

**COPENHAGEN IS CONSIDERED ONE OF THE MOST SUSTAINABLE CITIES IN EUROPE AND IS ALSO ONE OF THE MOST BIKE-FRIENDLY CITIES IN THE WORLD.** 

# COPENHAGEN IS THE CAPITAL AND THE MOST POPULOUS CITY OF DENMARK

THE CITY IS THE CULTURAL, ECONOMIC AND GOVERNMENTAL CENTRE OF DENMARK AND ONE OF THE MAJOR FINANCIAL CENTRES OF NORTHERN EUROPE.

# WHY SUSTAINABLE CITIES ARE SO IMPORTANT?

#### 70 PERCENT OF CARBON EMMISIONS COMES FROM CITIES

CITIES ARE RESPONSIBLE FOR 60 TO 80 PERCENT **OF ENERGY CONSUMPTION** 

> 55 PERCENT OF THE WORLD'S POPULATION LIVES IN CITIES, THIS PROPORTION IS EXPECTED TO INCREASE **TO 68 PERCENT BY 2050**

CITIES OCCUPY JUST 3 PERCENT OF THE EARTH'S LAND

70%

55%





#### COPENHAGEN AIMS TO BE THE FIRST CARBON NEUTRAL CAPITAL BY 2025!



The city is part of The Carbon Neutral Cities Alliance (CNCA), which is a collaboration of leading global cities working to achieve carbon neutrality.

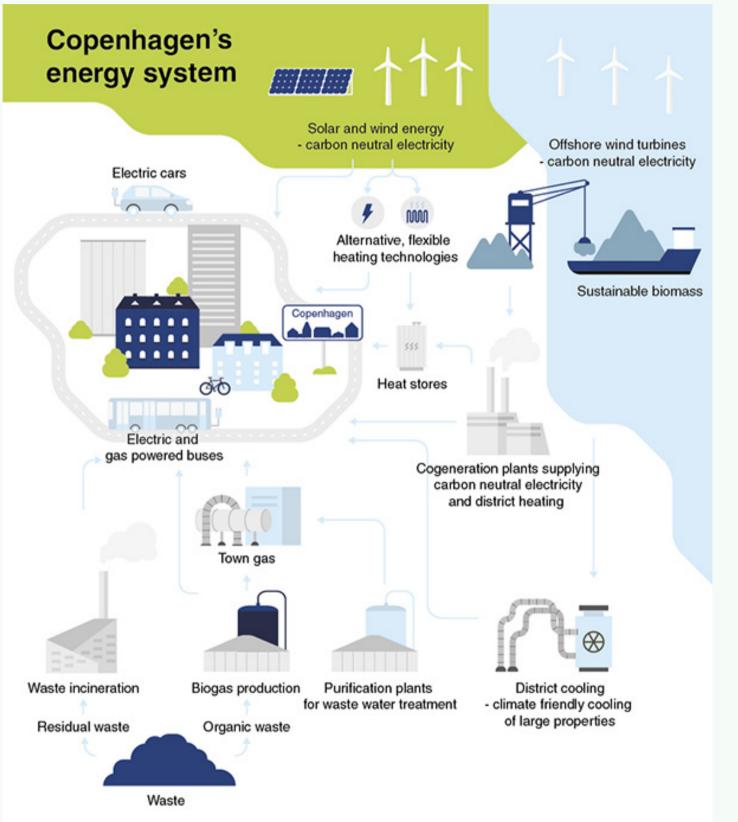
Carbon neutrality means that the net amount of carbon dioxide or other carbon compounds emitted into the atmosphere is reduced to zero. This can be achieved by both reducing or balancing out thees emissions.







## **COPENHAGEN'S HEAT AND ENERGY SYSTEM**



'The production of electricity and heat for Copenhageners is currently the biggest source of CO2 emissions and it is absolutely critical that coal, oil and natural gas are replaced by renewable energy.'

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https://carbonneutralcities.org/cities/copenhagen/

The city has a very efficient district heating system - 98% of the city's buildings are linked to it. It works by using a pipe network which spreads left over heat from electricity production.

 Also instead of using fossil fuels at large combined heat and power plants, it will use wood pellets from sustainably grown forests.

There is a plan to implement remote monitoring of customers' energy use too. If a large deviation occurs, action will be taken to optimize the energy use.

## MIDDELGRUNDEN



Middelgrunden is an offshore wind farm in the Øresund strait 3.5 km outside Copenhagen. The farm delivers about 4% of the power for Copenhagen. When it was built in 2000, it was the world's largest offshore farm, with 20 turbines.

While the wind at this location is not strong, it is very consistent, with the turbines generating substantial power over 97 percent of time.

#### **BICYCLES IN COPENHAGEN**

Today, more than 60% of Copenhageners use a bicycle for their daily commute. This is possible thanks to the bicycle infrastructure which has been dynamically developing for over 10 years. 400 km of attractive cycle lanes provide safety for cyclists and encourage more people to use this eco way of transport. As a result, there are over five times more bicycles in the city than

cars.



**RUSH HOUR IN COPENHAGEN** 

The Danish postal service delivers virtually all mail in Copenhagen by bicycle, also there are some police patrols on bicycles.



# **COPENHAGEN SOLUTIONS LAB**

PROJECTS 7 NEWS

The city cooperates with Solutions Lab, where data and technology are used to implement smart solutions supporting a carbon neutral economy.



#### Street Lab

In Street Lab, innovative solutions are tested in the 1:1 scale in the urban environment



Street Lab is a laboratory in the city centre where we can test new solutions under real urban conditions. The objective is to test the solutions for their potential and limitations, so we can assess what can be scaled to larger areas of the city. Therefore, Street Lab is a vital source of knowledge about the solutions that work, thus making it possible for us to be one step ahead of city operations and services for Copenhageners.

Since Copenhagen Municipality established the Street Lab test area in 2016, we have tested solutions in areas such as smart parking, care of urban nature, waste management and measurement of air quality. The area stretches from Rådhuspladsen to Christians Brygge and includes two main roads with very different profiles: HC Andersens Boulevard, Denmark's busiest road with more than 60,000 motorists a day, and Vestervoldgade, which has been traffic-calmed and has trees in the street, open spaces and wide pavements that give pedestrians priority.

Street Lab was developed in a public-private partnership between Cisco, TDC, Citelum and Copenhagen Solutions Lab.

#### https://cphsolutionslab.dk/en/projekter/labs/street-lab



#### CASES CONTACT



## **GREEN SPACES IN COPENHAGEN**

#### THE CITY DECIDED THAT ALL CITIZENS BY 2015 MUST BE ABLE TO REACH THE PARK OR THE BEACH ON FOOT IN LESS THAN 15 MINUTES.



Also many cemeteries double as parks, but only for the more quiet activities such as sunbathing, reading and meditation.

There are many parks and public gardens in Copenhagen. The largest one - the Botanical Gardens - covers an area of 58 hectares.





In addition, certain countryside areas on the outskirts of the city are protected from surrounding urbanization. Together, those account for over 4,000 hectares of seminatural open spaces.

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