

CPH 2025 CLIMATE PLAN



Copenhagen
Carbon Neutral
by 2025

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



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Special Advisor
Climate and Green
Growth
City of Copenhagen

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”A CITY EXISTS FOR THE SAKE OF A GOOD LIFE,
NOT FOR THE SAKE OF LIFE ONLY”

-ARISTOTELES (384-322 B.C)



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THE COPENHAGEN STORY

GLOBAL VIEW



USER INVOLVEMENT

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COPENHAGEN AT THE TOP

"Denmark – the least corrupt country in the world"

TRANSPARENCY INTERNATIONAL

"European Green Capital 2014"

THE EUROPEAN COMMISSION

"Copenhagen, the greenest major city in Europe"

SIEMENS GREEN INDEX

"Let me tell you what they are: London, Toronto, Copenhagen and Berlin. Los Angeles joins that list of the five greatest cities in the world where combating global warming is concerned."

AL GORE

"Copenhagen - The most liveable city in the world 2013"

MONOCLE

"Copenhagen - Smartest City in Europe"

BOYD COHEN
- SMART CITY INDEX



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COPENHAGEN

- A green, smart and carbon neutral city with an international focus



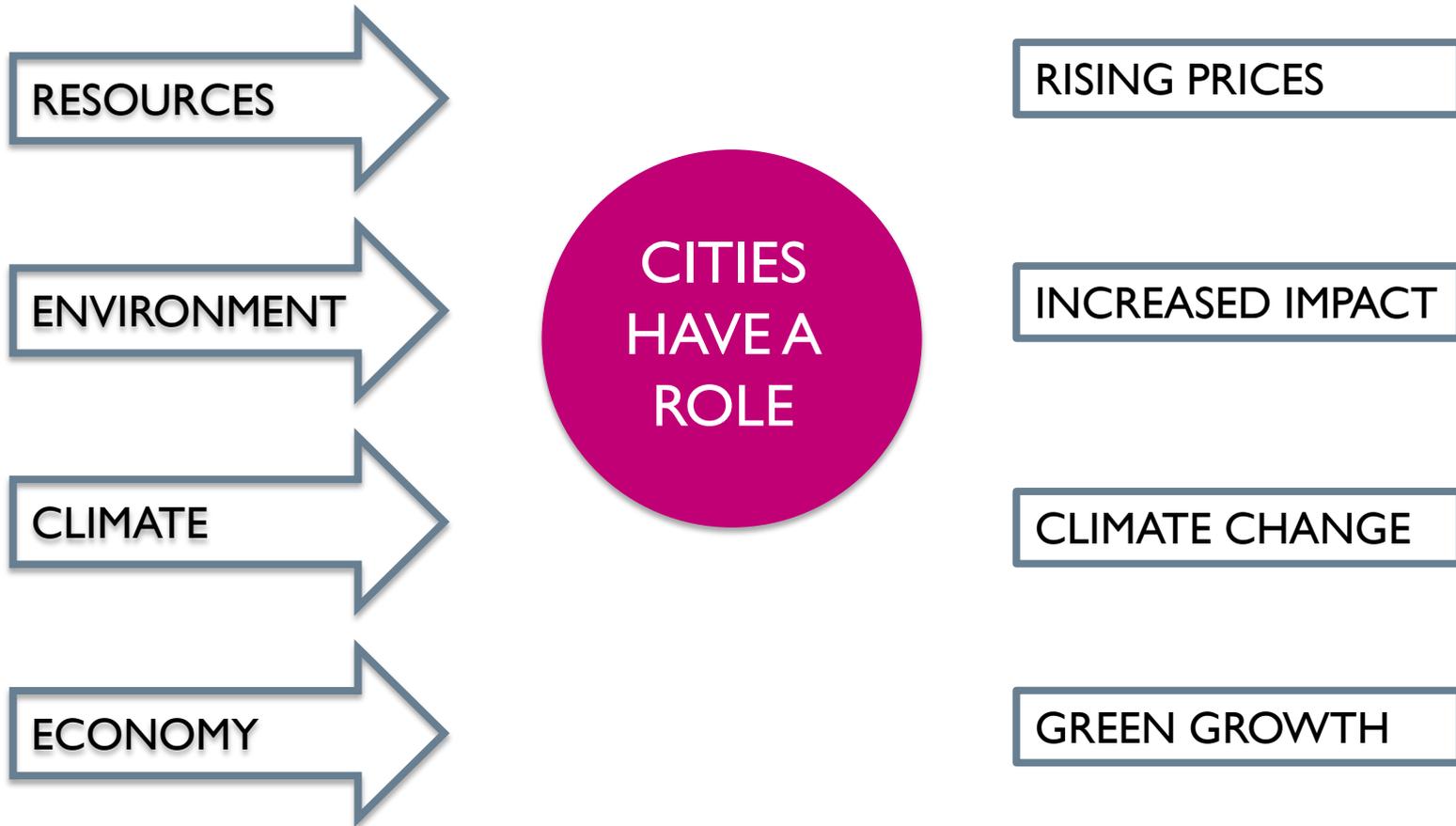
London
Münich
Stockholm
Portland
Singapore
Amsterdam

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THE GLOBAL CHALLENGE



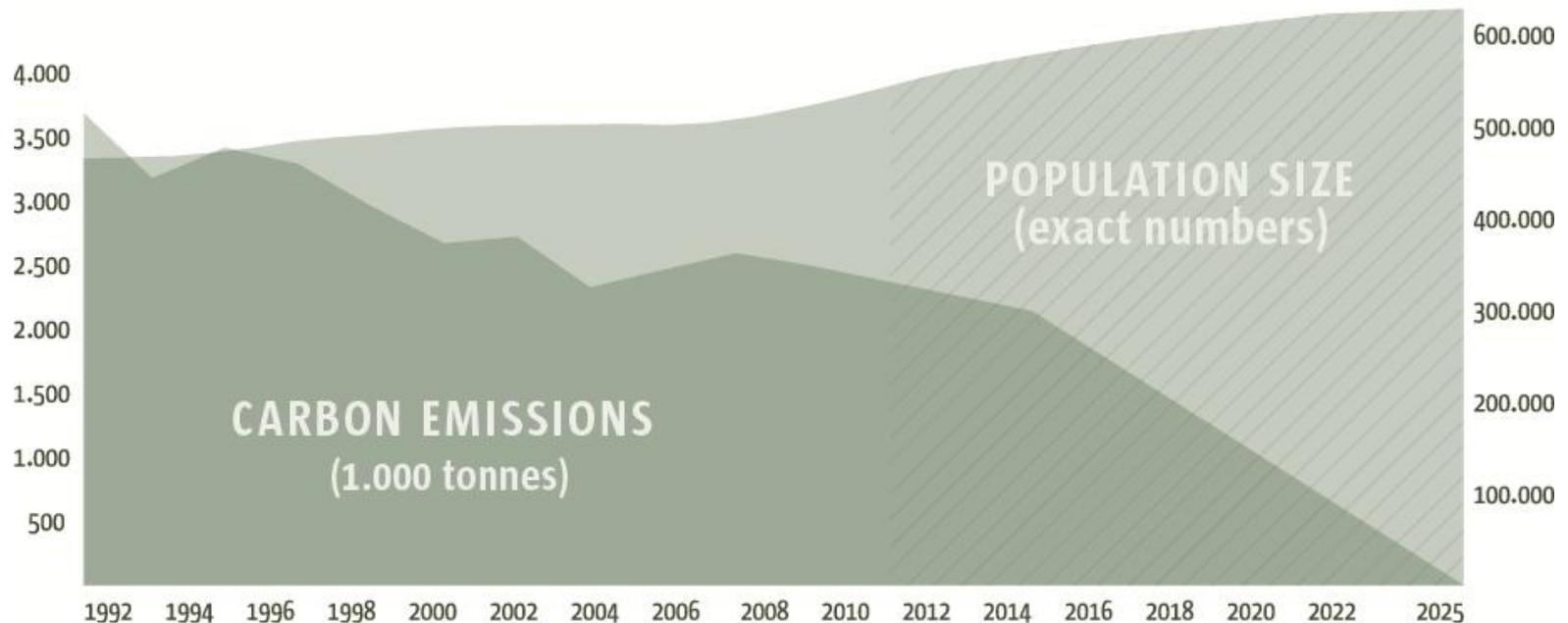
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OUR CHALLENGES

- Carbon: From 20 pct to 100 pct reduction in 10 years
- Population: +20 pct increase in 2025
- Housing: +25.000 new units
- Office spaces: +2,8 mio. m2



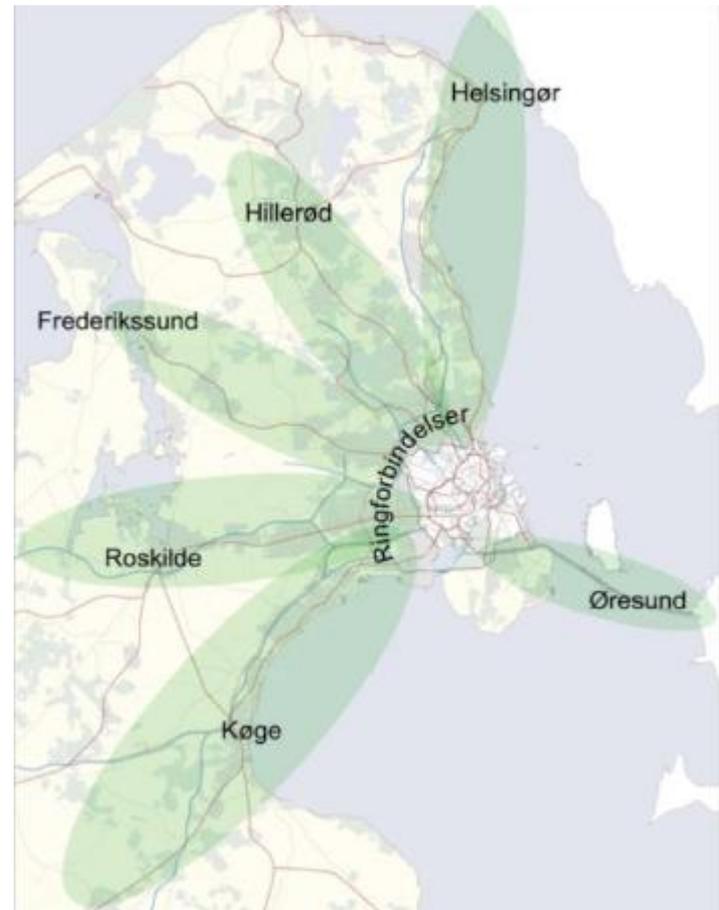
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OUR CHALLENGES

- Increases in traffic and vehicle use
- Congestion and air pollution
- Public infrastructure
- Intelligent transport systems



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OUR CHALLENGES

- Increase Copenhagen's annual growth in GDP from the present average of 2% to 5 % in 2020
- Create a 4% growth in productivity before 2020
- Create 20.000 new private sector jobs



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POSSIBILITIES

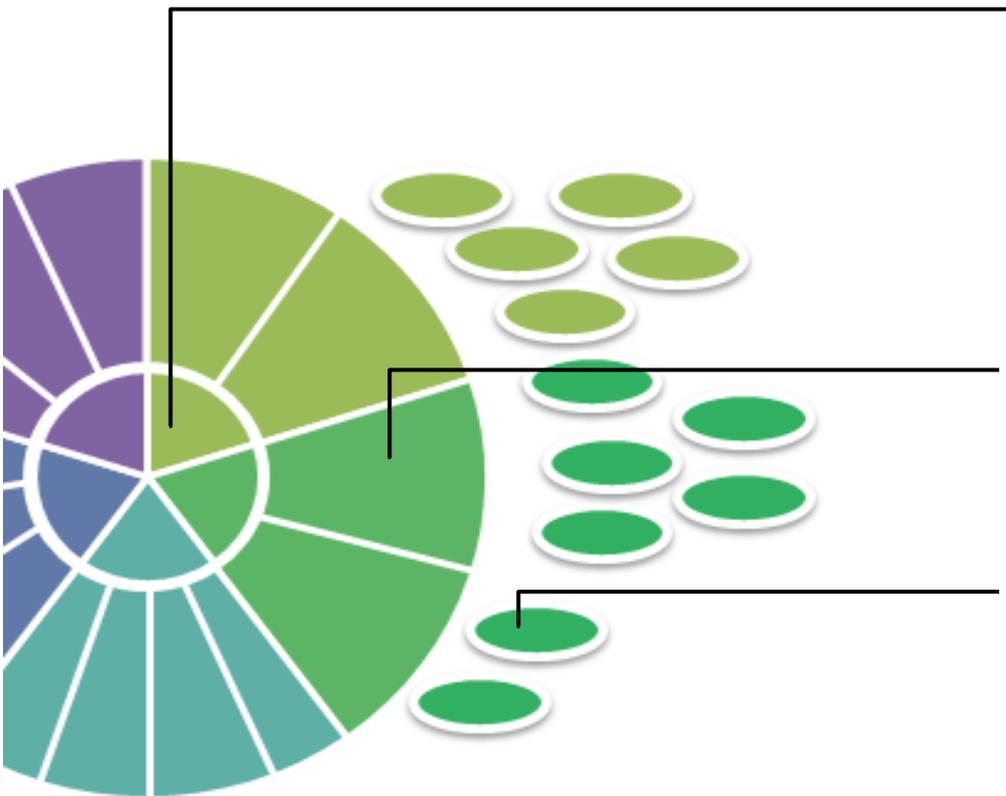


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COPENHAGEN SMART CITY



THEMES

- The Copenhagen Story
- Resource optimization
- Mobility
- Citizens and Quality of Life
- City development
- Governance

PROGRAMMES

- Action Plans

PROJECTS

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COPENHAGEN SMART CITY



Work with targeted
use of data in
solving problems



Work with **new
technology** or
known technology in
new ways



Work with **efficient**
use of the
Municipality's or
city's **resources**



Work with new ways
of **involving
citizens** or
businesses



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COPENHAGEN SMART CITY



Work with
innovation or
technology based
growth



Work with public-
private **partnerships**



Solve **more**
than one problem

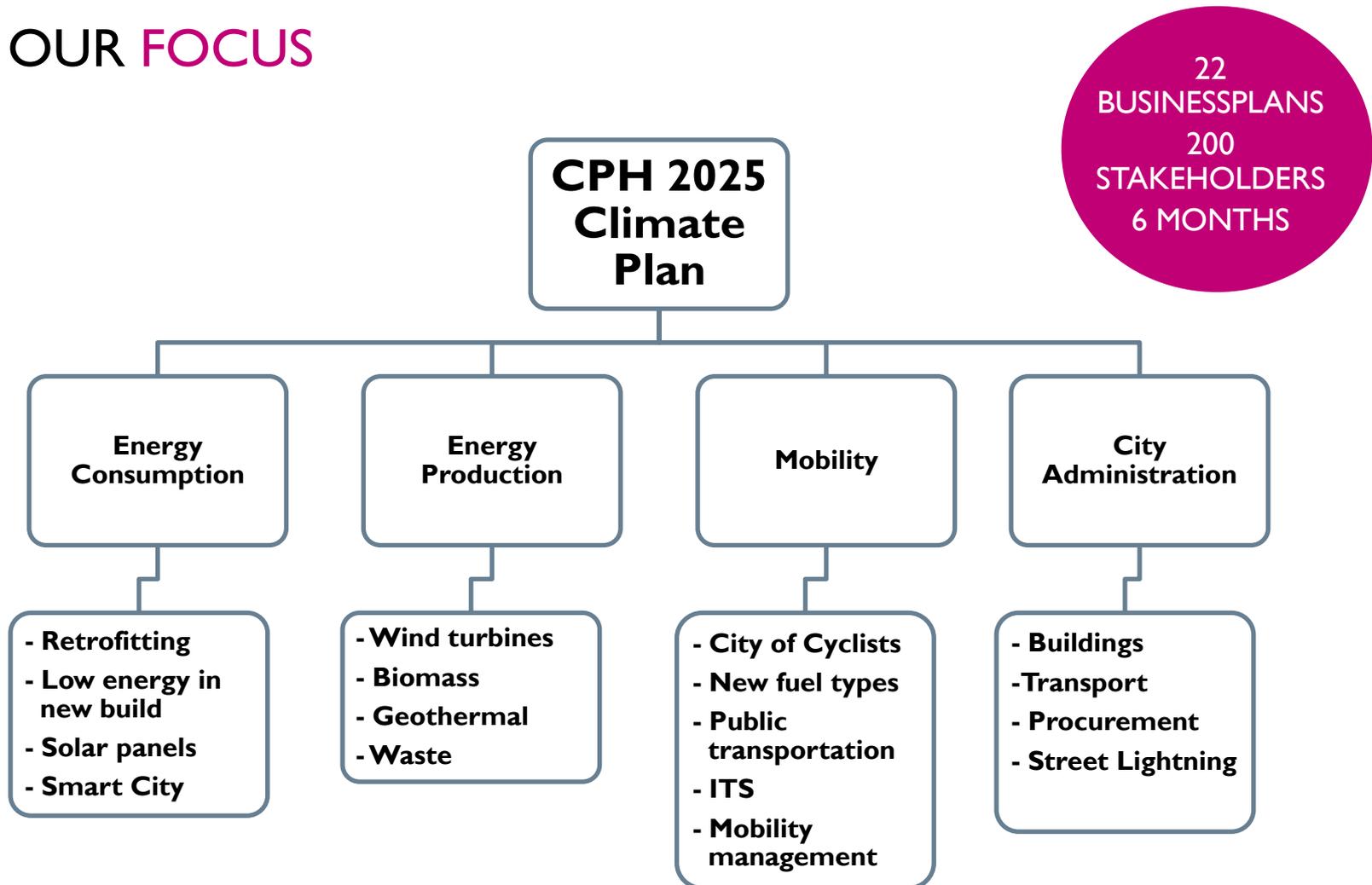


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OUR FOCUS



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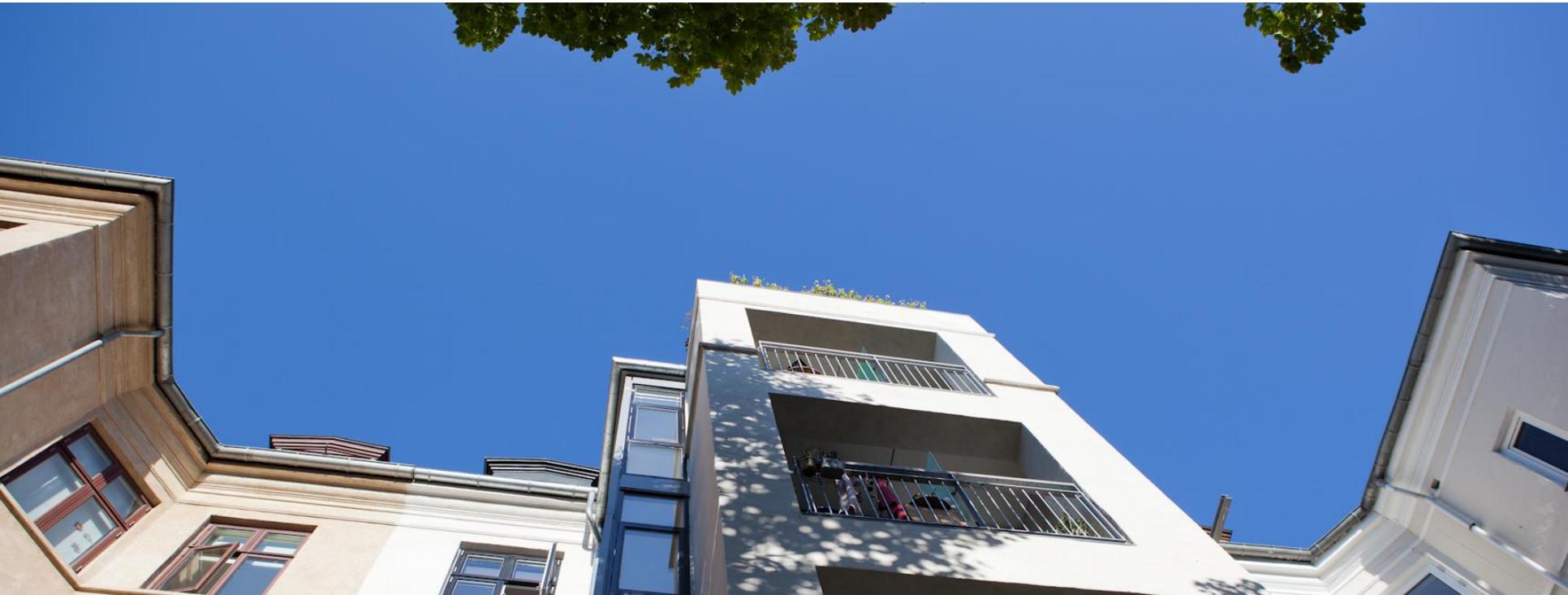


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ENERGY CONSUMPTION

MAJOR GOALS FOR 2025

- 20 pct. reduction in heat consumption
- 20 pct. reduction of electricity consumption in commercial and service companies
- 10 pct. reduction of electricity consumption in households
- Installation of solar cells



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ENERGY COMSUMPTION

MAIN INITIATIVES

- Improvement of building structures and conditions
 - Strategy for reducing the energy consumption in CPH
 - New financial and organizational models
- Energy efficient buildings in CPH
 - Model for energy savings in the commercial and service companies
- Dissemination of solar panels
- Smart City

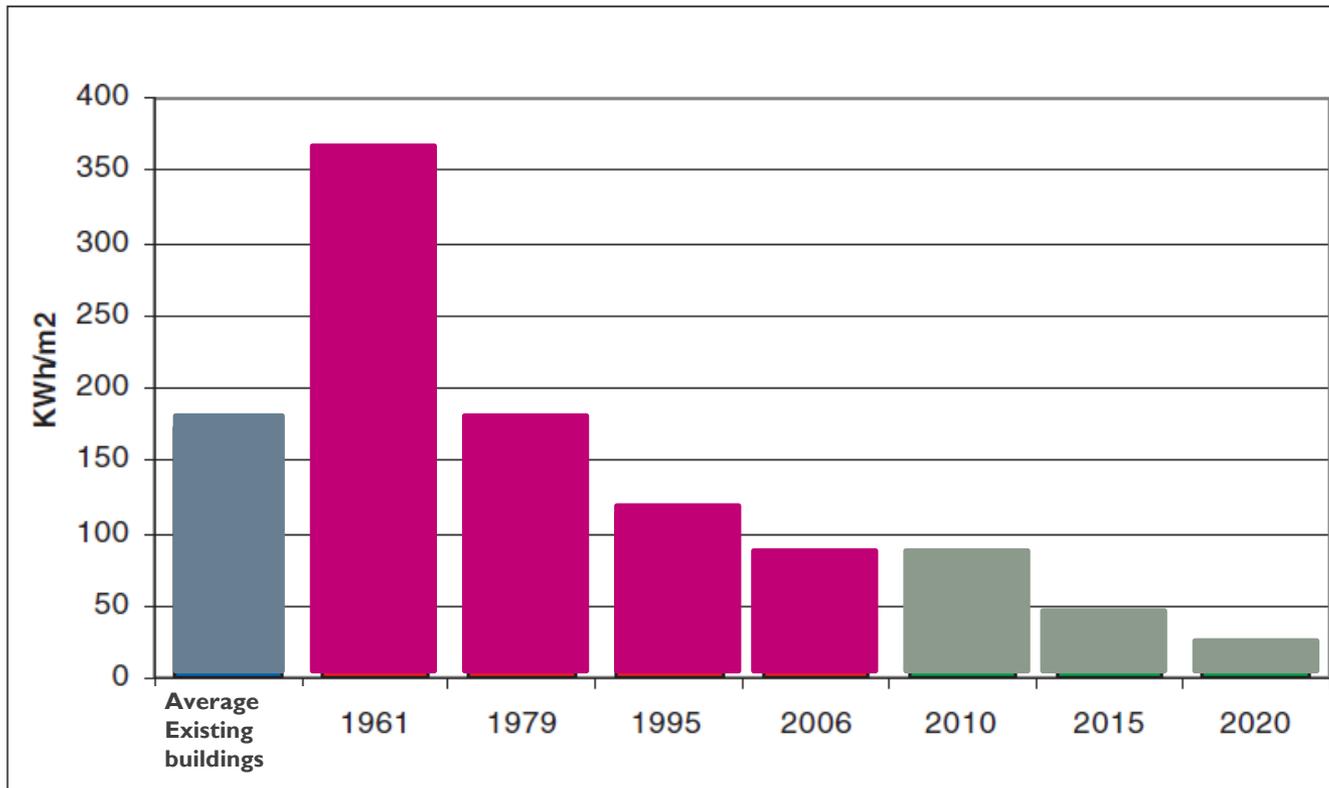


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ENERGY COMSUMPTION OVER TIME



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ENERGY PRODUCTION

MAJOR GOALS FOR 2025

- Carbon neutral district heating in Cph
- Electricity production is based on wind and biomass
- Plastic waste is separated.
- Biogasification of organic waste



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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



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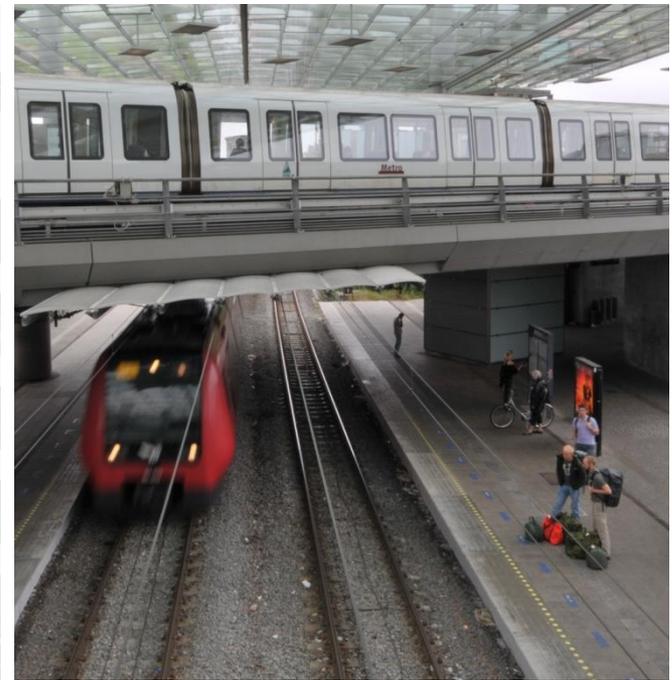


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MOBILITY

MAJOR GOALS FOR 2025

- 75 pct. of all trips in Copenhagen are on foot, by bike or public transport
- 50 pct. of trips to work or school in Copenhagen are by bike
- 20 pct. more passengers use public transport
- 20-30 pct. of all light vehicles run on new fuels - electricity, hydrogen, biogas or bioethanol
- 30-40 pct. of all heavy vehicles use new fuels



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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



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CITY ADMINISTRATION INITIATIVES

MAJOR GOALS FOR 2025

- Reduce energy consumption in municipal buildings by 40 pct.
- Municipal new build meet 2020 Low Energy Class
- Vehicles run on electricity, hydrogen or biofuels
- The energy consumption for street lighting is halved
- 60,000 sq meters solar panels



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CITY ADMINISTRATION INITIATIVES

MAIN INITIATIVES

- Energy retrofitting of existing buildings
- New buildings with low energy consumption
- Pilot projects for climate retrofitting and climate-adapted low-energy new build
- Installing solar panels on municipal buildings
- Energy efficient street lighting



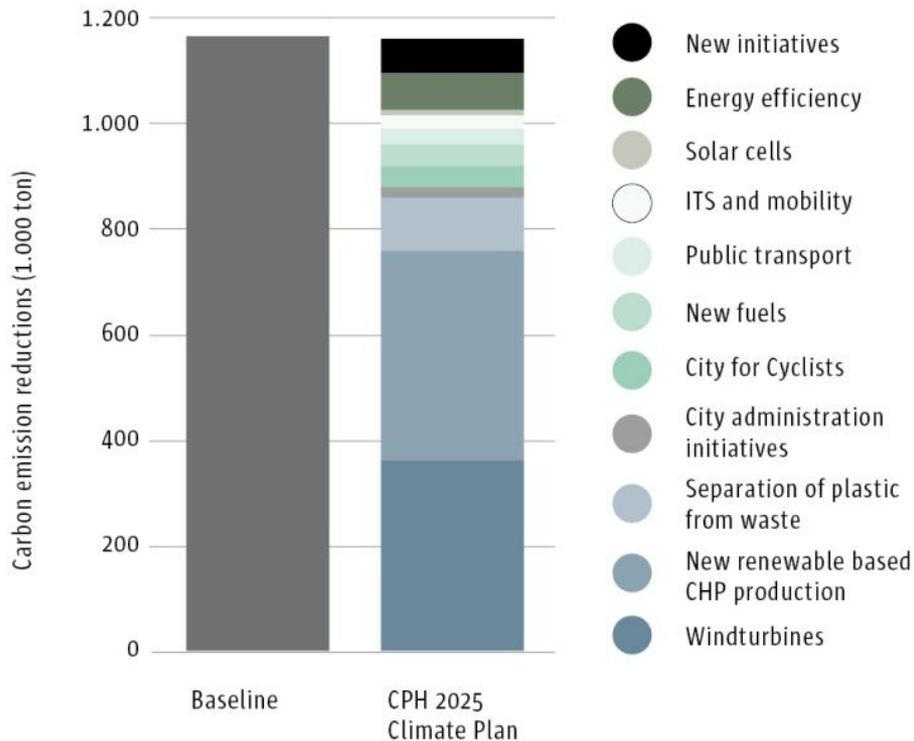
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CARBON NEUTRAL IN 2025

CARBON EMISSION REDUCTIONS



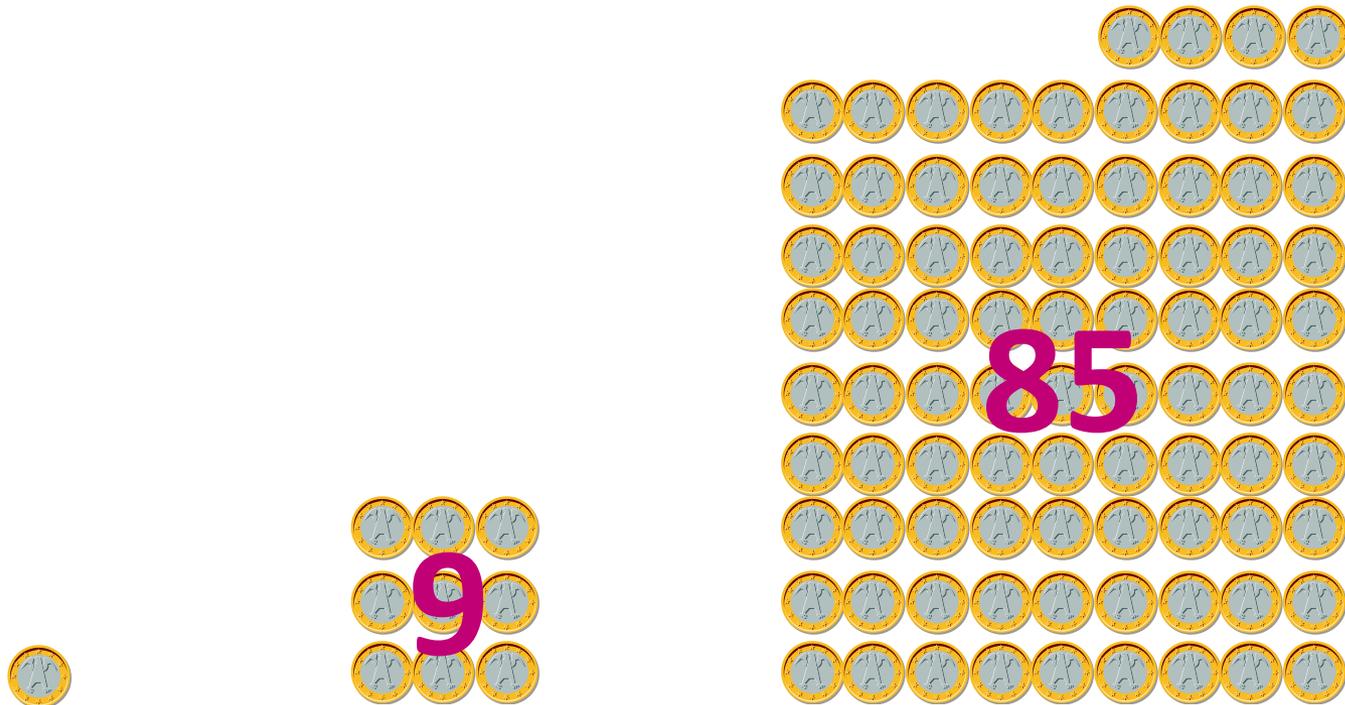
Ambitious
but
realistic!

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INVESTMENTS IN COPENHAGEN 2013-2025



Public Investments
City of Copenhagen
0,4 bn€

Private Investments
Direct Investments
3,25 bn€

Private Investments
Energy and Climate Investments
32,8 bn€

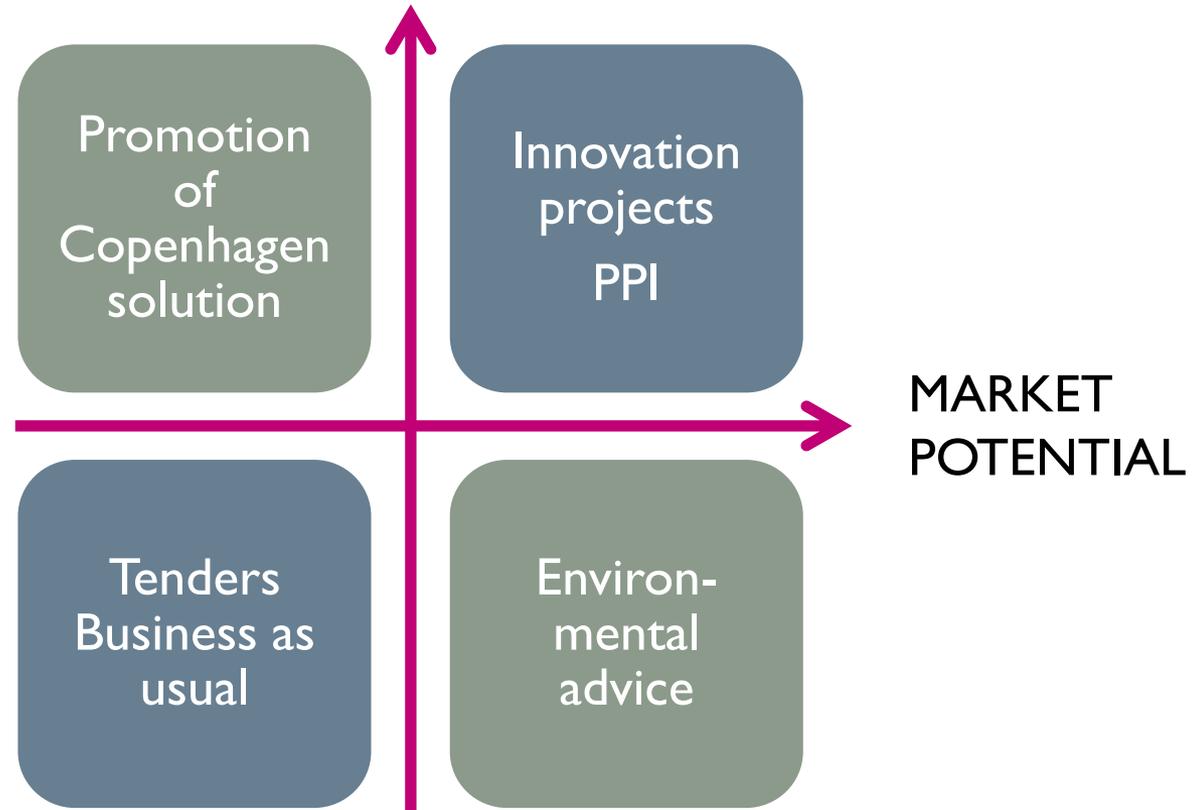
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FROM PLAN TO IMPLEMENTATION

PROMOTION AND BRANDING



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IMPLEMENTATION

- First budget in place: 500 mio. DKK in 2013
- 47 projects under implementation
- Energy Consumption
 - Light-house projects
- Mobility
 - Support the market
 - Test of new technologies and fuels



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CORE PPI PARTNERSHIPS AND CLUSTER

 KØBENHAVNS UNIVERSITET

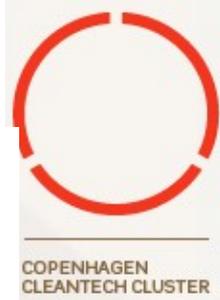
 AALBORG UNIVERSITET

 **SIEMENS**

 **Schneider**
Electric

 **ABB** Power and productivity
for a better world™

 **DTU**

 COPENHAGEN
CLEANTECH CLUSTER

HENNING **LARSEN** ARCHITECTS

Technical University of Denmark

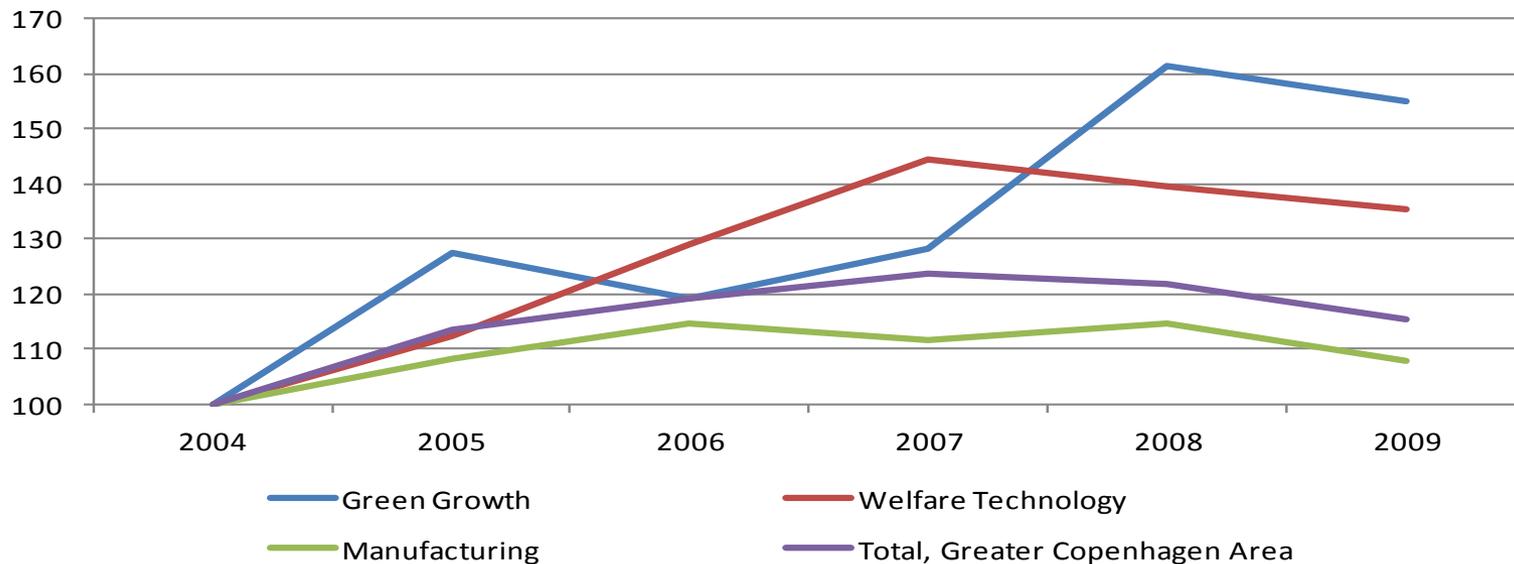
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GROWTH RATES OF TURNOVER IN GREEN SECTOR

- Growth in turnover of about 11 per cent per year in 2004 - 2009



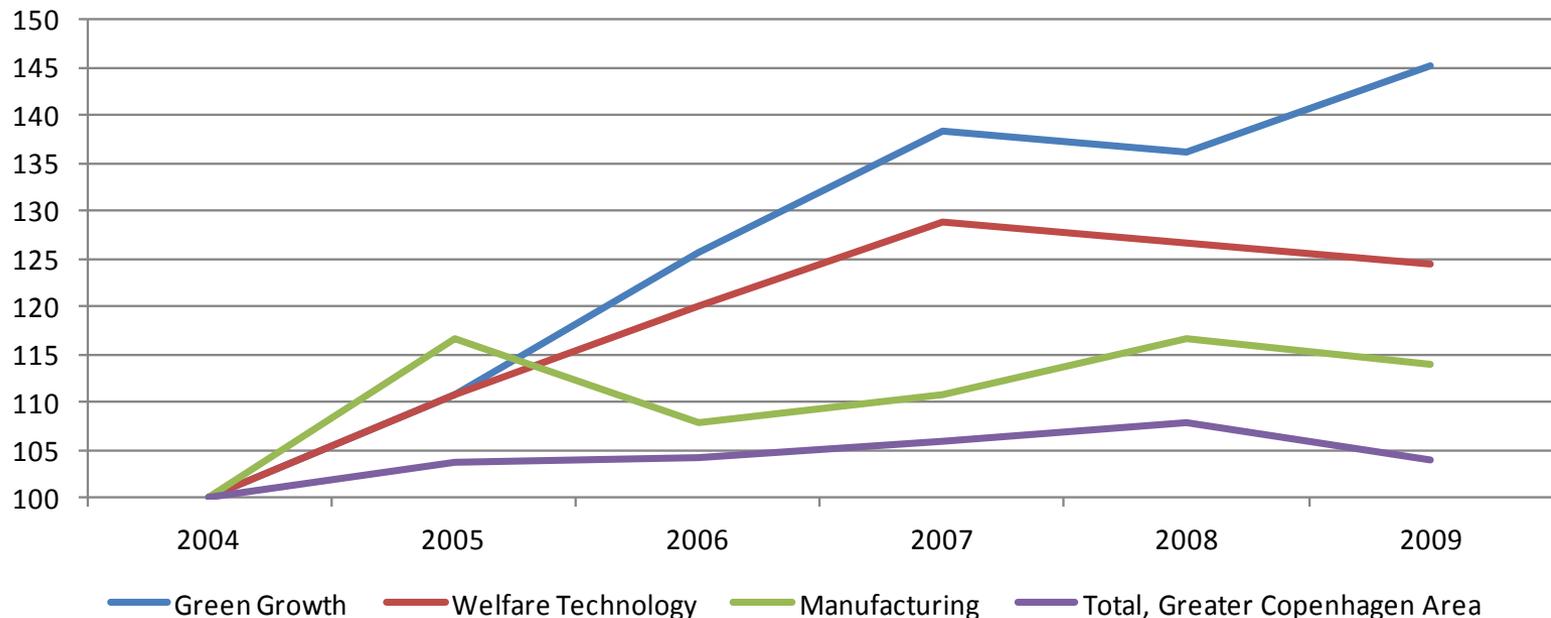
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STRONG GROWTH IN PRODUCTIVITY

- Productivity in the Green Sector has increased with 40 per cent since 2004
- Productivity has increased with 8 per cent per year
- Average Danish productivity of about 1.1 per cent in the previous 20 years



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THE ROAD TO COPENHAGEN 2025

COMMITMENT

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

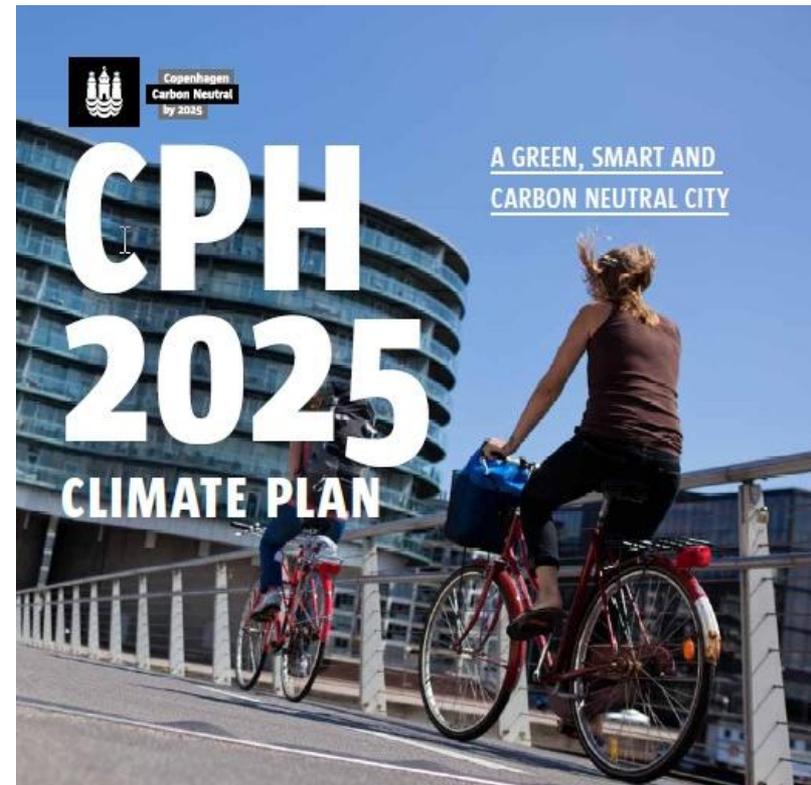
COLLABORATION

- Broad stakeholder involvement
- New partnership models

COORDINATION

- Common business plans

COMMUNICATION



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THANK YOU FOR YOUR ATTENTION

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