

Good Practice and Innovative Planning Instruments from Stockholm



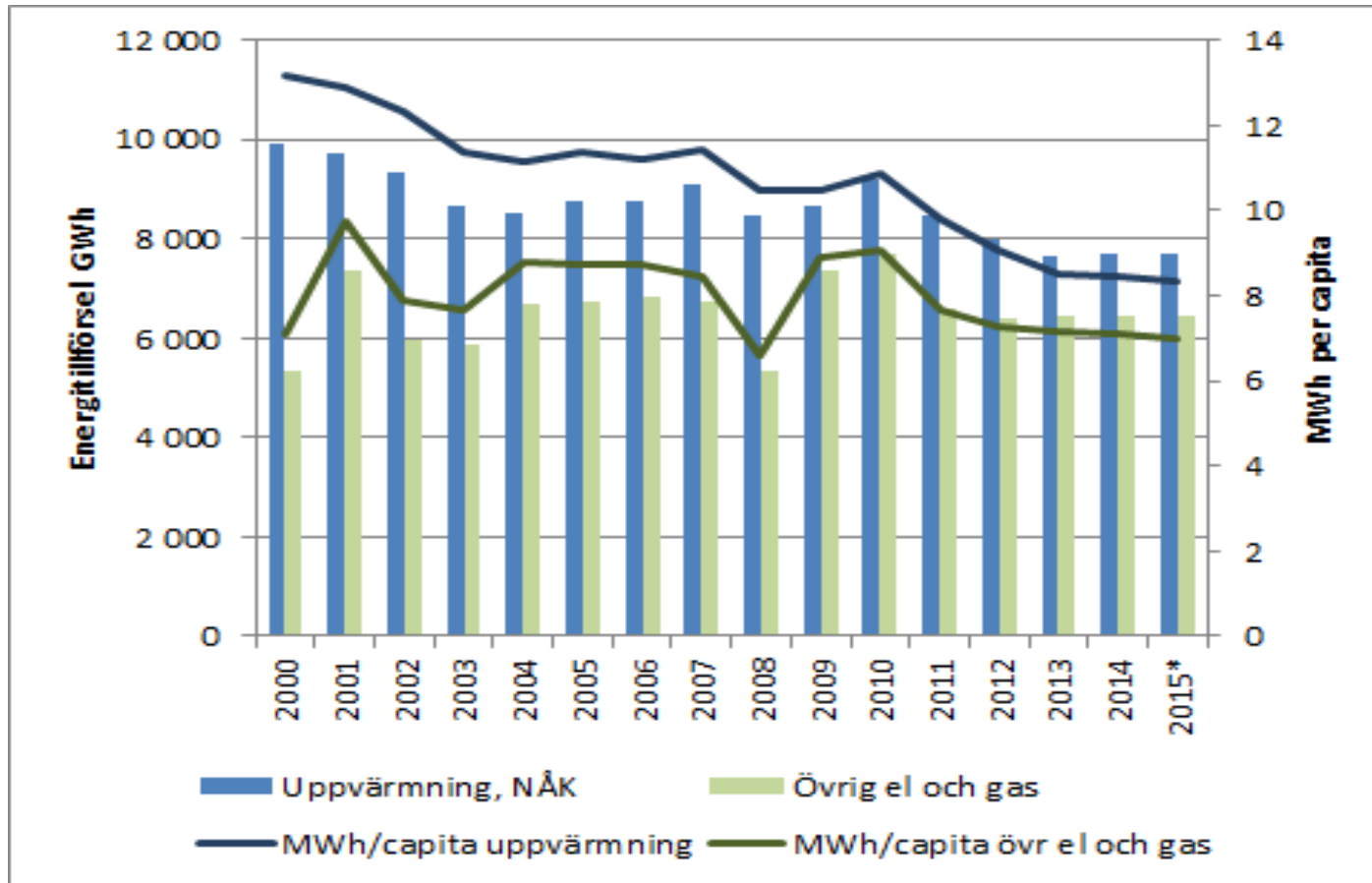
Örjan Lönngren



Stockholm – 936 000 citizens – 187 km² – 2460 citizens/km² at built area



Energy use in Stockholm



Heating and hot water Electricity and gas

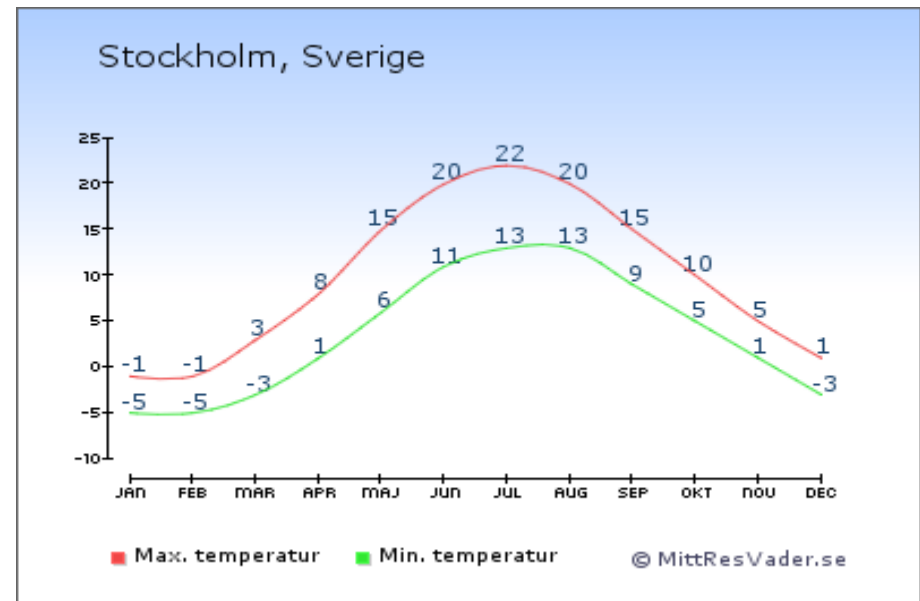
Average energy consumption in residential buildings

Heat 90 kWh/m²

Hot water 30 kWh/m²

Electricity to the building 20 kWh/m²

Electricity to households 30 kWh/m²



Strategy for fossil fuel free
Stockholm 2040



Environmental program for
Stockholm 2016 - 2019

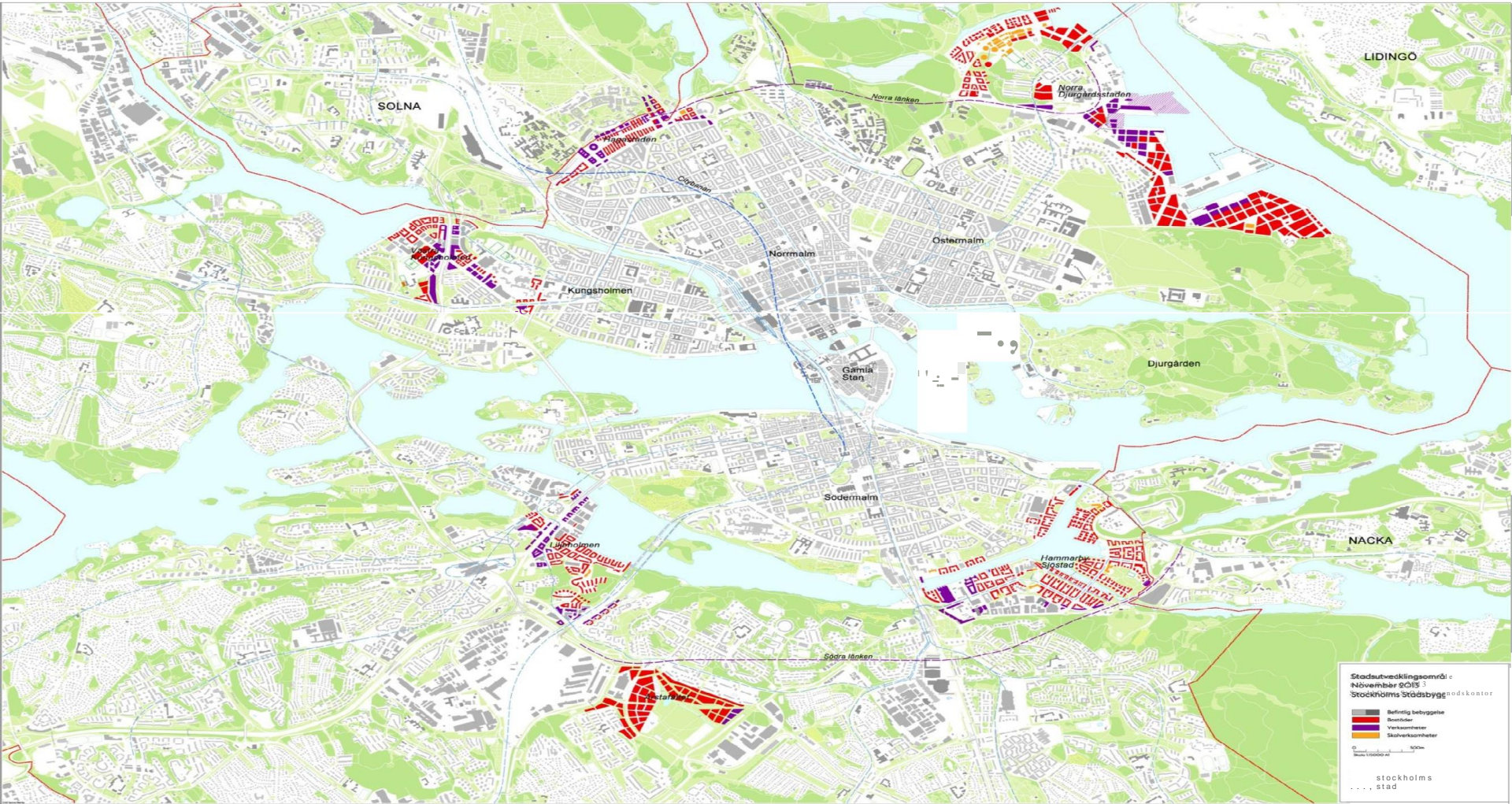


Budget for Stockholm 2017

Environmental program for Stockholm 2016 - 2019

- 2.3 tonnes maximum CO₂/cap. 2020
- Energy efficiency improvements in buildings owned by the city by at least 10% by 2020
- At least 30% energy efficiency in the case of major redevelopments in buildings owned by the city
- All new buildings in the city, on land the city owns - max 55 kWh/m²
(The city owns approximately 70% of the land)
- The city's electricity generation with solar panels will increase by 50% by 2020 (Electricity generated 2016 approximately 2 GWh)

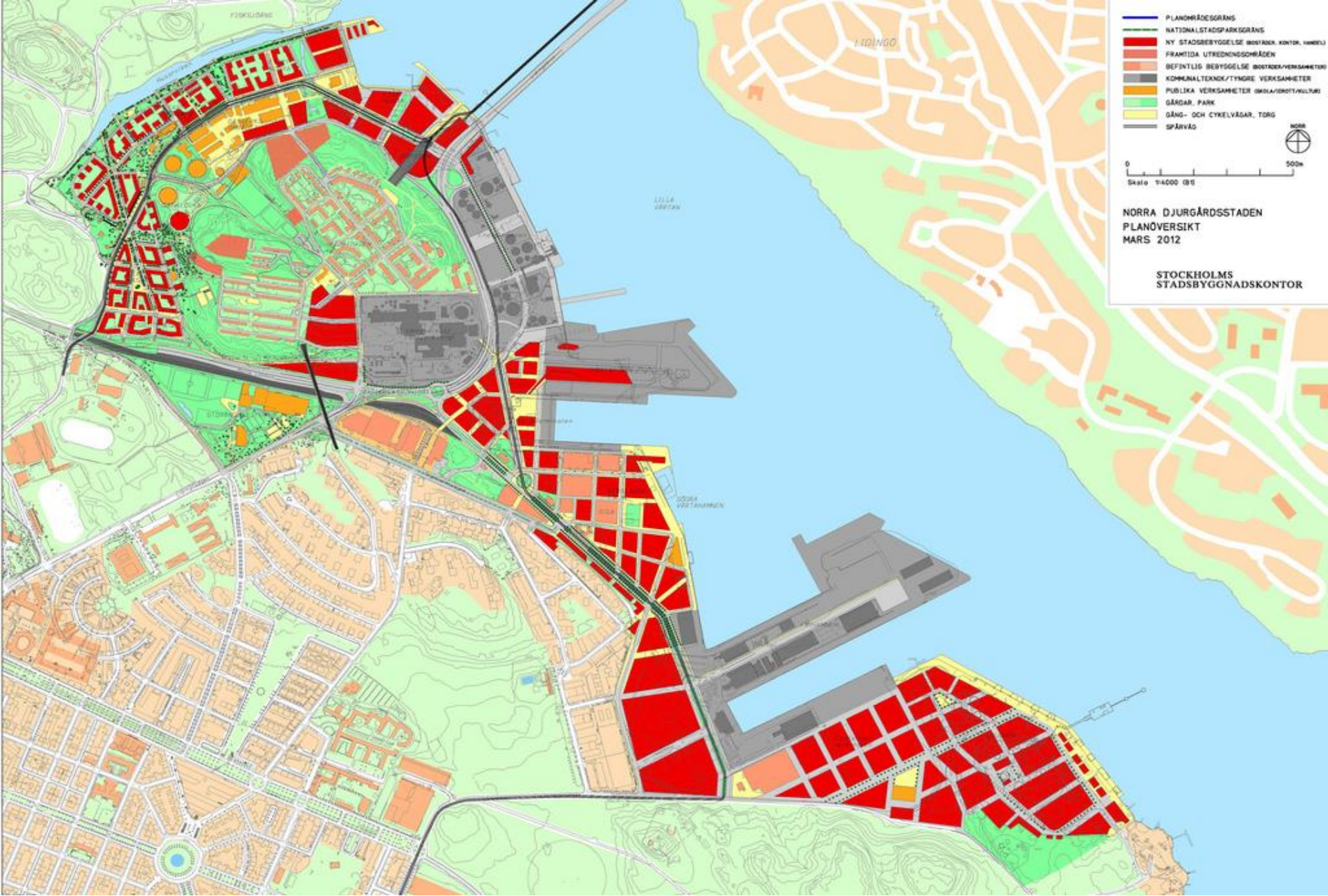
Construction areas



Royal Seaport is an area where we are testing in full scale







- PLANOMRÅDESGRÄNS
- NATIONALSTADSPARKSGRÄNS
- NY STADSBEBYGGELSE (BOSTÄDER, KONTOR, HVBETID)
- FRAMTIDA UTVECKLINGSGRÄDEN
- BEFINTLIG BEBYGGELSE (BOSTÄDER/VERKSAMHETER)
- KOMMUNALTEKNIK/TYNGRE VERKSAMHETER
- PUBLIKA VERKSAMHETER (SKOLA/DROTTNINGLIVET)
- GÄRDAR, PARK
- GÅNG- OCH CYKELVÄGAR, TORG
- SPÅRVÄG

0 500m
 Skala 1:4000 0/1

**NORRA DJURGÅRDSSTADEN
 PLANÖVERSIKT
 MARS 2012**

**STOCKHOLMS
 STADSBYGGNADSKONTOR**

Miljö- och hållbarhetskrav vid
markanvisningstävling i Brofästet

HANDLINGSPROGRAM

*Vid planering, projektering, byggande och förvaltning av
Bostäder, kontor och handel i kvarteret Brofästet*



NORRA STOCKHOLM ROYAL SEAPORT
DJURGÅRDSSTADEN

Februari 2014

Outdoor Environment
Energy
Recycling
Water and sewage
Transport
Building materials
Lifestyle
Business

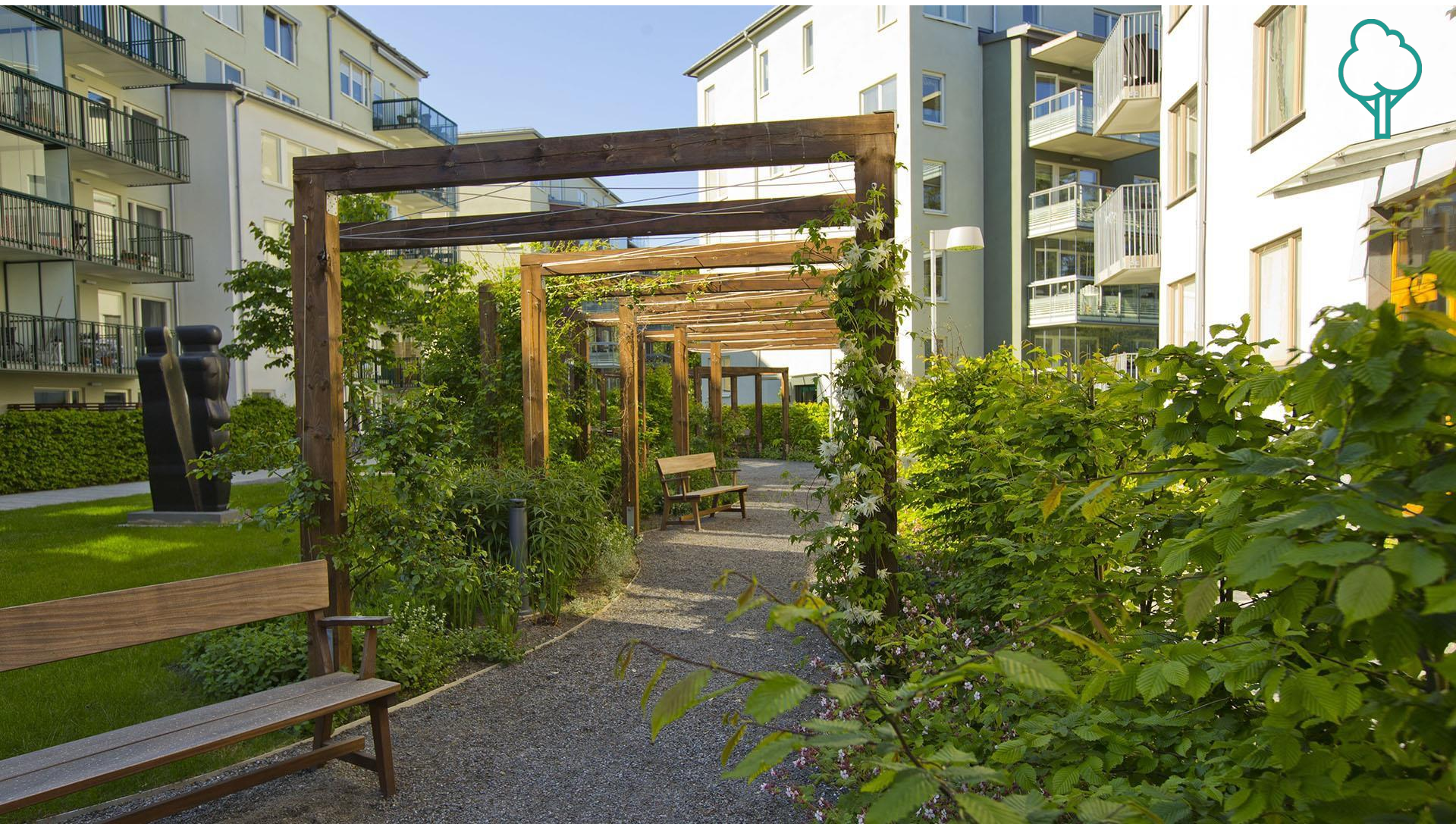
Energy from the sun



Waste sorting = Increased energy recovery - reduced car traffic



Greenery factor = passive coolness - takes care of rainwater



Reuse of existing buildings = less climate impact





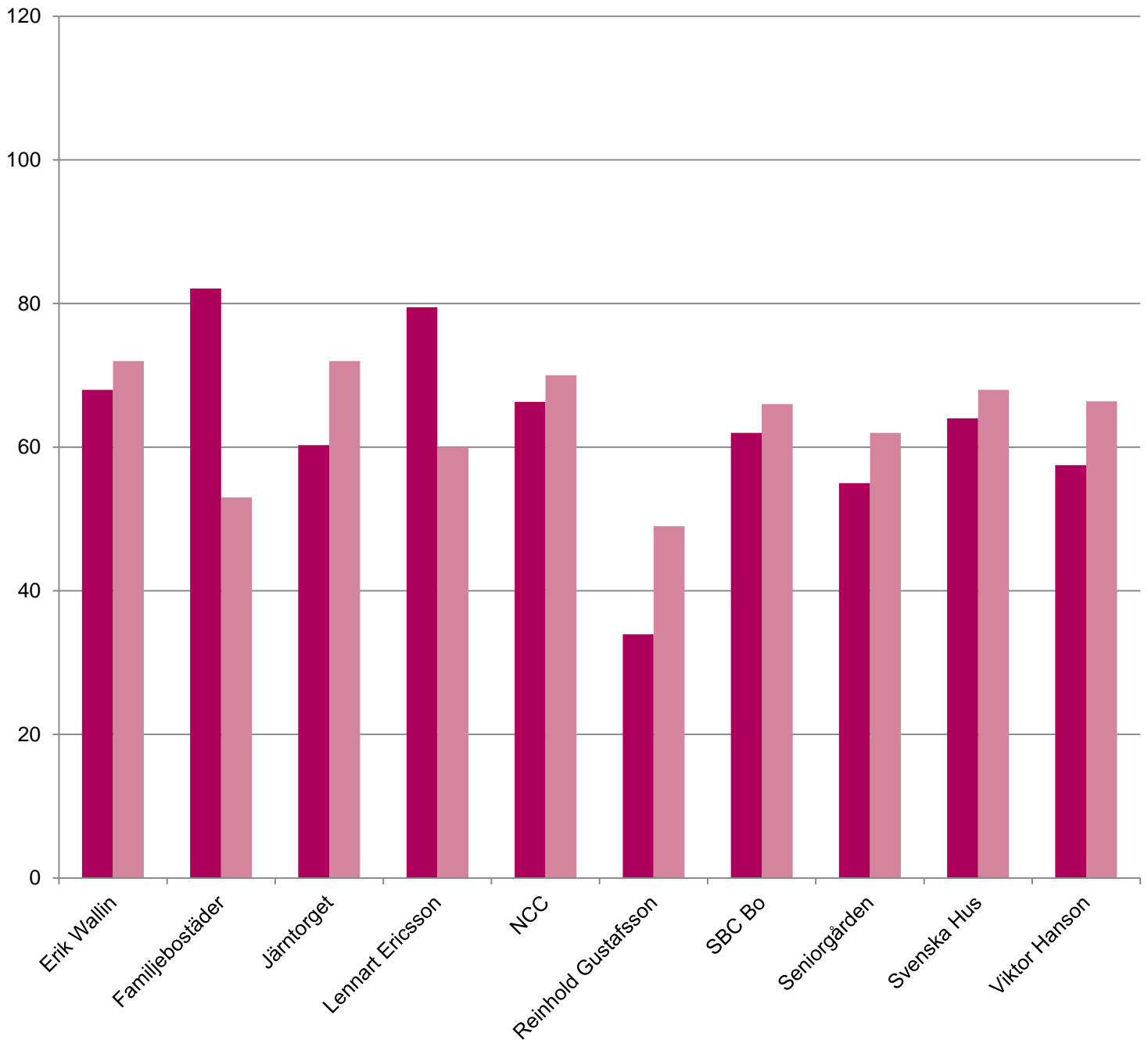


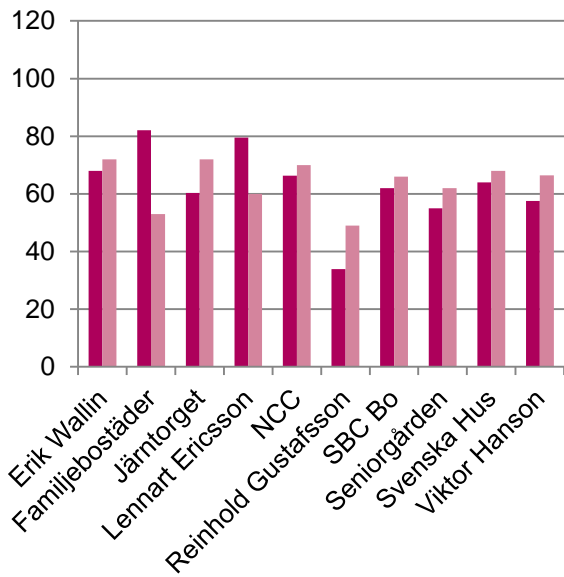
Follow-up every year and public publication



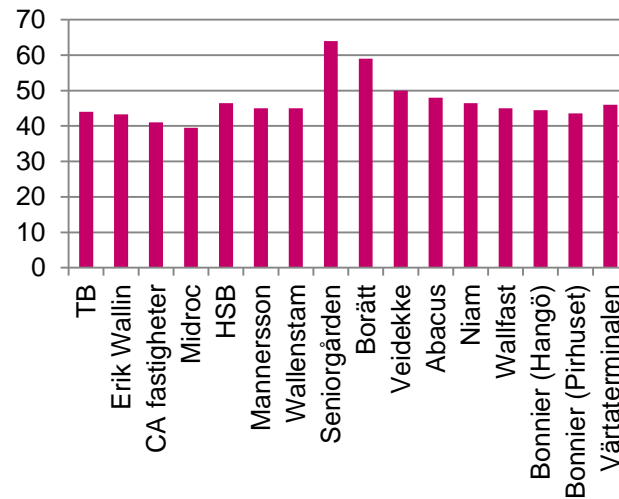
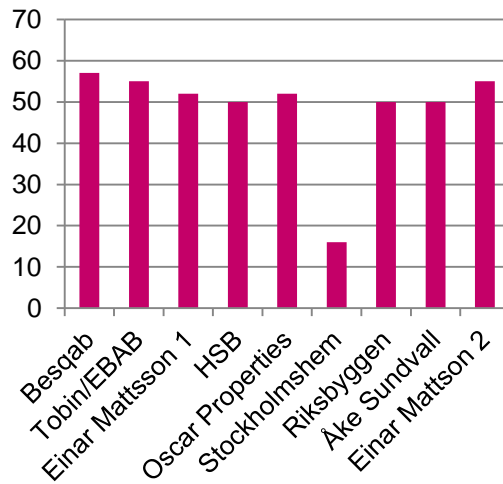
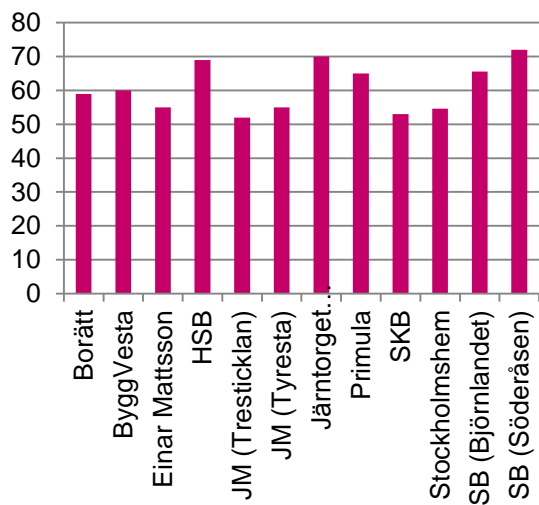
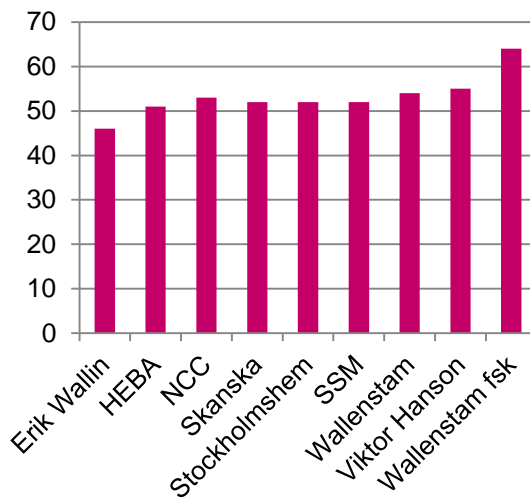
kWh/m²

Projected
resp. measured
values

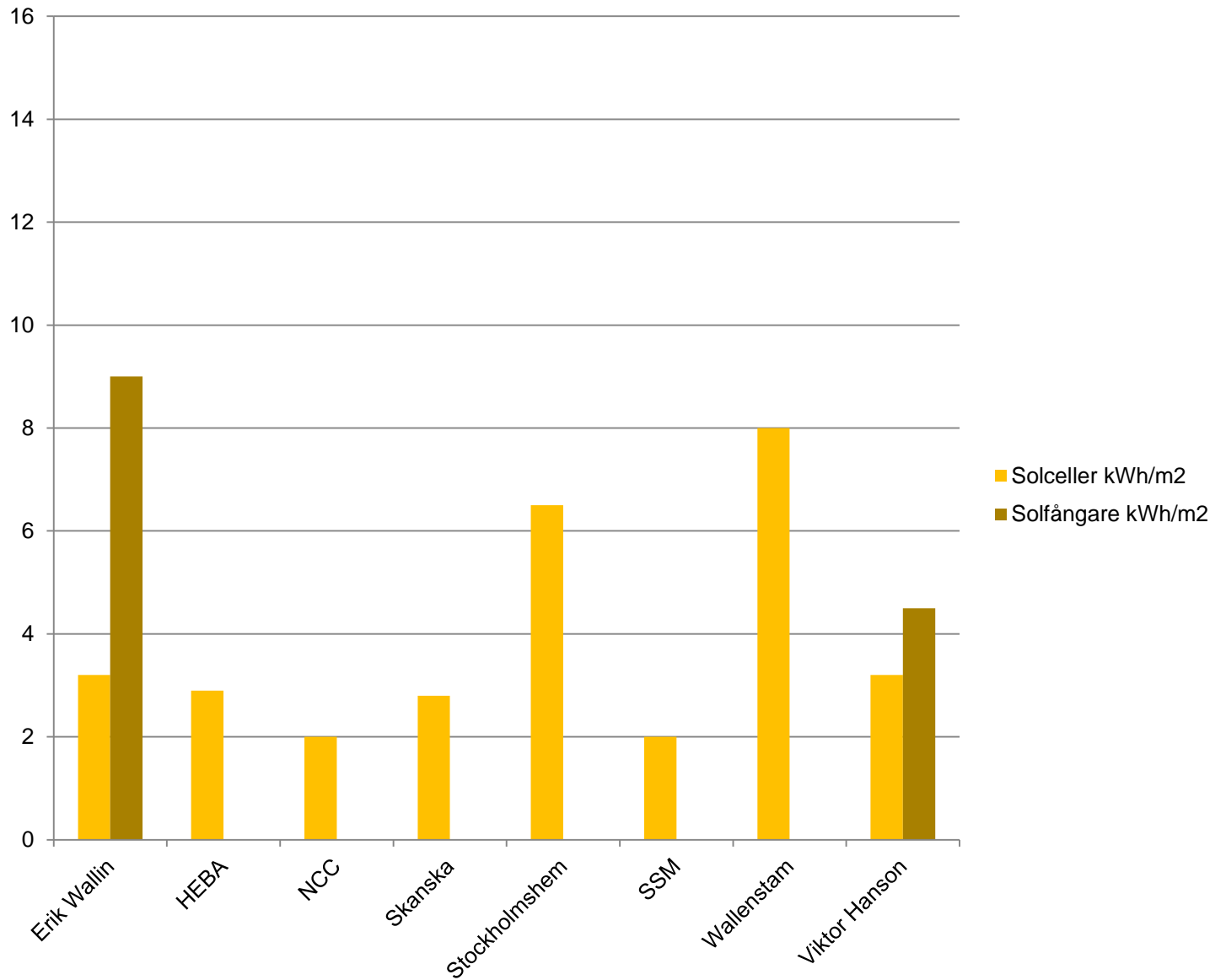




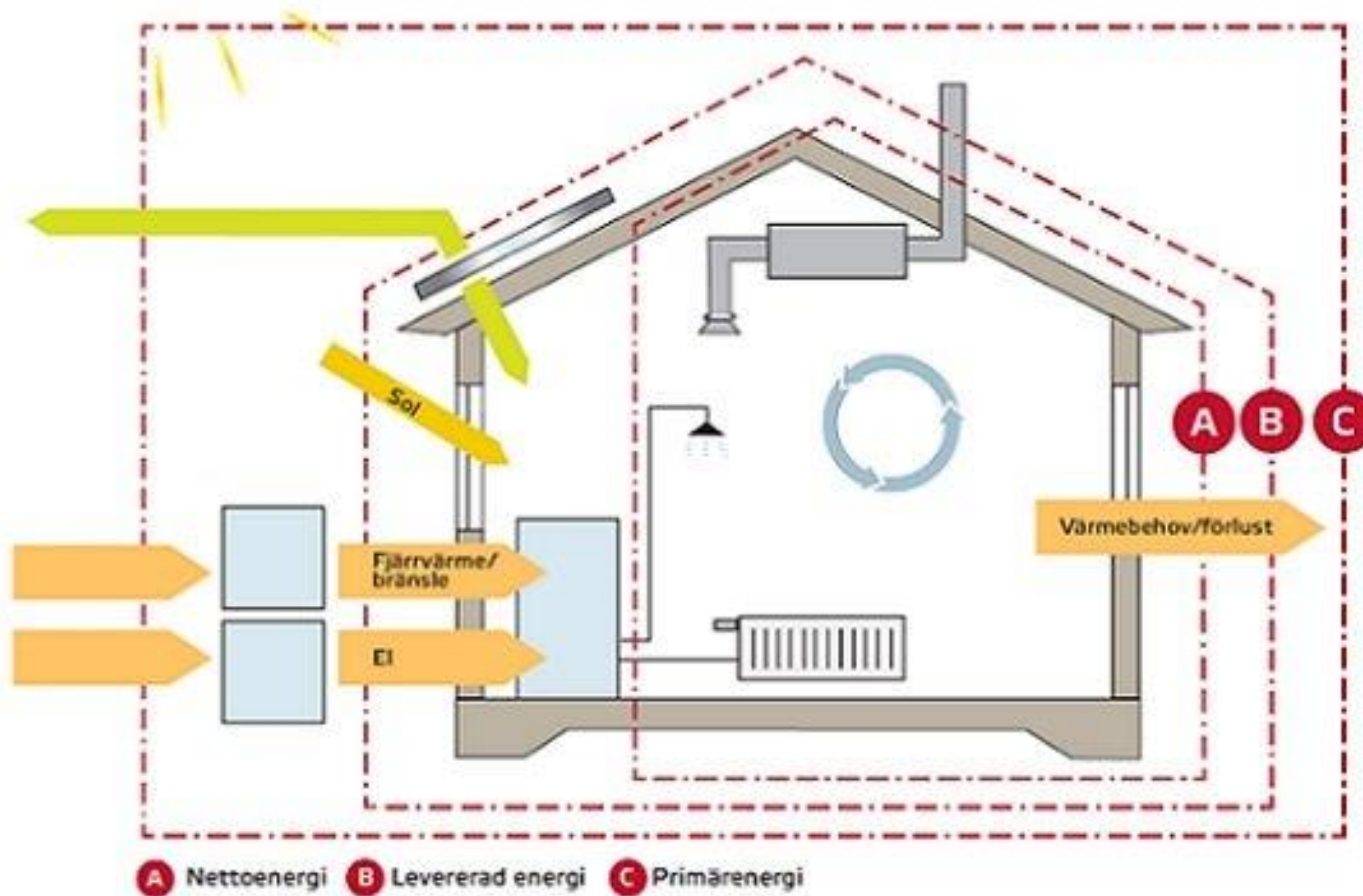
The buildings are becoming more energy efficient...



Energy from the sun



Net energy for most energy-efficient buildings



A = Net energy B = Delivered energy C = Primary energy

