

Sustainable resource- and waste management City of Copenhagen Merete Kristoffersen



**COPENHAGEN
TOGETHER**

CITY OF COPENHAGEN
The Technical and
Environmental Administration

Agenda

1. City of Copenhagen
2. Historical development of waste politics
3. Resource and Waste Management Plan 2018
4. Waste management in Copenhagen fractions and amounts



Facts about Copenhagen

- Capital of Denmark
- 89 km²
- 602.481 inhabitants
 - ~300,000 households
 - 90% living in flats
- 355,000 workplaces
- 80,000 enterprises
- Increase in population
~ 10,000 / year



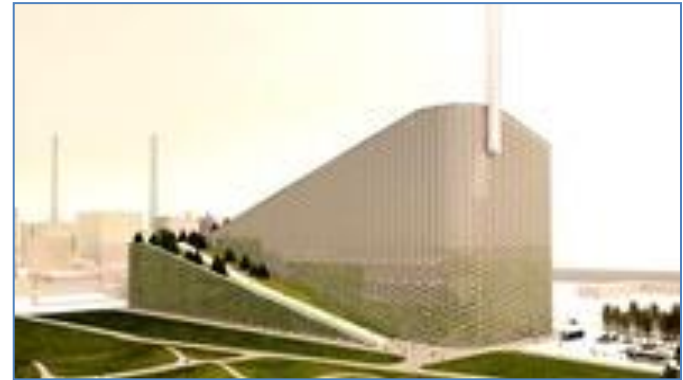
In the 1960's - Dumpsites



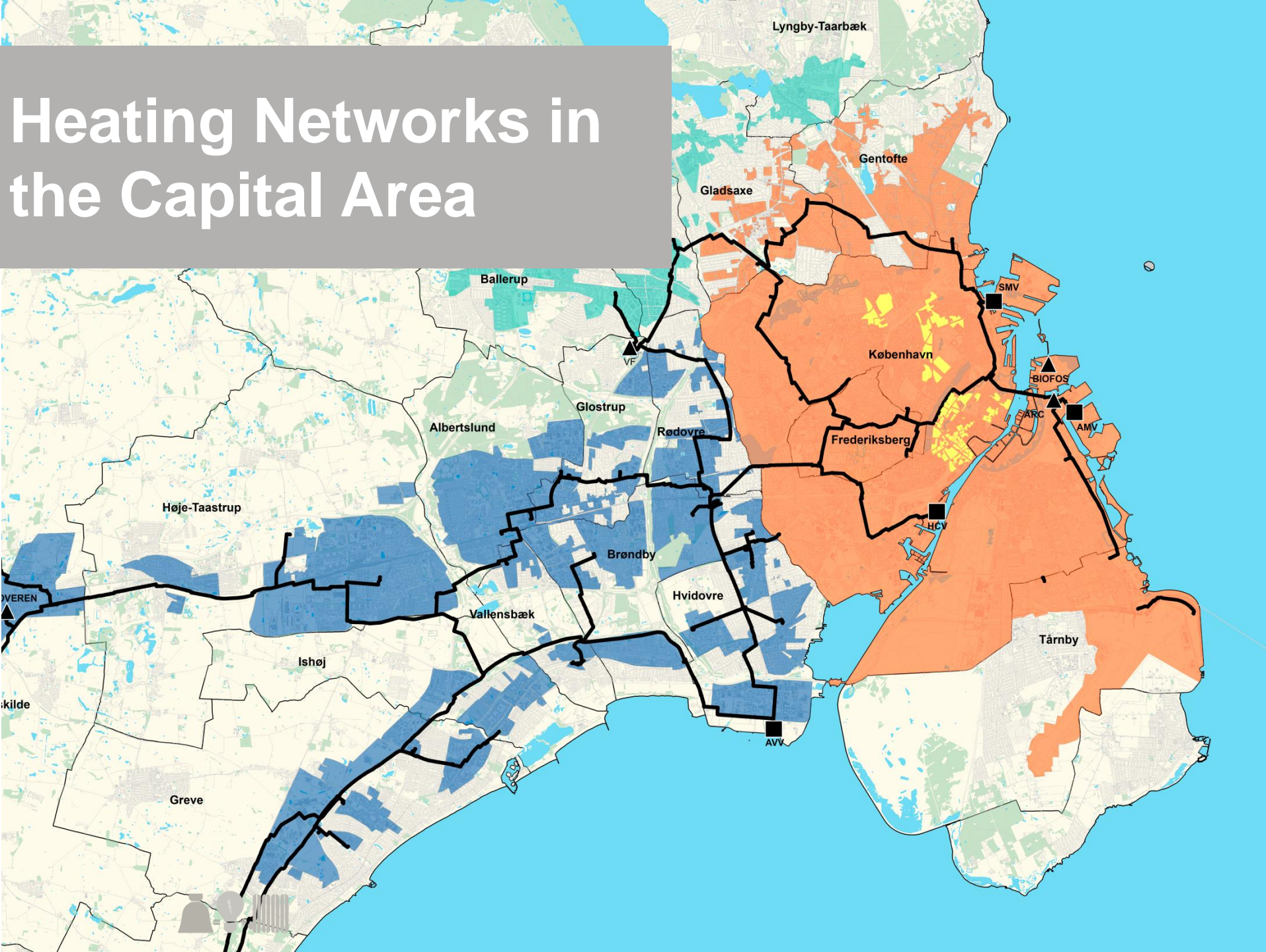
- Waste driven to dumpsites
- Population growth
- Rapid economic growth
- Increasing amount of waste
- Lack of capacity
- Something had to be done

Instead of Dumpsites - Incineration

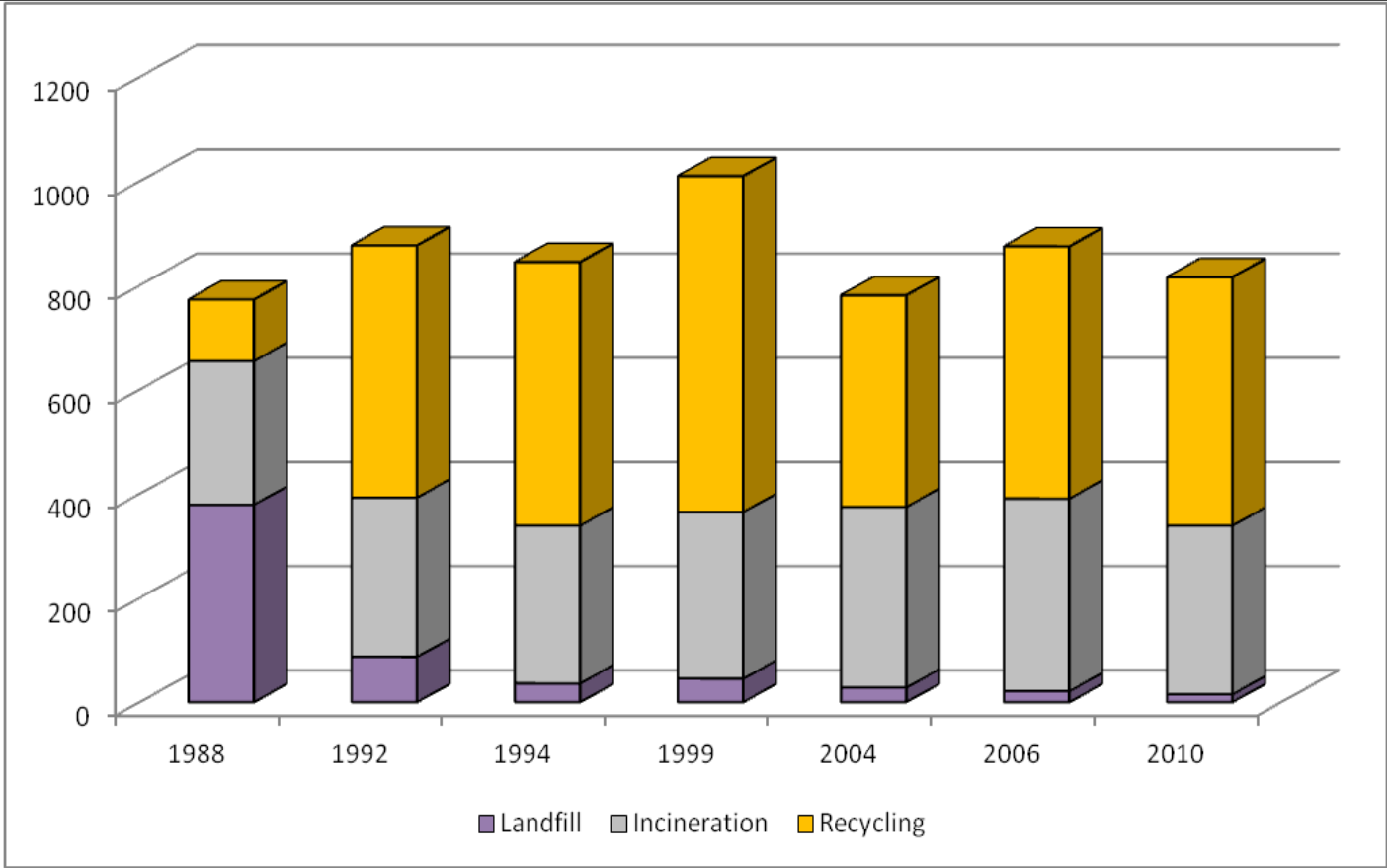
- In 1970, two incineration plants were opened in the vicinity of Copenhagen
- Managed and operated by Intermunicipal entities
 - ARC in the east of Copenhagen
 - Vestforbrænding just north-west of Copenhagen
- Produce heat and electricity
 - Connected to an extensive district heating system



Heating Networks in the Capital Area



From Landfill to Incineration and Recycling in Copenhagen



What are the drivers?

External drivers

- Population growth
- Economic development
- Oil crisis (in the 70-ties)
- Environmentalism
- Climate agenda
- Resource agenda

Policy drivers

- Environmental legislation
- Strong local government
- Clear responsibility
- Financial incentives
- **Municipal strategies**
 - Waste plan
 - Copenhagen vision
 - Climate plan
 - Intermunicipal cooperation

Resources

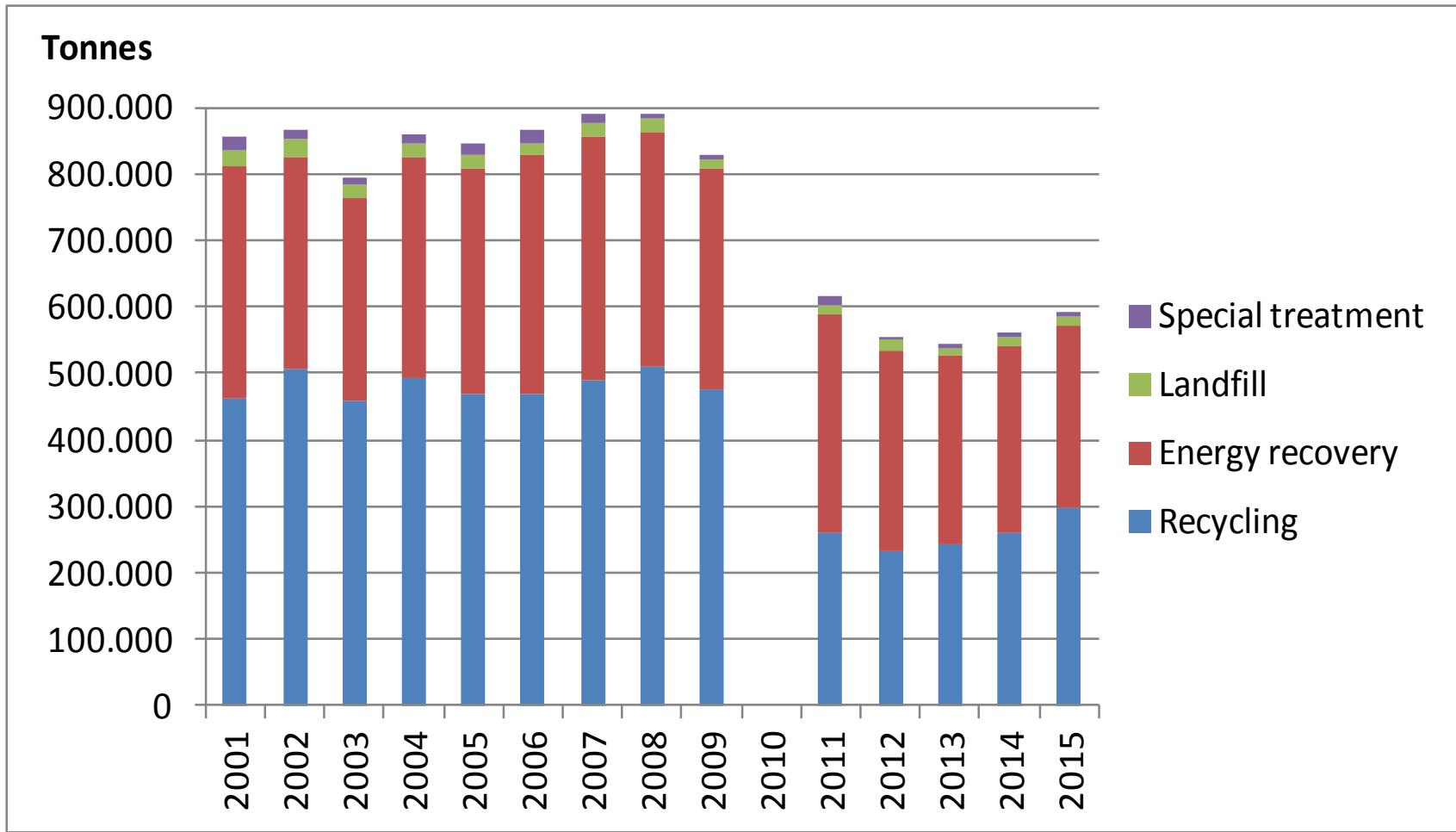
- Financial resources
- Know-how
- Decision power

Waste hierarchy



1
0

Waste in Copenhagen



Resource and Waste Management Plan 2018

Principles

- Waste is a resource
- Change from incineration to recycling
- The local level can make a difference
- Every step up the waste hierarchy reduces CO2-emissions
- Focus on resource efficiency and green growth

Targets

- 20 % reduction in waste to incineration
- 45 % of household waste to recycling –
- double recycling of household waste from 2010 to in 2018

- ~ Budget of 300 mio. DKK – 40 mio. EUR



Resource and waste management plan 2018



Collection of waste from households in Copenhagen

- Source separation
- Collection schemes
 - Collect- and bring schemes
 - Proximity principle
 - Easy and logical
- Economic incentive
 - Fixed price for recyclables
 - Volume based for residual waste
- 5 recycling centers (32 fractions)
5 small recycling centers (11 fractions)
 - Free of charge/flat rate charge per year
- Waste fee collected with property tax

16



Waste collection from multi-storey buildings/flats



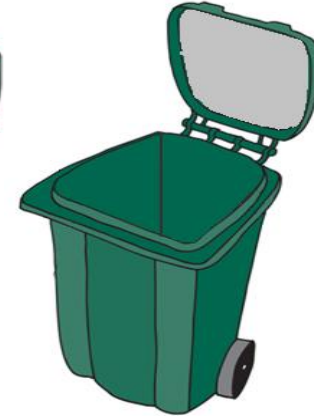
• Residual waste



• Cardboard



• Paper



• Plastic



• Batteries

- Bulky waste
- WEEE (big)



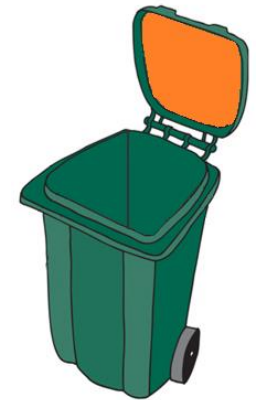
• Hazardous
Need caretaker



• Glass
Optional



• Metal



• Small WEEE

Waste collection from one-family households



- Residual waste
- Paper
- Cardboard
- Bulky waste, incl. refrigerators and electronic equipments
- Gardening waste
- Hazardous waste
- Plastic
- Small electronics
- Metal



- Glass
- Medicine
- National return system on PET bottles



- Recycling stations (32 fractions of waste)



SJÆLLAND

Tingbjerg

Borgervænget

KOBENHAVN

Haraldsgade

Nordhavn

Bispeengen

Møllegade

Gartnergade

Christiania

FREDERIKSBERG

Vermlandsgade

Vasbygade

Kulbanevej

Sydhavnen

Hørgården

KOBENHAVN

Vægtergangen

HVIDOVRE

Hvidovre

AV Miljø

Kirstinehøj

TÅRNBY

DRAGØR

Dragør

10 Recycling Centres

6 Local Recycling Stations



ARC



SMOKA

The next 6 years: Ressource and Waste 2024

- Work in progress:
- 70 % recycling in 2024
- Vision of waste free city in 2050
- Circular economy actions
- Reuse
- Innovation
- Interlinked with the target of a CO2-neutral City in 2025
- Large budget (70-130 mio. EUR)

Thank you for your attention!

