

Background

Master of Arts (MA) in Modern Culture with a Profile in Urbanity and Aesthetics

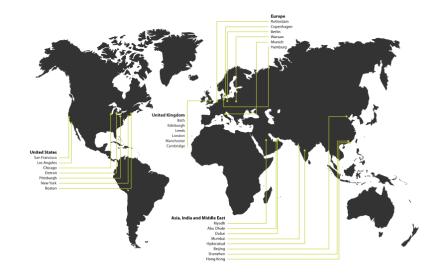
10+ years experience with Active Mobility Planning

Board Memberships

- Bicycle Innovation Lab
- Cycling Embassy of Denmark
- European Cyclists' Federation (current)



About Buro Happold



About Buro Happold



Routes

Responsibilities

- Strategic planning
- Route planning
- Screening
- Design guidance
- Funding
- Construction guidance
- Maintenance
- Annual inspections

Programme Managing

Innovation

E.g.

- Google collaboration
- Speed pedelec studies
- Bikonomics, cost-benefit analysis comparisons with Dutch standard
- Pushing for new tax-incentives
- Project lead on interregional bicycle strategy DK/SE

Knowledge

- Running a comprehensive **assessment** program
- Creating a regional bicycle account (PowerBI)
- Close collaboration with academia. E.g. hosting the International Cycling Research Conference
- Arranging European Cycle Highway **Academies**
- Creating new concept guidelines
- Hosting monthly 'Lunch and
- Learn' meetings

Communications

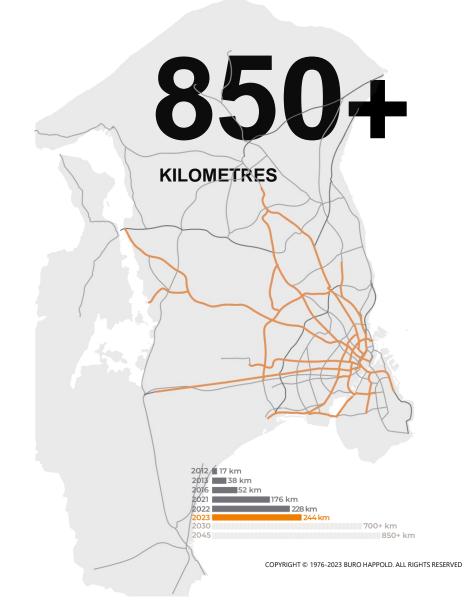
- National policy debater
- Evidence-based!!
- **Business** oriented communication
- Route and maintenance communication
- User oriented campaigns
 - Presenting for 30-40 international delegations a year

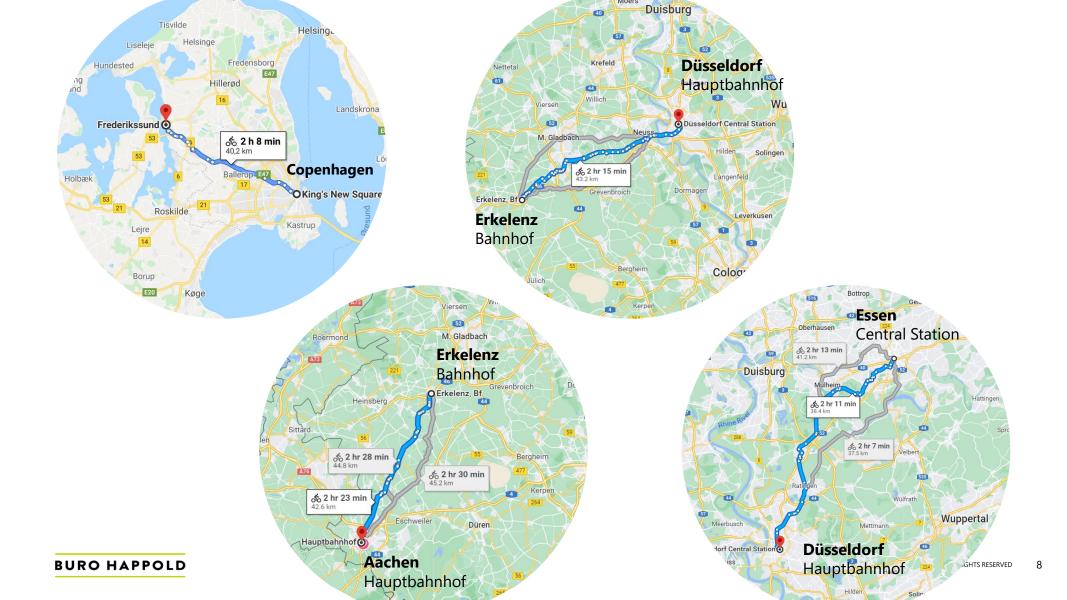
Organisation

- Gentleman agreement collaboration
 - no legal mandate
- Steering group of 31 municipalities
- **Facilitating** every step of the processes.
- Hosting Mayors Summits
- External Stakeholder Engagement: Academia, Chambers of Commerce, NGO's international regional planners etc.

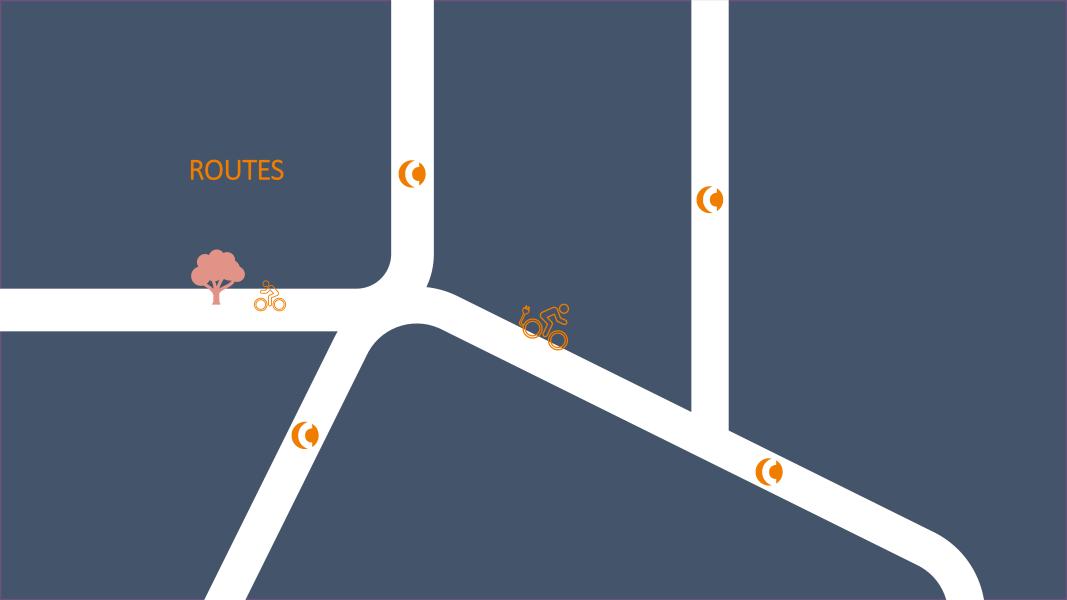
The Cycle Superhighway collaboration

29 W HALSMAS **MUNICIPALITIES** PREDERIKSSUND PRODERSOAL O DOUBLE The Capital Region









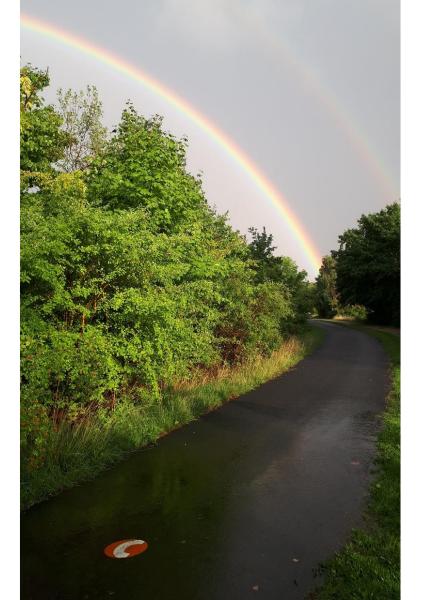












3. PILLAR IN REGIONAL TRANSPORT PLANNING



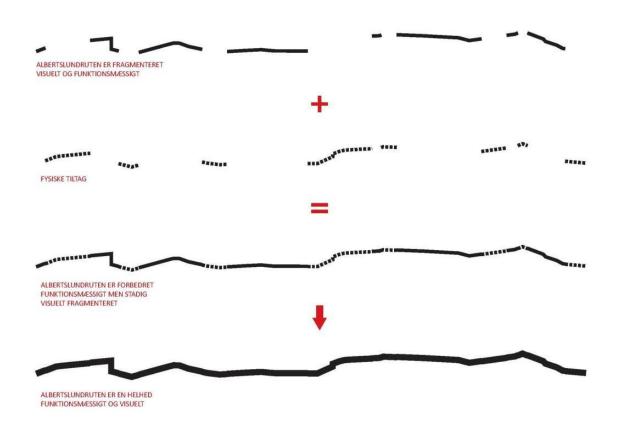
Municipal project

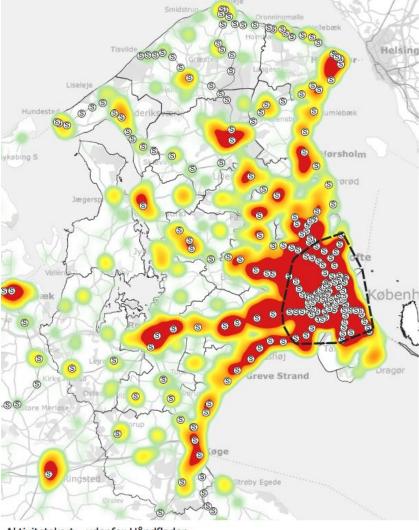
National or regional anchored <u>institutions</u>





THE MAKING OF A CYCLE SUPERHIGHWAY





Aktivitetskort - udenfor Håndfladen

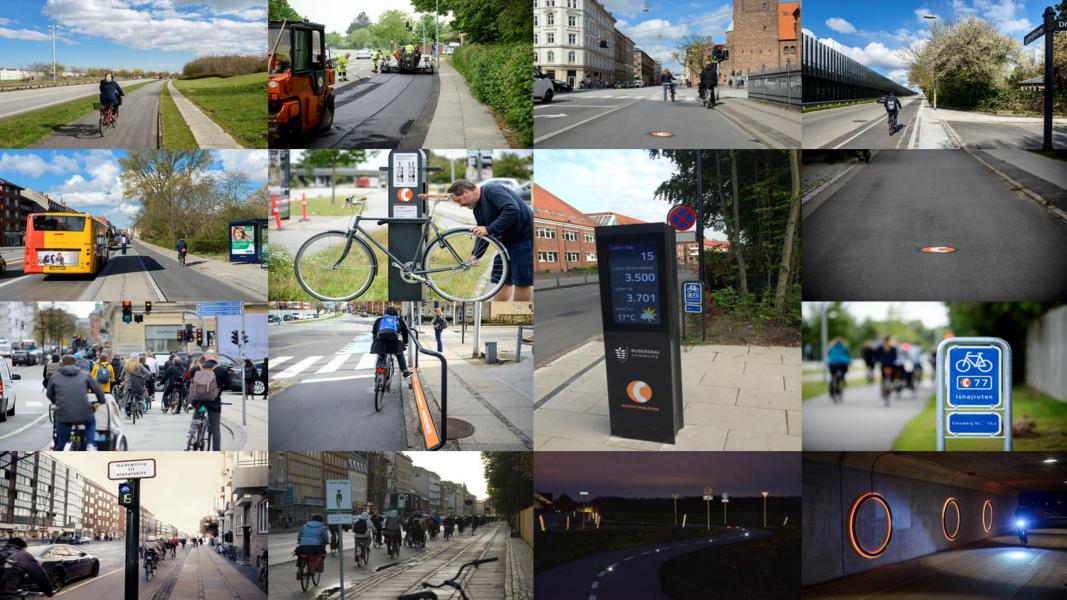
BURO HA

Ønsket maskevidde i Supercykelstinet er 4 km

Aktiviteter defineret som beboere+arbejdspladser+videreg. uddannelsespladser







Cross municipal



 Stop interviews as a part of the assessment program



Maintenance agreement



 Route inauguration with mayors as part of the communication efforts





From goal

Copenhagen's overall goal for cycling include goals for the number of cyclists as well as the quality of cycling (sense of security, safety, travel time and comfort). One of the more ambitious goals is increasing the modal share for bicycles to 50% of all trips to work or educational institutions by the end of 2015. In 2010 the modal share was 36%. Raising that to 50% means encouraging 55,000 citizens to cycle. An increase to 45%

- City of Copenhagen's Bicycle Strategy 2011-2025

means 35,000 citizens must hop onto their bicycles.

To the first vision...



...and the latest vision

The European manual for superhighways is published.

2019 By 2019 28 municipalities have joined forces to create cycle

850+ kilometres of cycle superhighway.

747 kilometres of cycle superhighway.

The 10th cycle superhighway C76 is launched.

The nineth cycle superhighway C71 is launched.

The total network is incorporated in the Danish Finger Plan.

2018

2045

2030

O 2021

2020

A socio-economic analysis of the cycle superhighways of the Capital Region proves the cycle superhighways to be one of the most profitable infrastructure investments in Denmark. The Capital Region grants €1.6 mio. to a continuation of the project.

2017

Five cycle superhighways are launched. C82, C84, C93 C94 and C97.

> The vision of 750 kilometres cycle superhighway is approved in the collaboration.

O 2016

A European Interreg project seeks to develop European guidelines for cycle highways, initiated by Belgium, the Netherlands and the European Cyclist Federation.

The third cycle superhighway C77 is launched.

The Danish Road Standards releases a guideline for the planning of cycle superhighways.

2015

Another national cycle superhighway fund provides 40% investment for cycle superhighways in all of Denmark.

The first two cycle London are launched

2008

An analysis initiated by the City of Copenhagen shows a great potential for long distance bike commutes across municipal borders in the Capital Region.

2009

Copenhagen joins forces with 15 municipalities and the Capital Region. The Capital Region grants €54,000 to the project. The state dedicates €134 mio. for the development of cycling infrastructure.

2010

The Capital Region decides to grant an an- Superhighways that nual €400,000 to the development of the Cycle Superhighway Collaboration.

2011

The Office for Cycle facilitates the collaboration is created along with a conceptual strategy for the project.

2012

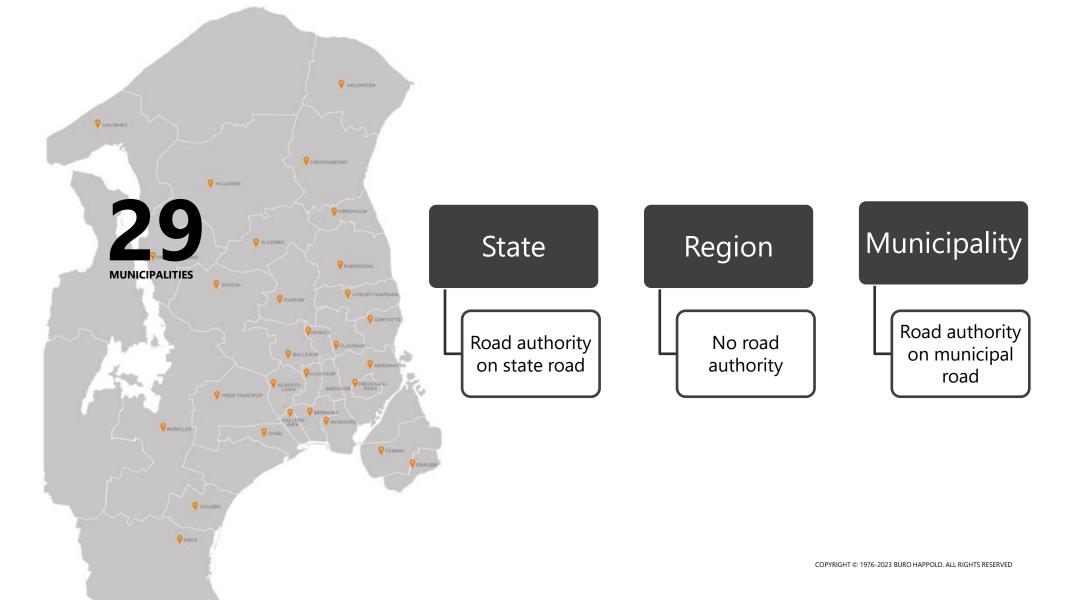
The second cycle The first cycle superhighway C99 in the superhighway C95 is region is launched. launched. The first national cycle the Cycle Superhighsuperhighway fund provides 50% investment for cycle superhighways in all of Denmark

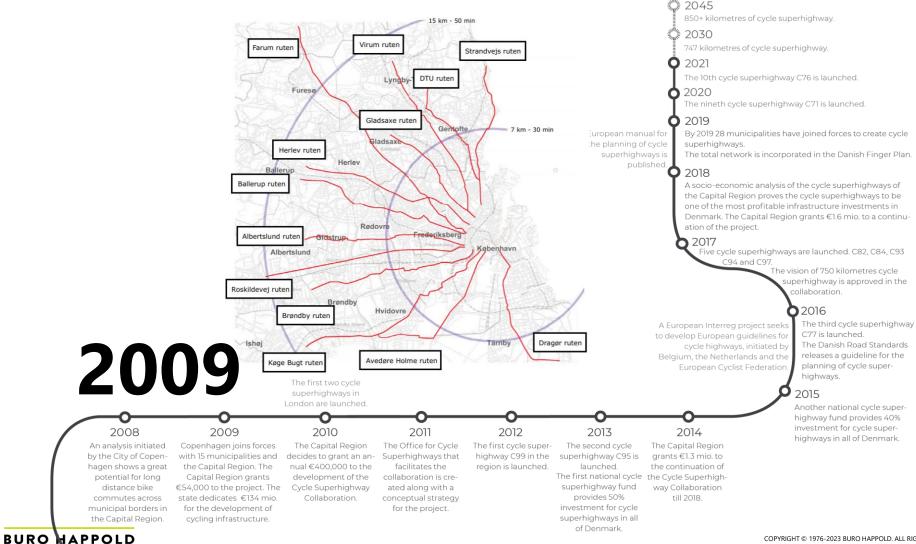
2013

2014

The Capital Region grants €1.3 mio. to the continuation of way Collaboration till 2018.

BURO MAPPOLD

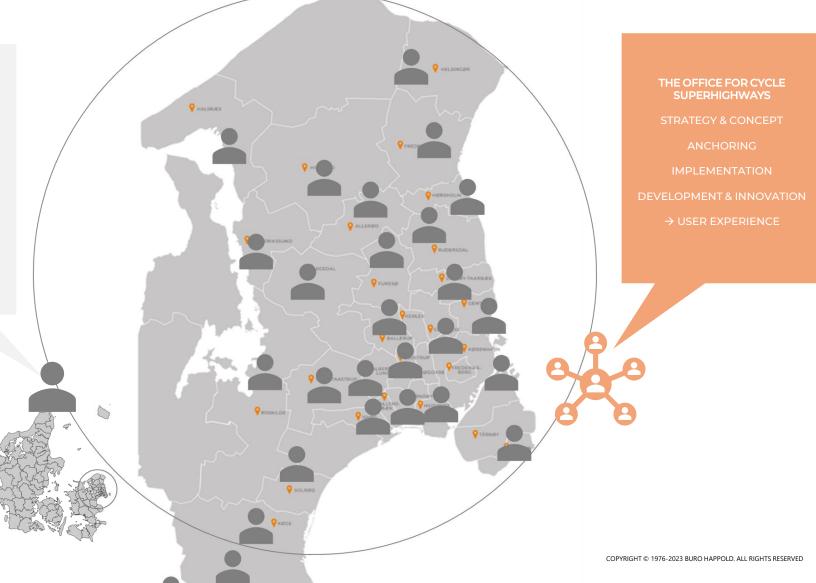


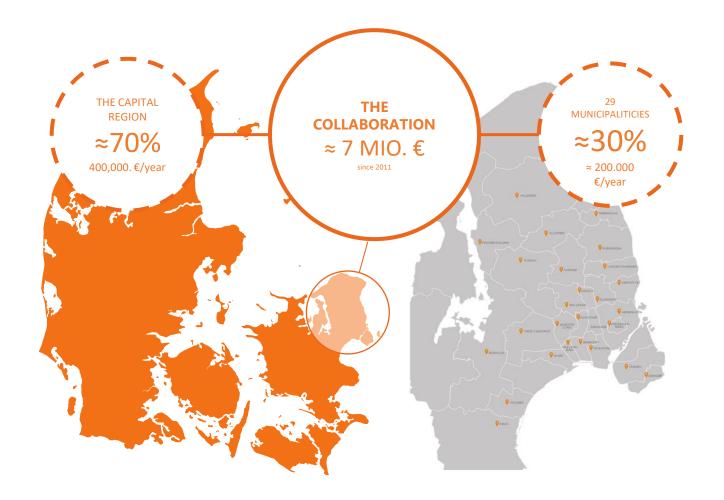


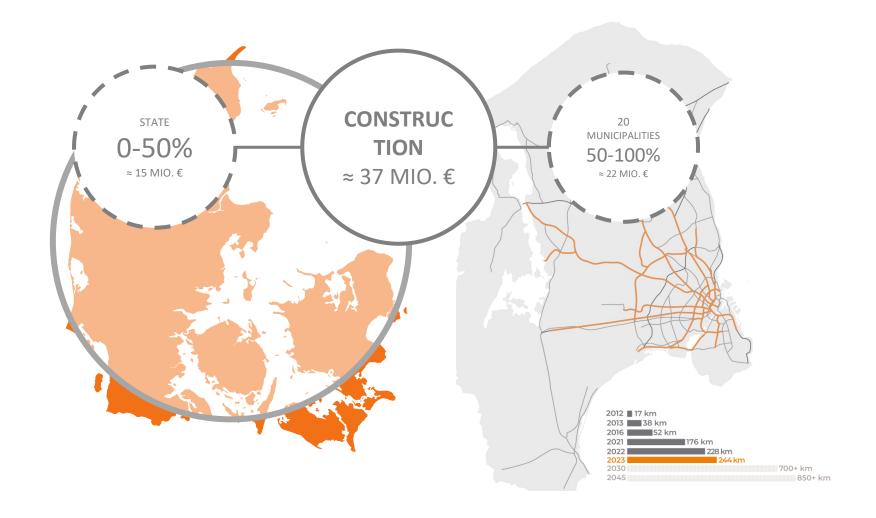
TRAFFIC PLANNERS IN THE MUNICIPALITIES

Traffic safety
Development of district
plans
Construction
Excavation permit
Climate planning
Maintaining
Mobility planning
Etc.

BURO HAPPOLD

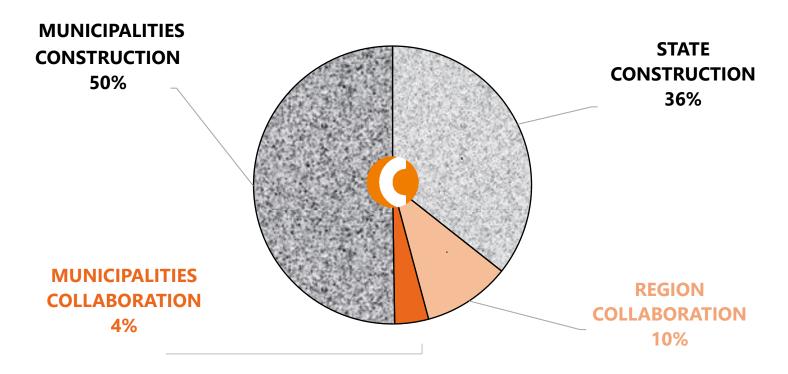


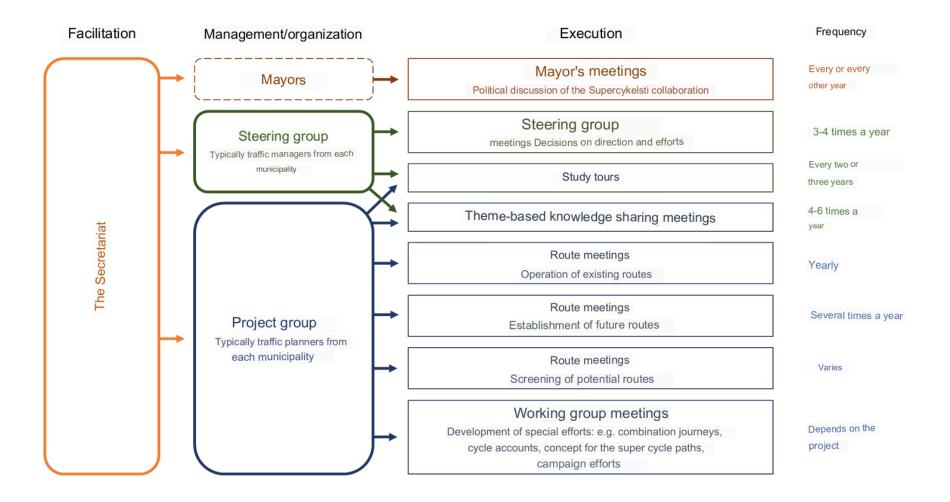




30

TOTAL COSTS FOR CONSTRUCTION AND COLLABORATION CA. 43 MIO. €





32





















Ballerup

Brøndby

Dragør

Egedal

Fredensborg Frederiksberg Frederikssund Kommune

Kommune

Furesø Kommune





















Gentofte Kommune

Gladsaxe Kommune

Glostrup

Kommune

Halsnæs Kommune

Helsingør Kommune

Herlev Kommune

Hillerød

Kommune Kommune

Hvidovre Høje-Taastrup Kommune

Hørsholm Kommune





























Region Hovedstaden



Kommune





Lyngby-Taarbæk Kommune



Rødovre Kommune

Roskilde Kommune

Tärnby Kommune

Vallensbæk Kommune



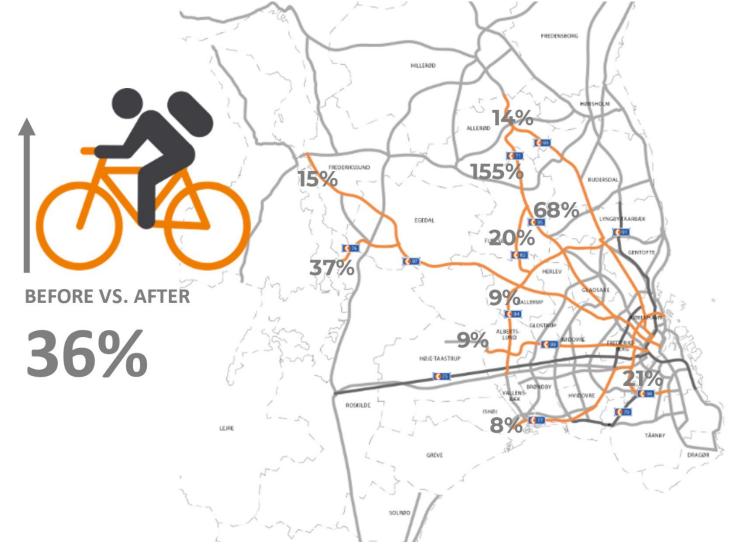
GAMEOFIHRONES

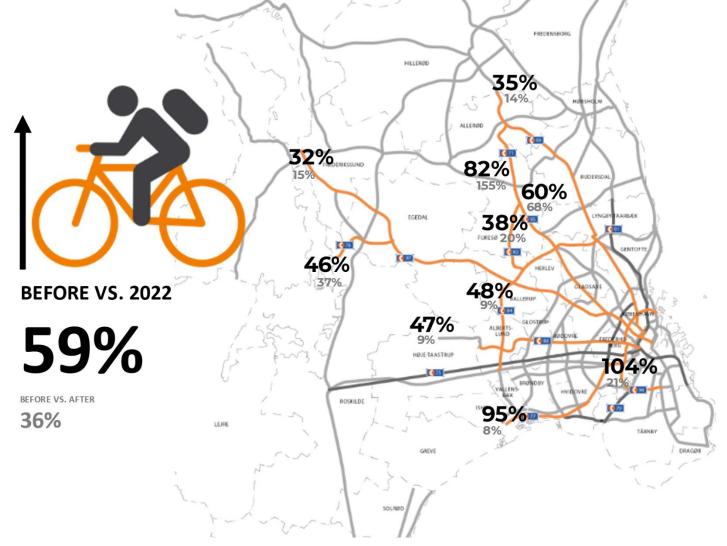


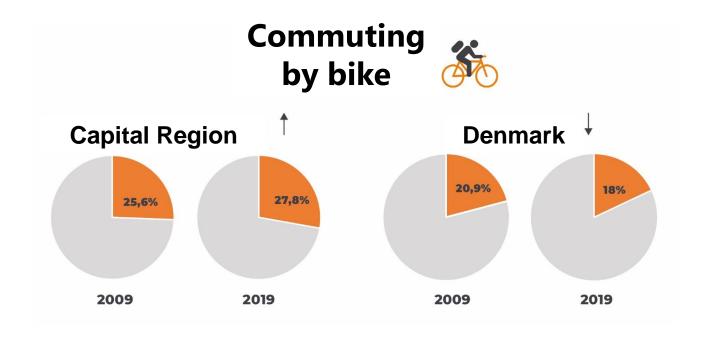
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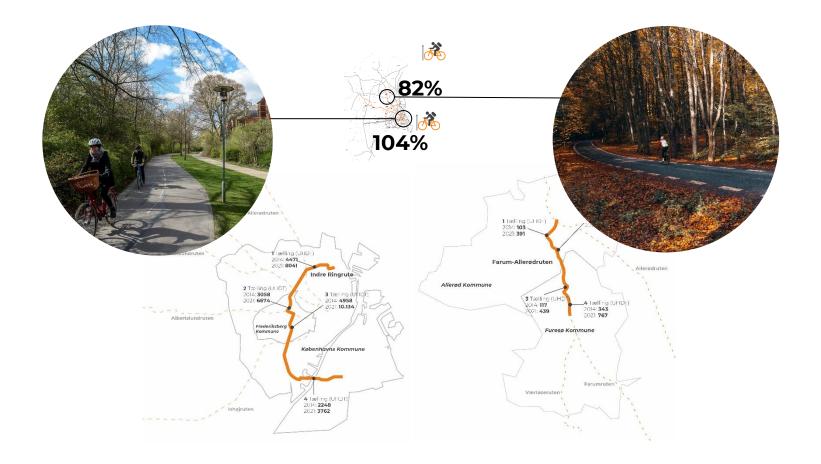
976-2023 BURO HAPPOLD. ALL RIGHTS RESERVED

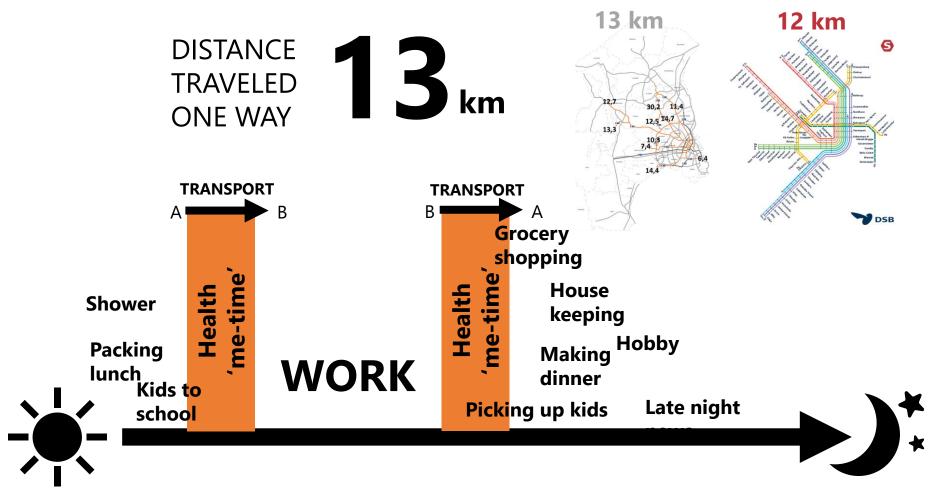




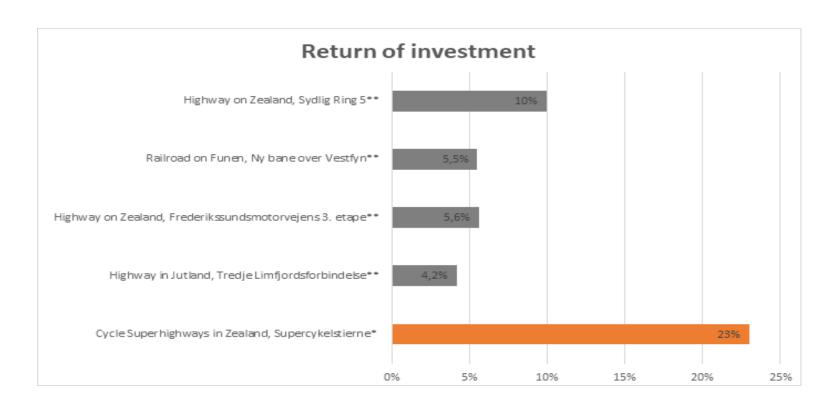








SOCIO ECONOMIC RETURN OF INVESTMENT





KEY FIGURES



75% increase in bike traffic on the routes



13km is the average distance cycled per trip
(Average of the 10 implemented routes)



13% of the new users formerly used the car

(Average of the 8 implemented routes, no data from Farum-Allerødruten and Jyllinge-Stenløseruten)



85% ride on the Cycle Superhighways daily or more than one time a week

(Average of the 10 implemented routes)



49% of the users are women 51% are men

(Average of the 10 implemented routes)



84% knows what the Cycle Superhighways are (Average of the 10 implemented routes)



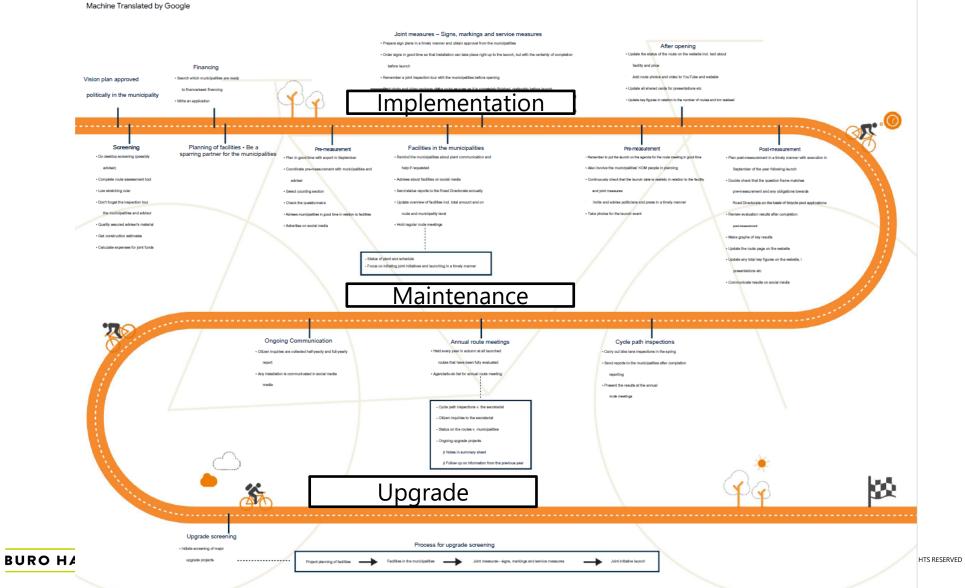
The general satisfaction with the Cycle Superhighways scores **3,9** out

(Average of the 9 implemented routes, no data from Albertslundruten)



(NOTE: only the average of 2 implemented routes: Farum-Allerødruten and Jyllinge-

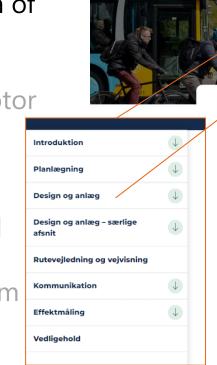




- standards for cycling
- 2. land acquisition
- 3. competition for space with motor vehicle traffic?
- 4. How can the process be accelerated?
- 5. What mistakes were made and how were they corrected?
- 6. What lessons were learned from the implementation strategy?

How do you deal with the problem of

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Typer af cykelsti

SUPER CYKELSTIER RUTER NYHEDER PRESSE DOKUMENTER

Standarderne for supercykelstier afhænger af konteksten. Eksempelvis følger breddekravet for en bestemt type cykelsti den forventede mængde cyklister på den givne strækning. For at finde den anbefalede minimumsbredde anvendes den forventede spidstimetrafik for cyklister i én retning. Spidstimetrafikken kan aflæses i cykeltrafiktællinger i <u>Mastra</u> (kræver login).

Supercykelstier er et samarbejde mellem 29 kommuner og Region

Hovedstaden.

Se alle ruterne på kort

Stitype / forventet spidstimetrafik	0-200 cyklister	200-1.500 cyklister	Over 1.500 cyklister
Dobbeltrettet cykelsti	2,5-3,0 m*	3,0-4,0 m	min. 4,0 m
Enkeltrettede cykelstier	2,25-2,5 m	2,5-3,0 m	min. 3,0-3,5 m

Anbefalede stibredder for dobbeltrettede og enkeltrettede cykelstier ved forskellige forventede trafikmængder.
*For stier langs veje gælder, at dobbeltrettede cykelstier i byområder skal være minimum 2,5 m brede, mens dobbeltrettede
fællesstier i byområder skal være minimum 3,0 m brede. Er stien afgrænset af autoværn, heller eller rækværker, træer eller
lignende faste genstande, skal der desuden være et breddetillæg på mindst 0,3 m¹.

Anbefalinger til brug af cykeltællinger til at definere stibredde

Det anbefales at de nyeste – og helst maksimum 5 år gamle – cykeltællinger bruges til at finde bredden. Såfremt der ikke foreligger nyere tællinger af cykeltrafikken, bør der tælles cyklister på strækningen forud for planlægning af supercykelstien.

How do you deal with the problem of

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A road authority responsibility!



Figur 3
Skatskærnej og
krydsmingen af
Raskildevirj fist og efter
anhægisen af dem dathelftrettede cykelsti på den nardlige side af
vejen.
SDEE Skråfoto maj
JUIT (genesst) og
Google kontalata 2021 (mederst).





And ongoing battle! Be sure you have the good arguments ready!

How do you deal with the problem of

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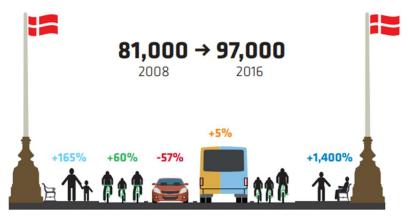
Increased capacity and liveability

Between 2009 and 2013 Nørrebrogade was redesigned with a focus on wider cycle tracks and sidewalks, better bus conditions, and attractive public spaces. The total number of persons on Dronning Louises Bridge has risen from 81,000 in 2008 to 97,000 in 2016, an increase of 20%.

48,400 bicycles on Dronning Louises Bridge on a weekday in 2016.

1,400%

increase in persons spending time on Dronning
Louises Bridge.



Growth in number of persons per transport mode on Dronning Louises Bridge from 2008-2016.

How do you deal with the problem of

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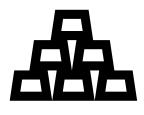
SEND + MORE

= MONEY

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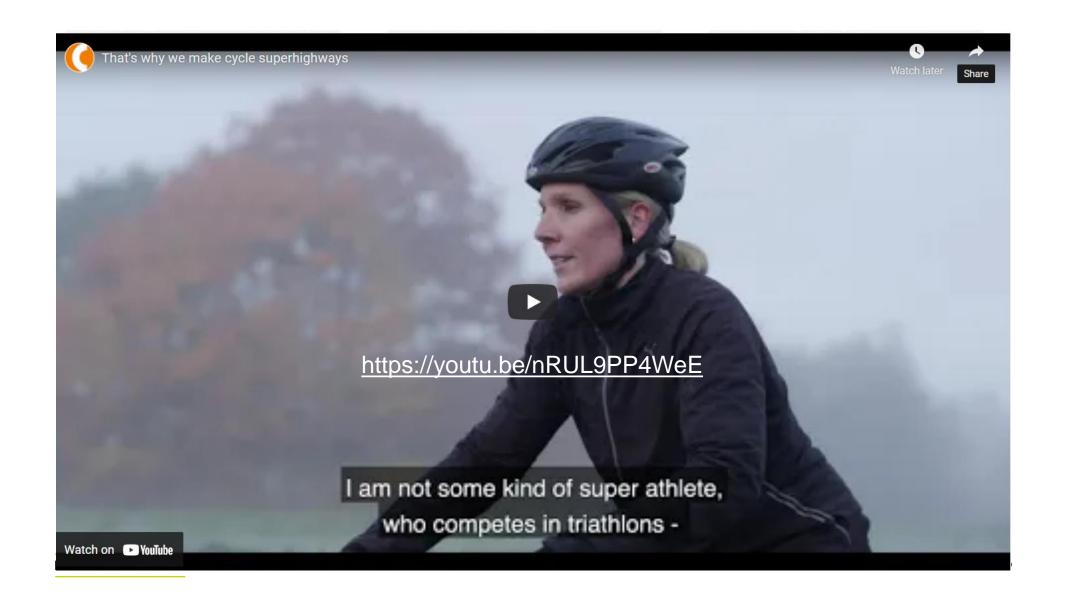
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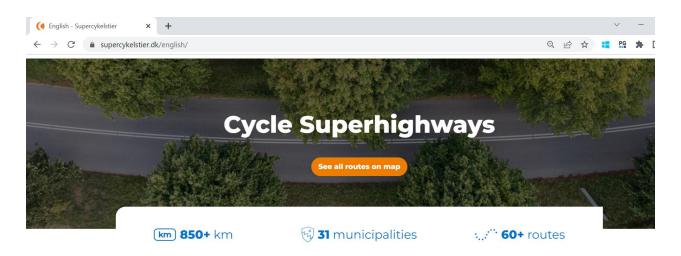




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Cycling offers huge benefits for the individual as well as for society, but it requires highly prioritized biking conditions if the bike is to succeed as a competitive mean of transportation.

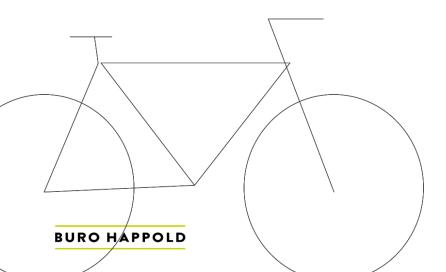
BURO HAPPOLD

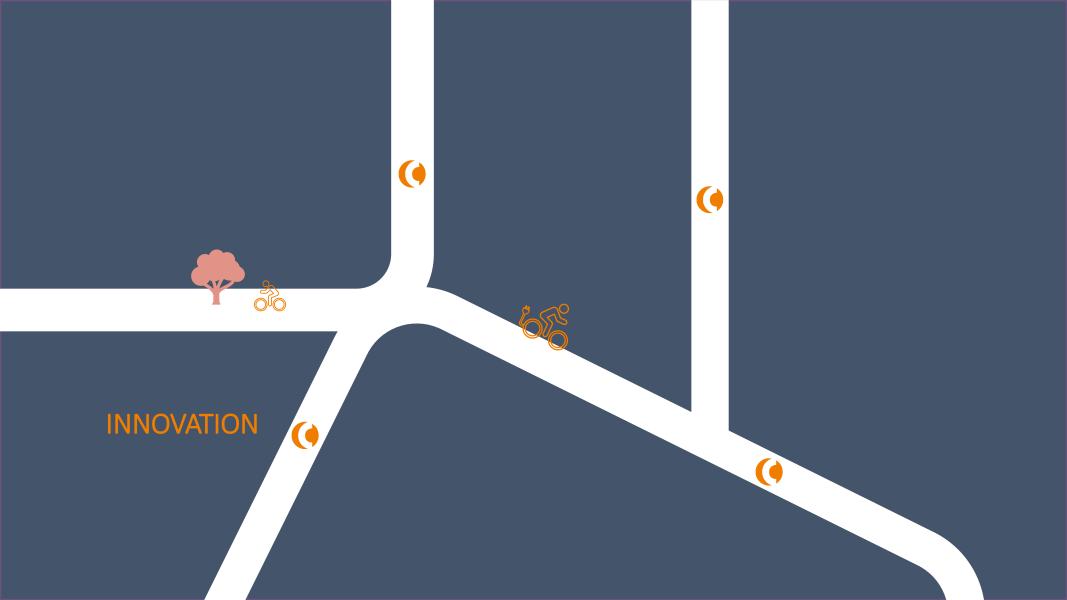
Thank you

Sidsel Birk Hjuler sidsel.birkhjuler@burohappold.com

www.burohappold.com

Extra slides





TEST AND INNOVATION









Identified needs for information

COMBINATION WITH PUBLIC TRANSPORT

INFORMATION NEEDS OF LONG DISTANCE COMMUTERS

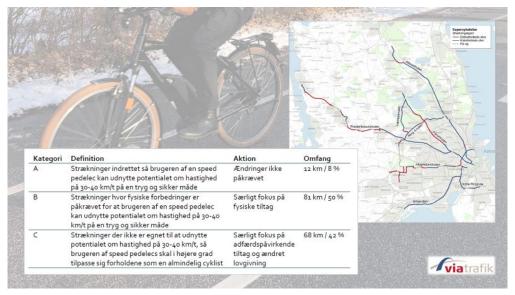


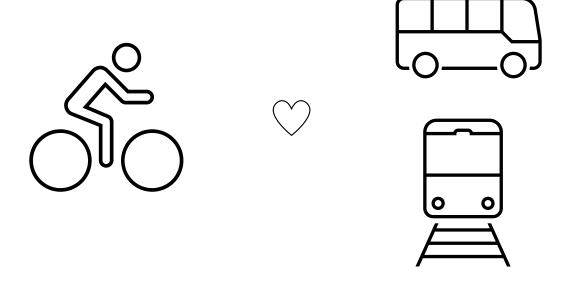
Optimized, reliable information to plan and ride known and unknown routes One entry point to route planning for combined trips with bicycle and public transport CURRENT CONDITIONS - WEATHER AND PATH 2 Optimized and live-updated information about conditions and changes on the chosen route Optimized and live-updated information about current SOCIAL RIDING AND COORDINATION BICYCLE FACILITIES Tools to coordinate co-riding appointments 4 Overview of physical and digital bicycle facilities and to register activities and the accessibility

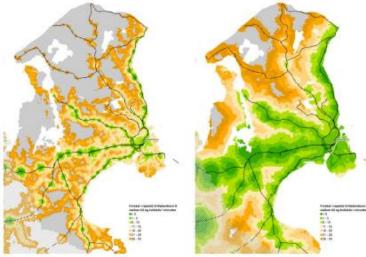
ROUTE PLANNING AND OPTIMIZATION

BURO HAPPOLD

Speed pedelecs





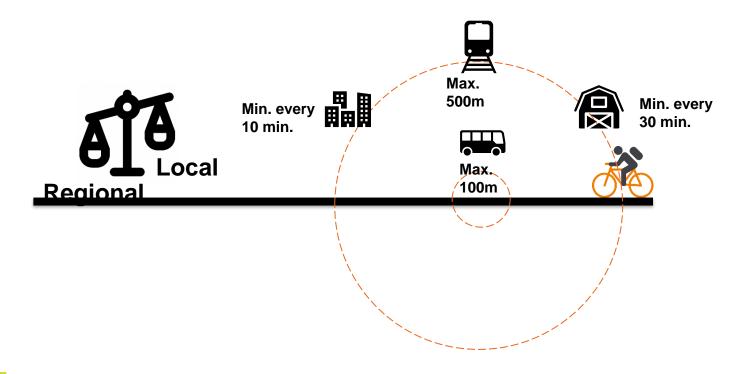


Figur 8a: Forskel i rejsetid mellem kollektiv transport og bil fra alle steder i hovedstadsområdet til København H med gang som tilbringertransport

Figur 8b: Forskel i rejsetid mellem kollektiv transport og bil fra alle steder i hovedstadsområdet til København H med cykel som tilbringertransport

(Region Hovedstaden 2018: Sammenfatningsrapport: Trafikale scenarier for hovedstadsområdet)

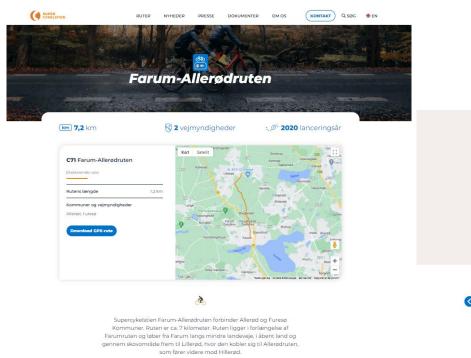
PUBLIC TRANSPORT NODES AS A PART OF CYCLE SUPERHIGHWAY INFRASTRUCTURE

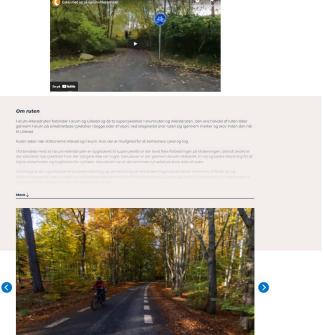




COMMUNICATING THE ROUTES

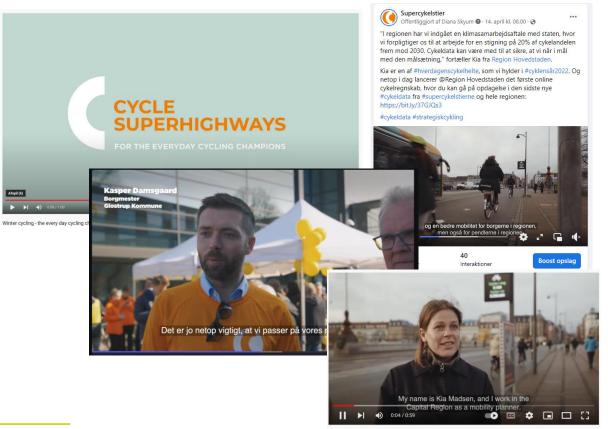
before, during and after

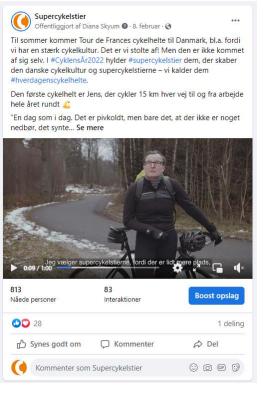


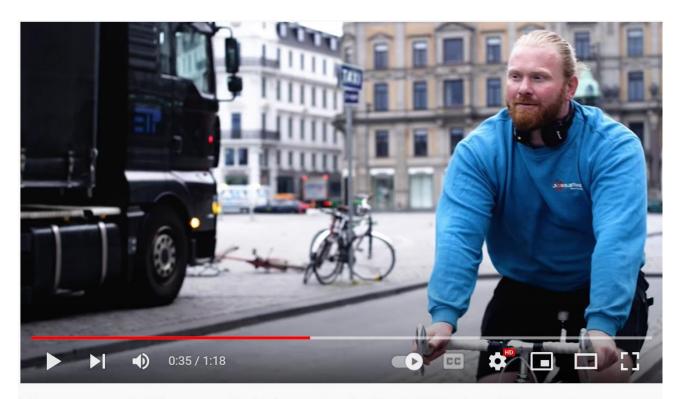




CAMPAIGNS

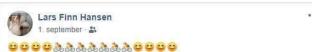






The one-month bike to work challenge in the Capital Region of Denmark





Skift pendlerbilen ud med en elcykel i september....

Sådan lød udfordringen fra Furesø kommune i samarbejde med Supercykelstier.dk.

Samtidig er det inkl. et sundhedstjek før og efter.

Jeg er selv skeptisk i forhold til El-cykel vs. sundhed. "Et det ikke lidt det samme som at køre knallert" Det må sundhedstjekket vise efter endt udfordring.

I går aftes fik jeg så min låne Elcykel. En Highspeed fra Two wheel company. Den er super fed og kan køre op mod de 45 km't.

I dag var første dag på El-cykel til og fra arbejde.

kl. 06:00 Startede turen fra Farum og kørte den direkte vej 30 km mod Københavns Lufthavn og retur. Super heldig med vejret, vindstille og solskin.

Første del af turen: Farum til Brønshøj var af supercykelstien "farumruten" her gik det stærkt gennemsnits fart på 42 km't. Jeg fik stiftet bekendtskab til en garvet cykelrytter, der efter et kort stykke tid spurgte "om det var ok han lå på hjul"?

Vi fulgtes ad en 12 km indtil han skulle dreje af.

Min læring kl. 06:00 er det for koldt til kun en trænings trøje 😂.

Anden del af turen: Brønshøj til Lufthavnen over Rådhuspladsen, ind over Langebro og ud af Amagerbrogade. Her gik knap så stærkt, da der en del lyskryds og mere trafik. Men hele turen tog lige under en time. 32 km't i snit.

Turen hjem blev delt i 2.

Fra Lufthavnen til Islev, her mødes jeg med Betina Maria Hansen til en sen frokost. Hvorefter turen gik hjem til Farum.

Konklusion på dag 1.

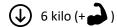
Super god dag med godt vejr og hurtigt frem og tilbage til jobbet. Glæder mig allerede til turen på den nye cykel i morgen tidlig.

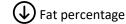
FARUM



30 km each way 1 month on speed pedelec (45 km/t)

=











CPH AIRPORT





NYHEDER OPINION BUSINESS AOK

Her er opskriften: Sådan får hovedstaden pendlere til at stille bilen og cykle 11 kilomete til job

Storbyborgere vælger cyklen - og er villige til at hjule langt - hvis forholdene er til det, viser nye tal for brugen af supercykelstier i Region Hovedstaden.



allerødnyt

Supercykelstier gor flere til

EVENTS



POLITICAL OWNERSHIP









POLITICAL OWNERSHIP

»Det er ikke kun i
hovedstadsområdet, at cykling er
vigtigt, det er det i hele landet. At
tage et par kilometer til arbejde
på cykel er der relativt mange,
der gør. Men hvis vi for alvor skal
ændre noget på vores klima-,
sundheds- og
trængselsudfordringer, skal
cykling også være attraktivt på
de længere afstande.

Så det er et fantastisk vigtigt stykke arbejde, som

Supercykelstisamarbejdet og de 27 borgmestre har kastet sig ud i med nogle virkelig flotte resultater og anbefalinger, som kan indgå i de kommende drøftelser om en investeringsplan.

For vi skal tage de nødvendige miljø- og klimahensyn, når vi planlægger fremtidens infrastruktur, og det kræver investeringer i cyklisme.«

- Transportminister, Benny Engelbrecht

Politiken Byrum, 5. november 2019: Anbefaling fra 26 kommuner: Staten skal styrke cykling på tværs af kommuner

