



CITY OF COPENHAGEN

COPENHAGEN

TRAFFIC SAFETY PLAN

2007 - 2012





Copenhagen - City of Cyclists

The number one City of Cyclists in the World, a unique European metropolis with a flourishing city life and access for all, a city where the number of cyclists increases daily and will eventually reach a level where more than half of all journeys taken by the Copenhageners to work are done by bike – such is our vision for the City of Copenhagen!

Such a vision, with its opportunities and experiences has one important precondition: that provision of safety and security in traffic is taken care of. Without this feeling of safety, it is unlikely that people in such numbers will choose to cycle instead of go by car.

In less than 10 years, we have halved the number of people killed or seriously injured in traffic accidents in Copenhagen. We still have too many however! We must continue our efforts to improve traffic safety, to find new solutions and to create new partnerships in our search to achieve our targets.

We must engage in a dialogue with our citizens: pedestrians, cyclists and motorists. When we look at statistics covering injuries in traffic our citizens are part of a problem. By changing our behaviour, we can all become part of the solution!

Mayor Klaus Bondam, Technical and Environmental Administration





A metropolis on a human scale

Copenhagen's size and demography means that almost everyone can cross the town in about an hour, whatever means of transport is used. During the rush hour however this can only be done by bike!

In Copenhagen's medieval city-centre, the road network has remained almost intact for centuries. It was built and developed to move around in on foot and has fortunately resisted the pressure from motor traffic. The buildings have generally remained below six storeys in height and even in the highest buildings you are in touch with people and feel the pulse from the streets below.

Most streets in Copenhagen are designed for many different types of user; pedestrians, cyclists, as well as car, taxi and bus drivers. But one aspect of Copenhagen which makes it special when compared to many other major cities is the large number of cyclists. They are an important part of the city landscape, use a very popular method of travel and require special attention because of their vulnerability. It must be added here that the popularity of cycling is on the increase !

The challenge of the work being done in Copenhagen is to improve traffic safety with a complexity of different road users: pedestrians, cyclists, car and van drivers as well as truck and bus drivers.



Safety trends and targets in Copenhagen

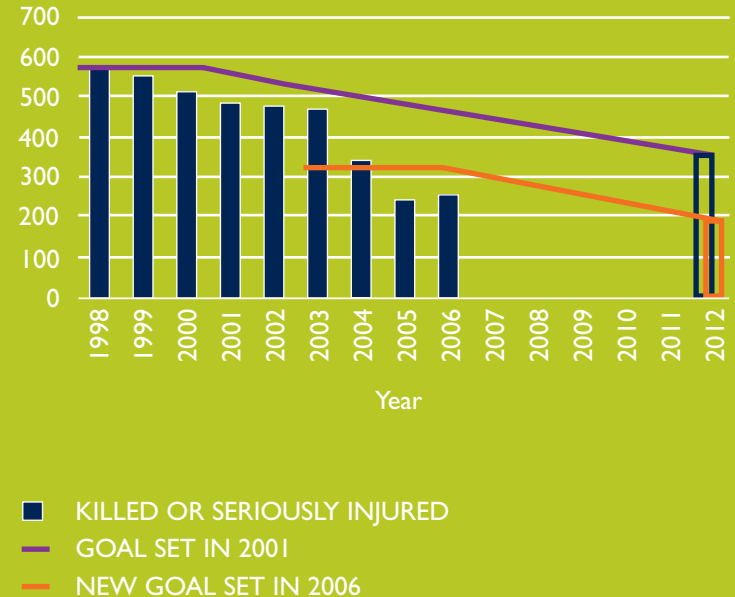
In 1998, 569 people were killed or seriously injured in traffic accidents. Seven years later this figure was more than halved. This by far exceeded the goal set for 2012 in the City's 2001 Traffic Plan.

These remarkable results were achieved by cooperation between national and local authorities.

At national level, traffic safety campaigns and changes to the Traffic Act, above all the introduction of a 'penalty points system' for speeding, drunk driving and a number of other traffic offences, worked well.

At local level, in Copenhagen, the most significant impact has come from redesigning a number of the city's biggest intersections and road sections. A study has shown that these projects have more than halved the number of people killed or seriously injured at the specific locations. The best results were achieved when the measures taken were aimed at specific accident categories. Also at local level, the actions taken by the city and the police to counteract drunken driving and speeding have contributed to the positive development.

DEVELOPMENT IN NUMBER OF PEOPLE KILLED OR SERIOUSLY INJURED IN ROAD ACCIDENTS IN COPENHAGEN





New targets – New focus areas

Having reached the target set in 2005, the City Council of Copenhagen decided to review the traffic safety plan and set an even more ambitious target: the 2012 target of 300 fatalities or serious injuries per year has been squeezed down to just 200. In order to reach this ambitious target, the City of Copenhagen has chosen to focus on four defined areas, where specific categories of accidents and road users connected with the most frequent accidents and the most severe casualties are to be found.

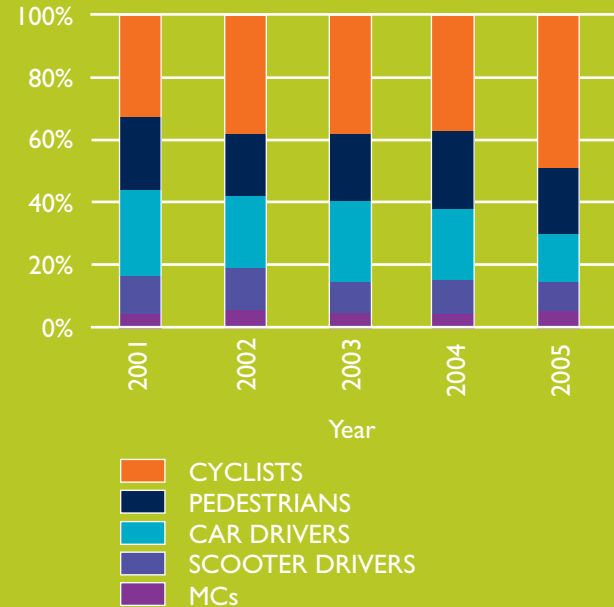
Focus Areas 2007 - 2012

- Accidents involving cyclists
- Accidents involving pedestrians
- Accidents at intersections
- Accidents involving young, high-risk drivers

Accidents involving cyclists

Although there has been a reduction in the number of cyclists killed or seriously injured over the last decade, the percentage of such accidents in relation to other categories of accident has risen and continues to rise in Copenhagen. It is a matter of concern that this percentage is still considerably higher in our city compared to other large Danish cities. Over the years, the City of Copenhagen has successfully promoted cycling. It is a natural consequence that this promotion must be followed by a systematic effort to improve safety for cyclists.

PERCENTAGES OF PEOPLE KILLED OR SERIOUSLY INJURED IN TRAFFIC IN COPENHAGEN FOR DIFFERENT TYPES OF ROAD USERS



The table shows percentages of people killed or seriously injured in traffic in Copenhagen for different types of road users. Although the city is getting safer for everybody, cyclists comprise an increasing share of the serious injuries over recent years.





Example of a traffic safety project at an intersection in Copenhagen. A number of potential conflicts has been eliminated.

Accidents involving pedestrians

Accidents in which pedestrians are seriously injured comprise more than 25% of all injuries in Copenhagen. They also constitute the second largest category of deaths or serious injuries in comparison to the other categories. The number of pedestrians killed or seriously injured is divided more or less evenly between intersections and road sections.

Here, as elsewhere, the statistics have been carefully examined and analysed to determine appropriate actions, for example, in the period covered by the previous plan, we focused on reducing accidents to pedestrians crossing the road.

Accidents at intersections

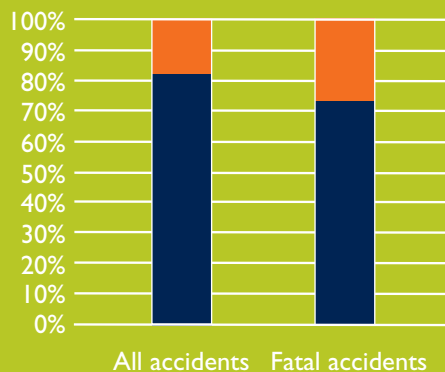
Cost-efficiency is being continually taken into account: remodelling those intersections where there is a high accident rate has proved to be one of the most effective measures carried out in the period covered by the plan up to now. This is particularly the case when specific measures have been taken in a purposeful way to counteract safety problems.

This remodelling will continue, based on an updated list of those intersections where accidents are most likely to occur.

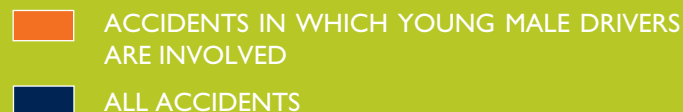
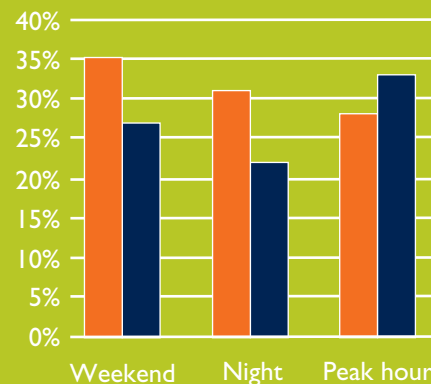
Accidents involving young, high-risk motorists

We find a significant connection between a high accident rate and those drivers who exceed the speed limit, drive without seat belts and drive under the influence of alcohol. Such behaviour is frequently found among young, male car drivers.

More than a third of fatal accidents in Copenhagen result from alcohol consumption or high speed. Within the last three years, young, male car drivers, aged 18 – 25, have been involved in the vast majority of these.



The share of road accidents involving 18-25 year old male drivers in Copenhagen (2003-05).



Relative share of accidents involving young, male drivers in Copenhagen (2003-05) on weekends, nights and peak hours.



Untraditional use of 'dome hump' to ensure safety at a small junction in a residential area.

How to achieve our goals

The means to achieve the traffic safety plan have been chosen based on studies of impact and calculations of cost-efficiency. The specific means have been chosen from among the following areas:

- Redesigning road junctions
- Redesigning road sections
- Implementing mass actions
- Conducting traffic safety campaigns
- Establishing partnerships
- Promotion of traffic safety by the City Council of Copenhagen
- Engaging in direct dialogue with citizens

Redesigning road junctions

The redesigning of especially dangerous junctions has been the single, most effective measure taken in the Traffic Safety Plan's first period. Large, signalised junctions will probably be prioritised in future, but there is also potential in smaller, right of way regulated junctions.

Accident analyses will determine which measures will be taken, for example separate programming of turning traffic with dedicated phases for left-turning traffic at signalised junctions. This is an effective solution at junctions with more than one left-turning lane and junctions where left-turning traffic crosses several lanes of traffic flowing straight in the opposite direction.

Redesigning road sections

The City of Copenhagen uses a method to systematically define dangerous road sections. A number of such sections will be designated for remodelling between 2007 and 2012.

Redesigning road sections is primarily aimed at decreasing pedestrian accidents, including accidents between pedestrians and cyclists.

Road sections with problems of excessive speed or where many pedestrians wish to cross will be highly prioritised for such remodelling. One important element is a mid-section in the road, which can be used both for islands ensuring the safety of crossing pedestrians, as well as turning lanes.



A road redesigned from four lanes to two lanes with a mid-section island, ensuring the safety of crossing pedestrians.



Intersection where cyclists and pedestrians are given a green light before the cars – one of the most frequent traffic safety mass actions applied in Copenhagen.

Mass actions

As part of the plan, the City of Copenhagen will carry out a number of thematic analyses of special types of accidents or of defined traffic groups.

The aim of these analyses is to select and attack traffic accidents with common features using relatively cheap, preventive mass actions. The relative cheapness of these actions would mean that they could be put into practice on a larger scale at places in traffic where there is a higher risk of accidents of that specific type. Examples of such mass actions would be:

- Advanced stop lines for bicycles at signalised intersections
- Pre-green signal for cyclists as alternative or supplement to the advanced stopline
- Two simultaneous red pedestrian signals
- Background plates to signals to prevent blinding by sun

Traffic safety campaigns

Campaigns are conducted as a long term measure. In the coming years they will be targeted towards cyclists, pedestrians and young, male, high-risk motorists.

The creation of lasting behavioural change demands repetition and persistence. An effective campaign will often stimulate dialogue and will be firmly rooted in the local community.



Campaigns consist of not only roadside placards and folders but numerous activities carried out in cooperation with local schools, institutions, clubs and associations for example.

The City of Copenhagen has entered into a partnership with the neighbouring Municipality of Frederiksberg in a traffic safety council, where politicians, planners and engineers, the police, teachers and civil society organisations discuss and develop ideas for traffic safety campaigns. The City Councils have decided to grant €0.5 per citizen per year to the activities of the traffic safety council.

Partnerships

As a new initiative, the City Council will establish agreed cooperative activities with private and public institutions with considerable transport activity. It is a win-win situation for both parties. Safer transport will benefit employees of the companies involved as well as reducing the running costs. For the city, the partnerships will contribute positively to the traffic safety targets.

Additionally, a much closer cooperation between the City Council and the police and hospitals will be generated by gathering more detailed statistics on which future traffic safety initiatives will be based. In particular, the studies of all fatal accidents will be carried through in cooperation with the police in order to do as much as humanly possible to avoid death and the more serious traffic injuries.

Contribution by municipal employees, partners and suppliers

Involving the 40,000 municipal employees as ambassadors for our values as regards traffic safety is an important action supplementary to traditional traffic safety activities. We are all daily road users in the city's traffic and modern electronic channels of information give us a very cheap opportunity to educate employees with the aim of encouraging safer behaviour in traffic.

Designated groups of employees could also participate in distributing information to publicise campaigns, wear clothes with messages on when cycling and be involved in competitions.

Suppliers to the municipality will have to contribute to traffic safety in some way as a condition of their continuing to provide services.

Finally, the Traffic Safety Plan will ensure that traffic safety is integrated more vigorously and earlier in development plans and projects in the City. Traffic safety staff will participate in selecting the projects so that investment is made at those points where the accident risk is highest, thus ensuring that all projects are checked in terms of traffic safety, especially projects at intersections.



Our relation to citizens

The Municipality of Copenhagen has many active and involved citizens. They are often quick to point out problems within the city. City Hall acknowledges these comments, reacts to them and frequently makes changes beneficial to the urban infrastructure, which results in fewer accidents and a safer city. Such changes could be redesigning a crossing, rebuilding a signalised junction or relaying cycle paths so that cyclists will feel both safer and more secure and the number of accidents will decrease. Many such changes have had their origins in suggestions from citizens.

Why not use the exceptional knowledge the inhabitants have for the greater good? It is the people who make the city and it is the city that makes the people. They are mutually interdependent for their quality of life.

It is part of Copenhagen's new strategy to encourage cooperation between citizens and the road safety staff. By inviting citizens to cooperate and contribute, we will strengthen our position in the fight against road accidents and at the same time the citizens will experience us actively working together with them to win this battle.

Examples of such cooperation will be:

- Creating citizen panels which report back if they see something they think needs acting upon
- Inviting citizens to develop campaigns
- Holding open debates and meetings
- Having parent representatives at schools
- Having traffic storytellers who are members of the public



Further information

City of Copenhagen - www.kk.dk

Danish Road Safety Council - www.sikkertrafik.dk

Danish Ministry of Transport and Energy - www.trm.dk

Danish Road Directorate - www.vejdirektoratet.dk

Local Government Denmark - www.lgd.dk

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