Cycle Superhighways

Capital Region of Denmark

SUPERCYKELSTIER

Contents

A cycling nation

Cycling offers huge benefits for the individual as well as for society.

The Cycle Superhighways could potentially increase the number of bike commuters in the Capital Region of Denmark by more than 30 % compared to today making the project a key co-operation in the development of green growth and sustainable mobility. For the individual cycling is healthy, flexible, and fast. For society a large number of cyclists primarily mean more efficient traffic movement, reduced congestion and pollution, as well as societal health benefits as a result of increased exercise. Denmark is a cycling nation and today 33 % of all commuting in the Capital Region of Denmark is by bike. So how can we persuade even more commuters to choose the bike?

When distances are between 5 and 20 km only 24 % of all commuter trips are done by bike. Therefore the answer lies in unlocking this potential. To succeed we must make commuters' journey by bike as easy and pleasant as possible, to ensure that the positives of riding a bike outweigh the negatives. We must rethink the hierarchy of routes for bikes, and rethink traffic planning across municipality borders. Therefore 23 municipalities and The Capital Region of Denmark have joined forces to create the greatest cycling region in the world.

The aim of the project is to increase the number of people who commute by bike on distances over 5 kilometres. What we intend to do is spoiling the existing and new bike commuters, by creating a network of Cycle Superhighways, making it even more attractive, easy, and safe for them to use the bicycle as their preferred means of transportation. We want people to perceive these routes as a serious alternative, equal to taking the car, bus, or train.

"It's not in our genes, it's not in our water... What we've shown the rest of the world is that if you build protected infrastructure, people will start riding their bikes."

Morten Kabell, The City of Copenhagen, Mayor of Technical and Environmental Affairs, to The Guardian

33%

Commutes by bike in the Capital Region of Denmark

23

Municipalities

467 km

Cycle Superhighways

A unique partnership

Cars and public transportation already make up a network, which transcends and connects municipalities in the region and the country. If the bike is to succeed as a competitive alternative means of transportation there has to be a network of bicycle routes transcending and connecting municipalities.

So far the hierarchy of roads in Denmark has been focused on car users, causing the cycling facilities to be more or less determined by the rank of the road. This has given many excellent cycle routes alongside car routes. The best routes for bikes however are not always the best for cars and vice versa.

Cyclists always choose the shortest – and thereby the fastest – route. But when it comes to car traffic, the shortest route is not always the fastest. In traffic planning, car routes are often led away from residential areas for reasons of safety, noise, and pollution. Since bikes do not create these problems their routes can go directly through more densely populated areas. This will even be a benefit for residents in those areas, because they can use the cycle routes as well.

23 municipalities are working together to create a network of Cycle Superhighways. The cooporation between municipalities is coordinated in an Office for Cycle Superhighways, which facilitates the network of Cycle Superhighways being built and branded.

Together the municipalities have developed a common conceptual strategy and plan for Cycle Superhighways, adopted by the politicians in all the municipalities.

The routes and secretariat are funded by the municipalities, The Capital Region of Denmark, and the Danish Road Directorate.

23

municipalities
are working together
to create a network of
Cycle Superhighways

There are many good reasons to be a part of the project

Cycle Superhighways are a great opportunity to try new and innovative solutions.

The evaluation of the pilot routes will help us gather new knowledge on the effect of the improvements on the amount of commuters, safety, and accident reduction which we can use in our further work.

A closer cooperation between municipalities creates closer relationships and provides a bigger network, which may be useful in other areas.

In general a project of this scale brings a lot of attention to cycling and cycling benefits in general.

Benefits of working together

1. Testing innovative solutions
2. New experiences gained from pilot routes
3. Closer working relationship between municipalities
4. More focus on cycling as a means of transportation

A competitive alternative

The ambition with Cycle Superhighways is to offer a means of transportation equal to public transportation and the car.

When you commute by train you know what you can expect. A certain degree of uniformity in the design of the trains, train stations, timetables and so on. If we want people to perceive the Cycle Superhighways as a serious alternative, equal to taking the car, bus or train, it is essential to have a brand and a concept.

A brand and a concept which citizens in the region are familiar with and which secures uniformity in both design and standard of the routes. We aim for the "C-logo" to become a symbol on par with the Metro's "M" and the "S" in S-train.

A motorist describes their choice of a car as a means of transport, the same way as a cyclist describes their choice of a bike:

"It is flexible and gives a sense of self-determination and individuality."

Definition of a Cycle Superhighway

A Cycle Superhighway is a cycle highway, where the commuters' needs have been given the highest priority. The project seeks to create routes that offer healthy, easy, and safe service.

A Cycle Superhighway is defined both by its locatio as well as its physical qualities. The highway should connect work, study, and residential areas, making it easy to get to and from job or school on a daily commute. Furthermore a Cycle Superhighway should make it easy to combine a bike commute with public transport. The routes should be as direct as possible and with as few stops as possible.

A good example of how this is achieved is by the use of green waves. Traffic lights are normally coordinated in favor of cars, but the aim for the Cycle Superhighways is for traffic lights to be adjusted for cyclists along the many main traffic arteries. At a speed of 20km/h, cyclists will be able to surf a wave of green lights through the city during rush hour without putting a foot down.

61%
increase in bicycle trips on the Farum-route

Furthermore the highways have to be comfortable and safe. Comfort is secured by the use of high quality asphalt and maintenance. Security is achieved by clear marking and distance to cars including advanced stop lines, to make cyclists more visible to motorists, as well as sufficient lightning. In order to reduce risks of accidents, many intersections will be restructured in order to give cyclists priority. For example in intersections with separate traffic lights for bikes, the cyclists may get a green light four seconds before cars would. In some cases the head start would be as much as 12 seconds. These initiatives make the cyclists far more visible in traffic.

Clear signage will make it easy for the commuter to find his way. To minimize clutter, design will be based on traditional signage and we will use existing posts where it is possible. Maintenance is essential for the commuters, especially during the winter. The Cycle Superhighways will be given the highest priority in each municipality concerning issues of road repair and snow removal.

Clear signage and high priority in each municipality concerning issues of road repair and snow removal

It pays to invest in great cycling infrastructure

Today 1.8 mio. people use their bike daily in the Capital Region of Denmark. But the number of people who still use the car to work or education is still high causing daily traffic jams.

The time spend waiting in traffic is equivalent to 22.000 full time jobs a year, proving just one of the reasons why biking is more benificial for society.

More bike commuters provide improved health, improved urban environment, and less congestion – for the benefit of all road users. Ultimately it is both cyclists and our communities that will stand as winners.

The Cycle Superhighways will provide The Capital Region of Denmark a safer, direct, continuous, and comfortable way of commuting to work and school by bike, with a potential 30 % increase of bike commuters. The network will consist of 467 km of Cycle Superhighways.

2 MILLION GOOD REASONS

There are now more bikes than cars on the streets in the Capital Region of Denmark proving already that investmensts in good cycle infrastructure pays off.

This does, however, not mean that the congestion problem is been solved – there are still traffic jams causing an increase in pollution and a wast of work hours.

The increased traffic costs approximately 2. bill. DKK annually – and this number is expected to double.

Cycle Superhighways are part of the solution to this problem. Better conditions for bike commuters encourage people to choose to commute by bike which is beneficial for both society and for the individual in terms of socio-economic benefits caused by increased health due to exercise by biking and thus less absence from work due to sickness among the citizens. Furthermore bike commuters produce less pollution, less noise, and less congestion and therefore contribute to a better city life.

The benefits of making a network of Cycle Superhighways are estimated to be:

1. An annual reduction of approximately 856 ton of CO_2
2. A socio-economic surplus of DKK 7,3 bn = 1 bn
3. 3 mio. more bike trips annually
4. 720.000 fewer car trips annually
5. Reduction of 34.000 days in sick leave annually

This can all be achieved for a mere investment of DKK 0,9 – 2 bn.

Unveiling the potential of long distance commuters

On distances shorter than 5km, 58 % of all journeys are made by bike. When the distance is longer than 5km, only 24 % of all journeys are made by bike. Based on these counts the potential of moving commuters to go by bike is largest on journeys of more than 5km.

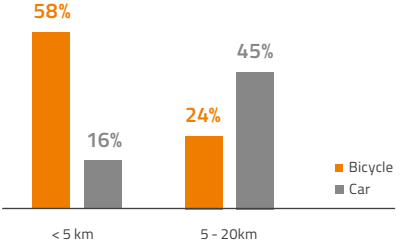
By upgrading the routes to Cycle Superhighways, we believe that we can raise the amount of bike commuters on long distances with more than 30 percent.

On the existing routes there has already been an increase in the number of commuters on longer trips. The average bike commute on the Farum-route is 14,7 km.

Counts show, that on journeys shorter than 5 km most journeys are made by bike. When the distance is longer most journeys are made by car.

COMMUTING in the Capital Region of Denmark

Bicycle- and car share



"Transport is actually the only sector of the EU economy where greenhouse Gasses continue to increase... Slowing down is not enough. We must reduce the emissions... we must encourage a shift towards cycling and walking."

Connie Hedegaard, former EU-commissioner


The average
bike commute
on the Farum-route is
14,7 km
25%
of the new
cyclists are previous
car drivers

The Cycle Superhighway network

The network has been designed without taking in consideration the hierarchy of roads for car users or municipality borders. It simply focuses on the best routes for bikes.

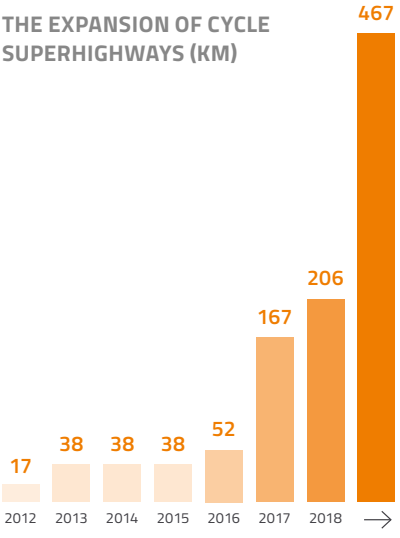
The main goal is to attract more cycle commuters, although the network will be of benefit to all cyclists. The network:

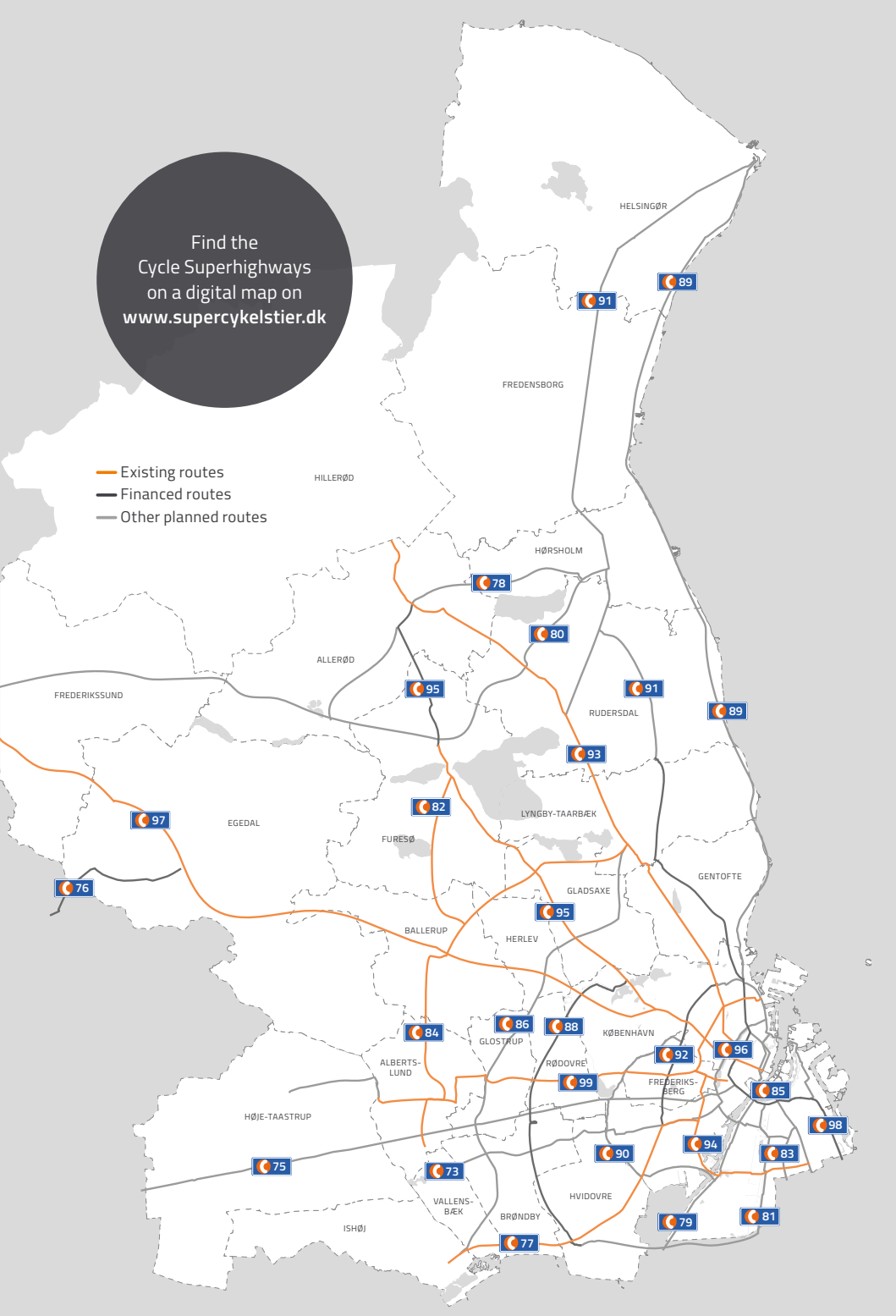
- prioritizes bikes before other means of transport whenever possible
- follows the optimum line as closely as possible
- connects and crosses through municipalities
- has a high and uniform quality throughout the route

To date 28 routes have been planned in the region of Copenhagen. The 28 routes planned in the region of Copenhagen total a length of 467 kilometers. To a great extent the routes will make use of current roads and paths, but the routes will be optimized in order to live up to the Cycle Superhighway criteria and standards.

A cycle path has to comly to a set of criteria in order to be labeled a Cycle Superhighway to secure that the routes are developed with the commuter's needs in mind.

Bike commuters already have access to eight Cycle Superhighways. The first route, Albertslundruten C99, opened in 2012 and the second route, Farumruten C95, followed in 2013. In 2016 one route, Ishøjruten opened followed by five routes in 2017. Today 167 km of Cycle Superhighways has been built and currently four more routes are on their way.




Find the
Cycle Superhighways
on a digital map on
www.supercykelstier.dk
Existing routes
Financed routes
Other planned routes
HELSINGØR
FREDENSBORG
HILLERØD
HØRSHOLM
ALLERØD
FREDERIKSSUND
RUDERSDAL
EGEDAL
FURESØ
LYNGBY-TAARBÆK
GENTOFTE
GLADSAXE
BALLERUP
HERLEV
GLOSTRUP
KØBENHAVN
ALBERTS-
LUND
RØDOVRE
FREDERIKS-
BERG
HØJE-TAASTRUP
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Region Hovedstaden

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