

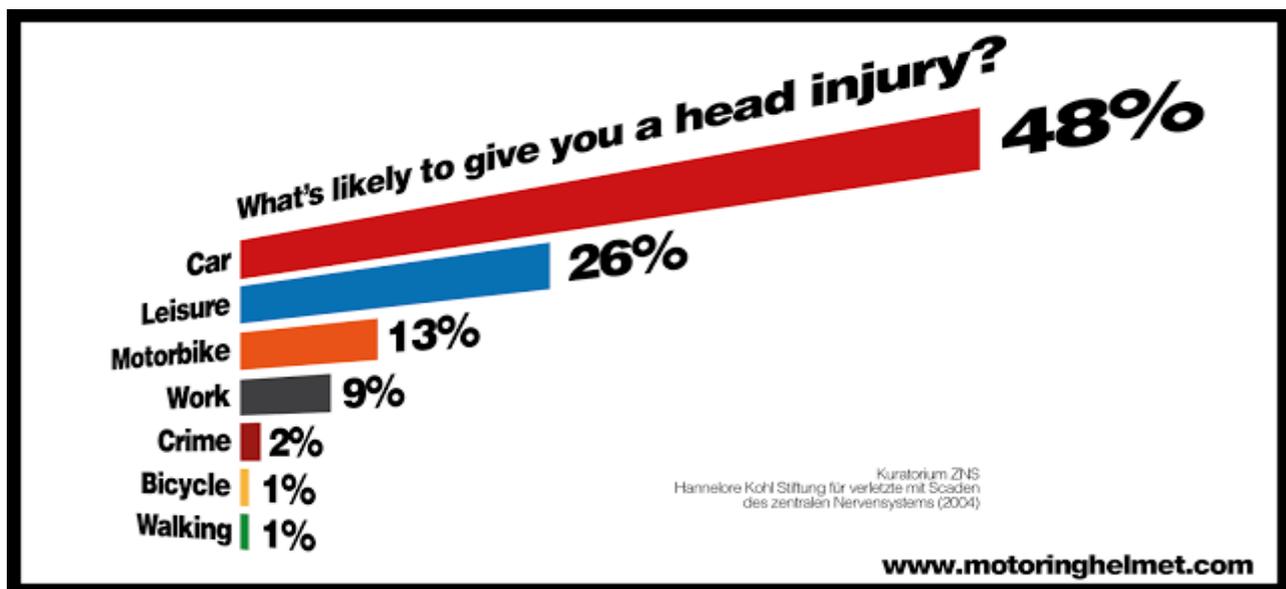
# CASE STUDY



## Case 46 Copenhagen, Denmark: City of cyclists<sup>1 2</sup>

### Problem to resolve

Over the past 50 years the use of personal automobiles has exploded up to that point where any logical assessment would recommend alternative means of transport for the vast majority of trips. Some of the arguments include the negative ecological impact, the waste of money and free time, and the risks of severe injuries and killings.



An alternative: **pro-cycling planning and infrastructure**

On short to medium distance trips in town, say from 0.5 to 5km, the bicycle is still the fastest and certainly most ecological means of transport. It is non-polluting and in addition keeps the body fit. Local governments can do a lot to encourage the use of bicycles but also to protect cyclists from accidents. → Tool URR 1

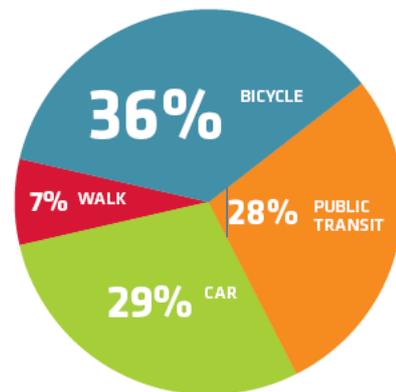


The pro-cycling planning policy involves in particular the provision of more space to cyclists on the main arteries and to improving cycling travel times through short cuts like tunnels and bridges over water, railways and large roads. In addition, it requires many small speed improvements, such as allowing contra-flow cycling on one-way streets, allowing cycling across squares, implementing more Green Waves for cyclists with traffic lights, etc. Also traffic calming for cars increases the comparative advantage for bicycles. Statistically, the risk of being involved in a serious accident has fallen by 72% per cycled kilometre since 1996. →**Tool URR 1**



Cycling in Copenhagen<sup>3</sup>

Figure 4: Trips to work and educational institutions in the City of Copenhagen by mode (average 2008-2010, TU-data).



/ Modal split in Copenhagen's urban mobility<sup>4</sup>

## Copenhagen, City of cyclists

Every day people cycle 1.2 million km in Copenhagen, while thousands of people travel by bus, train, and underground or on foot. Copenhagen is in the midst of a historic expansion of its public transport system, and there has been massive investment in more cycle-only paths, bridges and underpasses. Good conditions for cycling are also part of the city's official health policy. The number of kilometres cycled has risen by around 30% since 1998 and the bicycle's modal share for trips to work or educational institutions has also risen to over a third in the same period. This makes the bicycle the most popular transport form for commuting in Copenhagen. Copenhageners choose the bicycle because it's the fastest and easiest way to get around. →**Tool URR 1**

Copenhagen is in the midst of a historic expansion of its public transport system, and there has been massive investment in more cycle paths. All these ventures are part of the city's goal to be CO<sub>2</sub>-neutral by 2025. In 2011, four years earlier than planned, Copenhagen achieved its interim target of reducing the city's greenhouse gas emissions by 20%, when compared to the 2005 level. Biomass, more wind turbines and environmentally friendly street lighting represent some of the initiatives, which led to this reduction.

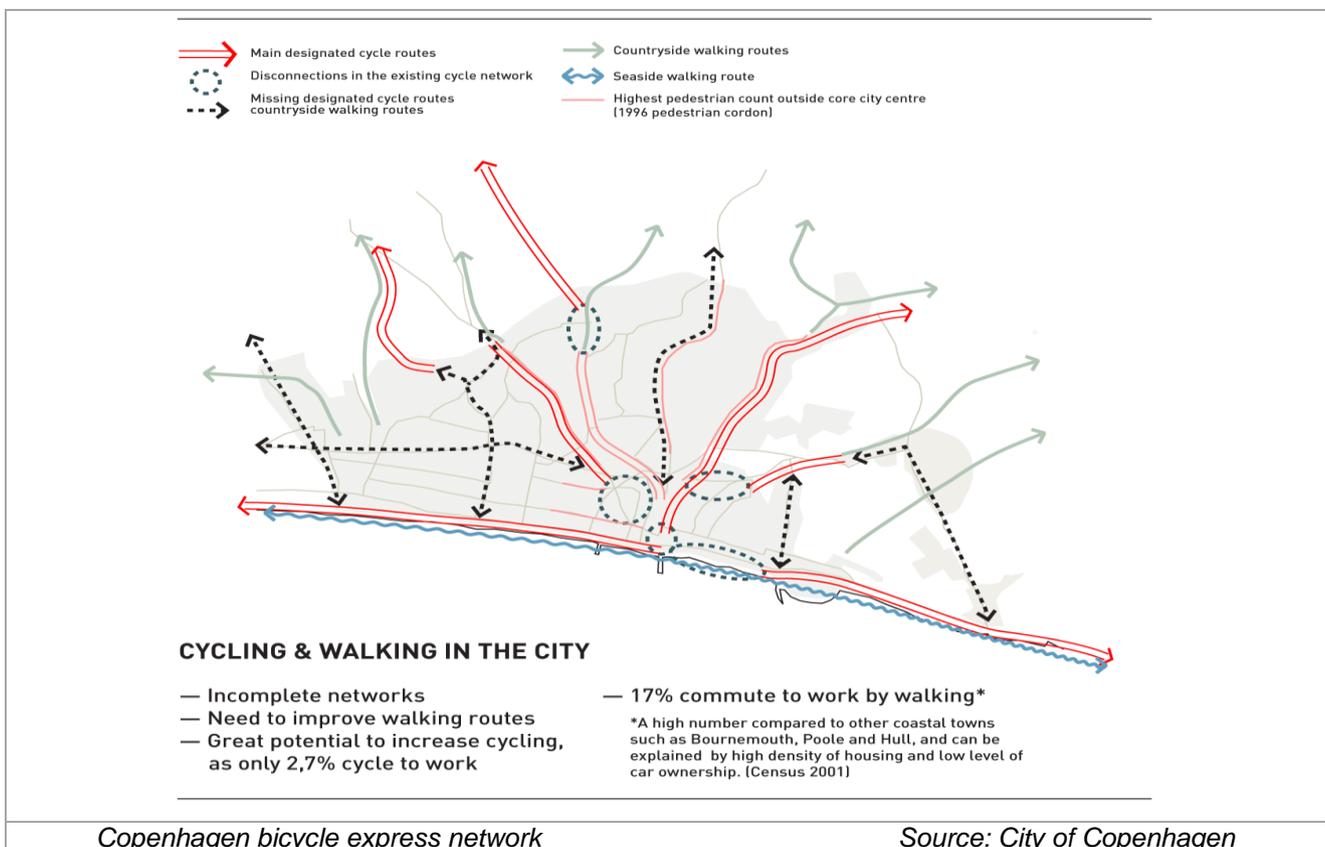
**COPENHAGEN MUST BECOME THE WORLD'S BEST BICYCLE CITY!**<sup>1</sup>

The goal was firmly set by a unanimous city council as an integral part of the vision of Copenhagen as an Environmental Capital. Above par conditions for cycling are also an important element in Copenhagen's goal of having a good city life and making Copenhagen CO<sub>2</sub> neutral by 2025. Good conditions for cycling are also part of the city's official health policy. In other words, cycling is not a

<sup>1</sup> [http://kk.sites.itera.dk/apps/kk\\_pub2/pdf/823\\_Bg65v7UH2t.pdf](http://kk.sites.itera.dk/apps/kk_pub2/pdf/823_Bg65v7UH2t.pdf). seen 25/05/2015  
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goal in itself but rather a highly prioritised political tool for creating a more liveable city. Copenhagen is already a fine bicycle city. Every single morning hundreds of thousands of Copenhageners choose the bicycle as the most natural thing in the world. It is amazing to many foreigners and the source of great interest for journalists, researchers, politicians and urban planners from every corner of the world. Copenhagen couldn't have achieved this status without a steady and comprehensive effort. Cycling in Denmark has fallen by 30% since 1990. The numbers for Copenhagen, however, head in the opposite direction. The number of kilometres cycled has risen by around 30% since 1998 and the bicycle's modal share for trips to work or educational institutions has risen to over a third in the same period. This makes the bicycle the most popular transport form for commuting in Copenhagen.

Copenhageners choose the bicycle because it's the fastest and easiest way to get around. If the numbers of cycling citizens are to increase it is all about making the bicycle the fastest and easiest way to get around for even more citizens than today. This is not possible without a strong prioritising of bicycle friendly infrastructure and a will to think out of the box. These are therefore the two central principles in the bicycle traffic area: prioritising and innovation.



## PRIORITISING

The cycle tracks of Copenhagen are already under pressure during rush hour. It is necessary to give more space to cyclists on the main arteries. In order to increase the sense of security, make it possible for people to ride at their preferred speed and, not least, to make it more attractive for those who are too insecure to cycle today. In some places the existing cycle tracks will be widened, in other places alternative routes will be necessary to move some of the bicycle traffic away from the congested routes. Infrastructure expansion will be accompanied with campaigns focused on more considerate behaviour in traffic.

Travel times are a central parameter for competitiveness, regardless of which type of transport you are dealing with." It is therefore necessary to improve travel times by bicycle compared to other

transport forms. It requires prioritising ambitious short cuts like tunnels and bridges over water, railways and large roads. In addition, it requires many small speed improvements, including allowing contraflow cycling on one-way streets, allowing cycling across squares, implementing more Green Waves for cyclists, etc. Finally, traffic calming - on quiet streets near schools, for example - is also necessary if the bicycle is to have a serious advantage in traffic.



Cycling expressway in Copenhagen<sup>5</sup>



Copenhagen Cycling in Snow<sup>6</sup>

## INNOVATION

One of the unique things about Copenhagen is our cycle tracks. Working to expand and develop our cycle track network must continue. If we are to encourage many new cyclists to get onto their bicycles it is crucial that we're open to new concepts, regardless of whether it is infrastructure or other types of solutions. It could be, for example, making certain streets one-way for cars in order to create improved space for better cycling conditions, new types of bicycle parking – including cargo bike parking – and initiatives that make streets with cobblestones into attractive cycle routes. Infrastructure like footrests at intersections and air pumps has both a practical and a communication value. Partnerships within the municipality should put the bicycle onto the agenda as a way to improve health and integration. In addition, external partnerships with companies, shopping districts, public transport providers, neighbouring municipalities, etc., ensure optimal effect and anchor the various initiatives. Finally, it is necessary to work systematically with communication campaigns aimed at specific target groups with the potential to cycle

### PlusNet

In 2025 there will be a PlusNet for cyclists in Copenhagen, consisting of chosen Green Routes, Bicycle Superhighways and the most congested bicycle routes. The PlusNet ensures a high level of quality for space, intersections and maintenance so that many cyclists can travel securely and comfortably at the tempo that suits each individual.

### CARGO BIKE PARKING

17% of Copenhagen families have a cargo bike. Cargo bikes are especially used for transporting children and shopping and they are often an alternative to having a car. One fourth of all cargo bike owners say that their cargo bike is a direct replacement for a car. In 2025 there will be excellent parking facilities for cargo bikes outside of homes, institutions and shops. In addition, cargo bikes will be an integral part of Copenhagen's City Logistics system. Pilot projects for cargo bike parking will be replaced by standard solutions developed in collaboration with businesses, home-owner associations and developers.

## Regulations

*Requirements for bicycle parking for new buildings – including cargo bike parking – have been included in the “Municipal Plan 2011”. It has been decided to develop and implement more cargo bike parking in 2012-2013.*

Traffic safety has been greatly improved over the past few years. Statistically, the risk of being involved in a serious accident has fallen by 72% per cycled kilometre since 1996. Copenhageners' sense of security in the traffic has also improved of late. If this sense of security is to rise even further among current cyclists and potential cyclists alike, the most important areas of focus are creating more space on the cycle tracks, making intersections safer and using behavioural campaigns to improve consideration in traffic – including on the cycle tracks. The general traffic safety efforts are also very important. For example, reducing speed limits for cars where necessary.

## Credentials

Authors: Kosta Mathey and Florian Steinberg

## References

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<sup>1</sup> <http://www.copenhagenize.com>, visited 8/2/2015

<sup>2</sup> <http://denmark.dk/en/green-living/bicycle-culture/> visited 8/2/2015

<sup>3</sup> Source: <http://www.cycling-embassy.dk/2013/05/22/bicycles-in-the-media/>

<sup>4</sup> Source; <http://www.cycling-embassy.dk/wp-content/uploads/2015/01/2011-2013-Fact-sheet-cycling-in-DK-1.pdf>

<sup>5</sup> <http://www.cycling-embassy.dk/wp-content/uploads/2016/03/cykelslangen-DISSINGWEITLING.jpg>

<sup>6</sup> <https://trailnet.org/files/2016/11/bicycling-snow.gif>