling Embassy sees cycling knowledge and expertise not just as an export, but as a shared practice that can be achieved in cities around the world. It is the foundation for happier places that provides accessibility to anyone regardless of age, ability, gender, socio-economic status, race, or geography.

The Dutch Cycling Vision is one that recognises every city has the potential to be a great place for cycling. Not simply by copying what the Netherlands has done, but by using the Dutch experience as the outline to write their own cycling story. One that reflects and celebrates their local culture and character.

The benefits of cycling to both a place and its people are myriad. Cycling enables freedom and autonomy to users, economic vitality to residents and businesses, and resiliency to the spaces that make communities welcoming, attractive, and accessible to everyone.

The future of cities is still being written. As places adapt and evolve to meet the challenges of a changing climate, urban growth, and increased globalisation, cycling can be a way to pedal towards a global landscape that makes space for all the ways we move, particularly those that keep us active, healthy, happy, and more social.

When streets are designed for human movement rather than only for cars, everyday life becomes more enjoyable and more accessible for everyone, everywhere.



Photo: Modacity Creative

# 02.

## Why do the Dutch cycle so much?

Cycling in the Netherlands hasn't always been a given. The Dutch were early adopters to embrace the private automobile and start designing their cities for cars. From the end of the 1950s, driving became the dominant mode of transportation, with the number of cars on the road increasing rapidly. The few cycle paths that had been built at that time were not about making cycling comfortable but rather to move cyclists out of the way to create more space for cars on the roads.

What makes the Dutch story important to the history of cycling is that, through a series of events in the mid- and late-1970's, the Netherlands changed its trajectory, making way for the reality people see today - a cycling paradise.

Becoming a cycling nation is not the result of one specific moment in history but rather a combination of historic events. The high number of traffic injuries and deaths in the early 1970's, particularly amongst children, was a catalyst for public outrage and demonstrations. At the same time, the oil crisis brought front and centre how heavily Dutch society depended on it and the risks that came with it.

From these moments grew several grassroots movements that called for things to change, particularly in the pursuit of cities that were safer for cycling for everyone, everywhere.

As a result of public pressure, urban planning policies began to evolve to include cycling as part of the mobility network. As the bicycle regained its status in city planning, it led to efforts to increase density in urban development, limit urban sprawl, and to connect communities and cities with a robust network of cohesive, safe, and attractive cycling infrastructure.

As infrastructure for cycling expanded, cities transformed into places where children, the elderly, upper, middle and lower classes, and even the queen cycled. Consequently, the number of people cycling began to increase rapidly. A national cycling policy was adopted in the 1990s spurring the further development of the cycling networks now present in almost every city in the Netherlands. Most importantly, the number of cyclists killed in traffic dropped.

Nowadays, regardless of age, gender, socio-economic status, or race, nearly everyone cycles in the Netherlands. As the future of mobility continues to evolve, new tools like electric and adapted cycles mean more people are cycling longer and further towards a new cycling future.

The Dutch story is not unique. It reflects choices any city or region can make, adapted to its own context, priorities, and knowledge. What happened here shows what is possible elsewhere, with new and inspiring cycling stories being written.



Image source: Nationaal Archief



Schoenreparatie

SPECIALISTEN

De Krombus

STAF

• Iced coffee  
• Iced chocolate  
€ 2,99

DE LEKKER

• Koffie  
• Ontbijt  
• Lunch

ELKE  
GEUR  
VAN

# 03.

## Benefits of cycling

In recent years, there has been a growing attention on cycling worldwide. An increasing number of cities are developing strategies to increase levels of cycling. Although many set ambitious goals, progress is often slow and localised. Despite these disparities, the research is clear: cycling is good for people and society as a whole. People who cycle regularly live longer and healthier lives. People also report feeling happier when they travel by bicycle than with any other form of transport.

With more people living and working in cities, better car planning requires a stronger cycling network. The bicycle offers a practical alternative to the car-oriented societies in which we live. With the appropriate infrastructure and policies to make cycling attractive, 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, cycling is a more efficient way to move people in a constrained urban environment than, for example, driving. Furthermore, reducing car use and strengthening other options such as cycling helps create calmer, quieter streets, more enjoyable public spaces, and a better overall environment.

Cycling also benefits the economy. A cycle is cheaper to purchase and maintain than a motor vehicle, making it also more accessible. Generally, businesses in areas with higher levels of cycling tend to perform better than in more car-oriented areas.

When cycling is treated as a serious mode of transport, supported by clear policies and good infrastructure, it becomes easier and safer. Investing in all road users, including car drivers, helps reduce congestion and makes cities work better.





# Safety

Cities that prioritise walking and cycling policies and urban planning improve the safety of all road users in the network, not just pedestrians and cyclists. Lower speed limits, separated cycle paths, and cycling priority signage reduce the occurrence and frequency of deadly collisions and serious injuries overall.



# Cities that prioritise cycling are safer

## Cycling cities have fewer traffic casualties

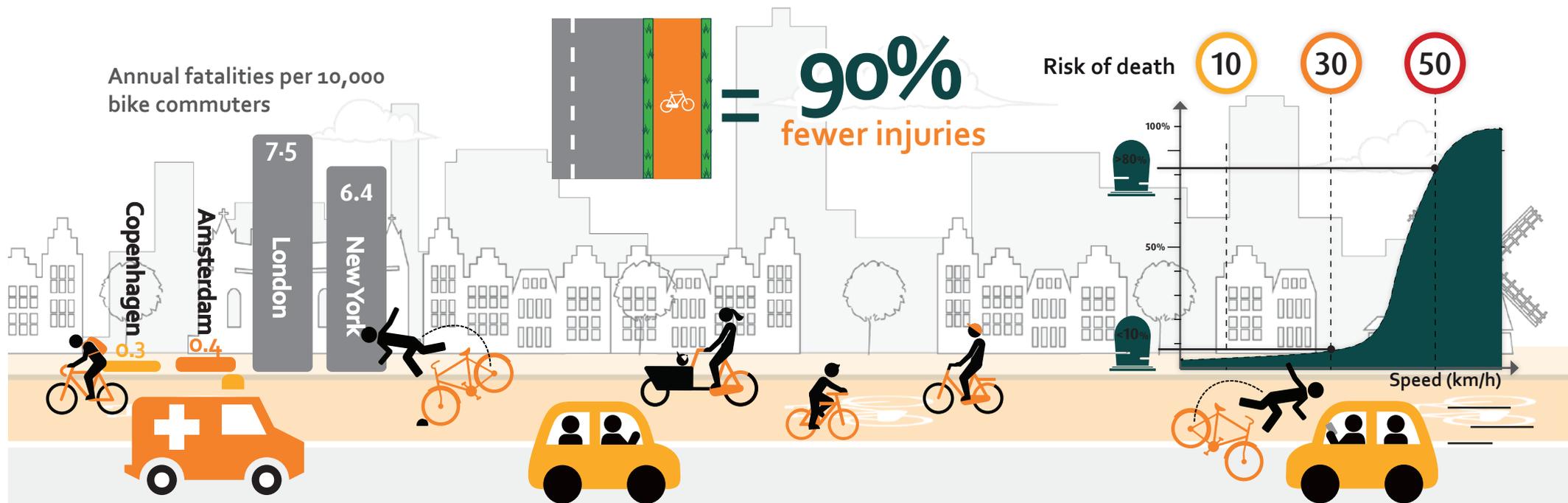
Cycling cities embrace cycling and remain mindful to it within planning policy. These cities have between 40-50% fewer serious injuries and a road fatality rate significantly less than average.<sup>1,2</sup>

## Separating cyclist from motorised traffic results in fewer collisions

Developing an effective road safety policy with separated cycle paths reduces number of collisions, resulting in fewer injuries. Some streets show a decrease of up to 90% fewer injuries per kilometre compared to those with no separation.<sup>3</sup>

## Lower traffic speeds result in fewer deadly collisions

The likelihood of a deadly collision at speeds 30 km/h or less is approximately 75 percent less than at 50 km/h.<sup>4,5</sup>





## Economy

Cycling is not only a low-cost mode of transport, but it is proven to be financially beneficial for society as a whole. As a cheaper mode, it requires a low individual investment as compared to driving a car. Each kilometre cycled yields a financial benefit to society, as opposed to the costs generated by driving a car. Additionally, now that many employers recognise that cycling creates healthier and happier employees, they have adopted economic incentive schemes that make the costs of cycling is even lower.



# Cycling benefits the economy

## Society benefits from each kilometre cycled

In the Netherlands, every kilometre cycled yields a social benefit of €0.98 (regular bike) and €0.22 (e-bike), as compared to a social cost of €1.02 per kilometre by car. In the long run, a shift toward cycling benefits society disproportionately when all benefits and costs are agglomerated.<sup>6</sup>

## Cyclists spend more

Cyclists (and pedestrians) tend to shop more locally and more often. They may spend less per visit on average, but they contribute around 25% more overall, benefitting the local economy.<sup>7,8</sup>

## Cyclists benefit from corporate mobility schemes

In the Netherlands, 57% of mid- to large-sized companies offer employees cycle lease schemes to purchase a (e-)bike for commuting. Many also offer km-based travel allowances that result in earnings of about €450-€570 annually for employees.<sup>9,10</sup>





# Environment

Active mobility, like cycling and walking, have a much lower impact on the environment than car travel. A shift towards cycling improves environmental quality by reducing air and noise pollution and easing pressure on public space. Cycling also contributes to more liveable environments, as cycle parking requires far less area than car parking, freeing up public space for everyday activities.



# Cycling is good for our planet and our cities

## Cycling reduces emissions and improves air quality

Cyclists have 85% lower daily CO<sub>2</sub> emissions than non-cyclists. Local air quality also improves drastically when switching to cycling – reducing 65% in nitrous oxide pollution per kilometre travelled.<sup>11,12,13</sup>

## Cycling reduces noise pollution

Fewer cars means less engine, honking, and rolling noise on the streets. Cycle and walking traffic is quieter and more enjoyable for users of public space, particularly after long periods of exposure.<sup>14</sup>

## Cycling improves the quality of public spaces

Less space dedicated to cars means more public space for everyday life. The space needed to park one car can fit up to 10 cycles, and cycling takes up 38 times less space on the road than driving. More space for cycling, playgrounds, and green areas improves the local environment for everyone.<sup>9</sup>

Grams CO<sub>2</sub> per passenger per km





# Health

Cycling is good for you. Riding a bicycle is a healthy, enjoyable, and low impact source of physical activity for all ages and abilities. Cycling keeps you physically fit for longer and has even been linked to a longer lifespan. Additionally, regular cyclists report overall better cardiovascular health, are less at risk for exposure to chronic illnesses such as diabetes, and are less prone to hospitalisation for both physical and mental health issues.



Photo: Dutch Cycling Embassy

# Cycling leads to a healthier life

## Cycling increases your lifespan

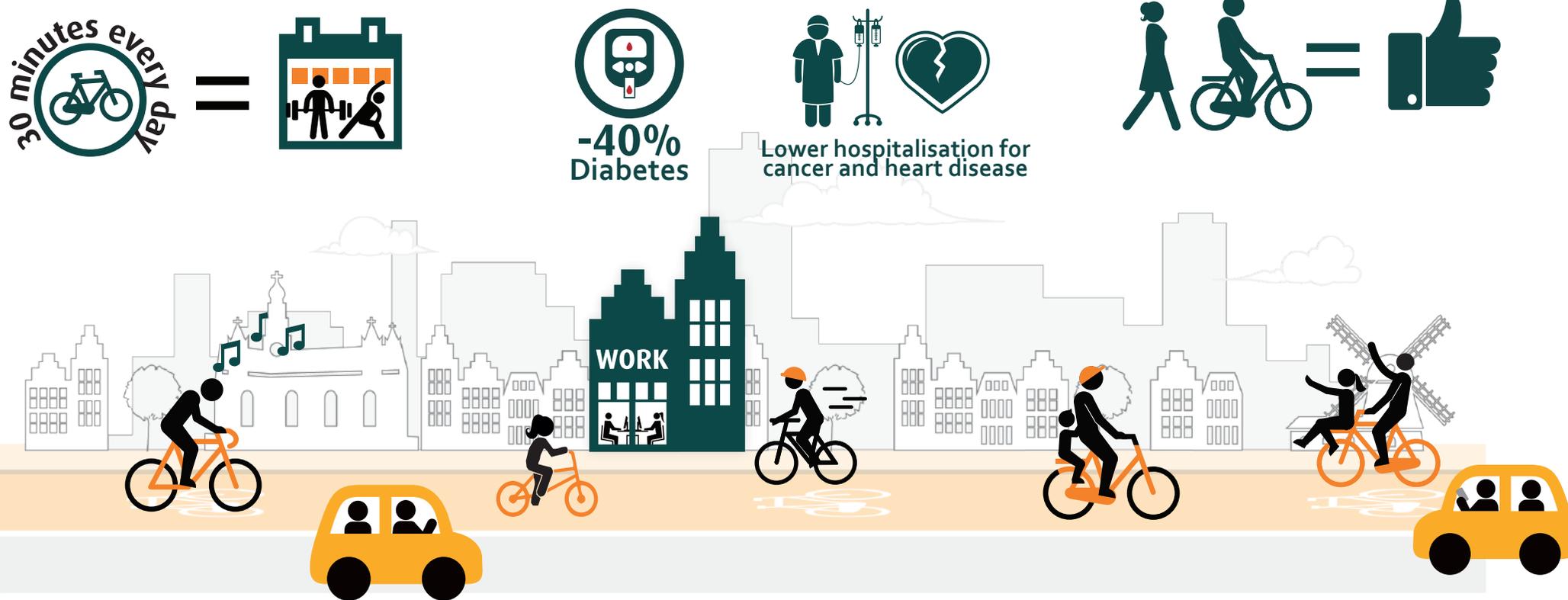
Cycling regularly boosts physical fitness, contributing to a higher total life expectancy, sometimes by an estimated 2-3 years. Cycling just 30 minutes per day meets the weekly recommended level of physical activity.<sup>15,16</sup>

## Cycling prevents serious diseases

Research has found that individuals who cycle for at least 30 minutes per day have a 40% lower risk of developing diabetes. Additionally, regular cycling has been linked to lower hospitalisation rates for cardiovascular diseases and cancer.<sup>17,18,19</sup>

## Cycling reduced obesity rates

Countries with high levels of active mobility, such as cycling and walking, have significantly lower obesity rates than those without.<sup>20</sup>





# Happiness

Not only linked with a positive impact on physical health, our wellbeing and mental health is also significantly improved when we cycle regularly. As the mode many associate with joy, cycling also reduces stress, improves social connection, and is often linked with convenience and independence in allowing people to move freely with less restrictions when compared to driving.



# Cycling increases happiness

## Cycling is associated with joy

Cycling for transport is linked to happiness, with 59% of all cyclists associating it with joy and only 2% reporting to dislike it.<sup>21</sup>

## Cycling is associated with independence and convenience

People who cycle experience less stress, more relaxation, and greater freedom than car users. Cycling also allows children to travel safely and independently, giving them more freedom to move. This is why Dutch children are among the happiest in the world!<sup>13,22</sup>

## Cycling improves mental health

Compared to people who do not cycle, regular cyclists are 20% less likely to receive a prescription for a mental health-related condition.<sup>18</sup>





# Accessibility

Cities are struggling for space. It is an issue exacerbated by the need for car parking in cities. Reallocating space for cars to space for cycling, walking, and staying has a positive impact on daily access to opportunity. It saves time for commuters, with cycling able to reach more parts of the city often more efficiently and without traffic. Cycling also supports a crucial link for first- and last-mile connections between home, public transport stations and someone's final destination.



Photo: Modacity Creative

# Cycling cities are more accessible

## Cycling is the most convenient mobility option

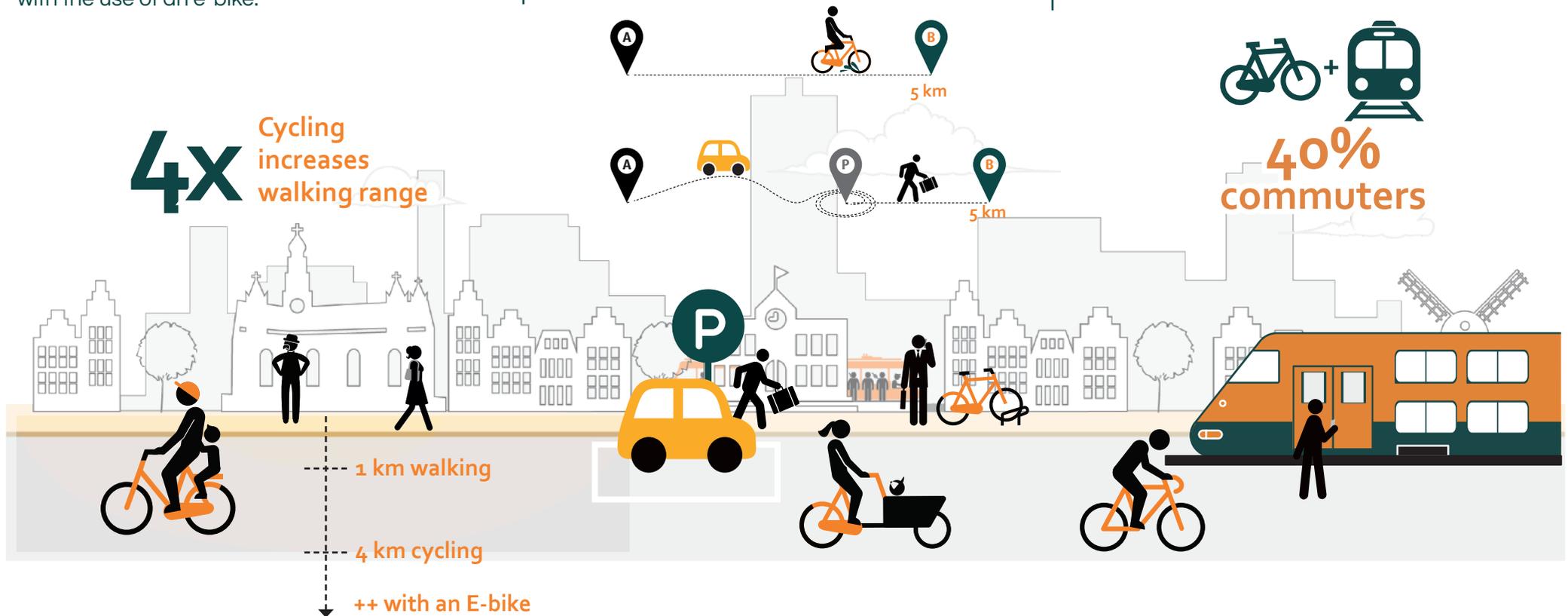
Within urban environments, locations are easier to reach by cycling or with the bike-train combination (when compared to driving a car). Additionally, the distances people are willing to cycle is 16 times that of walking, which increases with the use of an e-bike.<sup>23</sup>

## Cycling saves time

When cycling is accommodated there is no need to search for parking, significantly cutting commuting time. Within cities, cycling is the fastest way to travel directly to your destination.<sup>23</sup>

## Cycling supports chain mobility

In the Netherlands, more than 400,000 people cycle to a station every weekday as part of their commute. This encompasses more than 40% of all train passengers.<sup>24</sup>





# Social Equity

Cycling offers greater mobility to virtually everyone regardless of age, gender, or ability, income, or race which promotes social inclusion for all. It allows children greater mobility freedom from a young age and for older adults to remain socially connected longer. Accessible and adapted cycles give people with disabilities a right to independent mobility, and because cycling is relatively low-cost, it allows people to remain connected to opportunities regardless of economic status, providing the potential to address transport poverty.



# Cycling encourages social participation and inclusion for all

## Cycling is accessible regardless of your socio-economic status

The annual cost of riding a bike is approximately 300 euros. When compared with the annual cost of driving and maintaining a car - almost 14,000 euros - it becomes clear that cycling is the more affordable option accessible to nearly everyone.<sup>25</sup>

## Cycling gives children freedom and fosters independence

In the Netherlands, children under 18 make almost half (48%) of their journeys by bike. Most children also cycle without their parents to school, fostering a sense of responsibility and independence in earlier years of life.<sup>9</sup>

## Cycling supports social interaction and keeps older adults connected

Cycling forces us to interact with other road users, making it an inherently social activity. The nature of cycling as a social activity allows older adults to remain socially connected to the communities for longer.<sup>26,27,28</sup>





# 04.

## How to get there?

### Cycling for everyone, everywhere

The Dutch have not only created a safe and extensive network for cycling. They designed this network to make cycling safe and suitable for people of all ages, all abilities, and for different types of cycles. Cycling as a mode of transport is therefore accessible to everyone.

### Create a holistic approach

An integrated cycling policy is based upon hardware, software and orgware. It is not enough to focus only on building the hardware (e.g. development of infrastructure, cycle paths). We need to attract cyclists by working on the software (campaigns, accessible traffic laws, etc) and the orgware (capacity building of the different institutional actors) to strengthen the strategy on a broader basis.

### Think at the network level

Rather than focusing on a single route, Dutch municipalities implement a city-wide cycling network that connects three networks (of varying grid sizes), each with a specific journey type, length, and user in mind. This approach compliments the CROW Manual network design principles of directness, safety, comfort, cohesion, and attractiveness.<sup>29</sup>

### Don't ignore the weakest link

A network is only as good as its weakest link: often at the intersection where the majority of collisions occur and the cycling infrastructure can "disappear." Signalised and unsignalised junctions that are physically protected and designed to reduce speeds and raise awareness, increase safety for all road users. This includes raised and continuous cycle paths at side streets that keep vulnerable users in a raised, seamless, and prioritised space.

"Road safety is not a goal, it is a precondition for cycling."

## Design for the behaviour you want

Engineering has an large influence over how road users behave and can even force them to travel at slower speeds. Drivers will travel at whatever speed they feel comfortable, and police can't enforce posted speed limits everywhere.

Physical methods are used to slow motorists down such as road narrowing, chicanes (staggered build-outs), texture (such as brick), and speed tables. The general rule of thumb for safe design is that if speeding still exists, the street is sent back to the drawing board to try again.

## Use bikes to feed public transport

Nearly half of all train journeys in the Netherlands begin with a cycle ride to a public transport hub. Nearly a quarter all kilometres cycled in Dutch cities are to or from a station; 20% of Dutch people live within one kilometre and 80% live within five kilometres of at least one station. That means that in the Netherlands, 21% of bike-train trips replace car trips, where 66% of bike-train users have access to a car but prefer not to use it, freeing up valuable road space for those who need to drive, while supporting the country's public transport providers with greater ridership.



# Let's start the conversation

## Realising your cycling vision.

What opportunities do you see to make your city healthier, more accessible, and more enjoyable to live in? There is no need to reinvent the wheel: the Dutch cycling experts who realised change in the Netherlands are ready to help cities and regions around the world making cycling an option for everyone.

At the Dutch Cycling Embassy we support international knowledge exchange and collaboration that brings in Dutch expertise to explore together how cycling can contribute to healthier environments, stronger local economies, and places where daily life unfolds with more freedom, more safety, and a deeper sense of joy.

We organise study visits, workshops, webinars, and roundtables tailored to have the greatest impact. Let's start the conversation and begin writing your cycling story.

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Station, Metro  
Uitgang sluit na laatste metro

Station, Metro

Station, Metro

# 05.

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