



CITY DEVELOPMENT PLAN

COPENHAGEN DENMARK

LOCATION

Copenhagen, the capital of Denmark, is located on the coastal islands of Zealand and Amager.

COPENHAGEN STATISTICS

- CITY POPULATION: 6.02 LAKHS (2017)
- CITY AREA: 221,712 ACRES
- DENSITY LEVEL: 23 PEOPLE / ACREPARK ACRE
- AGE: 6.143PARK ACREAGE PER 1000 RESIDENTS: 1.2 ACRES

GOVERNING BODIES:-

- CITY OF COPENHAGEN
- GREATER COPENHAGEN AUTHORITY

CLIMATE

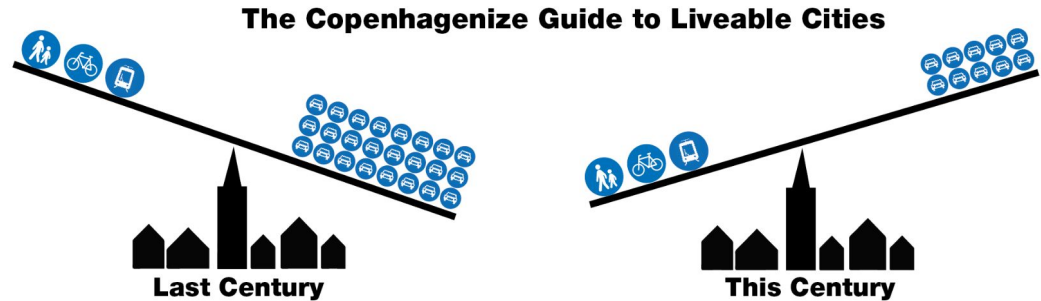
- COPENHAGEN IS IN THE OCEANIC CLIMATE ZONE
- WEATHER: 12 C, WIND NW AT 19 KM/H, 93% HUMIDITY
- ITS WEATHER IS SUBJECT TO LOW-PRESSURE SYSTEMS FROM THE ATLANTIC WHICH RESULT IN UNSTABLE CONDITIONS THROUGHOUT THE YEAR
- SUMMER: AVG TEMPERATURE 21°C JULY IS THE WARMTH MONTH
- SNOWFALL: DECEMBER TO EARLY MARCH



- Copenhagen is recognized as one of the most environmentally friendly cities in the world
- Copenhagen's urban planners include Steen Eiler Rasmussen, Christian Erhardt Peter Bredsdorff, and Jan Gehl.
- In 2014, Copenhagen earned the European Green Capital award for enhancing the urban environment, economy, and quality of life. The city was praised as a model for urban planning and design, especially for pioneering transportation
- Commercial and residential buildings are to reduce electricity consumption by 20 percent and 10 percent respectively
- A Climate Adaptation Plan is in place to fortify the city against water and extreme weather, involving dike construction and enhanced stormwater management.

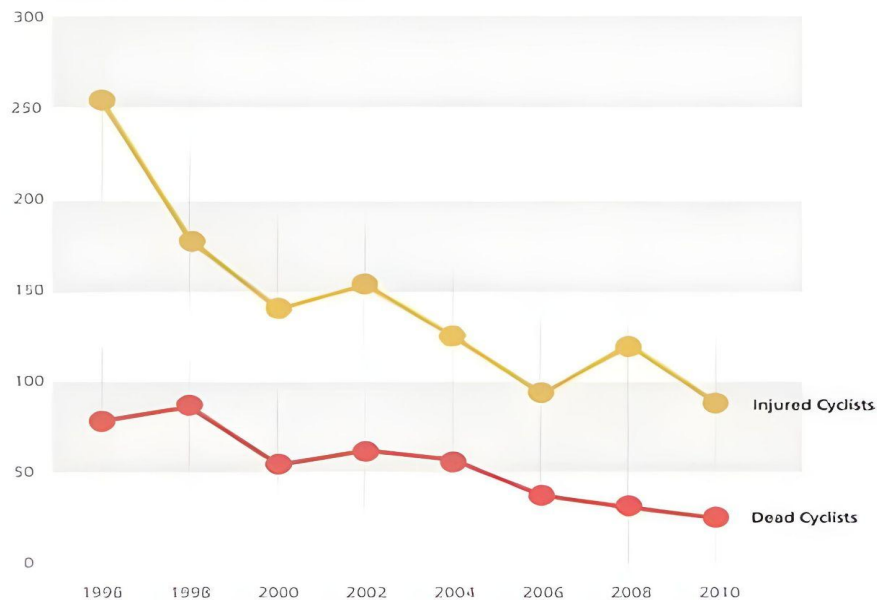
COPENHAGENIZATION

- Copenhagenization is a planning approach that focuses on enhancing a city's accessibility for pedestrians and cyclists while reducing dependence on cars.
- This concept gained prominence through the efforts of Jan Gehl, a Danish urban design consultant actively involved in advocating and implementing this strategy in Copenhagen.

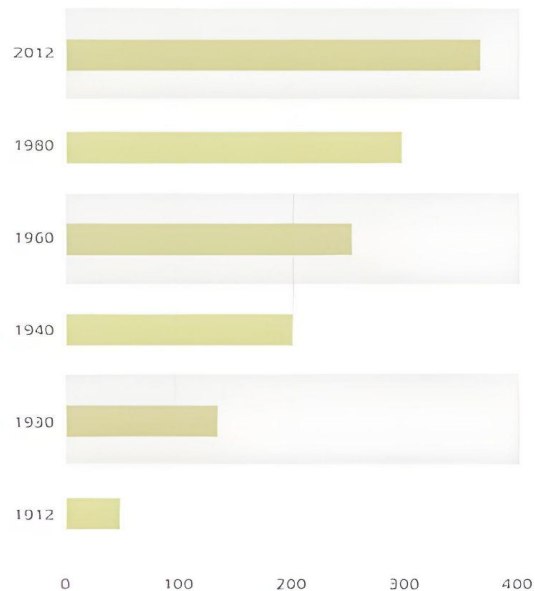


THE CITY OF CYCLISTS

Injured / Dead Cyclists (Number per year)



Cycle track length in Copenhagen (km)



The City of Cyclists

- Between 1912 and 2012, the total length of bike paths within the municipality of Copenhagen increased from 48 to 355 km.
- The inhabitants increased their travel by bike (measured in person km) by as much as 44 %.



Copenhagen cycle lanes

Cycle Safety

- While at the same time the number of trips cycled has increased by 25%
- Thus risk has been reduced by 50%
- This effect is partially attributable to improvements in the cyclists' traffic environment during the course of this period

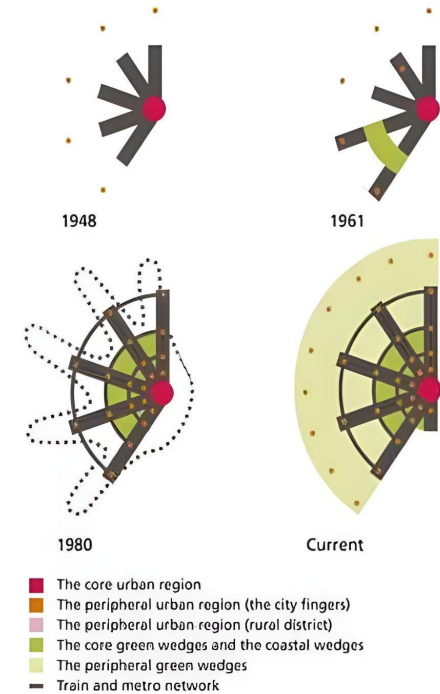
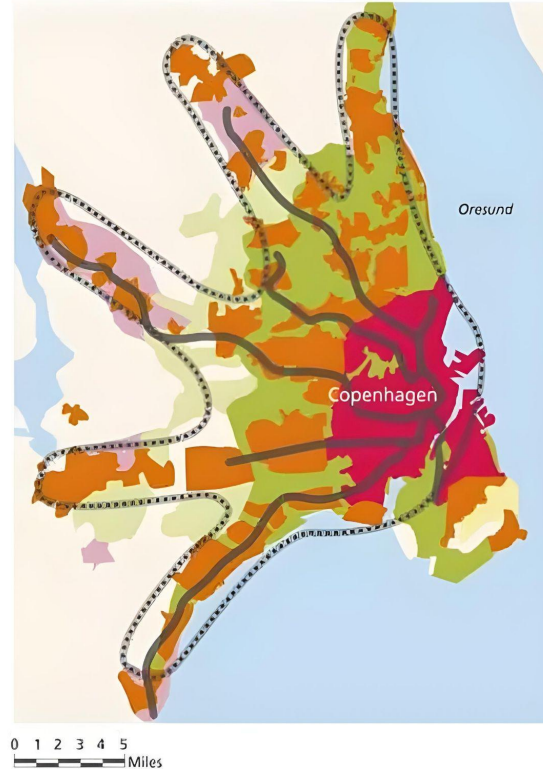
PLANNING OF THE CITY - THE FINGER PLAN

- In 1947, Danish architects Peter Bredsdorff and Sten Eiler Rasmussen, along with their team, proposed a new vision for developing greater Copenhagen.
- The plan envisioned future urban areas shaped like a hand, with the palm at the existing city center and fingers pointing towards upcoming cities along infrastructural corridors in five directions.
- The plan was logically nicknamed "The Finger Plan".

PRINCIPLES OF THE FINGER PLAN

- 1) The public should have easy access to infrastructural facilities such as green spaces, bike paths, commuter trains and motorways.
- 2) People should have the opportunity to appreciate forests, lakes, agricultural landscapes, rivers, streams, and fjords while still enjoying the proximity to the city center.
- 3) The design of the Five Finger Plan simplifies traffic and transportation of people and goods.
- 4) For nearly six decades, the Five Finger Plan has guided urban development.
 - i) The Plan remains the foundation for all regional planning.
 - ii) Anticipating a population growth of over 10,000 people annually and 75,000 homes in the next two decades.
 - iii) The objective is to expand or broaden the "fingers" with consistent infrastructural provisions.

Current Version of Finger Plan



PLANNING OF THE CITY

The goals of Copenhagen's Green Structure Plan are to control urban development to ensure that people are always able to access to open space, parks and undeveloped, natural areas on a regional scale.

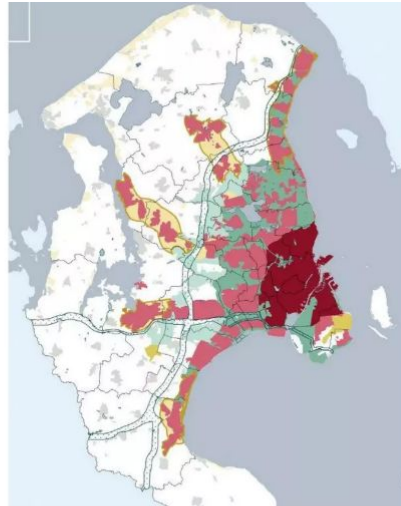
The plan strives to weave new “green elements” into the existing mosaic of neighborhoods in the city by means of the following key principles.

- Urbanization will develop in slender fingers
- Green wedges of undeveloped land will remain between fingers
- Finger development will follow public transport (esp. railways)
- Suburbs will develop like pearls on a string
- Inhabitants will live in close proximity to green spaces

The guiding principles of the Green Structure apply both to recreational possibilities as well as the greater environmental context of the city. In developing their strategy, planners took into account cultural-historical and ecological concerns.



ROAD NETWORK

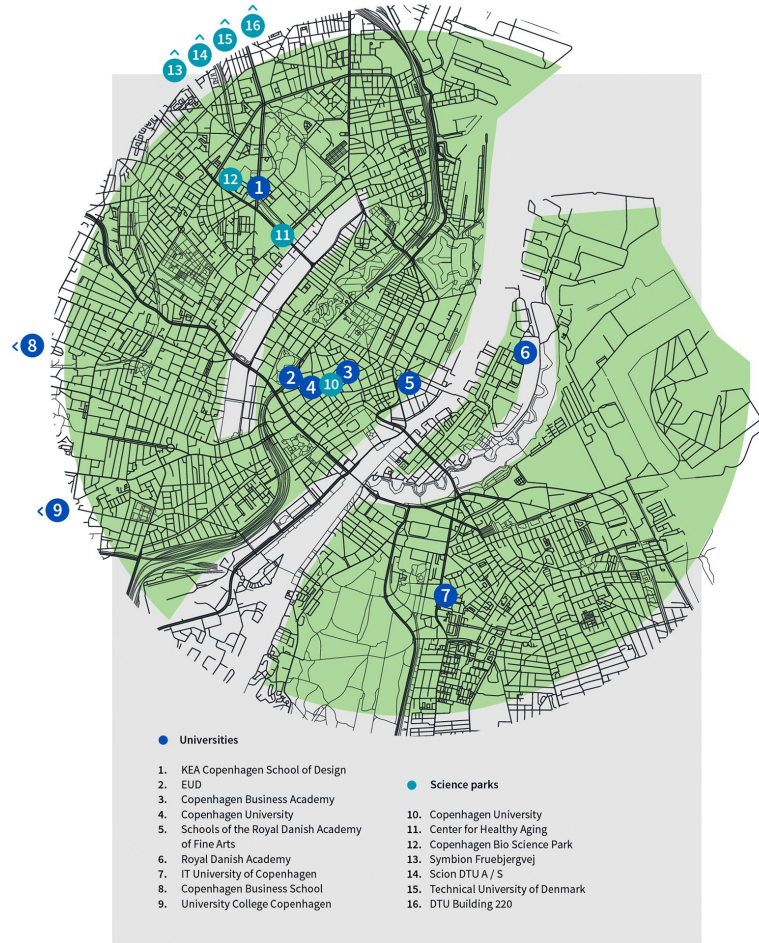


LAND USE PLAN

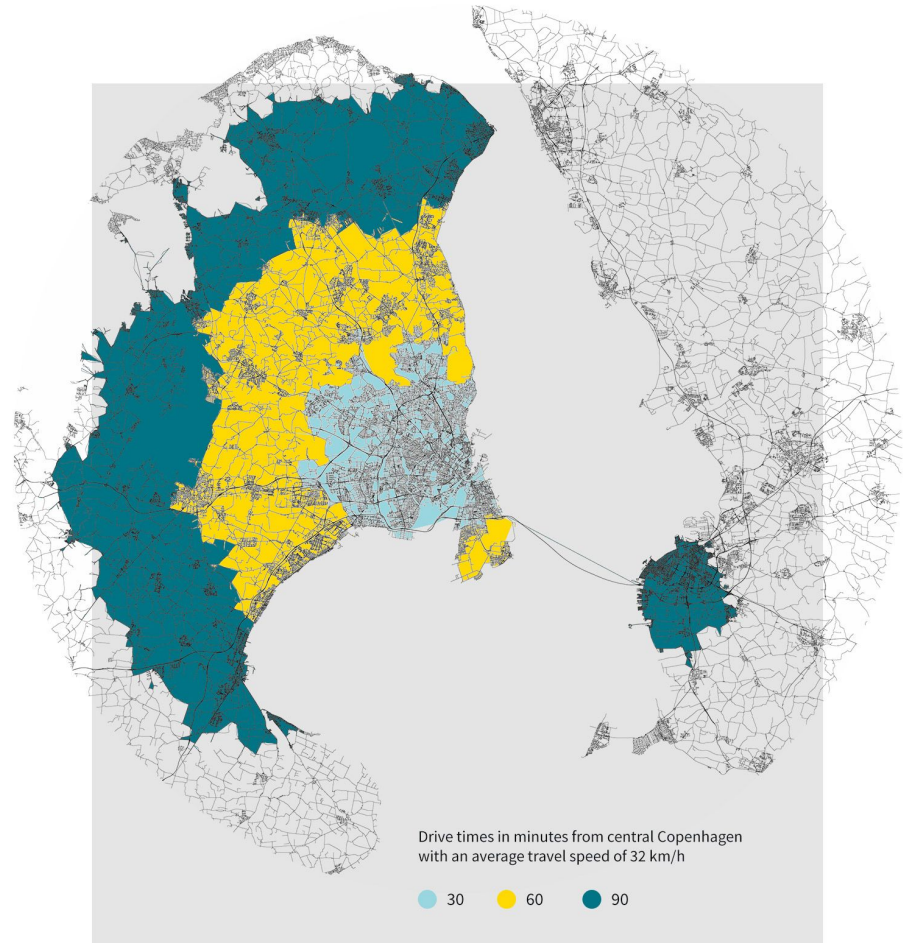


DISTRICT PLAN

PLANNING OF THE CITY



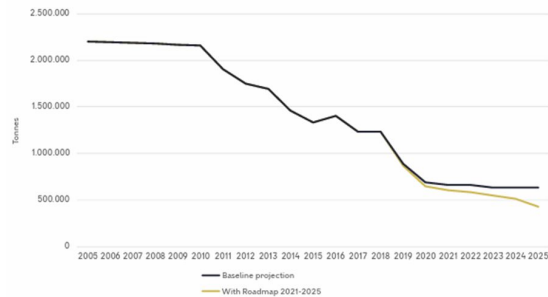
Universities and science parks



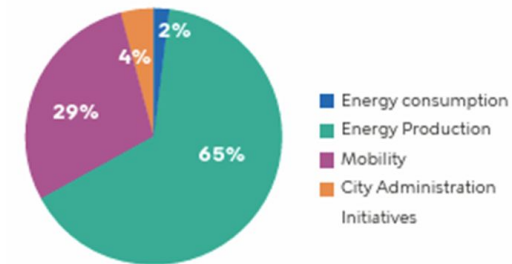
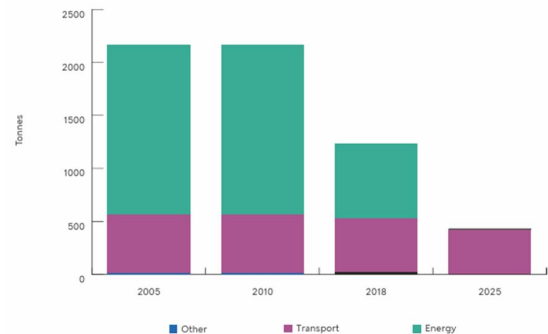
Drive Times from central Copenhagen

CARBON NEUTRAL BY 2025

Carbon emissions, Copenhagen 2005-2025

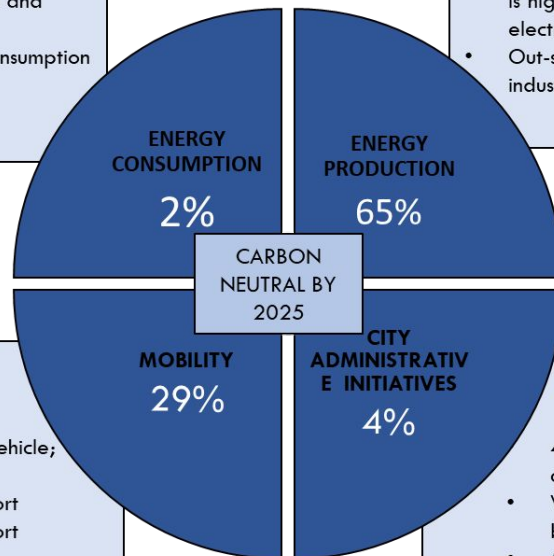


Carbon emissions, Copenhagen, 2005-2025, by category



- 20% reduction- Heat consumption
- 20% reduction- electricity consumption by commercial and service
- 10%- household energy consumption
- 1%- PV module electricity consumption

- Carbon neutral- district heating
- Power from wind energy and biomass is higher than city's total consumption of electricity.
- Out-sort plastics from household and industries.



- New fuels- 20-30% light vehicle; 30-40% heavy vehicles.
- Co2 neutral- public transport
- 20%- higher public transport passengers
- 50%- school/ work use bike
- 75%- pedestrians

- 40% reduce city building's energy consumption
- Vehicles- use electricity; hydrogen; bio-fuel.
- 50%- reduction street light energy consumption
- 60sq.km of PV modules.