



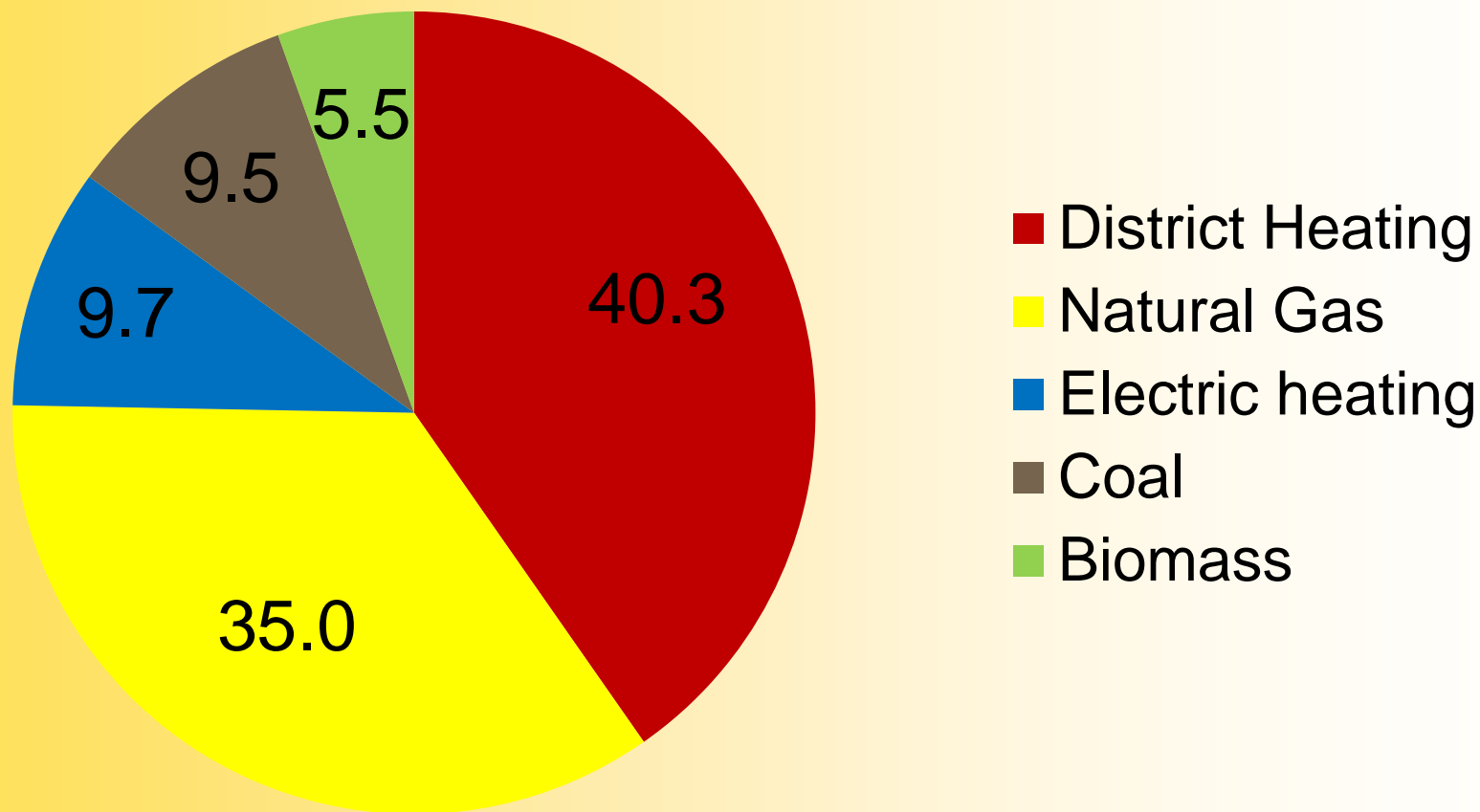
Workshop: Modernizace energetických systémů prostřednictvím nástrojů založených na ETS

Modernization of District Heating in the Czech Republic

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Director

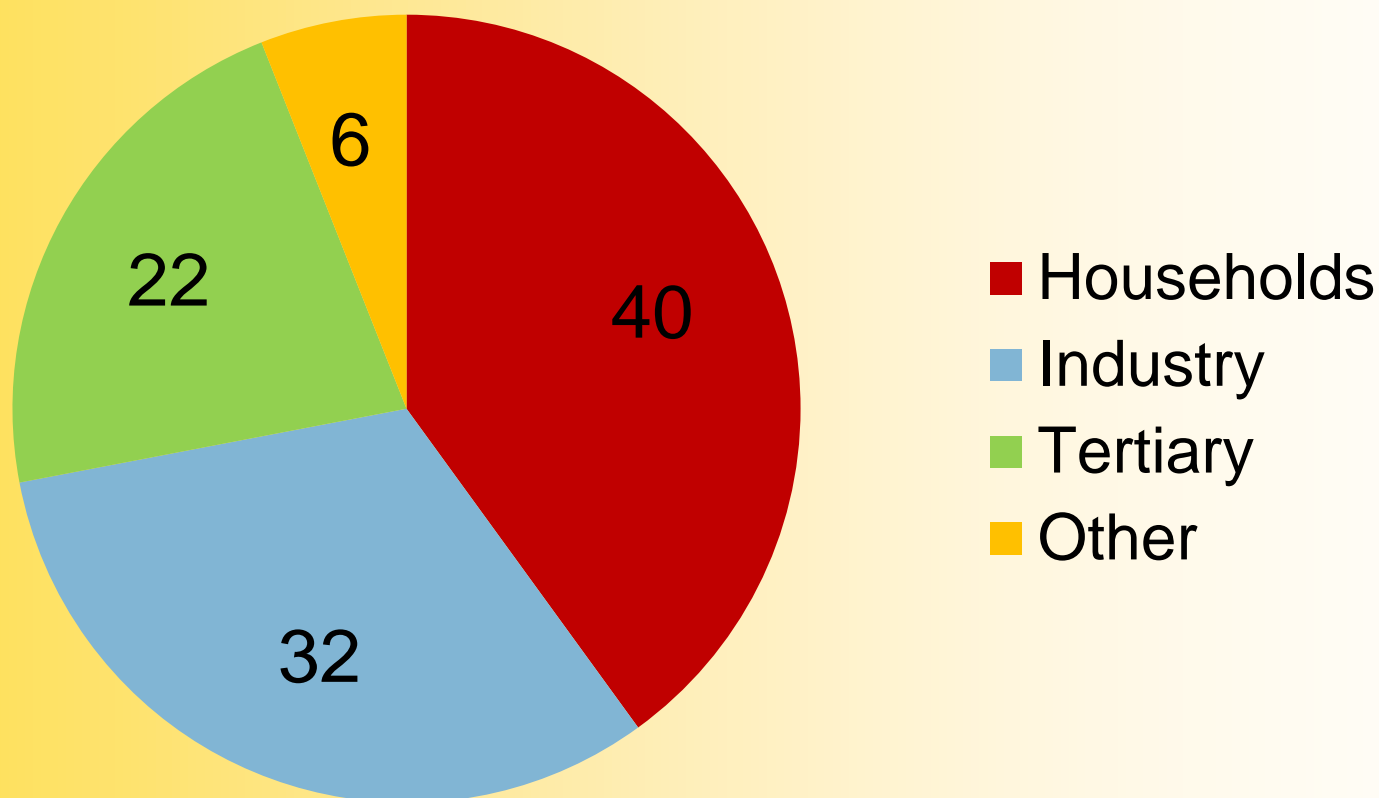
Commission representation, Prague, September 24th 2018

Heating market in the Czech Republic (share of households) %



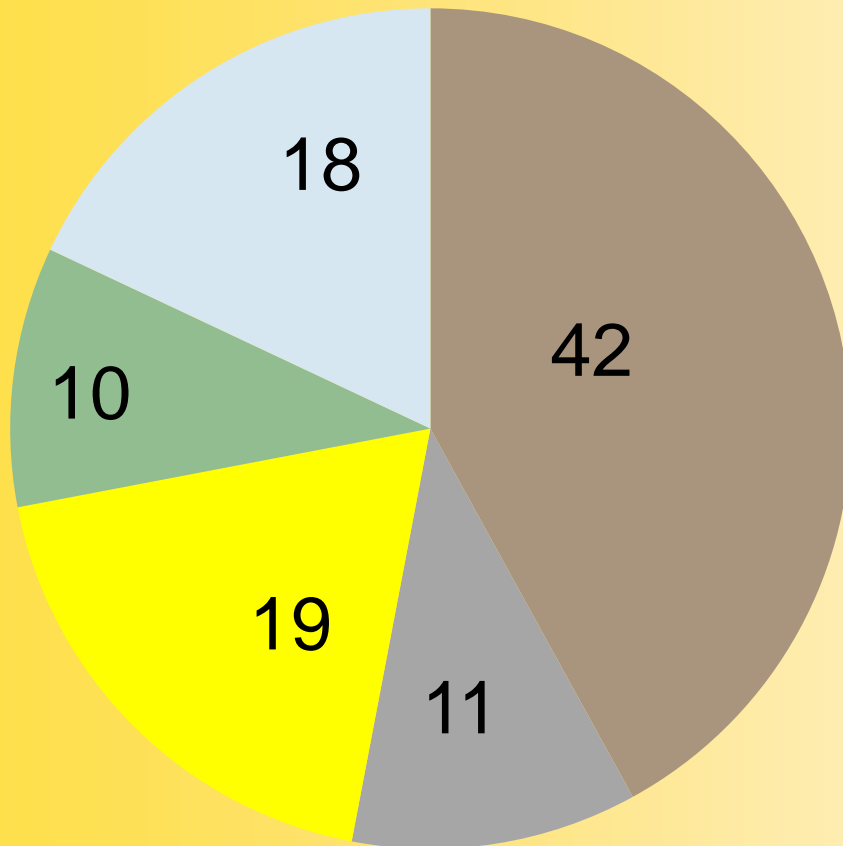
Source: CZSO survey „Energo 2015“

Share of sectors on heat supply from DH in 2017 (%)



Source: Energy regulatory office

Fuel mix of heat production in 2017 (%)



Share of CHP heat:

brown coal	85 %
hard coal	86 %
natural gas	35 %
total	66 %

Brown coal	}	98,9 % in EU ETS
Hard coal		
Natural gas		59,4 % in EU ETS
Biomass		
Other		

Source: Energy regulatory authority

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Current challenges for DH in the Czech Republic

- Tough competition of individual boilers + heat pumps
- Strict emission limits to be applied after 2020
- Some old systems using steam as a heat carrier
- Economic discrimination in comparison with local heating

Heat production from natural gas	1x 100 MW District heating	10 000 x 10 kW Individual heating
Ecology tax (Act n. 261/2007 Col.)	YES	NO
Emission fees (Act n. 201/2012 Col.)	YES	NO
Emission allowances (Act n. 383/2012 Col.)	YES	NO

Decarbonisation of DH in the Czech Republic

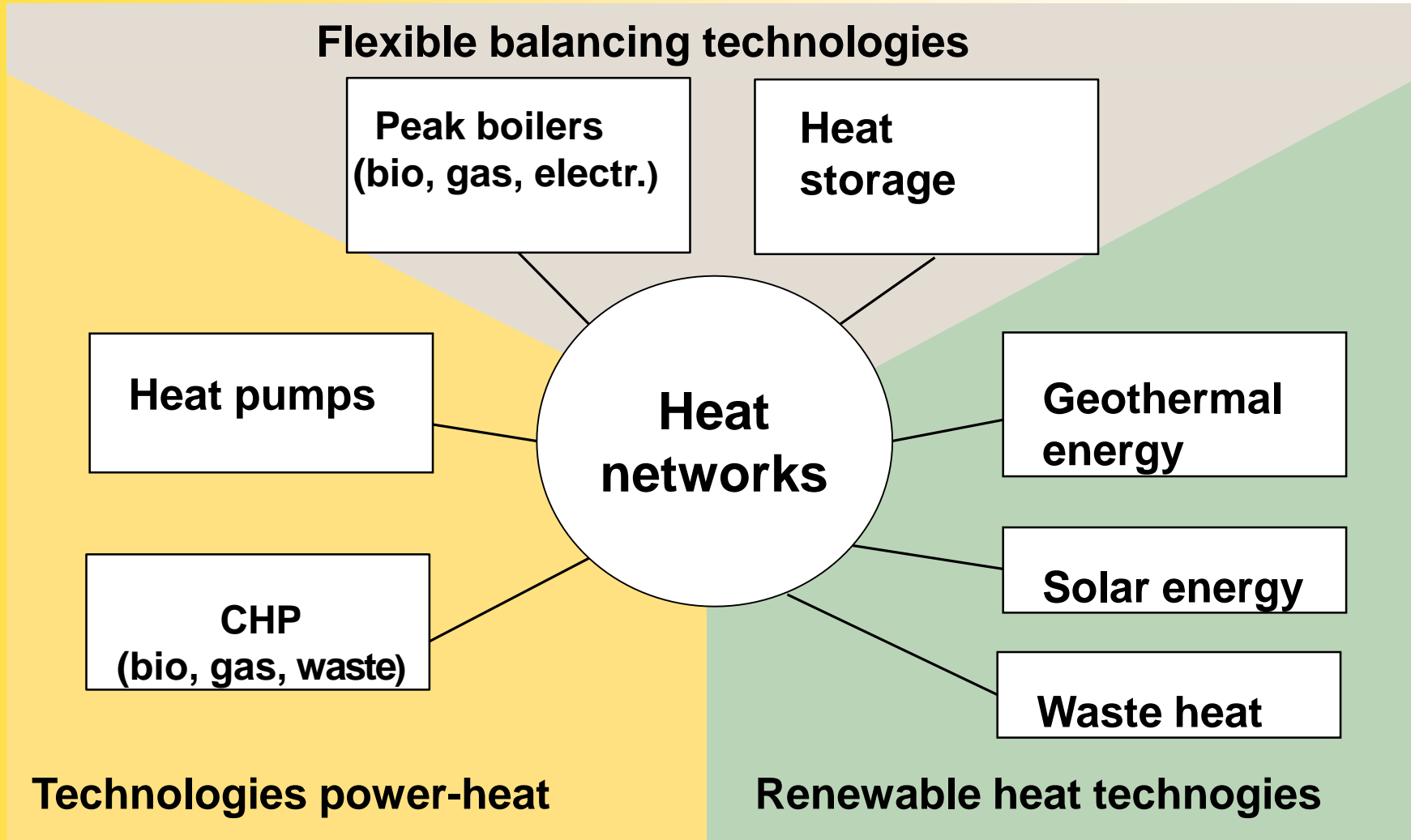
What we need?

- Time
- Investment
- Level playing field compared to individual heating
- Stable legislative environment

Step 1: Reconstruction of DH networks (+ buildings)

Step 2: Replacement of fossil fuels (coal) with renewables + surplus heat + natural gas (peak boilers+CHP)

Future-proof sustainable DH systems



Estimated potential for investment in DH using ETS based tools

Project type	Investment (CZK mil.)	Investment (EUR mil.)
Fuel switching to natural gas	1 484	58
Fuel switching to low carbon sources	10 387	407
Renovation of heat networks	6 049	237
Accumulation of electricity and heat	386	15
Total	18 305	718

Source: survey among association members conducted in May 2018



Thank you for your attention

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