

Stockholm

Mitigating climate change in the built environment



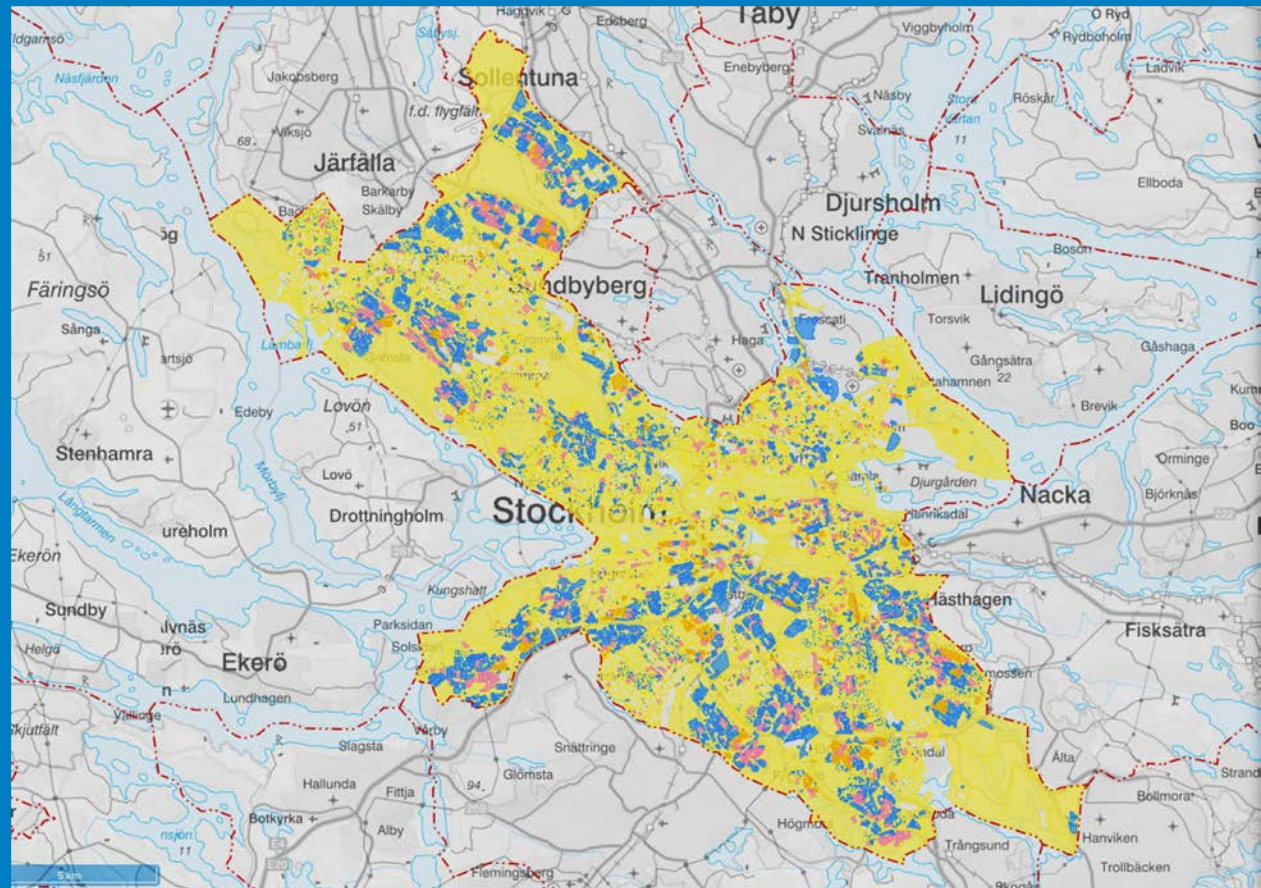
Examples

- Requirements on city owned land
- Certification
- Retrofitting and renovation
- LCA-analysis and embedded carbon in building materials
- Wooden buildings



Requirements on city owned land

- Energy 55kwh/m2
- Chemical substances
- Green area factor
- Green parking index

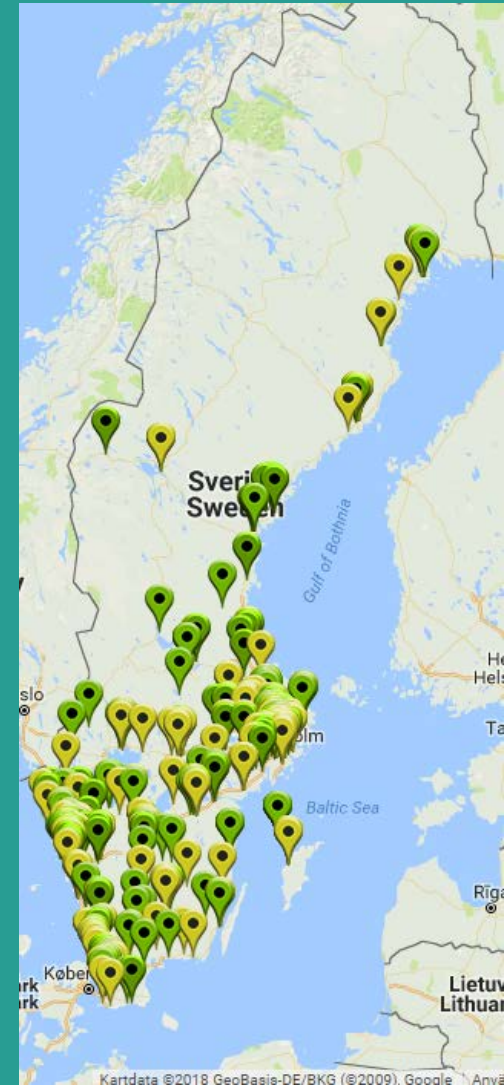


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Certification of buildings



	Green-Building	Miljö-byggnad	BREEAM	LEED
Energy	X	X	X	X
Indoor environment		X	X	X
Materials		X	X	X
Water			X	X
Ecology			X	X
Transport			X	X
Pollution			X	X
Waste			X	X
Management			X	X

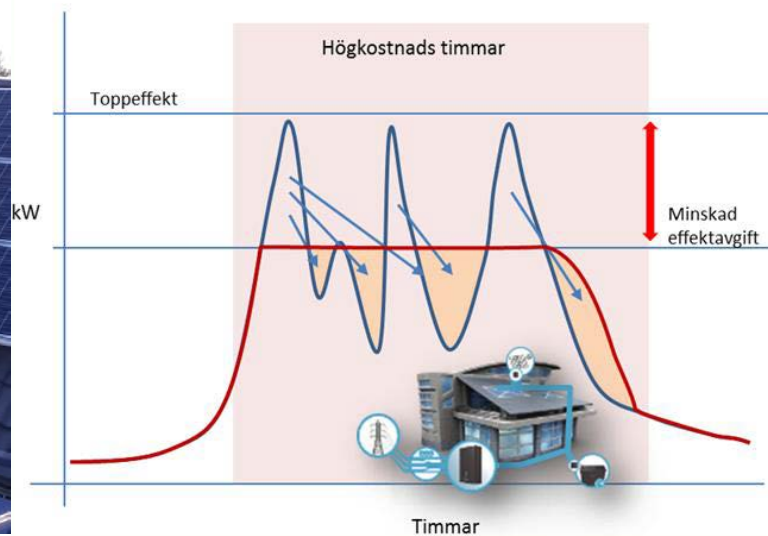


GrowSmarter demonstrated 12 smart solutions!



LOW ENERGY DISTRICTS

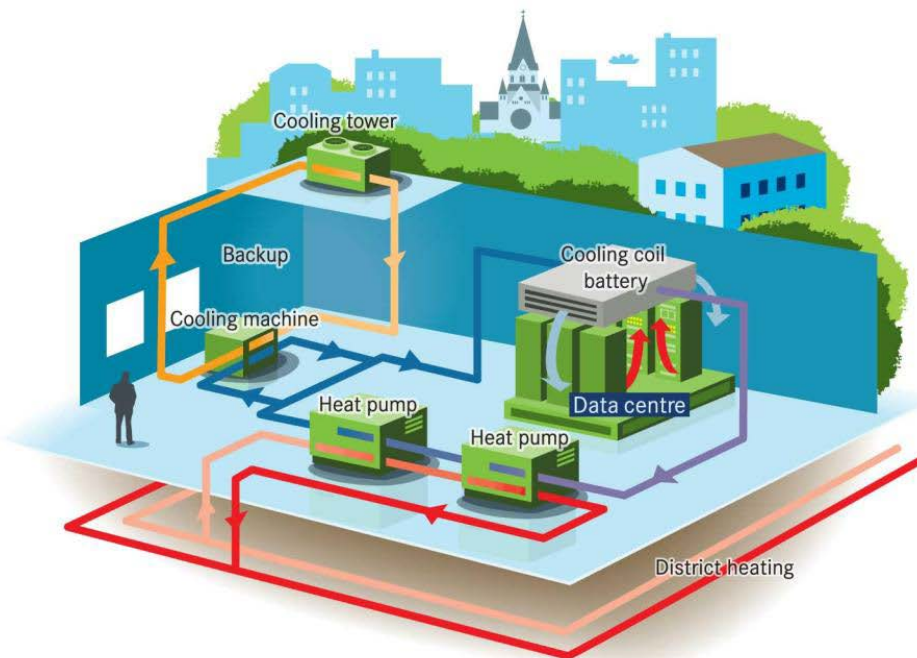
- Renovated 130.000 m2 with -76%
- Smart energy-saving tenants -15%
- Smart local electricity management issues to be solved for V2G, taxation of solar power



INTEGRATED INFRASTRUCTURES



- Smart street lighting -31%
- New business models for district heating & cooling
- Smart waste collection residual waste -66% traffic -90%
- Big data management as enabler for other needs



SUSTAINABLE URBAN MOBILITY

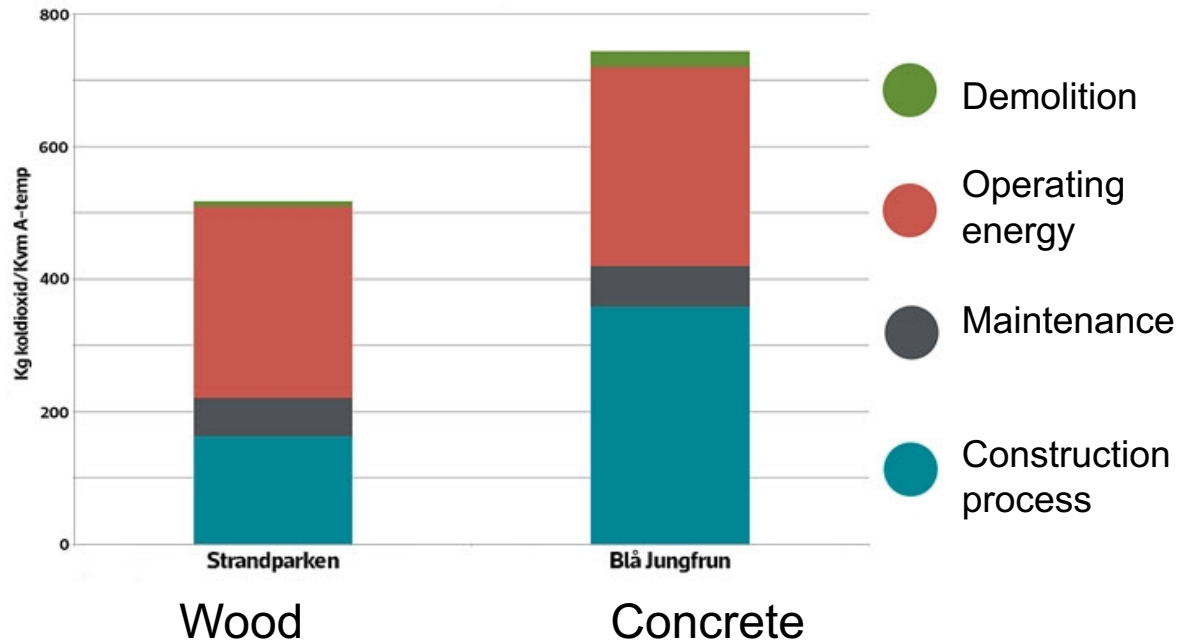
- Sustainable delivery with e-cargo bikes -90%
- Construction consolidation centre -49% CO2 emission
- Smart traffic management
- Alternative fuel driven vehicles
- Smart mobility solutions



GROWSMARTER : TRANSFORMING CITIES FOR A SMART, SUSTAINABLE EUROPE STOCKHOLM DEN



Wooden or concrete building?

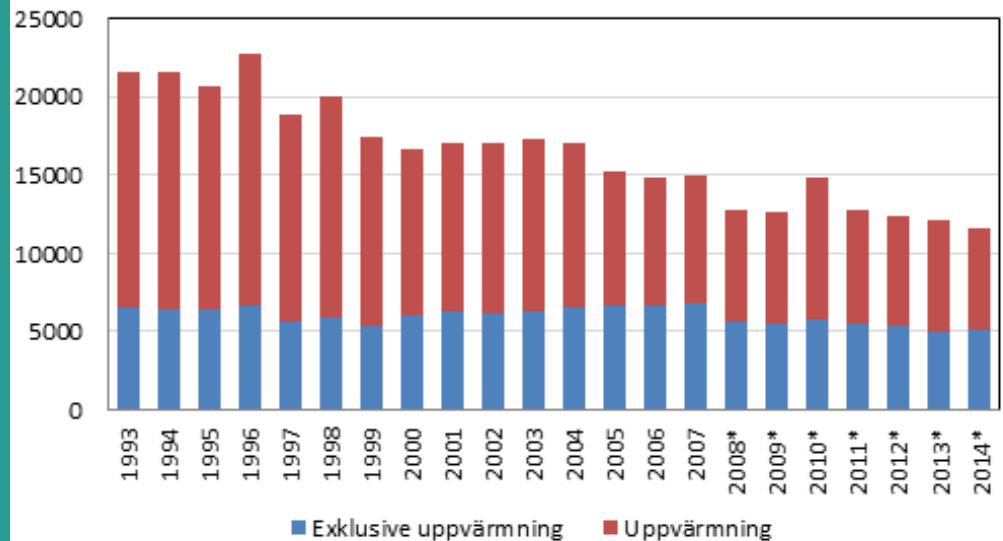


New tool for LCA calculation of buildings

- For buildings and constructions
- Now being implemented in new developments
- Next step: setting goals



Tusen ton CO₂e



Thank you!
Tack!
Merci!



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