

Interreg
Baltic Sea Region



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ENERGY TRANSITION

Climate-4-CAST

Climate Budgeting in Aarhus Municipality

UBC TALKS, 2-12-2025





Agenda

Introduction to Aarhus' Climate Action Plan (CAP)

How we present and use emissions scenarios

How the CADS tool enhances data-informed decisions

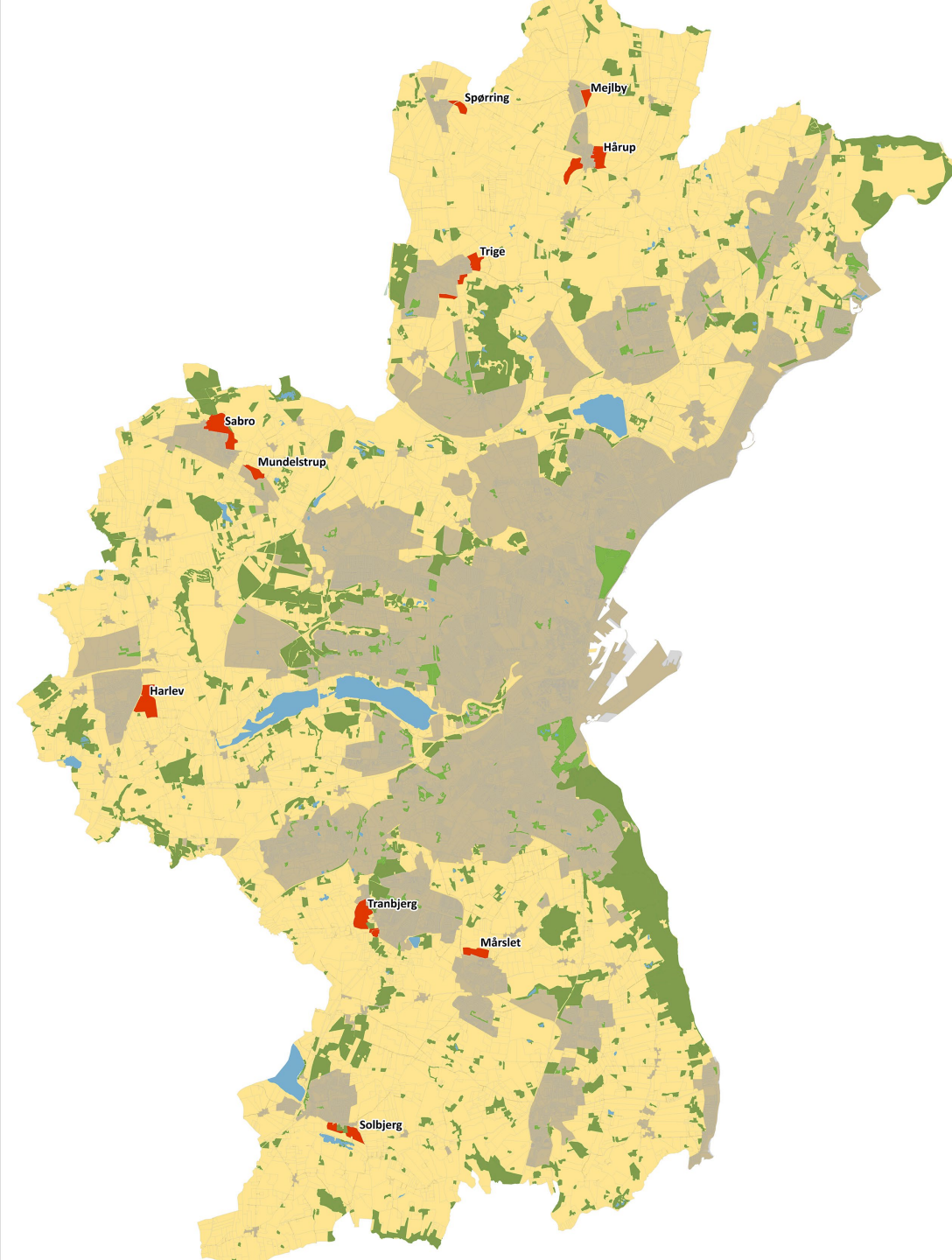
About Aarhus

Population approx. 375.000

Second largest city in Denmark

University city, implies a very young population

The municipality includes a large area outside the urban city, which includes smaller villages and agriculture



Climate Action Plan

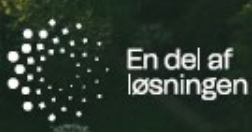
Aarhus has an ambition to be (net) climate neutral in 2030

Our new CAP from 2024/2025 shows a possible path no net zero in 2030

In scope 1 + 2, as a territory and a company

Political focus on actual reductions projects

KLIMAPLAN
2025-2030



CO₂e emissions in Aarhus

Territorial Emissions

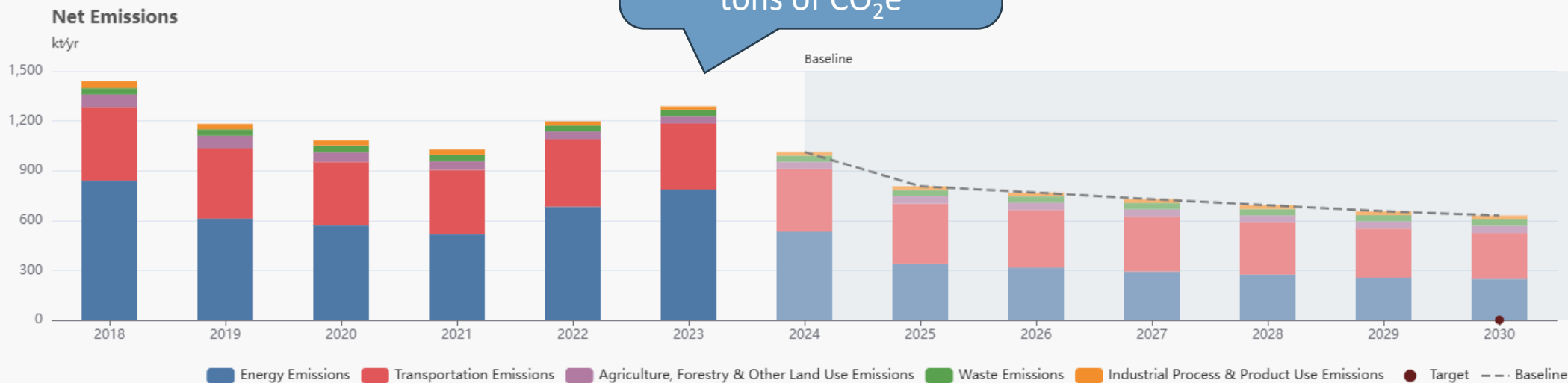
Net Emissions

Scenario forecast 2030

630 kt/yr

-56% (2018 - 2030)

Total emissions are approx. 1,2 million tons of CO₂e



61% from stationary energy

31% from transportation

4% from AFOLU

4% from waste and IPPU

Emission scenarios

We put a lot of effort into calculating realistic and precise emission reductions scenarios

Usually 2030 estimates

A good Business-As-Usual (BAU) model is highly important

The BAU model is or main method of estimation

Portefølje

2030 reduction
in scope 1 +2

Scope 3
reductions?

Indsatser i kommunen som samfund

Nr.	Titel	Årlig CO ₂ e- reduktion Scope 1-2 (tons)	Årlig CO ₂ e- reduktion Scope 3 (tons)	Samlet kommunal omkostning (kr.) ved 1 ton reduceret CO ₂ e i 2030
NL1	Omdannelse til skov og natur.	18.000*	-	-
NL2	Udtagning af lavbundsjord.	15.000	-	290
NL3	Klimatilsyn og klimahandleplaner.	4.000	-	330
NL4	Biogen energipark.	36.000**	6.000	30
I alt		73.000	6.000	-

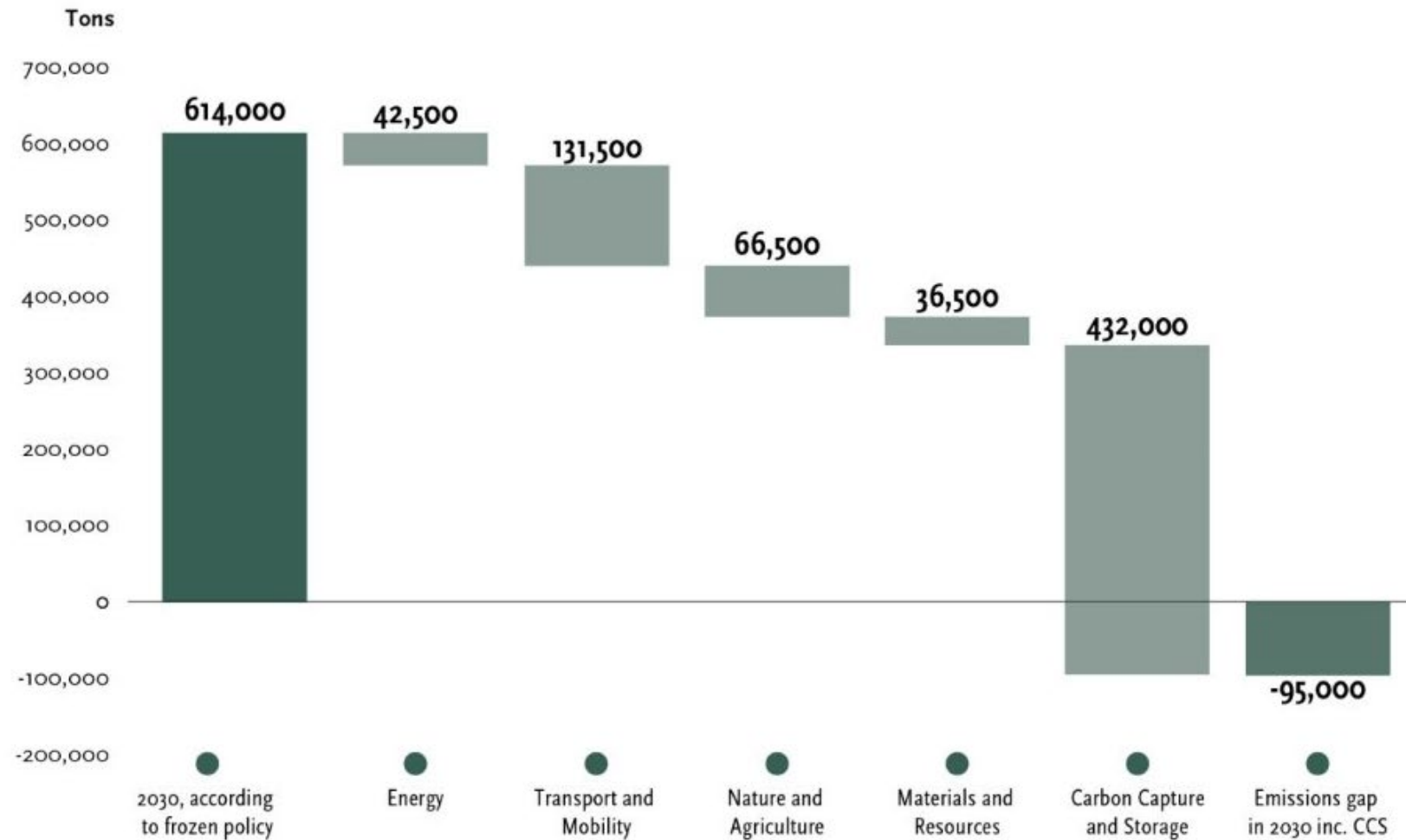
* Effekten af at plante træer vurderes til at være omtrent 18.000 tons CO₂e i 2030, mens den maksimale effekt på omtrent 30.000 tons CO₂e forventes at være nået i 2040.

** Hertil 2.000 tons i forventet overskudsvarme, som tilskrives energidomænet.

Cost effectiveness:
municipal cost per tons
of CO₂e reduced

Aarhus's Path towards net zero

Overview



Subsectors (2030)

Energy Emissions

Scenario forecast 2030

242 kt/yr

-71% (2018 - 2030)

Transportation Emissions

On-Road Transport Emissions

Scenario forecast 2030

201 kt/yr

Agriculture, Forestry & Other Land Use Emissions

Waterborne Transport Emissions

Scenario forecast 2030

71.2 kt/yr

Waste Emissions

Rail Transport Emissions

Scenario forecast 2030

3.35 kt/yr

Industrial Process & Product Use Emissions

Aviation Emissions

Scenario forecast 2030

1.18 kt/yr

Subsectors (2030)

Passenger Car Emissions

Van Emissions

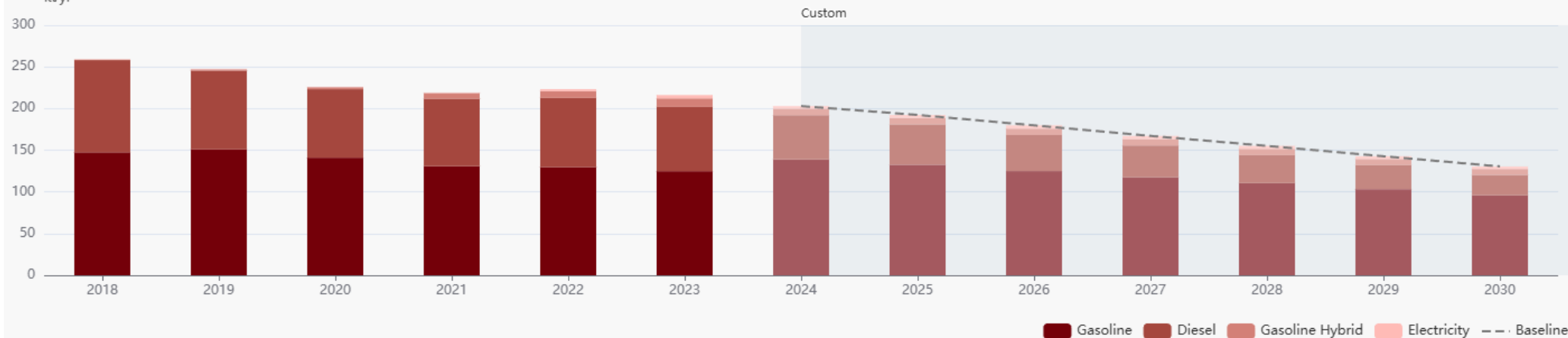
Truck Emissions

Bus Emissions

Bicycle, Moped & Motorcycle Emissions

Passenger Car Emissions

kt/yr



Edit scenario

Selected scenario
Custom

Actions
1/16 active actions

- Energy
Energy Efficiency Improvements
 Is implemented
- Energy
Energy Efficient Municipal Buildings
 Is implemented
- Energy
Expansion of Renewable Energy
 Is implemented
- Energy
Green District Heating of the Future
 Is implemented
- Energy
Sustainable Municipal Facilities
 Is implemented
- Energy
Zero-emission Municipal Machinery and Driving
 Is implemented

Edit scen

Territorial Emissions

Net Emissions
Scenario forecast 2030
625 kt/yr
-57% (2018 - 2030)

Net Emissions
kt/yr

Year	Energy Emissions	Transport	Buildings	Industry	Land Use, Land-Use Change, and Forestry	Total
2018	~800	~100	~100	~100	~100	~1200
2019	~600	~100	~100	~100	~100	~1000

Subsectors (2030)

- Energy Emissions
- Transport

Actions in CADS

Currently we have 16 (soon 32) different actions in the tool

Possibility to order actions by cost-effectiveness

Possibility for all interested to make their own Climate Action Plan

Main purpose of CADS tool

Transparency and equal access to knowledge for all

Easy understanding and visualization of emissions

Easy to understand purpose and benefits of actions

Currently used by administration, maybe could be used in future political negotiations

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Thank you for your attention! Questions?

Climate-4-CAST is a co-funded project by the Interreg Baltic Sea Region Programme 2021-2027

