Research contribution to Urban Development

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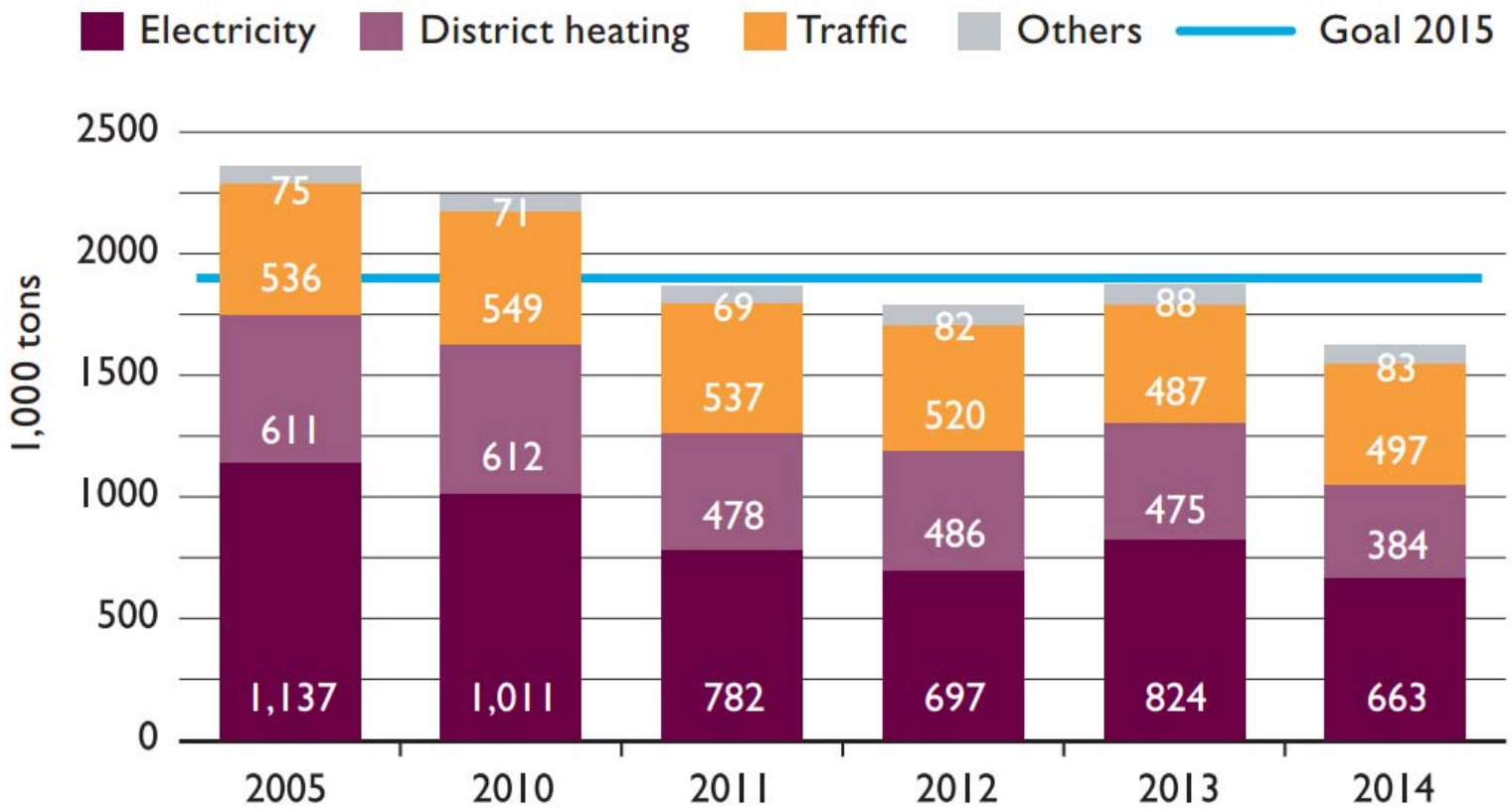
Megatrends influencing our cities

Copenhagen

THE FIRST CARBON NEUTRAL CAPITAL BY 2025

What are the challenges we are facing?

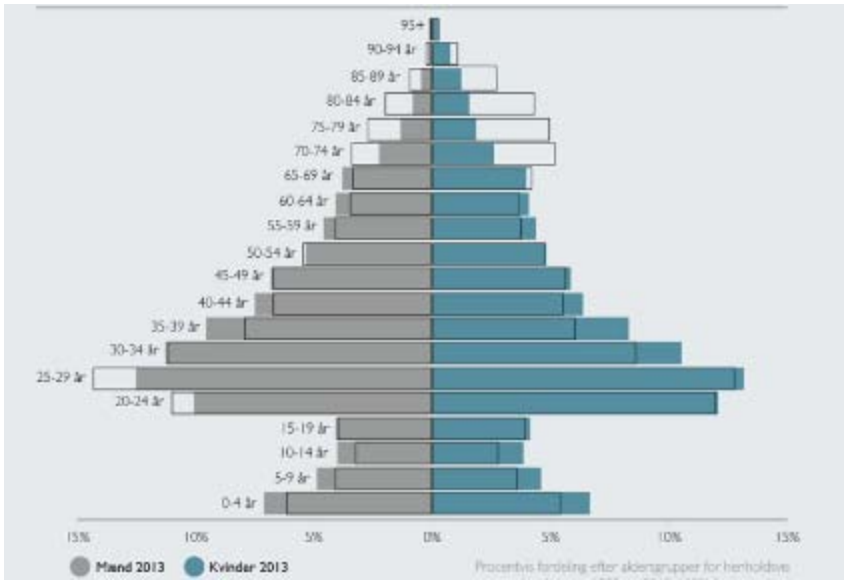
Transport – only 7% decrease in CO_2



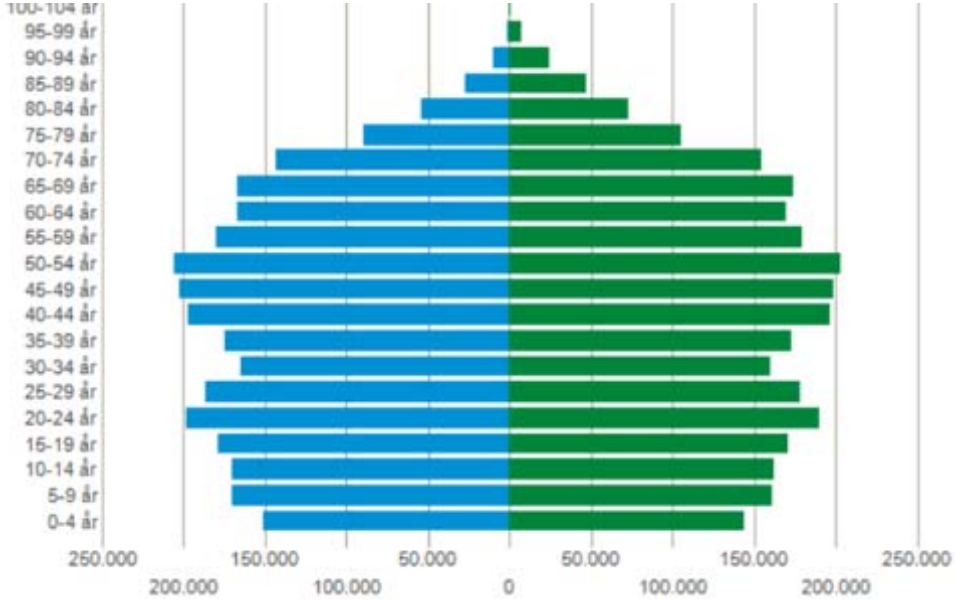
How can we meet this challange?

How can mobility support quality of life?

Copenhagen – a young city

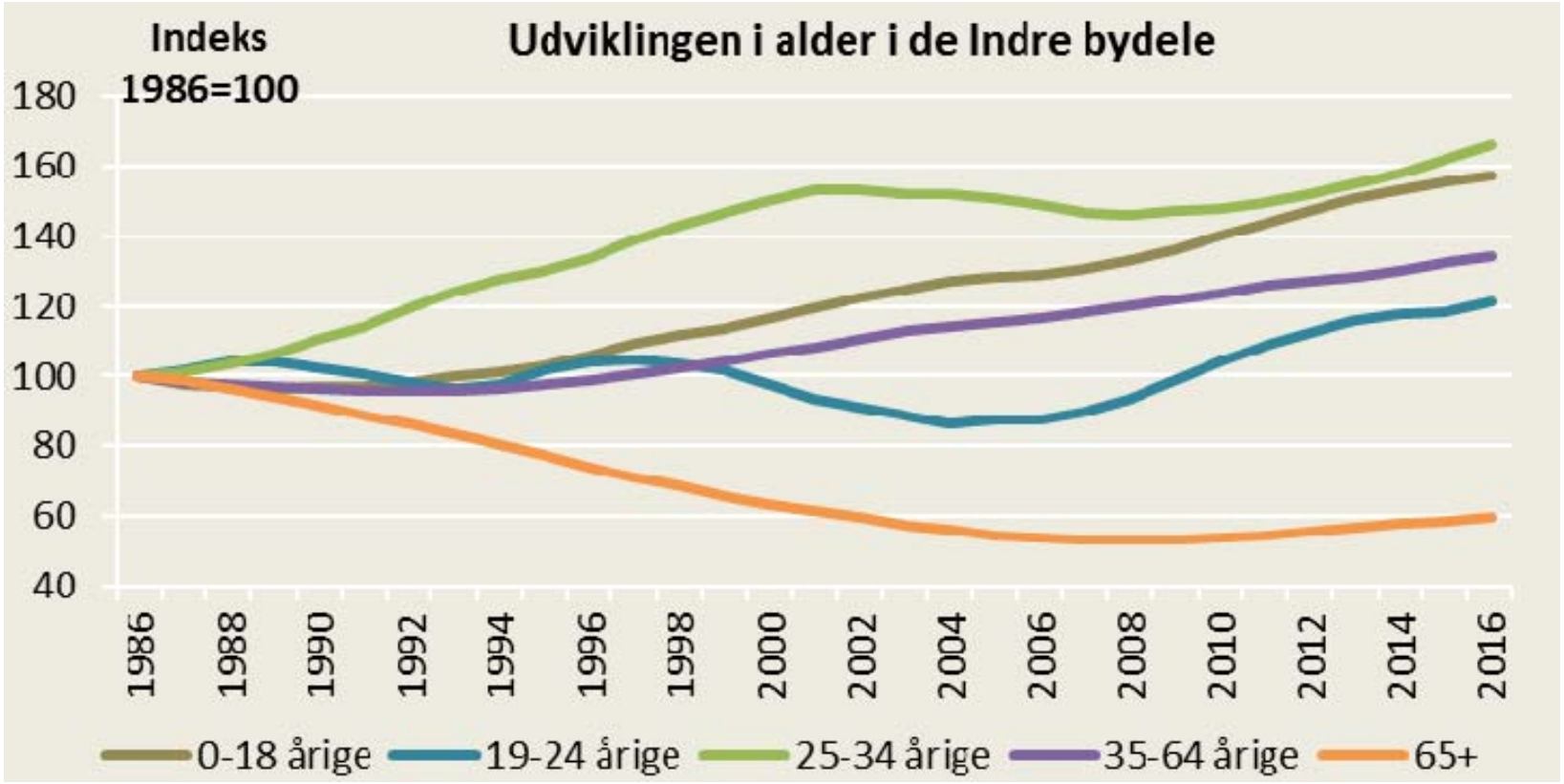


Copenhagen



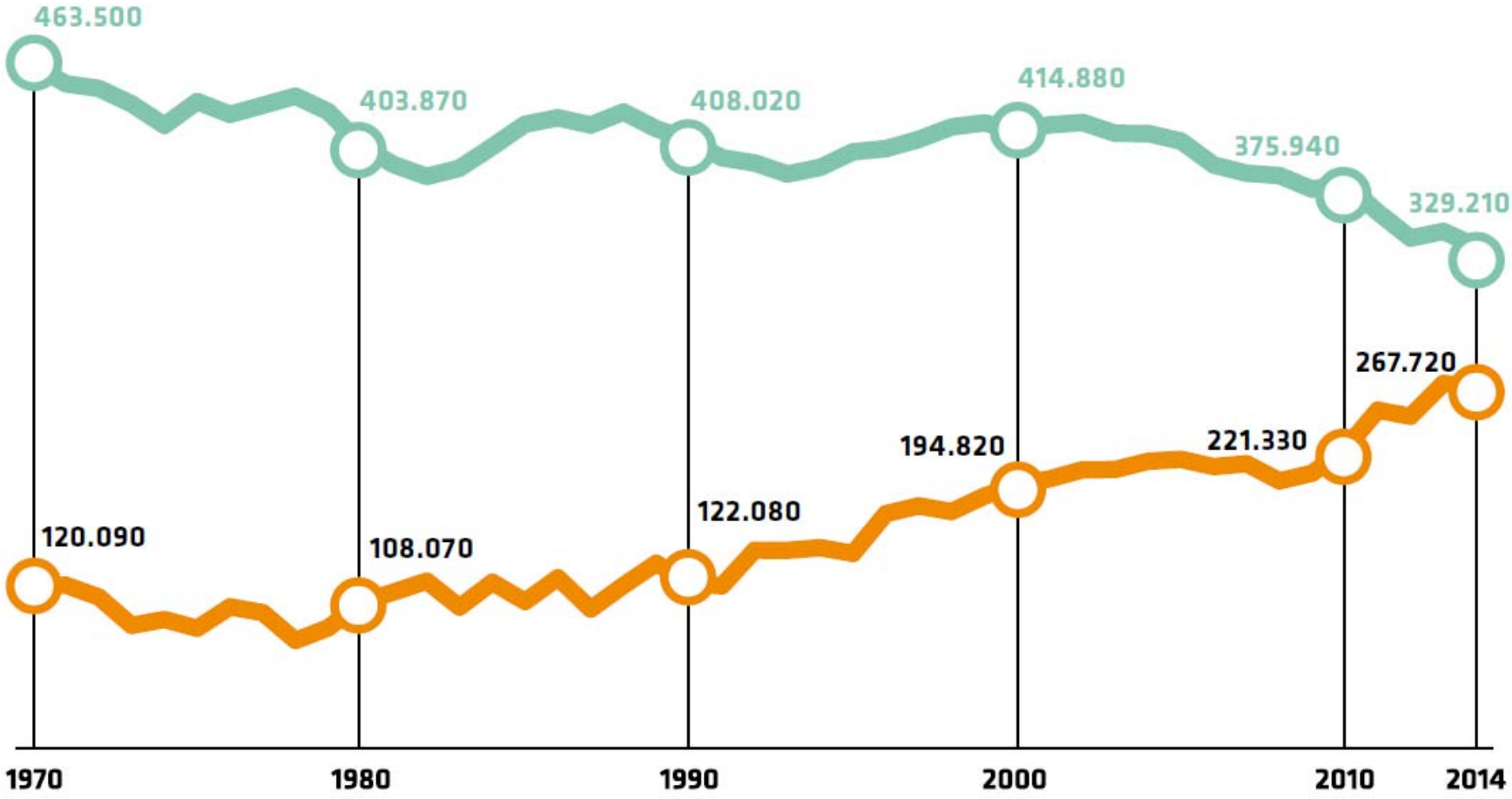
Denmark

Copenhagen – a young city



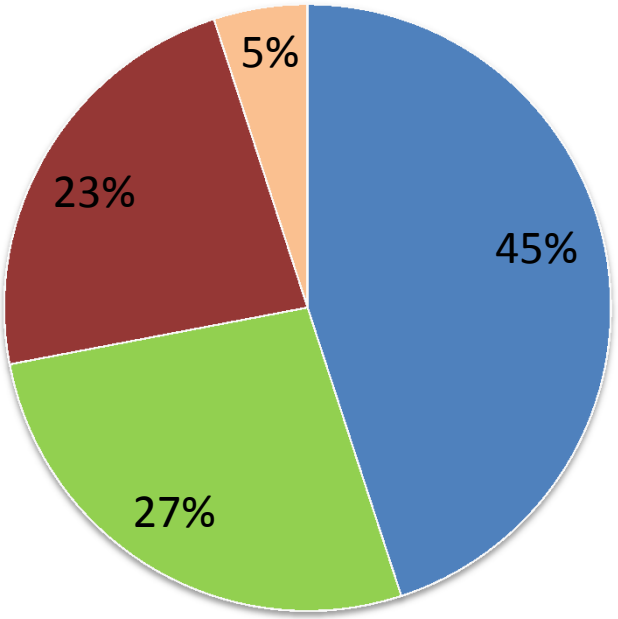
- A clear traffic policy
- Visible mobility design
- New ways of cooperating
- Work across academic disciplines to create synergies
- Smart solutions

Long term development in traffic in the inner city of Copenhagen



Modal split 2014

Trips to work and education

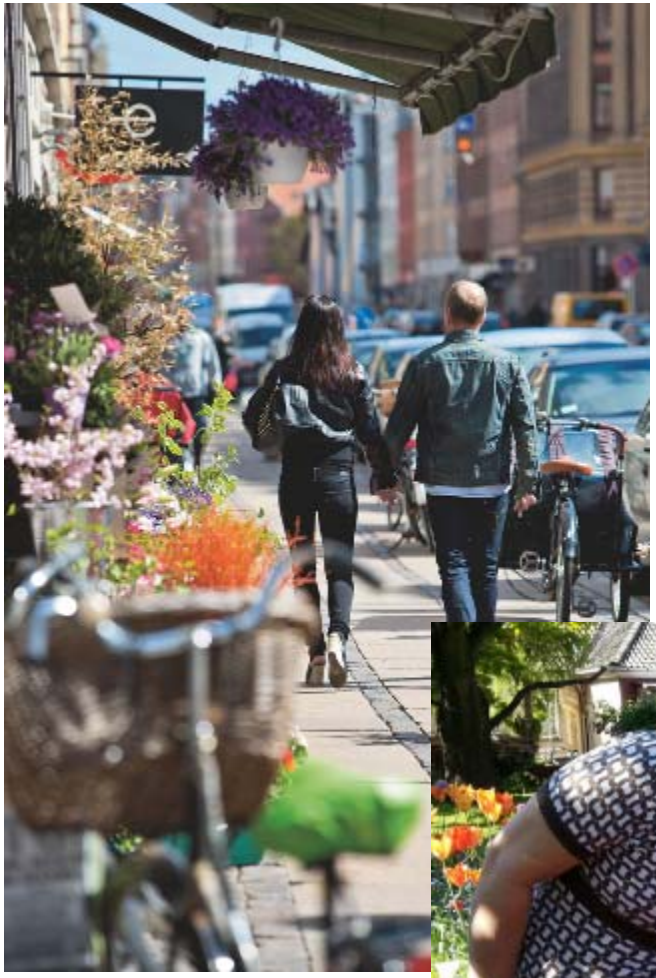


- Bicycle
- Public Transport
- Car
- Walk

The Copenhageners :
63 % by bike

Cycling without age

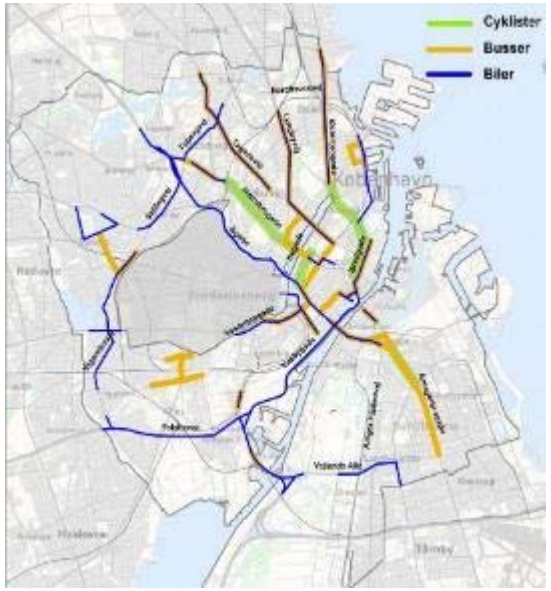
Mobility for all – quality of life



Clear transport policy

- Mobility plan with long term goals – e.g. development in modal split
- Short term service goals– e.g. reduction in travel time or number of stops
- Traffic management plan and priority strategy –bringing in all modes in planning but ensuring a clear priority strategy

	Service goals for 2018 (basis 2011)
Bicycles	• Reduce travel time by 10 % • Recude number of stops by 10 %
Pedestrians	• Inner City: Enough time to cross the road when traffic light turns green • Rest of the city: Focus on pedestrians on shopping streets and traffic hubs
Buses	• Reduce travel time by 5-20% (depends on route) • Increase travel time reliability by 10%
Cars	• Travel time must not be increased and will be reduced by 5% on some roads • Increase travel time reliability by 10% • Reduce number of stops by 10 %



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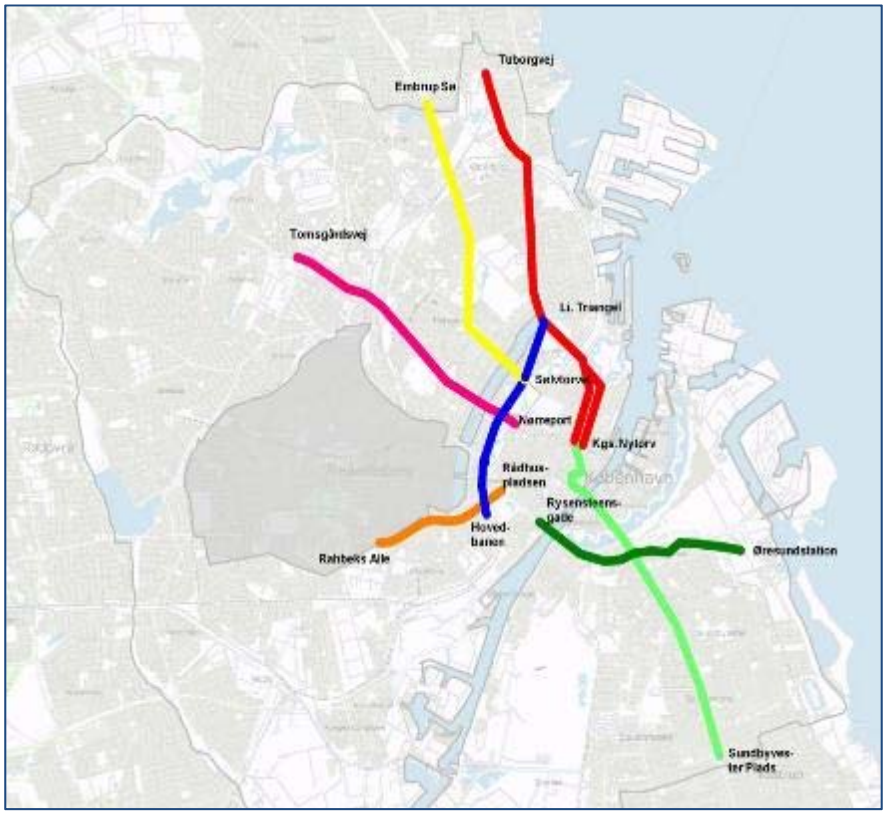
Busses	• Reduce travel time by 5-20% (depends on route) • Increase travel time reliability by 10%
Cars	• Travel time must not be increased and will be reduced by 5% on a few roads • Increase travel time reliability by 10% • Reduce number of stops by 10 %

Traffic Management Plan

Selected routes for buses priority



Selected routes for cyclist's priority

Traffic signal optimization

Visible mobility design

New ways of cooperating

- Planning-driven approach?
- Market-driven approach?
- Science-driven approach?
- User-driven approach?

All four areas must be brought together in a co-creation process

Bringing industry and user closer together

Create synergies

CLOUD BURST MANAGEMENT

SLA Landskabsarkitekter

Examples – bringing industry and user closer together

Cycling without age

The City of Copenhagen invested 135.000 Euro.
Today there are more than 750 volunteers

Public Private Innovation

Urban Lab

The city of Copenhagen provides access to make live demonstrations or tests in streets

Copenhagen solutions lab

Live test of dynamic urban street concept

Examples of smart solutions

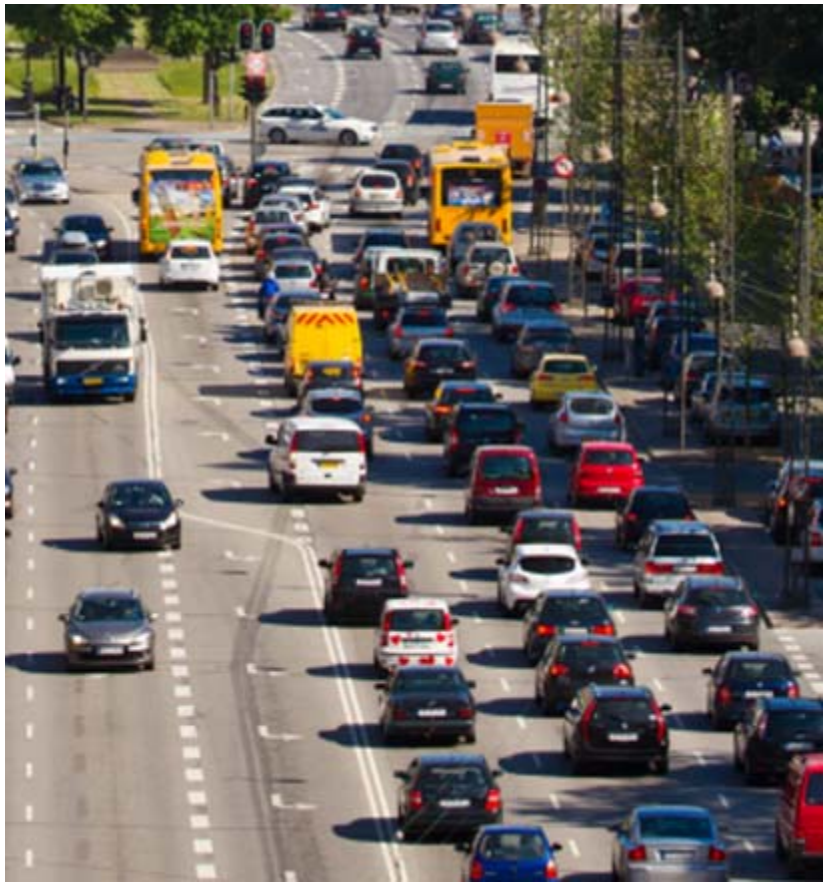
Green driving behavior
Promote biking and public transport
More dynamic use of urban space

Eco-driving

Pilot project for trucks at an important arterial road

Potential:
13% reduction
in CO_2

+Way and intelligent bus priority

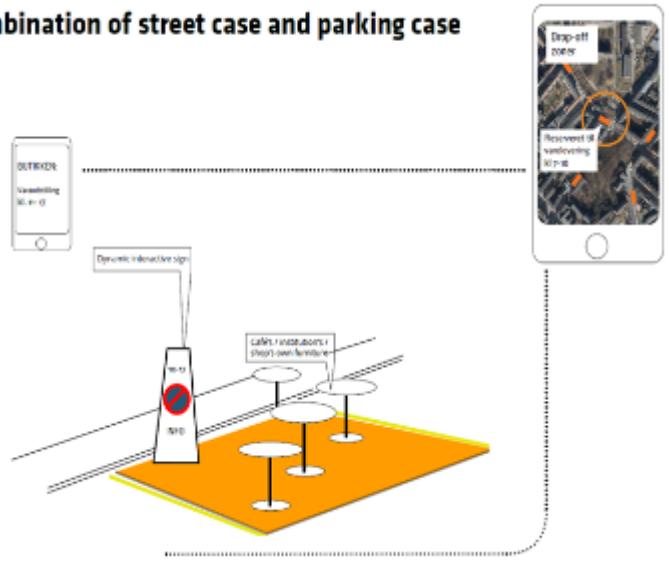


Information and safety

Dynamic information to bicyclists

More dynamic use of urban space

STEET CASE
A combination of street case and parking case



Thank you!

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