

# Bicycle City Copenhagen

National Cycling Congress, Berlin May 7th 2009



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City of Copenhagen

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# Copenhagen - Capital of Denmark

500,000 inhabitants

Total area 88 km<sup>2</sup>

5,700 inhabitants/km<sup>2</sup>





# Humanizing our cities ?



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# Transportation policy is about our precious mobility!

But it is also about humanizing our cities :

- *public health*
- *individual well being*
- *feeling of safety*
- *money spent and time wasted*
- *liveable environments and modern lifestyle*



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# Building Strategies

## Eco-Metropolis

- Centre for world climate policy
- World's best city for cycling
- A green and blue capital city
- A clean and healthy major city

## A Metropolis for People

- More urban lifestyles for all
- More people walk more
- More people staying longer



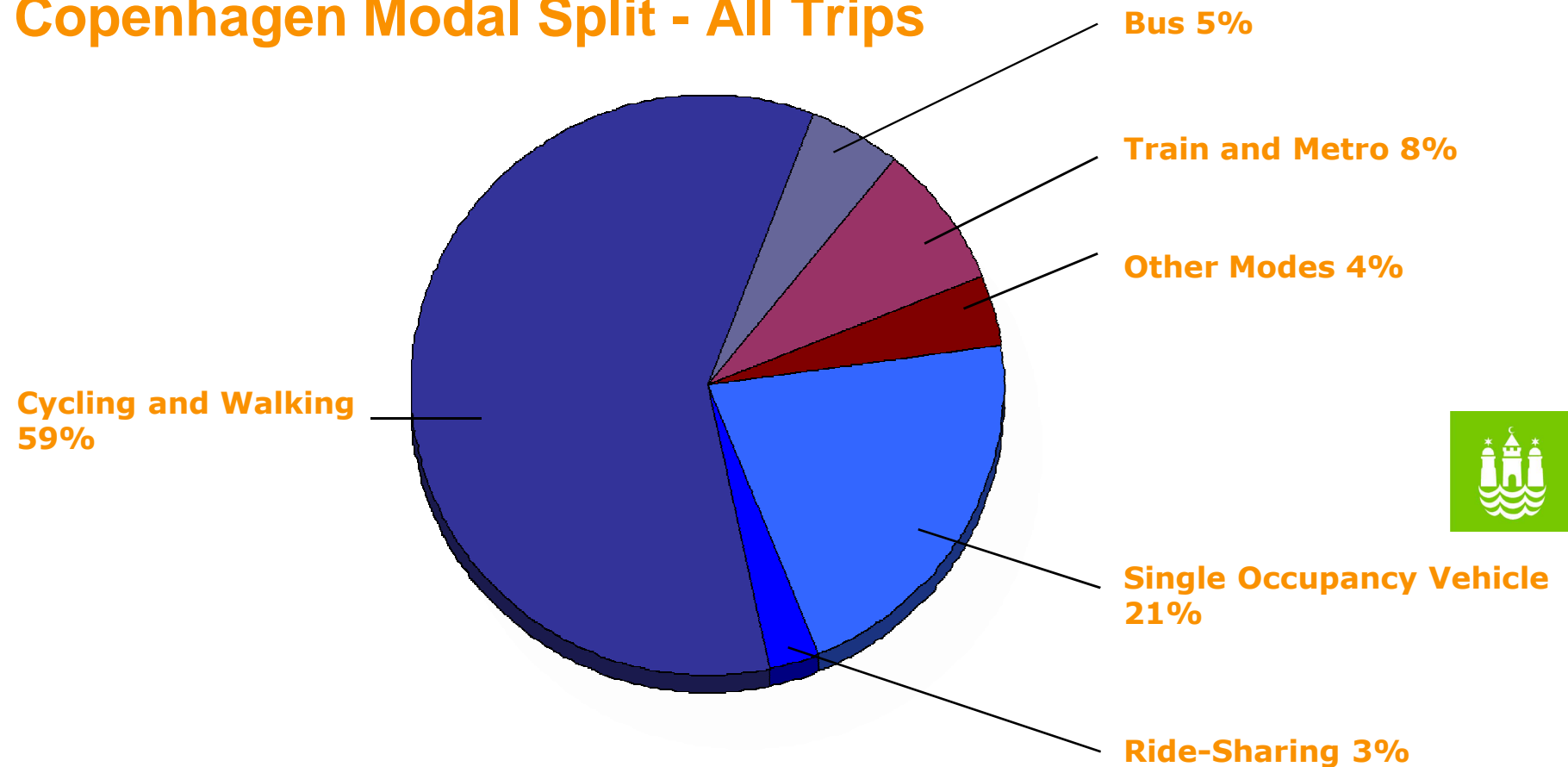
## Our Concrete 2015 Goals

- In Copenhagen at least 50% of people will travel to their work place or educational institution by bike
- The number of seriously injured cyclists will drop by more than half compared to today
- At least 80% of Copenhagen cyclists will feel safe and secure in vehicle traffic
- By 2015, 80% of Copenhageners will be satisfied with the opportunities they have for taking part in urban life
- By 2015, the amount of pedestrian traffic will be 20% more than pedestrian mode share today
- By 2015, Copenhageners will spend 20% more time in urban spaces than they do today





# Copenhagen Modal Split - All Trips



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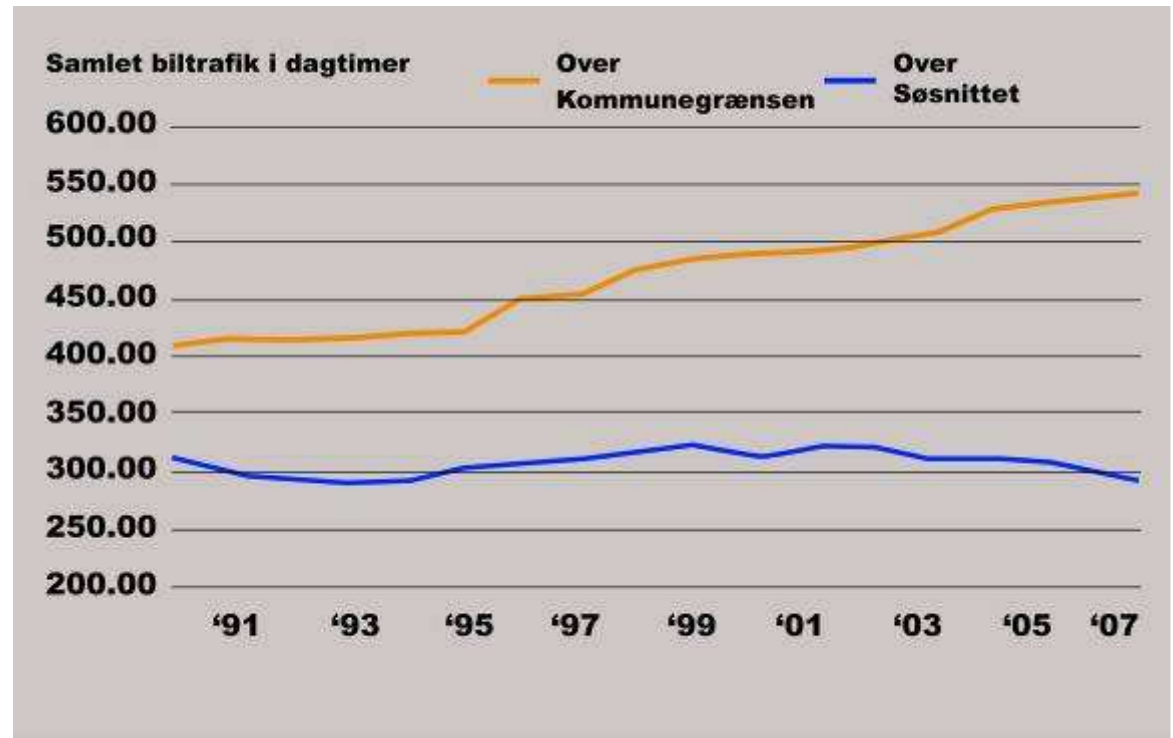
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# Traffic Development

Car traffic is increasing 2% a year – mostly from trips crossing the city boundary - but is decreasing in the centre of the city ...

Exactly the opposite for bikes !



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## Traffic Policy In Short..



### More:

- Bikes
- Metro
- Bus priority
- Restrictions on private cars



### Less:

- Air-pollution
- Accidents
- Noise
- CO<sub>2</sub> emissions

# Parking Strategy

Paid parking zones:

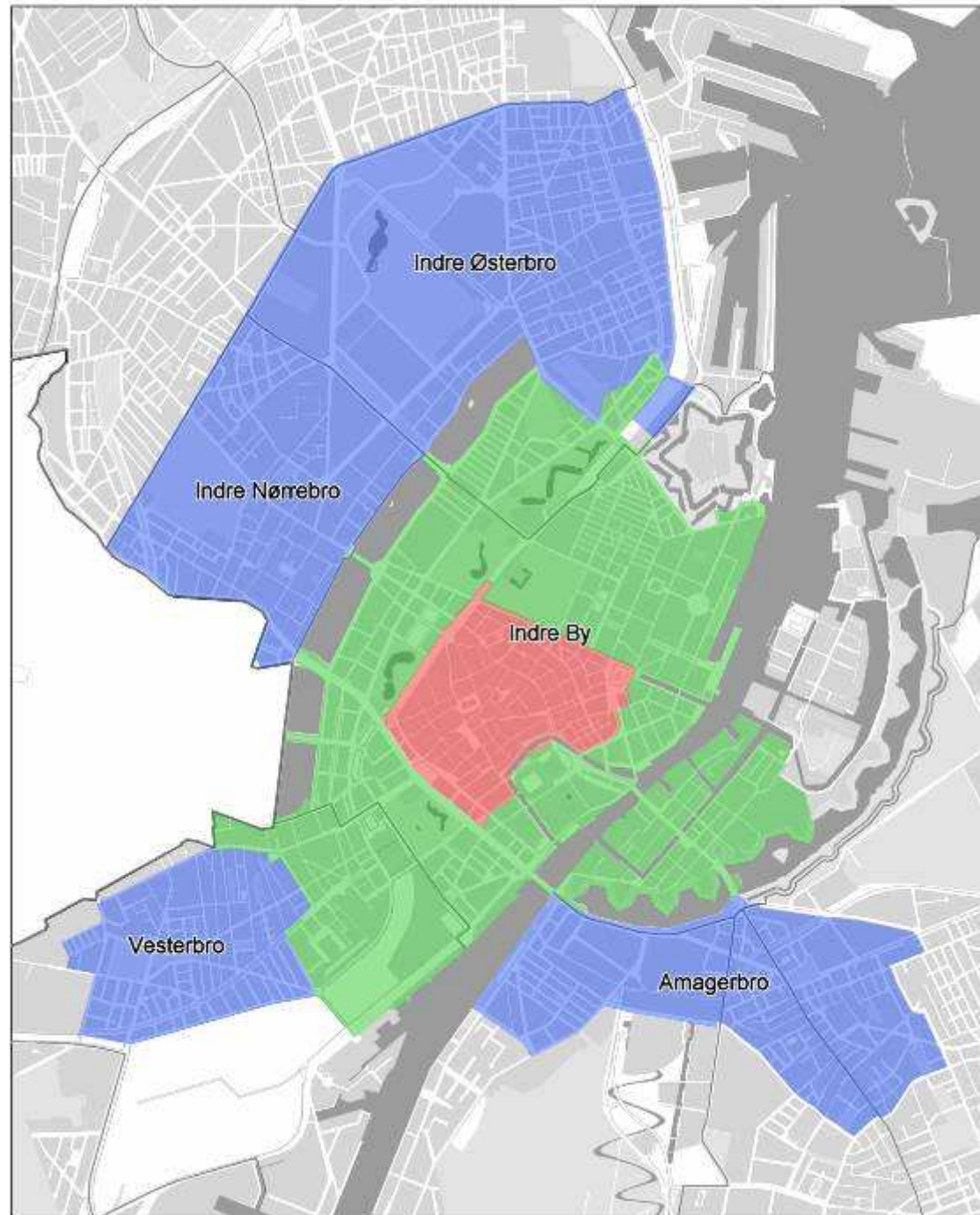
Red \$5 USD/h

Green \$3 USD/h

Blue \$2 USD/h

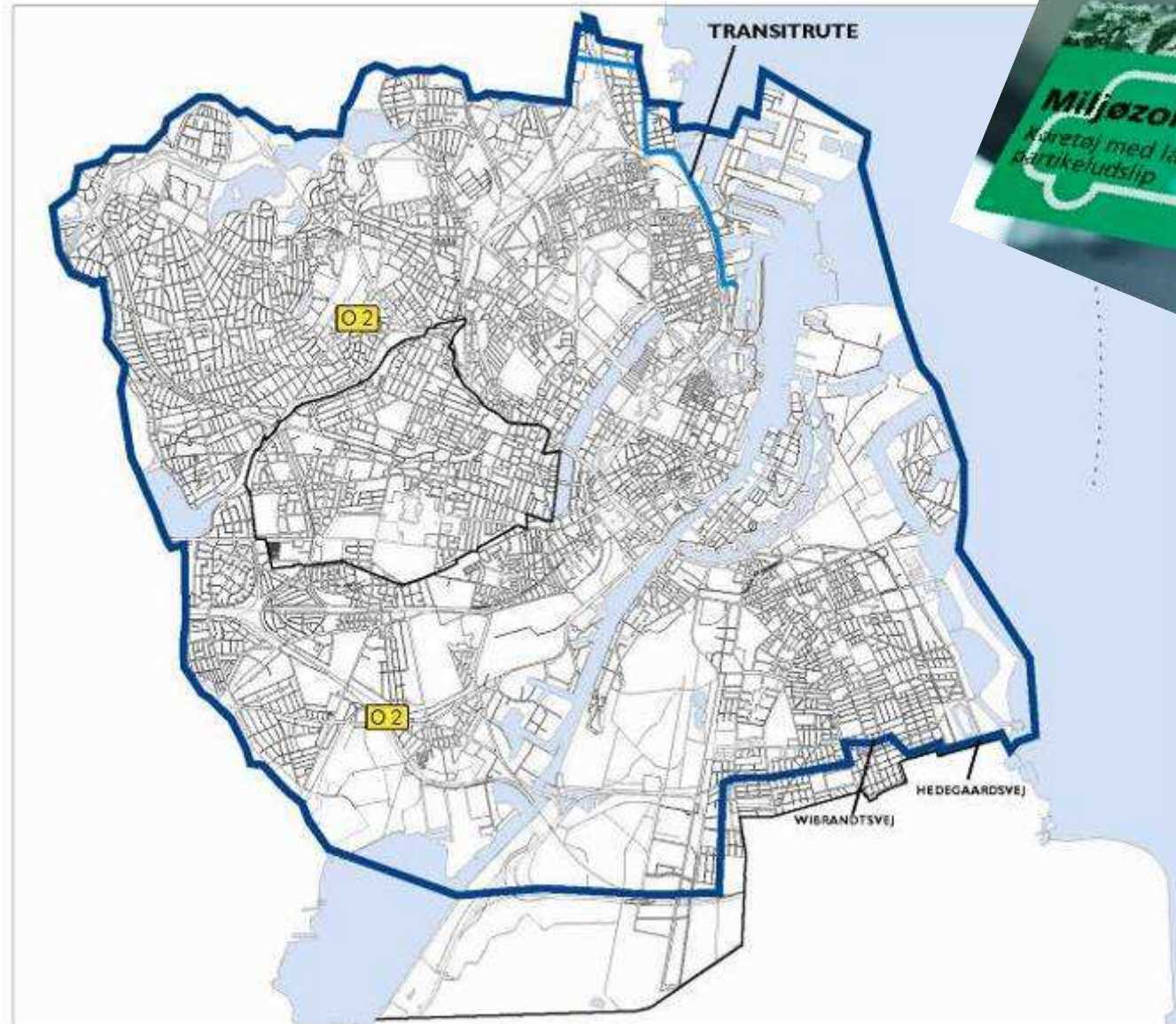
Residents 30  
USD/year

3,000 new parking  
places to be  
constructed in  
residential areas





## Low Emission Zone



**Mandatory particle  
filter for heavy  
vehicles older  
than 7 years  
(4 years in 2010)**

# Charging Congestion Proposal



## Pricing:

1.5 Euro per passage

3.0 Euro during rush hour

Free at night



Effect: 20% less car traffic

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# Restrictions on Heavy Trucks



**The proposed  
zone failed.**

**New solutions?**



# Re-designing Main Street

”Nørrebrogade”



*I dag*



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## Re-Designing Main Street "Nørrebrogade"



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# Traffic Experiment "Nørrebrogade"



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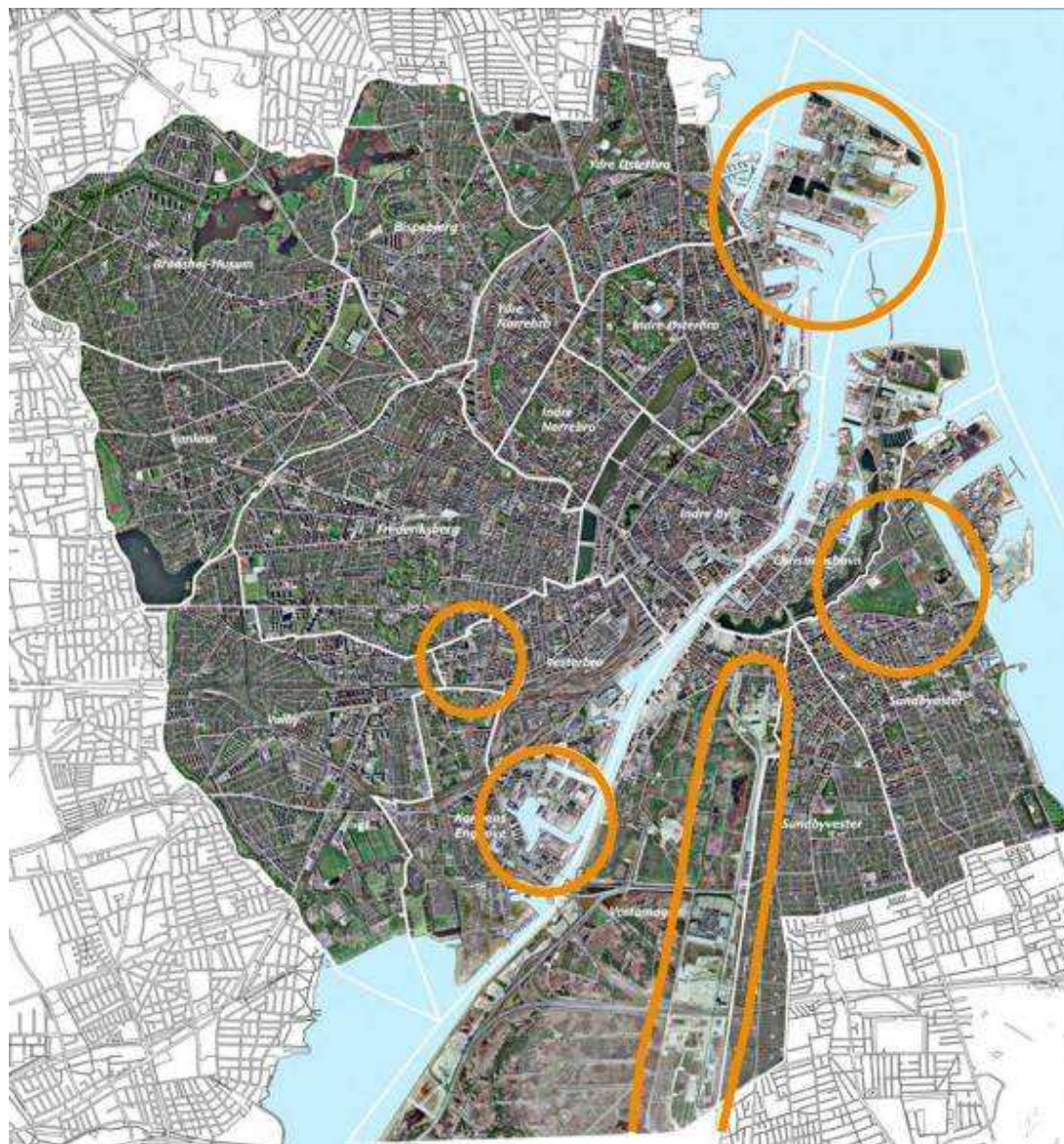
# Traffic Experiment

"Nørrebrogade"





# New Urban Developments





## Northern Harbour Development





## Northern Harbour Winner Project

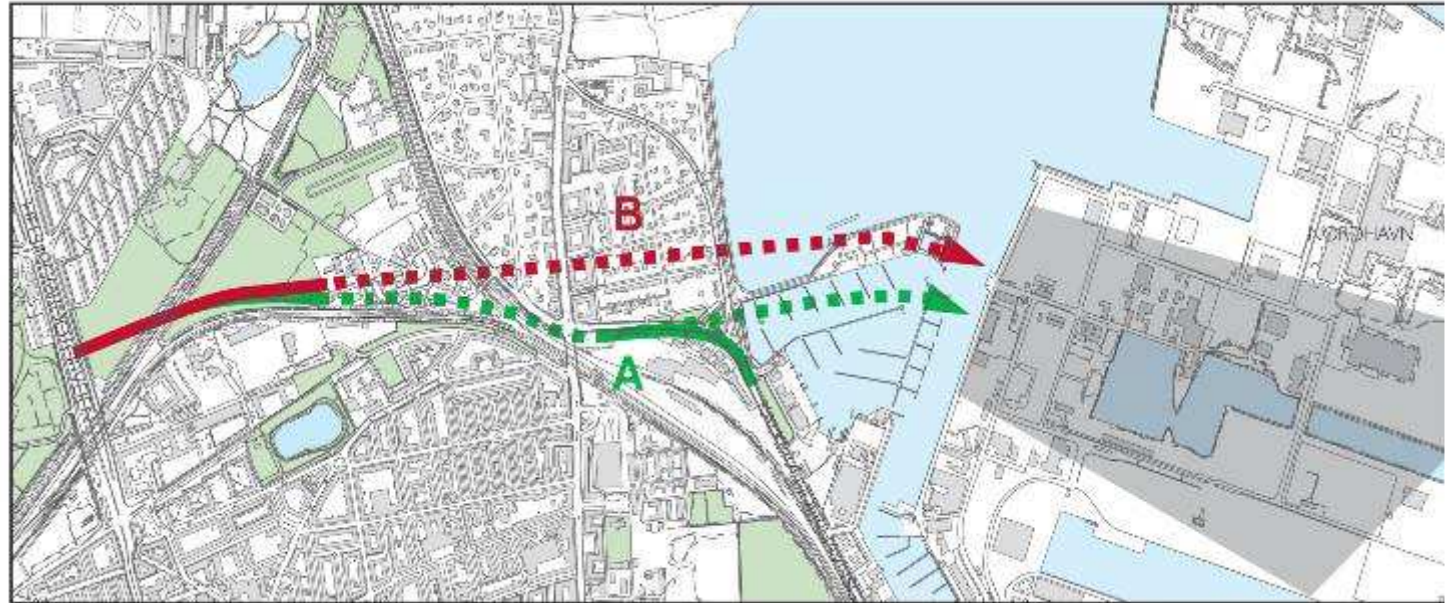




## New Development - Marmormolen

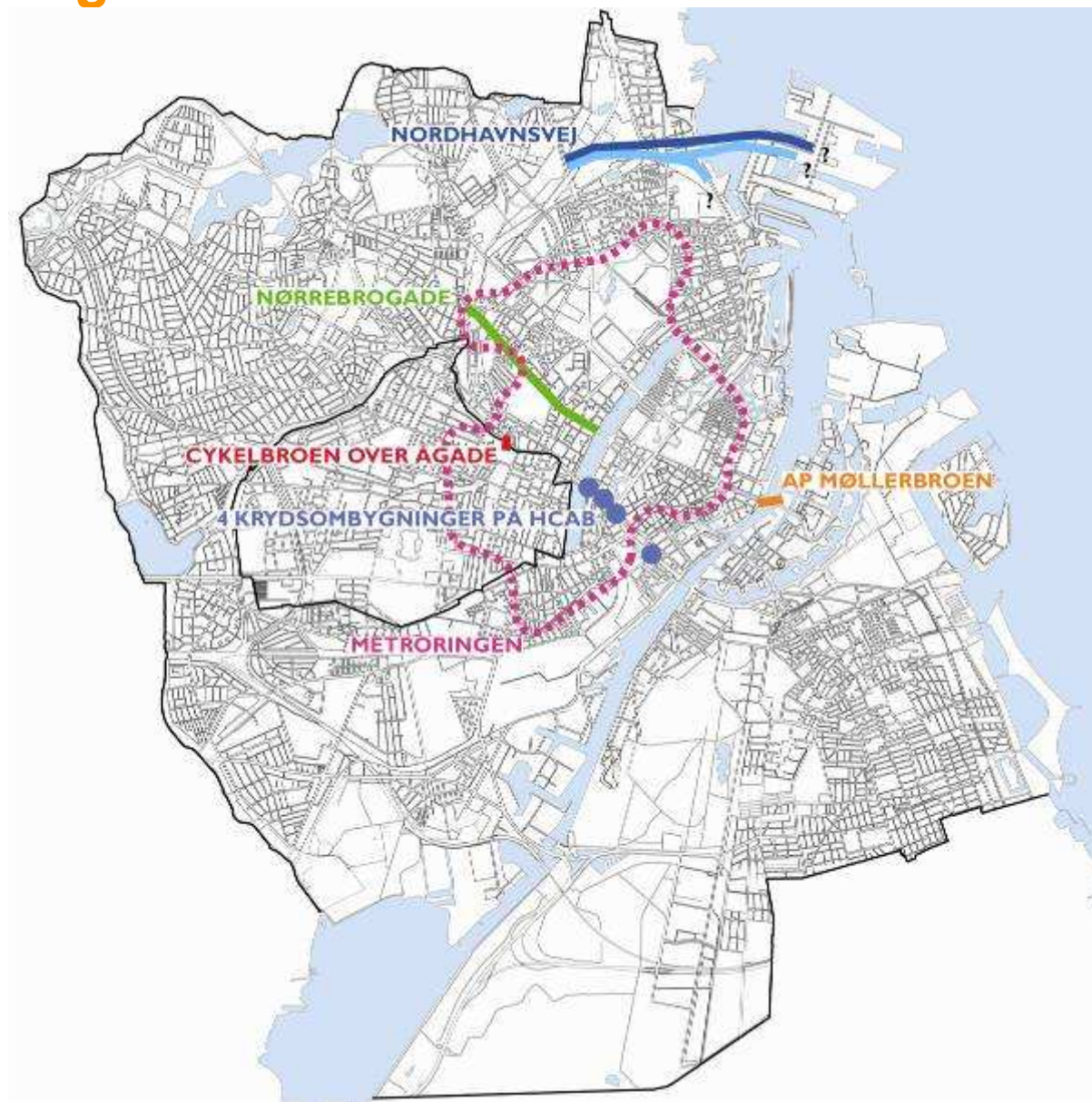


# Nordhavnsvej





## Developing Infrastructure

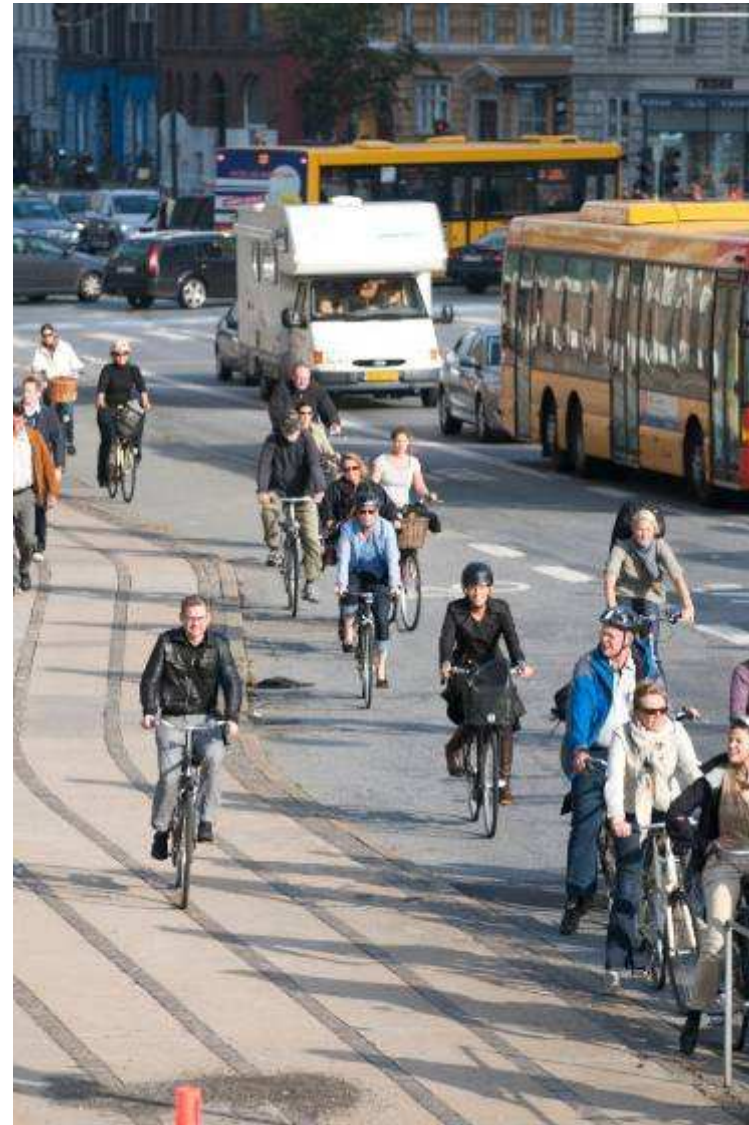


# Cycle Traffic

**1.15 million km cycled every day**

**36% are arriving at work or school on bikes**

**60% of Copenhageners are choosing their bike on all trips**



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# Cycle Traffic

50% cycle up to 50 kilometres a week

15% cycle over 100 kilometres a week

60% use their bike every day

85% own a bike



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# Cycling Safety



92 seriously injured or killed  
cyclists a year -  
reduced from 231 in 1995 !



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# Cyclists' Feeling of Safety

Sense of safety is decreasing

57% because of cars

45% because of other cyclist

23% because of buses



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# Why do Copenhageners cycle ?

Easy and fast 54 %

Exercise 19%

Financial reasons 6%

Convenience 7%

Environment 1%



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# World's Best City for Cycling - Our Goals for 2015



- 50% cycle mode-share of commuting (36% today)
- 50% fewer serious injuries to cyclists
- 50% higher sense of safety



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# Investing

**\$10-20 million USD annually on new investments:**

**New connections**

**New cycle lanes**

**New cycle tracks**

**New green cycle routes**

**Other projects**



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# From the "Urban Planning Tool Box"

- the "station near" location principle
- developer agreements on infrastructure
- the early stage layout of cycling infrastructure
- mandatory bicycle parking facilities in new developments
  - housing 2,5 parking place per 100 m<sup>2</sup>
  - workplaces 1,5 parking place per 100m<sup>2</sup>
  - shops 3 parking places per 100m<sup>2</sup>
  - educational 0,5 parking places per student



# Political Reasons

Less congestion

Better environment

Improved health

Easy to achieve results

Cheap and visible effects

Public opinion?



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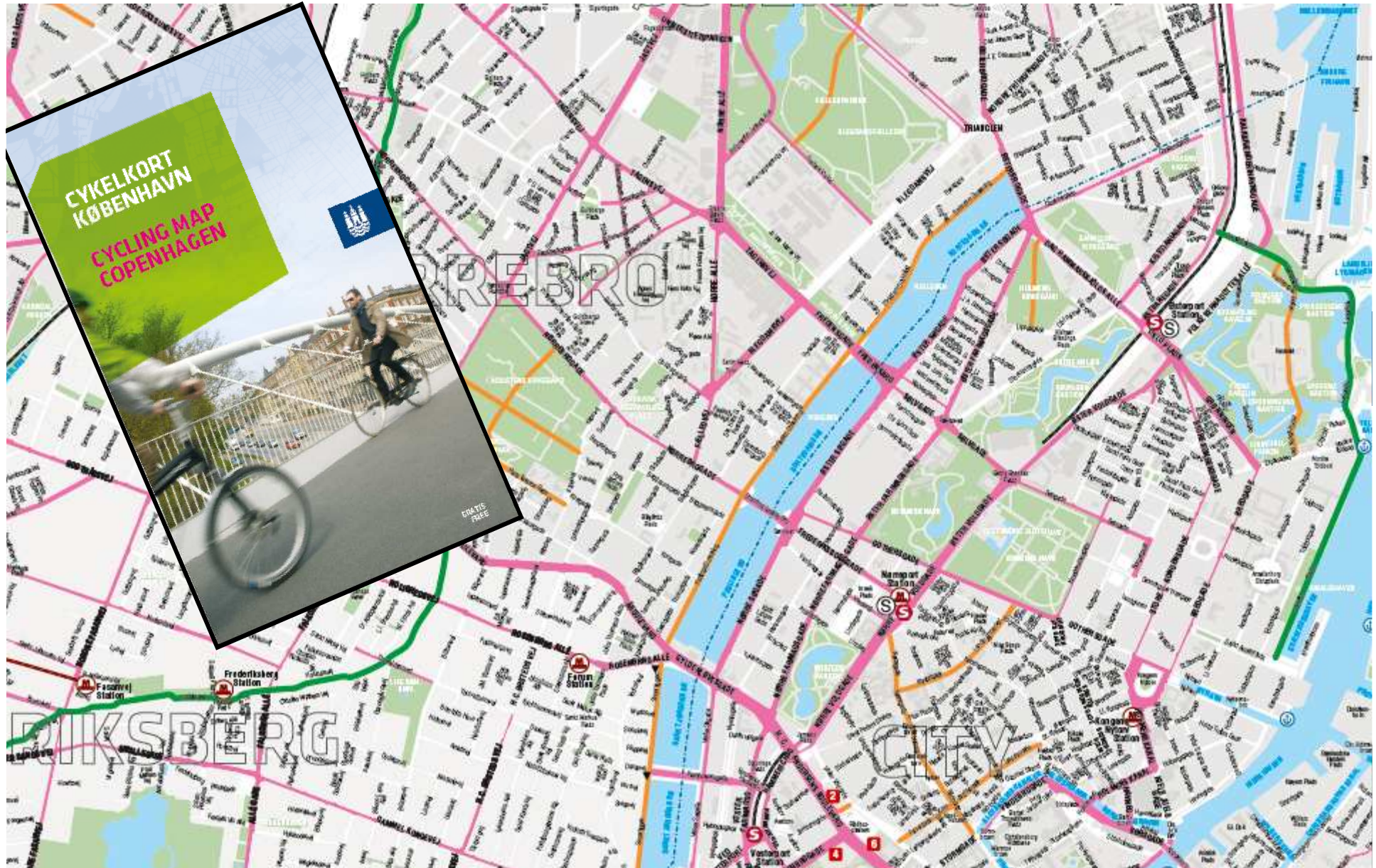
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## Cycling map + route planner (coming up)





# Green Cycle Routes





## Green Cycle Routes

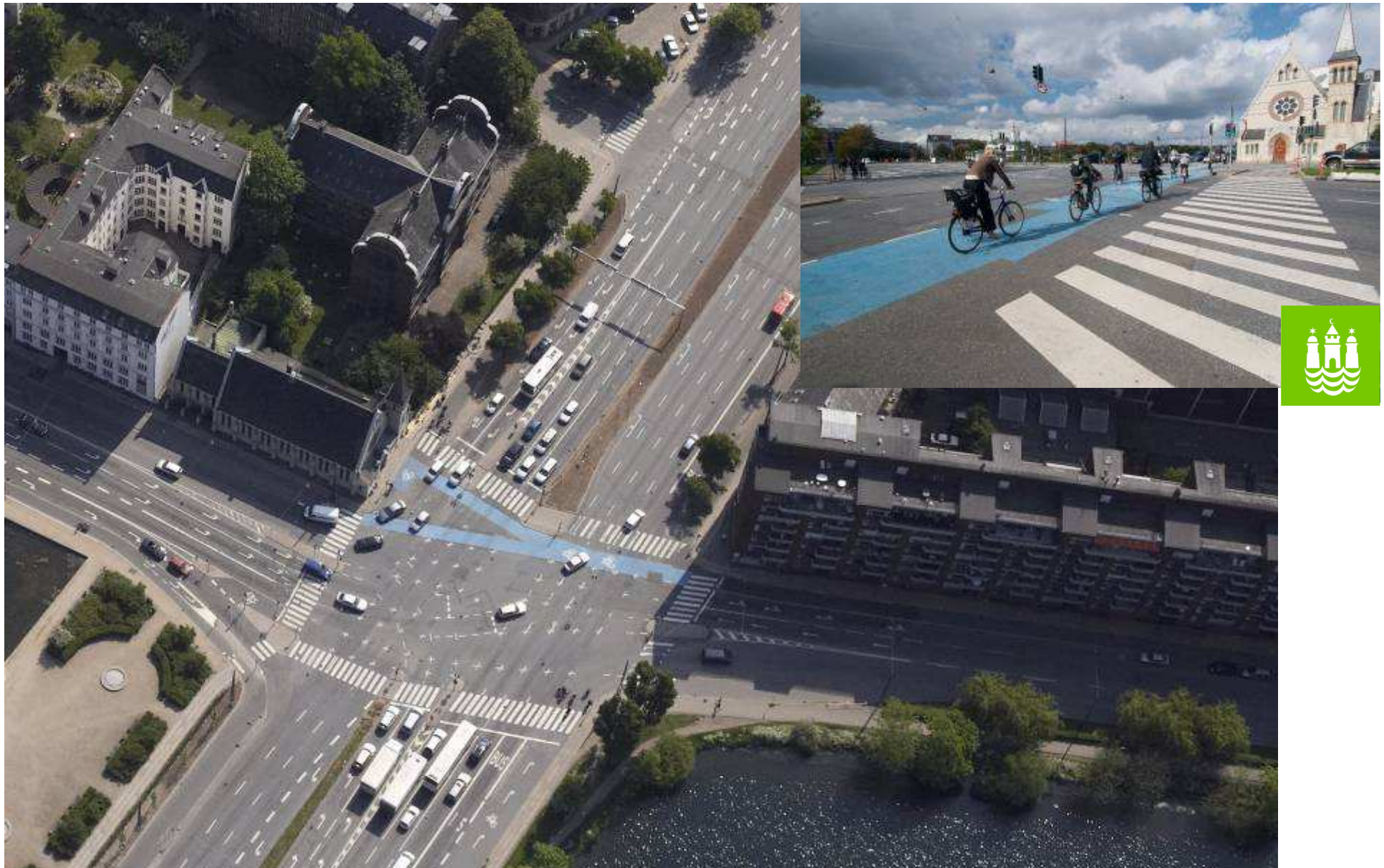


## Cycle Route Crossing Arterial Road





## Safety Redesigning Crossings





## Safety: Blue Crossings





**Safety**

**Set Back Stop Line**



## "Green Wave" Through Traffic Lights





# Health Effects 1

## The "Traffitec" Study :

Physically active individuals live 5 years longer than inactive individuals

Active individuals have 4 fewer years of severe illness than inactive individuals

Only 39% of adult Copenhageners live up to the Board of Health's recommended 30 minutes of daily exercise



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## Health Effects 2

### The "Traffitec" Study :

New cycle tracks on one kilometer of roadway results in 20% increase of cyclists and 10% fewer cars

Watch out for safe design - this study showed 10% negative results on safety !



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## Health effects 3

*With a 10% increase in kilometers cycled:*

- Healthcare saves \$10 million USD annually
- Businesses save \$28 million USD due to increased productivity
- The labour market will have 57,000 more workdays
- 61,000 extra years of life
- 46,000 fewer years of prolonged severe illness
- 25 fewer early retirements



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## Health Effects 4

"One extra kilometer cycled gives an average gain in health- and production-related benefits of more than 5 DKK."

(COWI)



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# Health effects

Statments from survey by

Proffessor Dr. Med. Lars Bo Andersen, Syddansk Universitet :

*children that cycles to school has 10 % better physical condition*

*children that starts cycling at 9 years of age - still has almost 10% better physical condition*

*Adults that cycles to work - or every day - has 30% lower mortality rate*



## Climate change ...

**90,000 Tons CO2 saved annually compared to the same number of kilometers by car.**



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## Public Involvement



# Workshops












## Campaigning - Face to Face



## Campaigning "Use Your Head"

### BRUG HOVEDET

-  sænk farten, se op og se til venstre, når du er på vej ud i et kryds!
-  tænd lygterne og bliv set af bilisterne, når du cykler i mørke!
-  pas på biler, der svinger ud af rundkørslen og drejer mod højre!
-  vis ansvar og vær det gode eksempel for børnene på cykelstien!
-  hold afstand og ring hellere for meget end for lidt med klokken!
-  spænd cykelhjelm og få 40% større chance for at overleve uheld!




## BRUG HOVEDET I TRAFIKKEN


**Brug hovedet, hvis du ikke vil med i statistikken!**  
Er det bilen eller dig på cykel, som skal lære at bruge hovedet?

Giv din mening til kende og se, i hvilke af byens vejkryds du skal bruge hovedet ekstra meget, når du cykler.

**WWW.BRUGHOVEDET.NU**

Hovedløs cykling frarådes

KØBENHAVNS KOMMUNE  
  
Trafik og Planteskole

FREDERIKSBERG KOMMUNE  
  
FELIX DE DIETORAT



## Campaigning "Biking to Work"





## Campaigning "Biking to Work"





# Campaigning



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## European Mobility Week





# Campaigning “The Cycle Bus”

**CYKELBUSSEN**

**OPSAMLINGSSTED**

**FARUM**  
kl.: 07.45  
kl.: 08.00  
kl.: 08.15

**VÆRLØSE**  
kl.: 08.00  
kl.: 08.15  
kl.: 08.30

**KLAUSDALS-  
BROVEJ**  
kl.: 08.15  
kl.: 08.30  
kl.: 08.45

**KØBENHAVN**  
ca. 35 min.  
senere



[www.cykelbussen.dk](http://www.cykelbussen.dk)

 KØBENHAVNS KOMMUNE  
Trafik og Miljøforvaltningen





## Campaigning "I Bike Copenhagen"

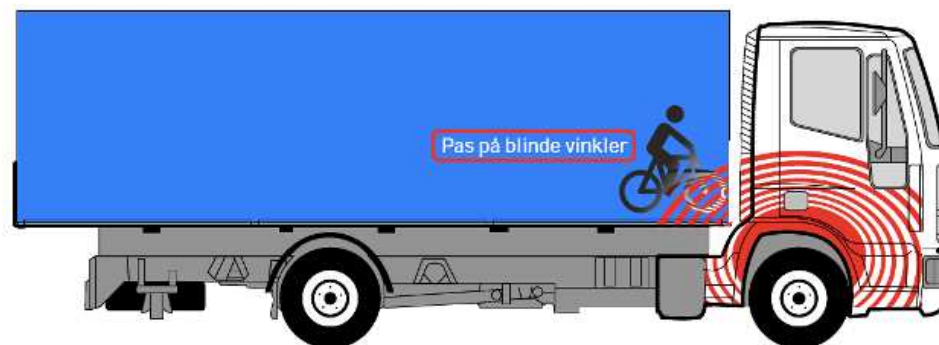


## Campaigning Merchandise





## Campaigning Partnership (Reelight + DTL)



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# Campaigning





# Monitoring and Measuring



## Accounting for Bicycles

- Every 2nd year
- Key figures
- Policy target figures
- What cyclists think



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# Monitoring and Measuring

## Overview 1995 - 2006

### What cyclists think

Cyclists are asked how they rate various cycling facilities in Copenhagen. Their ratings are converted into a point system depicted graphically as 10 little cyclists. The more little cyclists, the better the rating. A rating of 10% satisfied cyclists is depicted as one little cyclist. The survey is based on 661 telephone interviews with cyclists.





# Monitoring and Measuring

## Overview 1995 - 2006

### What cyclists think

Cyclists are asked how they rate various cycling facilities in Copenhagen. Their ratings are converted into a point system depicted graphically as 10 little cyclists. The more little cyclists, the better the rating. A rating of 10% satisfied cyclists is depicted as one little cyclist. The survey is based on 661 telephone interviews with cyclists.





**VELO-CITY GLOBAL 2010**  
DIFFERENT GEARS, SAME DESTINATION  
COPENHAGEN, JUNE 22 - 25

[www.velo-city2010.com](http://www.velo-city2010.com) (website launch next week)

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# Lifestyle





























































































