



# District Heating in DK

Utrecht

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# Heating in Europe

**Buildings are responsible  
for approximately**



**40%**  
of energy  
consumption



**36%**  
of CO2 emissions  
in the EU



**35%**  
of the EU's buildings  
are over 50 years old



**75%**  
of the building stock  
is energy inefficient



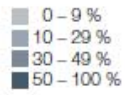
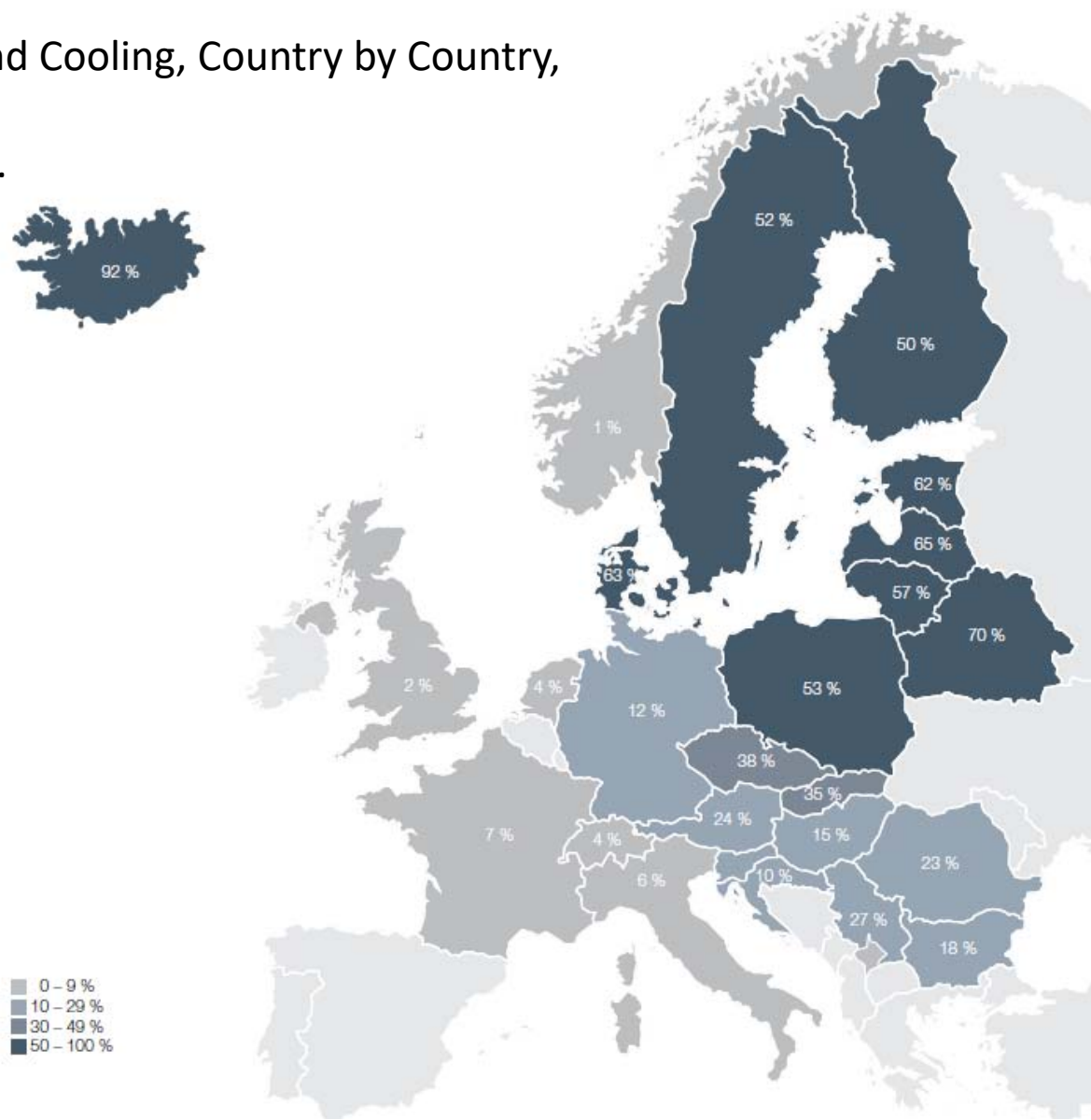
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District Heating and Cooling, Country by Country,  
2015 Survey,  
Euroheat & Power.



# Energy Supplier

## Company:

- Interest = high price & low investment costs.
- Follow national regulations including transparency legislation.
- Operation costs as low as possible.
- Surplus for the owners.



## Cooperative:

- Interest = low price & low investment costs.
- Follow national regulations and decisions from the consumers (AGM).
- Transparency/values.
- Operation costs as low as possible.
- Surplus for the consumers.



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# Energy Supplier

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Which of the two would you choose?

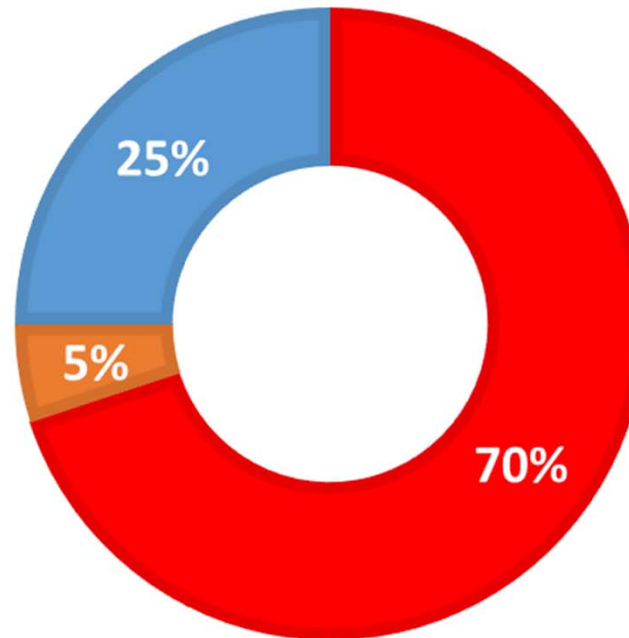
# DK: Cooperative Land

- Since the start of 20th century: energy coops.
- Energy supply has been top priority on the local supply agenda.
- "Critical Infrastructure" belongs to the society/citizens.

# DK: Cooperative Land

## DISTRIBUTION OF ELECTRICITY

■ 25 Cooperative Owned Groups and 7 Consumer Foundation Groups ■ Municipality Owned ■ Shareholder Entities



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# DK: Cooperative Land

World Champion 2016-2018: Electricity Security

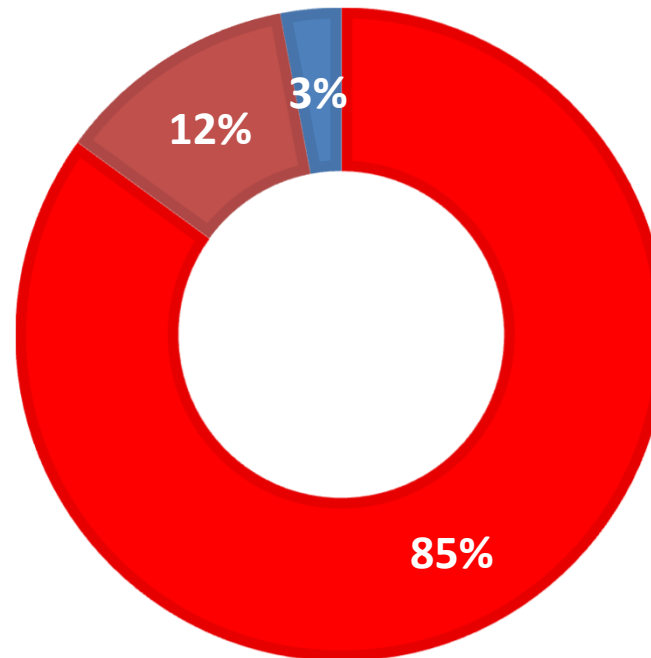
**99,99 %**



# DK: Cooperative Land

## OWNERS OF DH

■ Cooperative Owned ■ Municipality Owned ■ Others



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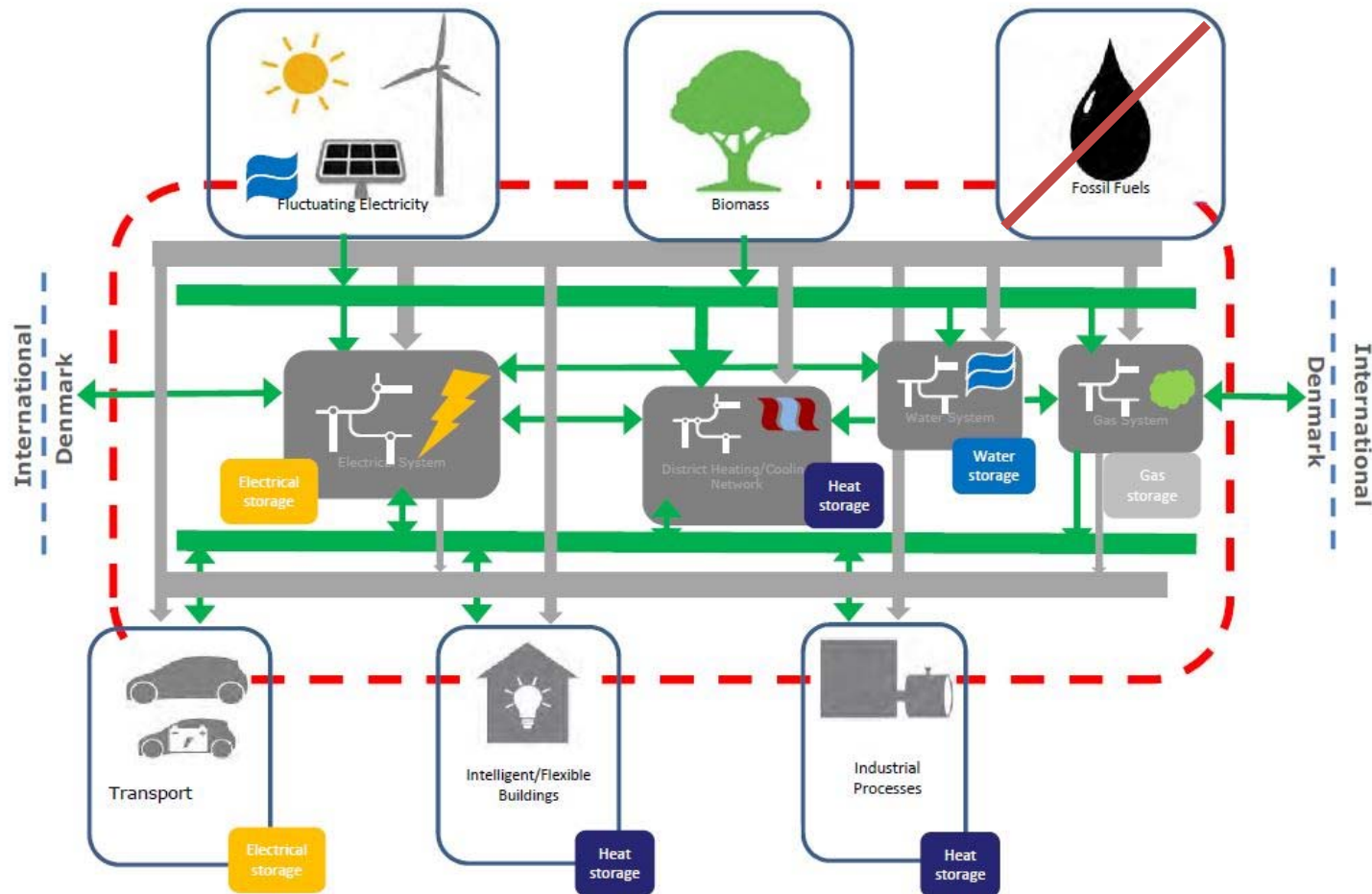


# DK: Cooperative Land

Increasing district heating households:

**65 %**

# DH - Part of Flexible Energy



# My Community is My Home

## Community DH-Systems:

- CO2-emissions are lower
- Operation & maintenance costs are lower
- Cost-benefit analysis in DK?



# REScoop PLUS

## DH-Cooperatives

- Look for energy savings for the members and the grid.
- Create innovative services to minimize operation costs.
- Make you aware of energy consumption.
- Benchmarking: Coops the best!

# Legislation

- Planning – local heat plan (economy, energy savings, climate, pricing).
- Open possibilities for local partnerships.
- Non-discriminatory access to the market.
- Access to capital (e.g. mortgage loans).
- Priorities for consumers.
- Decentralisation, Decentralisation, Decent.....

# ”Avedøre Green City”



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# Conclusion

- Consumer controlled and owned DH systems deliver efficient, secure and cheap heat.
- Consumer controlled and owned DH systems are more flexible in the overall energy system since they don't focus on the bottom line but on the heat efficiency and heat price for the benefits of the consumers.
- DH benefits the society.



# Thank you!

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