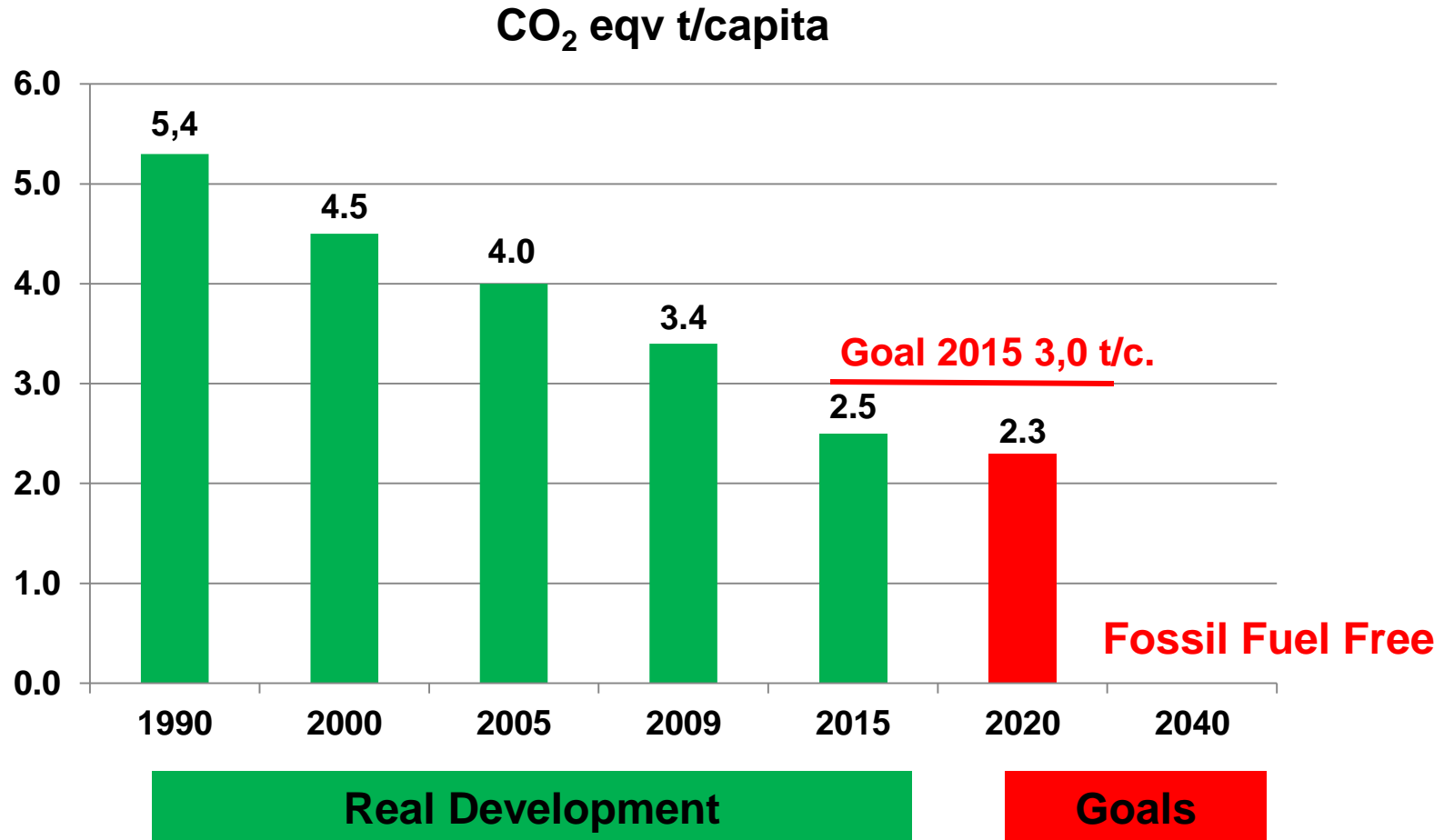


Stockholm towards a fossil fuel free 2040



Jonas Tolf
City of Stockholm

Goals and achievements





Strategi för
fossilbränslefritt
Stockholm 2040



The Capital of Scandinavia



Adopted by Stockholm City Council 28 November 2016

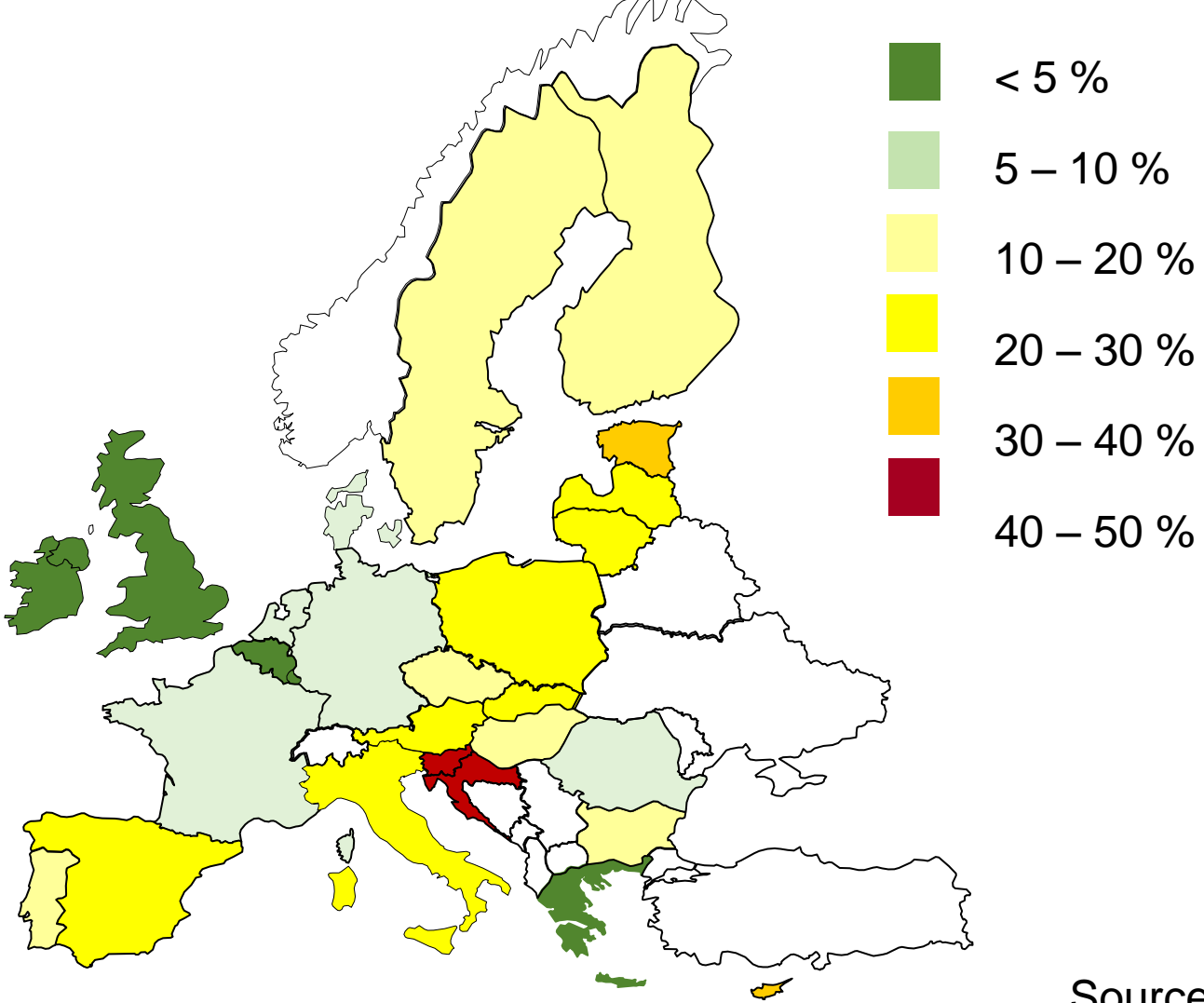
Studies during 2017 on how to become fossil fuel free 2040

Plan for phasing out last coal fired plant. Decision taken to phase out to 2022	Fossil fuel free road transports, including prohibition of fossil fuel sales.
Phasing out fossil oils for peakloads.	Fossil fuel free shipping.
Increased use of waste heat.	Fossil fuel free off road vehicles.
Increased renewable power production.	Increased production of biogas
Reduction of fossil plastics in waste incineration.	Action plan for fossil fuel free city organisation 2030.
Carbon sinks, CCS etc.	

Actions to 2020

Action	Planned reduction ton CO2e	Estimated reduction 2017 ton CO2e
District heating	240 000	280 000 – 290 000
Energy efficiency in city owned buildings	20 000	20 000
Energy standards for new buildings	25 000	25 000
Reduced traffic work	80 000	15 000 – 20 000
Less fossil fuels in transport sector	140 000	127 000 – 217 000
City transport procurement	8 000	8 000
Increased biogas production	20 000	20 000
Total	533 000	495 000 – 600 000

30 Mha abandoned and idle land in EU-28



Source: Eurostat

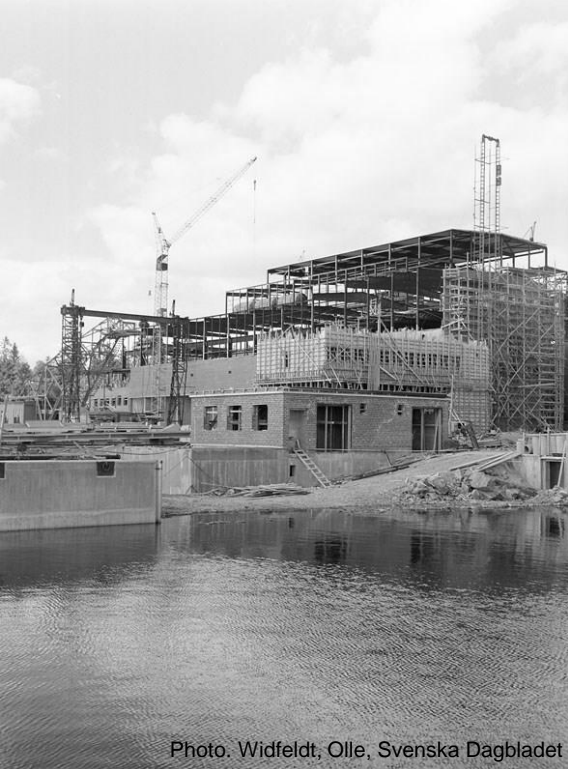


Photo. Widfeldt, Olle, Svenska Dagbladet

FROM HÄSSELBY COAL FIRED CHP 1958 TO VÄRTAN BIO FUELED CHP 2016 (280 MW_h 130 MW_e)



Illustration. Kjell Thorsson

Production 2016

8 TWh_h 1,1 TWh_e 0,4 TWh_c
 Approx. 10 % fossil fuels
 Approx. 80% of heat demand

Emission factors

2015	83 g CO ₂ /kWh
2016	64 g CO ₂ /kWh
2022	40 g CO ₂ /kWh

Source. Fortum Heat



Photo. Robin Hayes

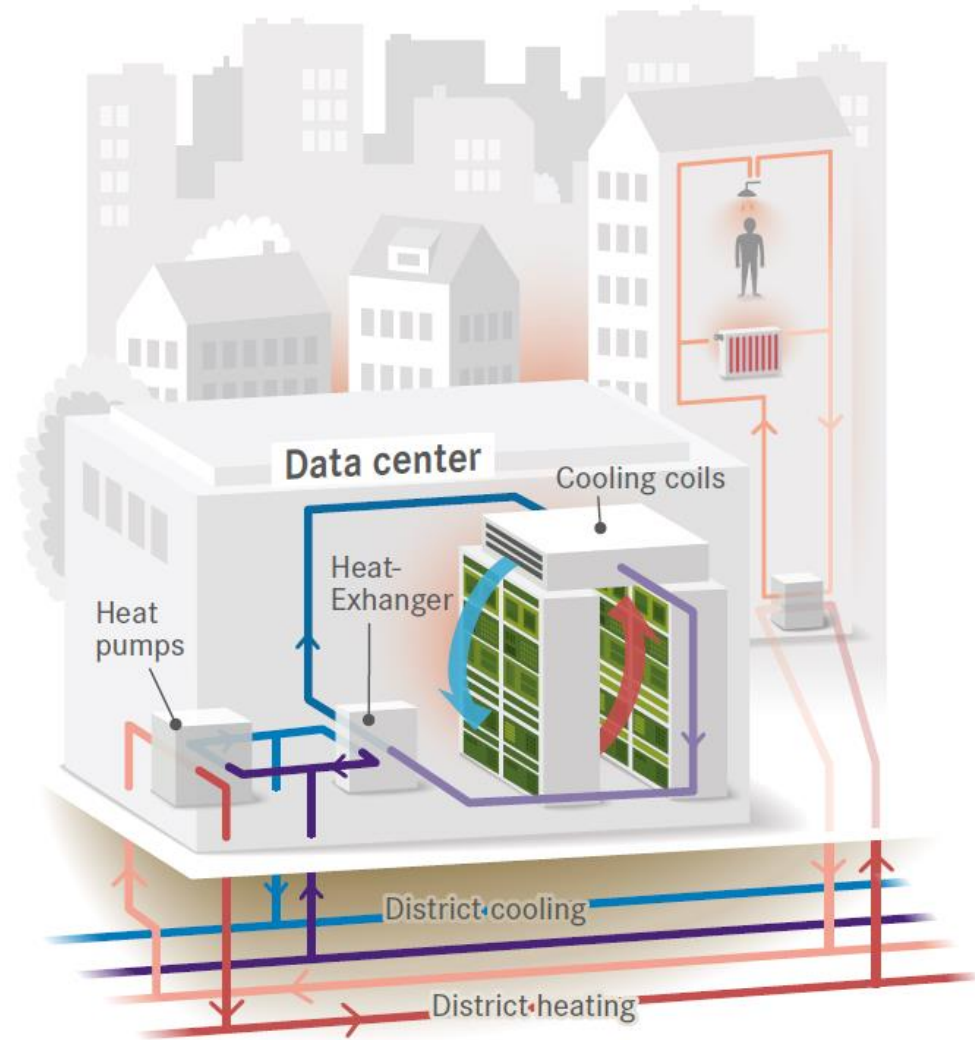
STOCKHOLM DATA PARKS GREEN COMPUTING REDEFINED





“The fact that we are based in Stockholm with its vast district heating and district cooling networks has opened for a new way of thinking about cooling, sustainability and solutions that are unbeatable financially, which translates to significant benefits for our data center customers.”

Gustaf Bergquist
CTO
Bahnhof



How can the city of Stockholm contribute to achieving the two-degree target?

- From 2,5 CO₂ eq/inhabitant to fossil fuel free
- Act to change regulations
- Forerunner and good example



THANK YOU !

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Stockholms
stad

2017-04-06