

STARTING THE TRANSITION

Why, how, with whom?

The case of Copenhagen

CEO Bo Asmus Kjeldgaard, Greenovation



BO ASMUS KJELDGAARD



CEO Greenovation
Former mayor Copenhagen
Director Sustainable Platforms
Co-founder and -owner AquaGreen
Board member Green Transition DK
Associated professor and examiner
Former chairman in several big
environmental and energy
companies
Former secretary for minister
Has worked intense for
Copenhagen's climate plan, climate
adaptation plan, 100.000 more
trees, harbour bath and windmills
Master in political science

COPENHAGEN AT THE TOP

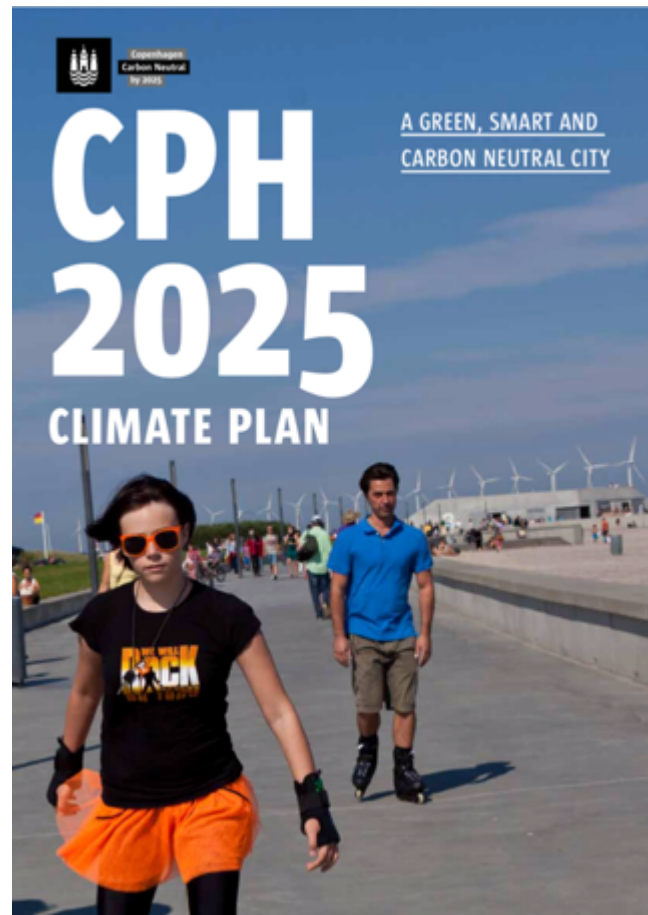
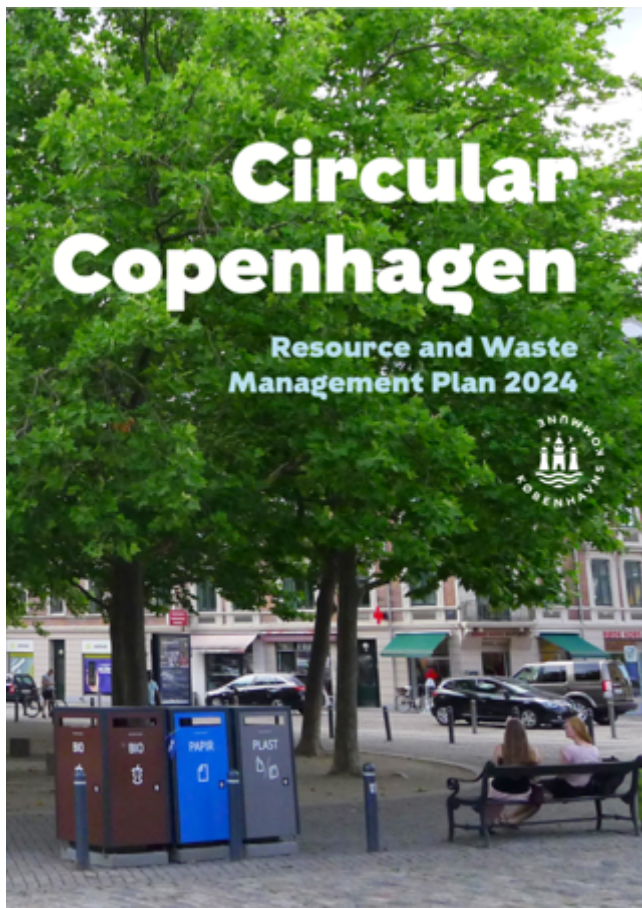


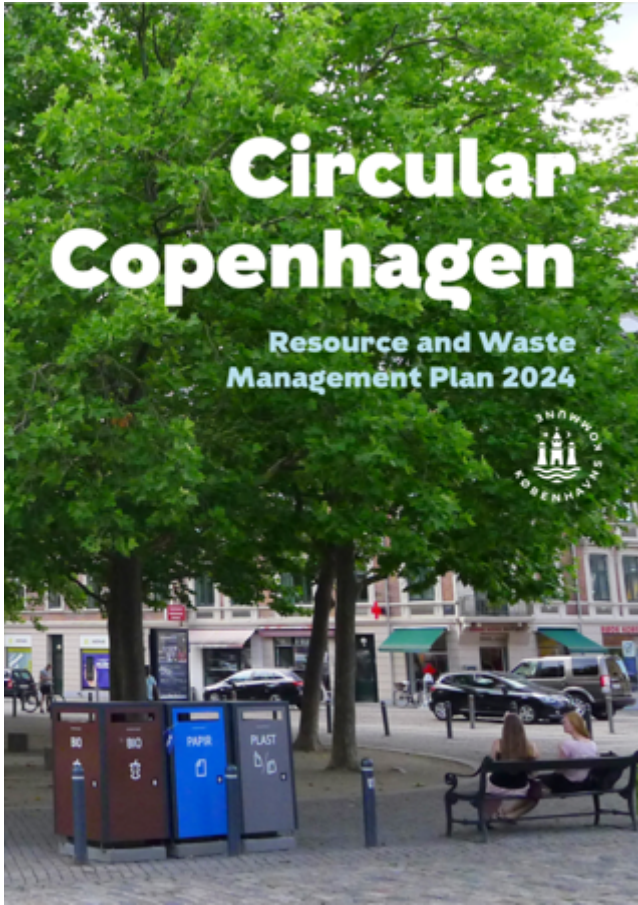
LIVEABILITY

SUSTAINABILITY + LIFE QUALITY

CIRCULAR ECONOMY AND CLIMATE POLICY ARE INTEGRATED







GOALS:

- 70% REUSE
- COPENHAGENERS MUST REUSE 3 TIMES AS MUCH AS TODAY
- CO₂-EMISSION MUST BE REDUCED BY 59.000 TON
- INNOVATION PLATFORMS



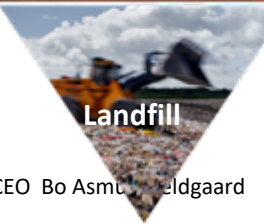
Waste Prevention



Recycling



Energy



Landfill

asc



CEO Bo Asmus, Feldgaard

Greenovation⁺

Amager Bakke / Copenhill

Probably the best waste incineration plant in the world





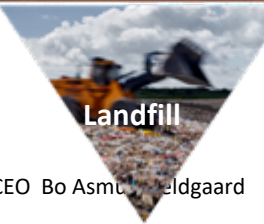
Waste Prevention



Recycling



Energy



Landfill

asc



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Greenovation⁺



WASTE AS A RESSOURCE

– NEW BUSINESSES

Big businesses: biogas, fertilizer, construction materials, metal, chemical waste, glass, plastic....

Small businesses: repairing, products made of materials from recycle stations

Example: Sydhavns recycle station: contract covering all wood to small furniture producer



SYDHAVNS RECYCLE STATION

CONSTRUCTION WASTE

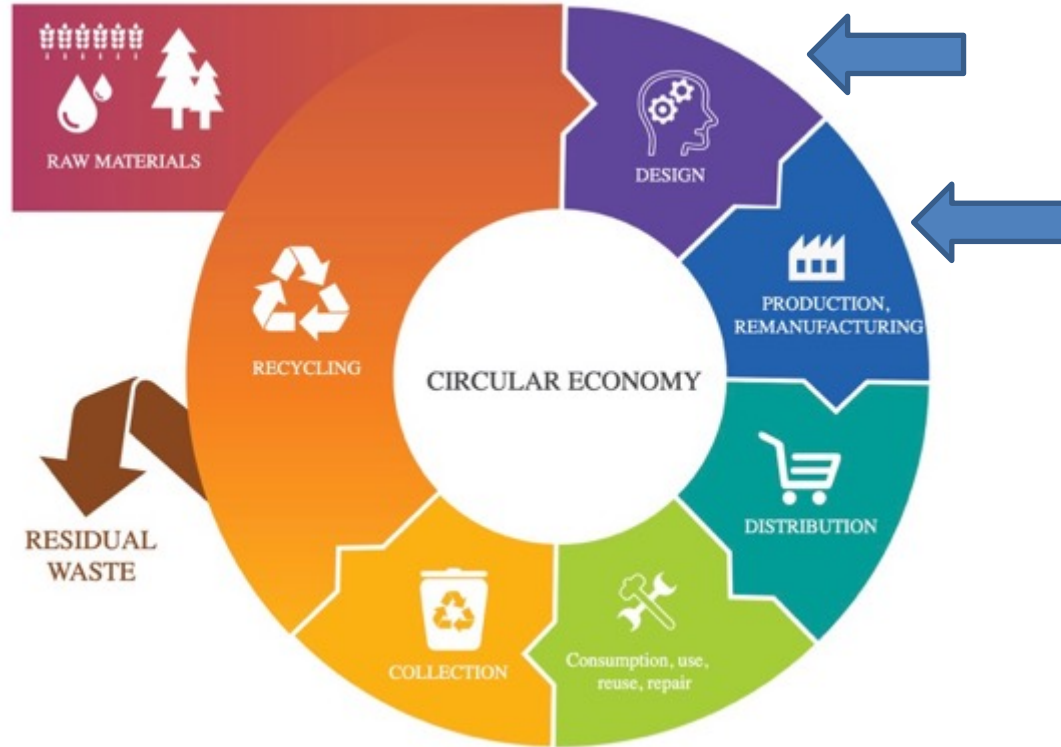
HIGH RECYCLING RATE AND MINIMIZED TRANSPORT



CIRCULAR ECONOMY



CIRCULAR ECONOMY



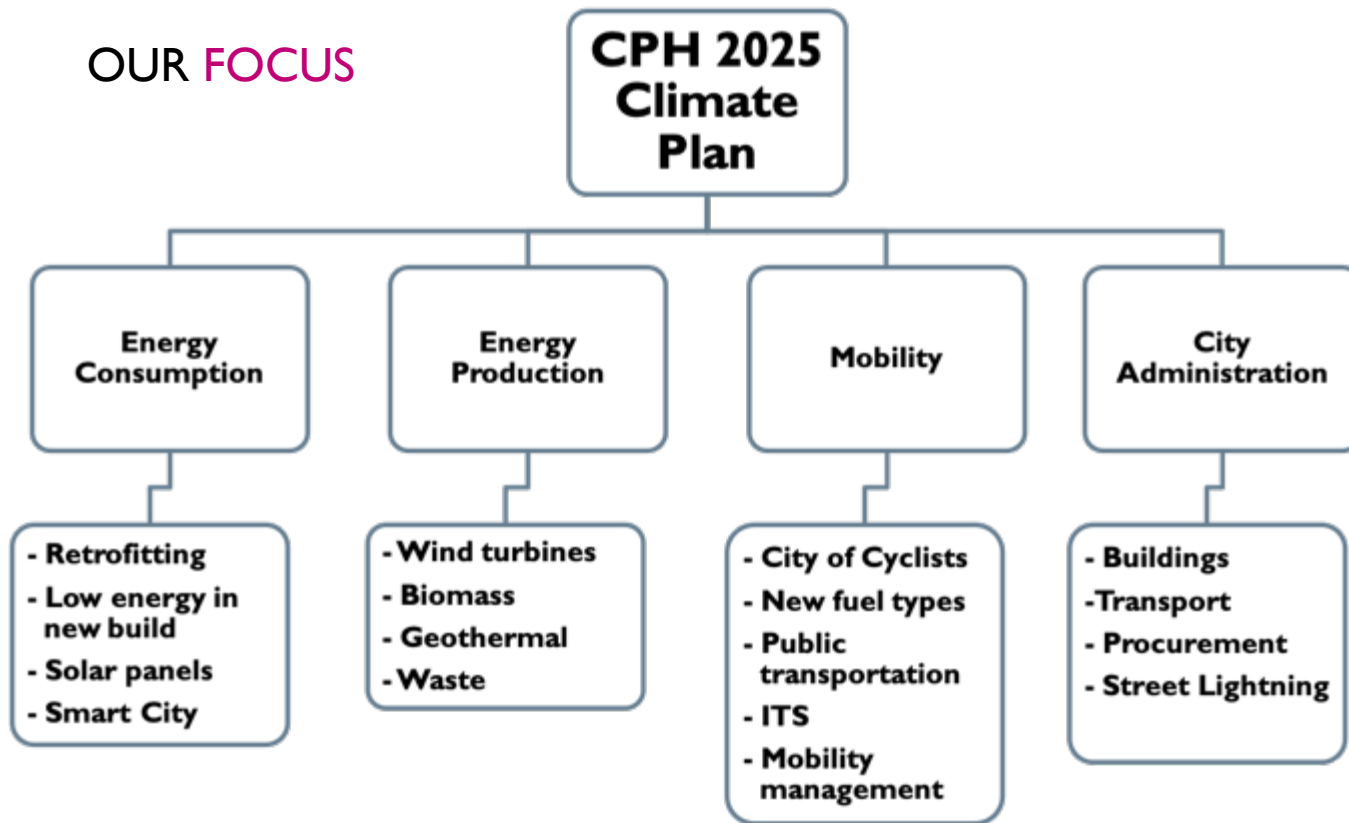
CPH 2025 CLIMATE PLAN

Climate and Green Growth – Putting Visions into Practice
Copenhagen as driver for sustainable innovation



CPH 2025 CLIMATE PLAN

OUR FOCUS

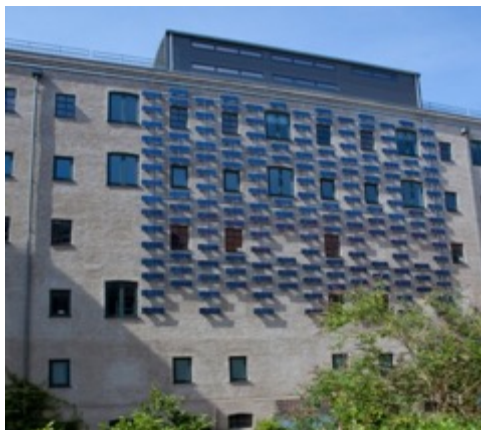


CPH 2025 CLIMATE PLAN

ENERGY PRODUCTION

MAIN INITIATIVES

- 100 wind turbines before 2025; onshore and offshore
- Production of heat and power based on biomass
- Geothermal, heatpumps and solar heat
- Waste in the energy system
 - New high-tech waste treatment centre
 - Recycling of plastic and organic waste



CPH 2025 CLIMATE PLAN

MOBILITY

MAIN INITIATIVES

- On the way to being the world's best city for cyclists
 - PLUSnet of cycle tracks with three lanes
 - Cycle Super Highways
- Cars on electricity, hydrogen and biofuels
 - Development and demonstration projects
 - Electric charging points and hydrogen filling stations
- Wider use of public transport
 - Experiments with electricity and biofuels in buses
- Intelligent traffic management improves traffic flow



CYCLE SUPER HIGHWAYS

The first cycle super highway – the Albertslund route – opened April 14th 2012



THE BIKE SNAKE



CPH 2025 CLIMATE PLAN



- 100 wind turbines
- 4 powerplants on biomass
- 98 % district heating

20 % reduction of heating consumption in buildings in Copenhagen

- 40 % reduction of energy consumption in own buildings
- All vehicles on new fuels

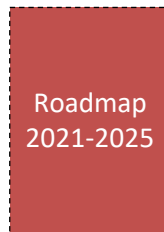
- 75 % of all trips on foot, bike or public transport
- 20 % increase in public transport

STATUS AND ADJUSTMENTS

1. period
2013-2016

2. period
2017-2020

3. period
2021-2025



2014

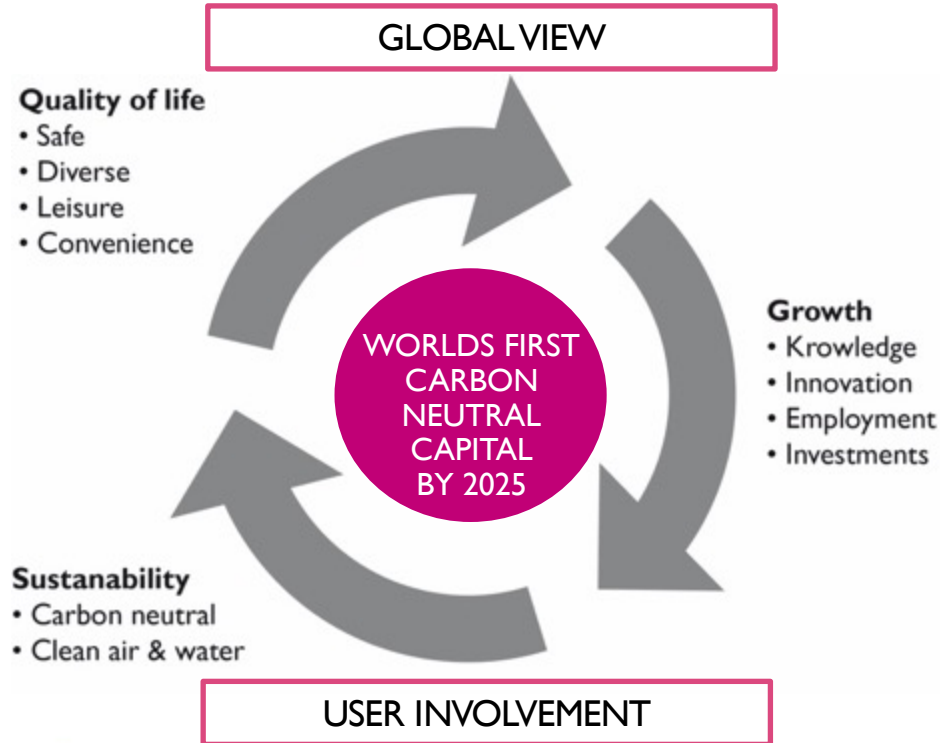
Vision 2050: "Copenhagen will be free of fossil fuels with clean air, no waste and no traffic noise"

LEARNINGS FOR YOU TO TAKE HOME



CPH 2025 CLIMATE PLAN

THE COPENHAGEN STORY



REASONS FOR SUCCESS?

THE ROAD TO COPENHAGEN 2025

COMMITMENT

- Strong political commitment in the City Council
- Financial support to new initiatives

COLLABORATION

- Broad stakeholder involvement
- New partnership models

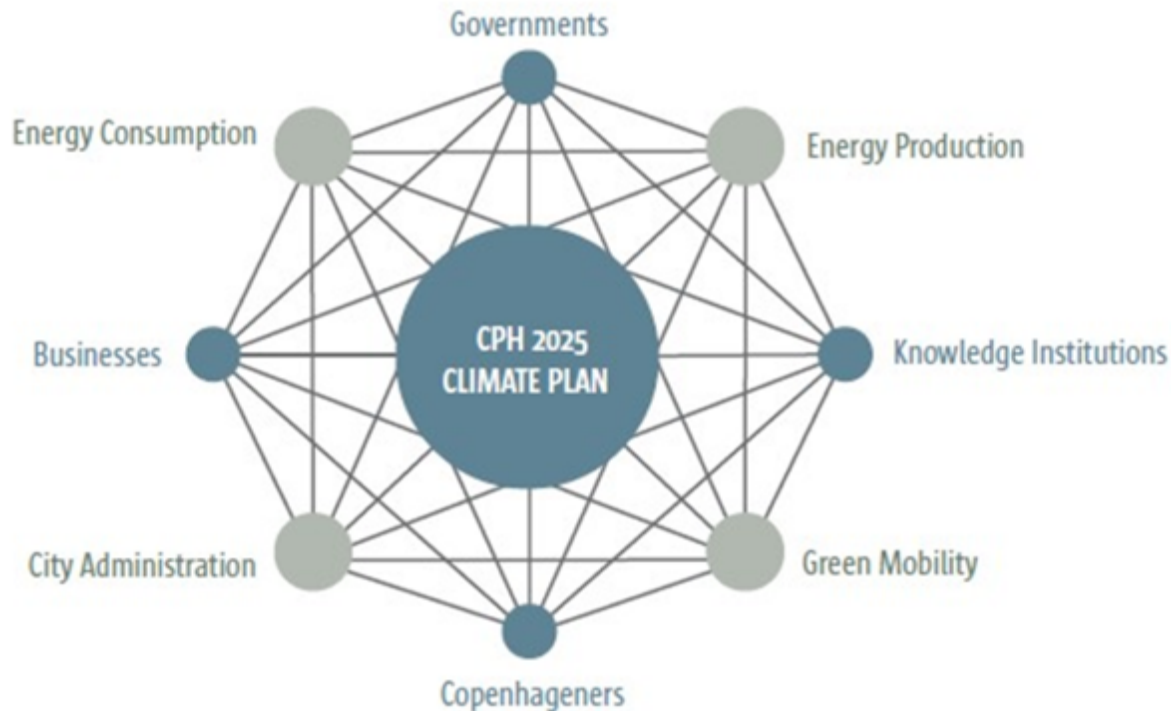
COORDINATION

- Common business plans

COMMUNICATION

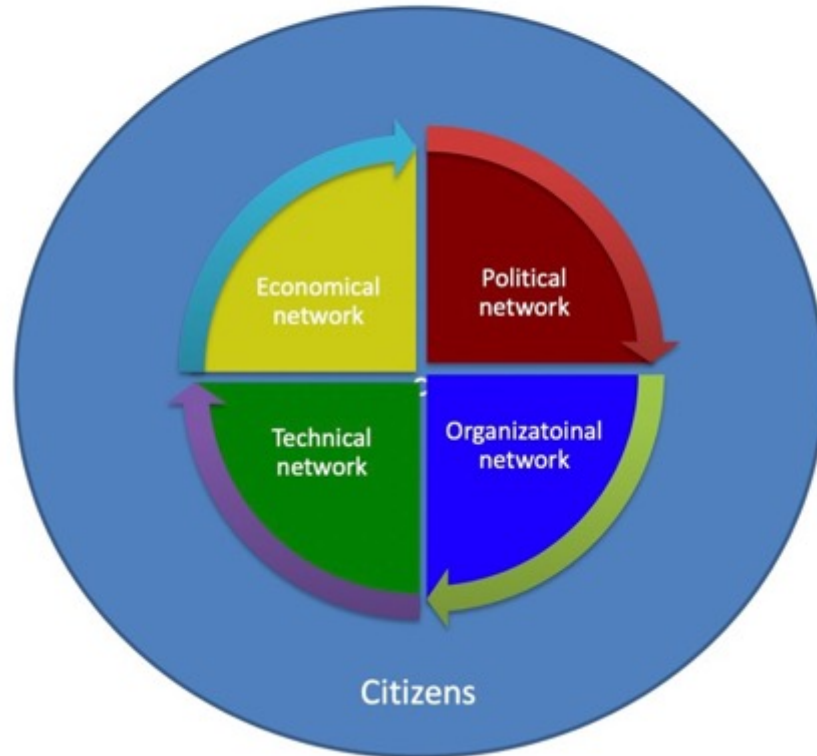


CO-CREATION – THE WAY TO SUCCESS



Focus areas and stakeholders contributing to the CPH 2025 Climate Plan.

GREENOVATIONS WORKING MODEL



FOCUS ON EXPERIMENTS

Examples:

- Further sorting and recycling of plastic and residual waste
- Local Smart Grids for electricity and heat production, storage and consumption
- Tests of low-temperature district heating
- Flexible energy consumption in buildings
- Optimisation of goods delivery in the Inner City
- Mobility as a Service (MaaS), if the initial analyses reveal a satisfactory outlook

Experiments in Nordhavn



PROGRAMME FOR CHILDREN AND SCHOOLS

- Special climate schools and nature centres for kindergardens and school classes
- Educational centres for children on all big environmental companies
- Climate education of teachers
- Campaigns in schools for good climate habits



ENERGY TRANSITION AMONG COPENHAGENERS

- Dialogue with Copenhageners to motivate them to optimize for green solutions
 - Climate consultancy to citizens
 - Energy retrofitting
 - Installation of solar panels on buildings
 - New means of transport
 - Ownership by purchasing wind
 - Better waste management
 - Urban renewal
-
- Special program for children and schools



WHAT REALLY MOVES COPENHAGENERS

The changing weather moves people

- Big floodings
- Storms
- Hot summer 2018 – 3,5 months without rain

New movement especially among young people

- Crave political action
- One days school strike every month
- Demonstrate sustainable living:
 - No flights
 - No meat
 - Only second hands clothes
 - Etc



TOP DOWN AND BOTTOM UP

TOP DOWN

- Central Climate Plan
- Circular Copenhagen Plan

BOTTOM UP

- Dialog, campaigns, programmes and focus on young people

USE THE NEW "MOVEMENT"

– GIVE PEOPLE POSSIBILITIES TO ACT:

- Support/funds for local initiatives and experiments
- Intelligent integration of local activities and central plans



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2014

Vision 2050: "Copenhagen will be free of fossil fuels with clean air, no waste and no traffic noise"

LEARNINGS TO TAKE HOME

- THE OSNABRÜCK STORY – MAKE A GOOD NARRATIVE
- POLITICAL COMMITMENT AND FINANCIAL SUPPORT
- MAKE VERY CONCRETE PLANS WITH SUCCESSCRITERIAS
- CO-CREATION BETWEEN ALL RELEVANT STAKEHOLDERS
- FOCUS ON EXPERIMENTS
- DIALOG AND CO-CREATION WITH CITIZENS
- INTEGRATE CENTRAL PLANS AND ACITIVITIES FOR CITIZENS
- PROGRAMS FOR CHILDREN AND SCHOOLS
- EVALUATION, EVALUATION ... – AND ADJUSTMENTS, ADJUSTMENTS.....

THANK YOU!

**JOIN A STUDY TOUR IN COPENHAGEN
AND LEARN MORE ABOUT
SUSTAINABLE SOLUTIONS**

WWW.GREENOVATION.DK

