

Cycling's high return on investment in Copenhagen



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Investments in cycling infrastructure

\$15-20 mill/year, equals 20-25% of road budget (but varies quite a lot):

New bridges

New cycletracks

New green cycle routes

Improved cycle parking

Other projects where cycling infrastructure is a natural part



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Economic turnover from bridge - Bryggebroen and intersection Gyldenløvsgade

Bridge 7% per year

Intersection 30%

Level for good rate of return 5-6%



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Cost-benefit analysis

Analysis used as basis for political decisions

Standard method includes e.g. time and accidents

Assign monetary value to some of the advantages/disadvantages of projects

Danish Ministry of Transport can't calculate cycling projects, eg health benefits are not included

The developed cycling figures have been made available to the Ministry



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Cost benefit cycling figures

Cycling benefits society with \$ 0.25 per km cycled

Car driving "suffers" society with \$ 0.14 per km driven

Health and life expectancy benefits of cycling is 7 times greater than the accidents costs

Cycling costs the owner (purchase price and maintenance) \$ 0.07 per km cycled

Car driving costs the owner \$ 0.44 per km driven



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Nørre- brogade

1953

1973

1989



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Nørrebrogade traffic experiments 2009



Nørrebrogade decided re-designed 2010

Copenhagen politicians have decided to spend \$ mill 7.5 on reconstruction



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Cycling infrastructure



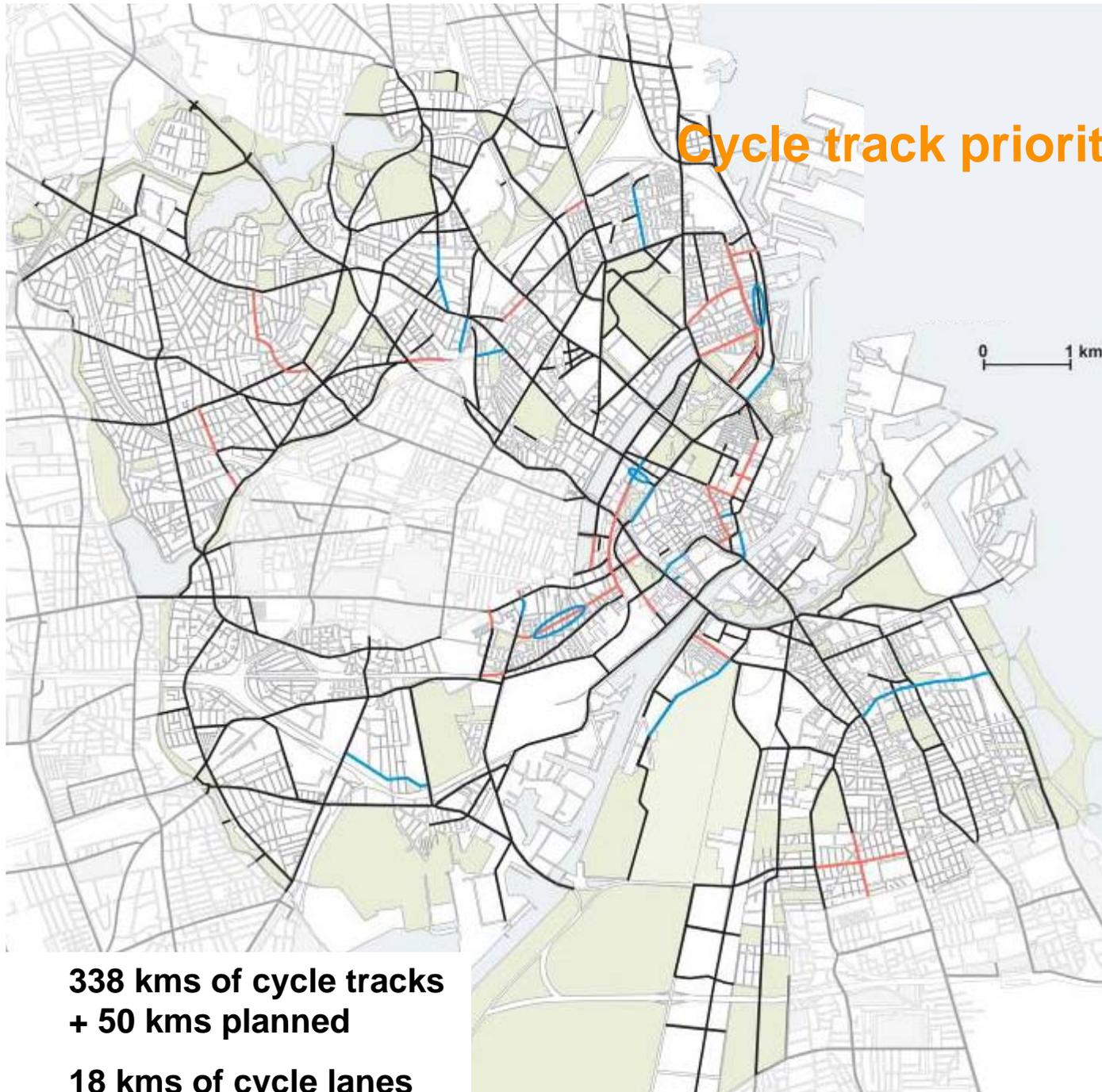
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Cycle track priority plan

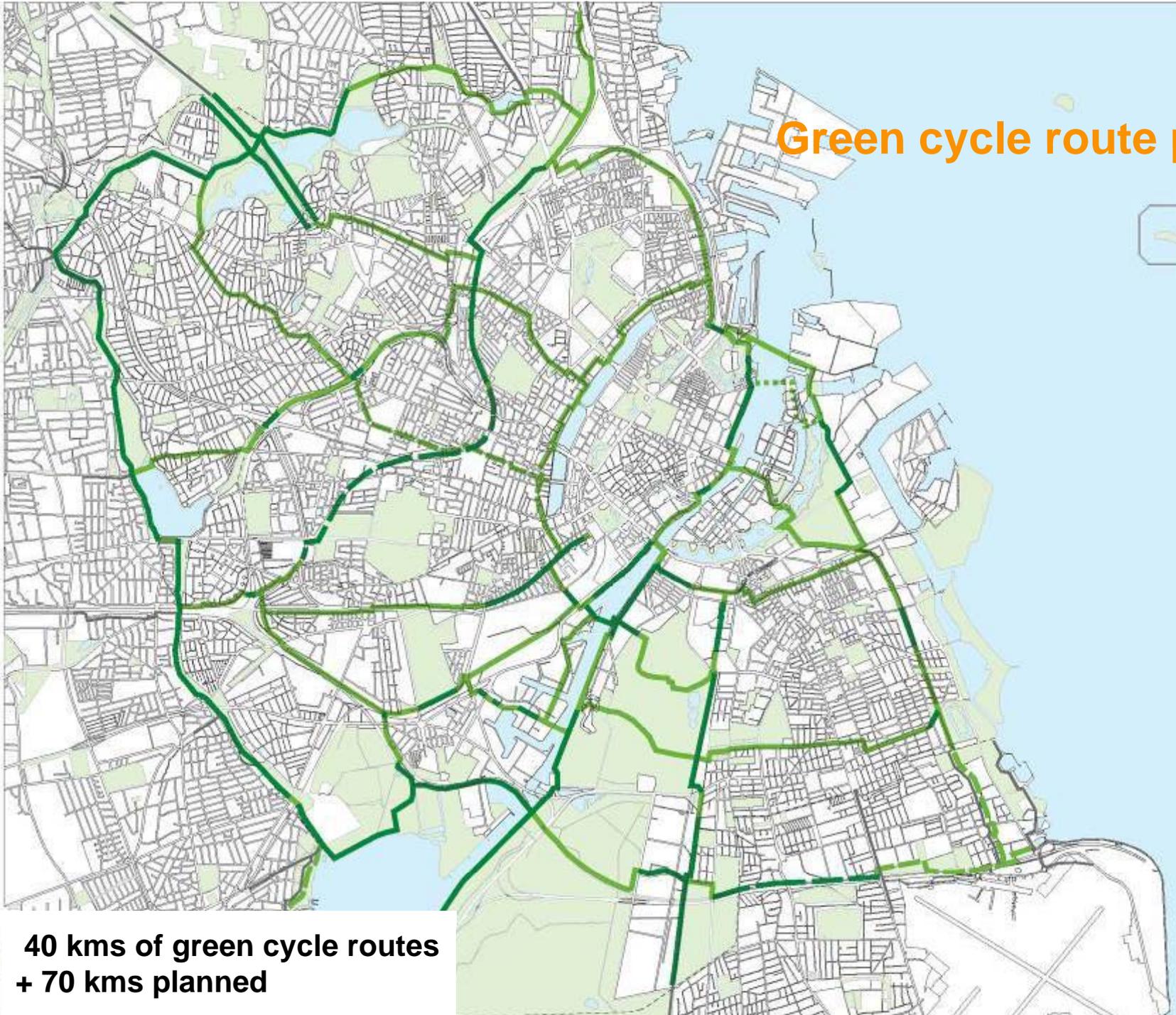


**338 kms of cycle tracks
+ 50 kms planned**

18 kms of cycle lanes



Green cycle route plan



**40 kms of green cycle routes
+ 70 kms planned**



Value of Copenhagen cycling infrastructure

	Per km	Kms	Value
Cycle tracks	1,6	340	544
Cycle lanes	0,4	18	7
Green cycle routes	2,0	40	80
Other investments			69
SUM (mill \$)			700



Besides, investments in big road projects are saved and gridlock is prevented by cycling infrastructure

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Commuter routes in and out of Copenhagen

In the Greater Copenhagen area many commute on bicycles:

1 of 5 commutes between Copenhagen and suburbs (or vice versa) on their bicycle

1 of 3 with 4-9 km to work commutes on bicycle

1 of 10 commuters with 10-15 km to work commutes on bicycle

100.000 people with 4-15 km to work commute to or from City of Copenhagen



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Potentials

Goal: At least 50% cycle to workplaces and education situated within the city boundaries

Most recent figure 37%

Roadpricing necessary to reach goal



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CO2 benefits



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**90,000 tons CO2
saved every year
from cycling in CPH**

**- as compared with the
same mileage
driven by one person
in a (European) car**



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Cycling and health benefits

Children that cycle to school are almost 10% more fit than those who walk or are driven by their parents

Adults that cycle to work or cycle on a daily basis, have a 30% lower mortality rate than otherwise comparable groups



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Health benefits from a 10% increase in cycling

Annual savings will be :

- Healthcare savings \$12 mill
- Reduced production losses \$ 31 mill
- 3.3% drop in absence from work
- 61,000 extra years of life
- 46,000 fewer years of severe illness
- 25 fewer early retirements



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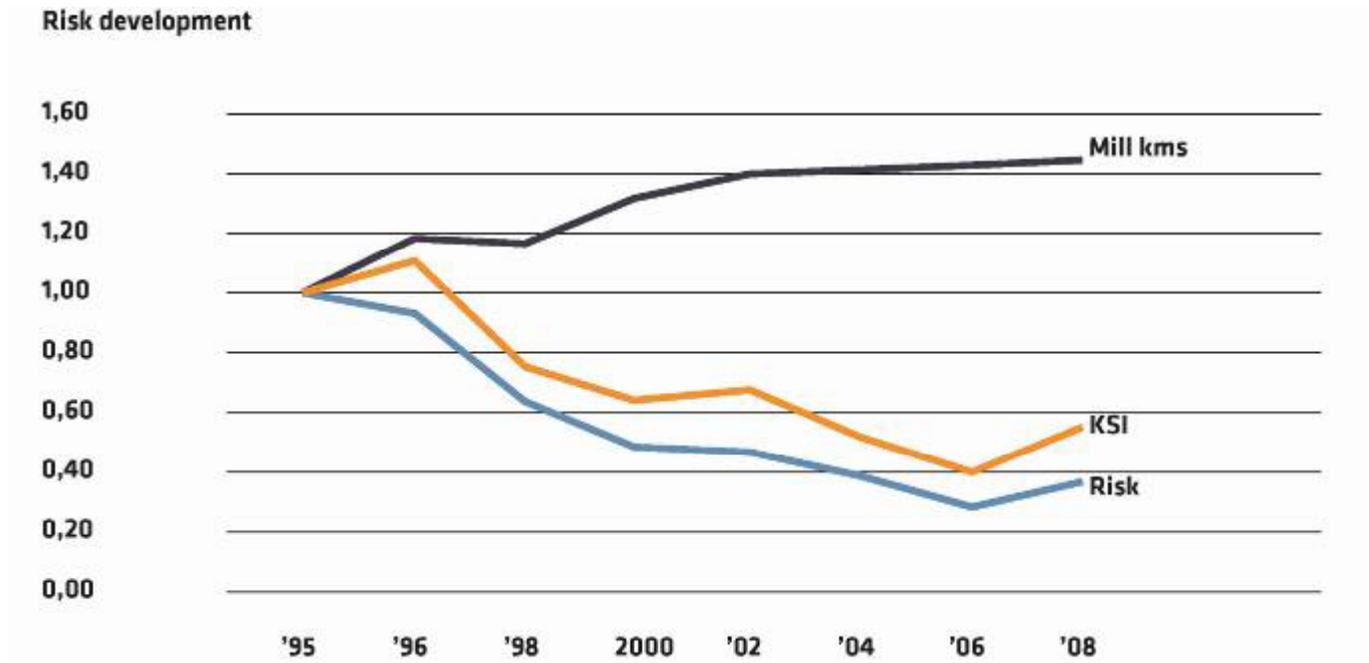
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Safety, risk and critical mass

**Goal 2015:
50% reduction in
bicycle accidents
(KSI),
resulting in max
59 KSI**

Current figure 121



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Worlds Best Cycling City - 3 goals for 2015



50% share of commuting

50% fewer injured cyclists

50% more feel safe in traffic



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