Hammarby Sjöstad/ - unique environmental project in Stockholm

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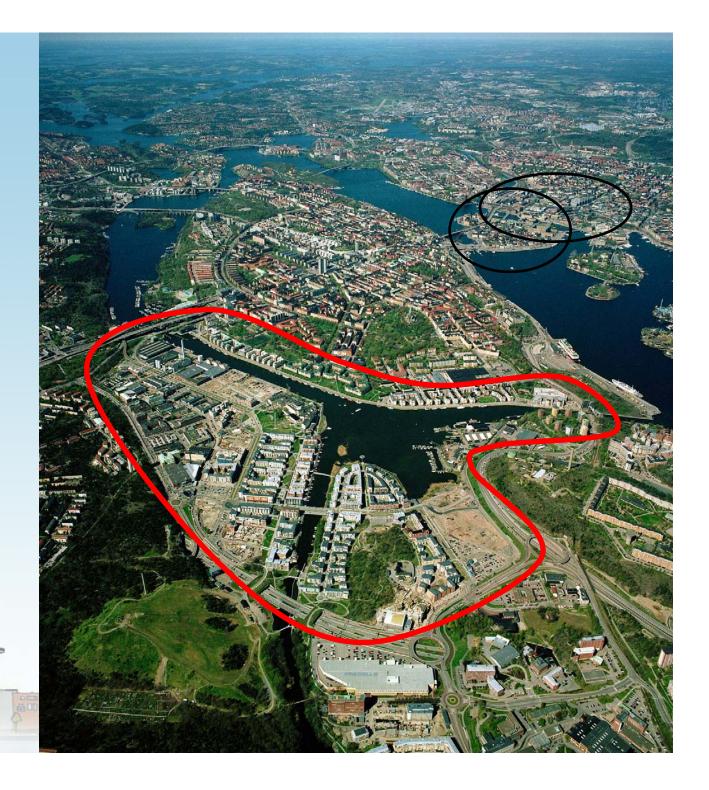
The Environmental Information Centre for Hammarby Sjöstad

October 2009





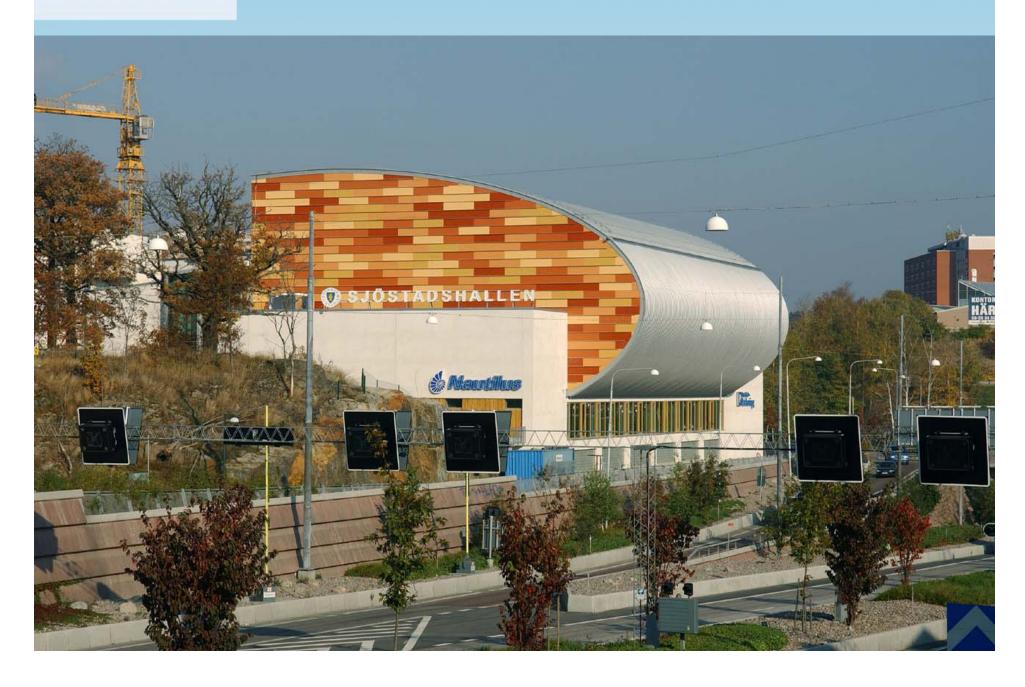


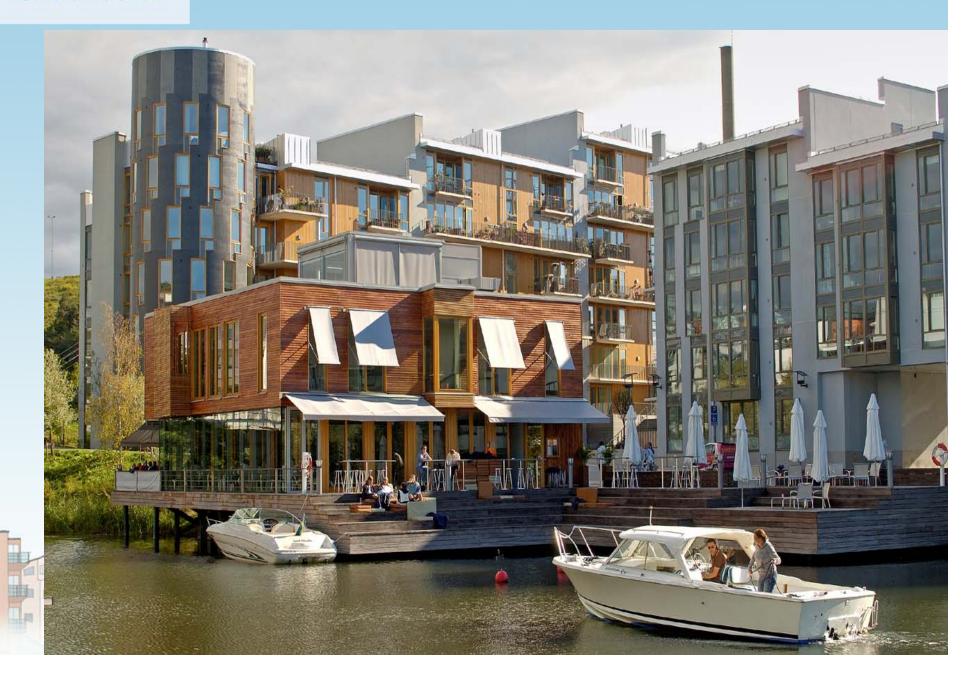


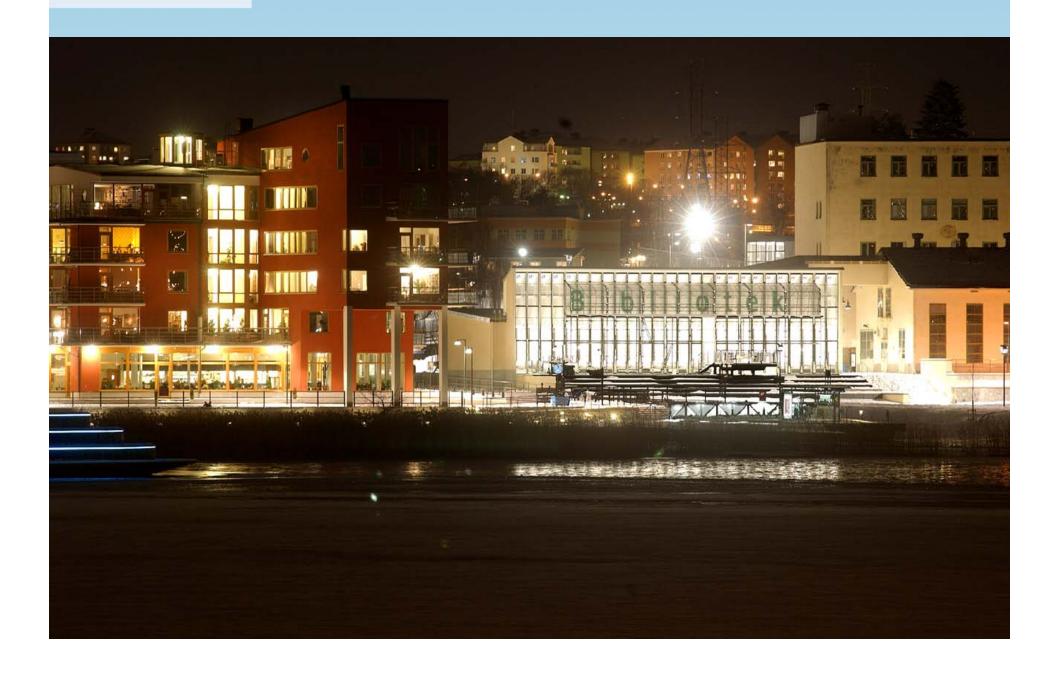


















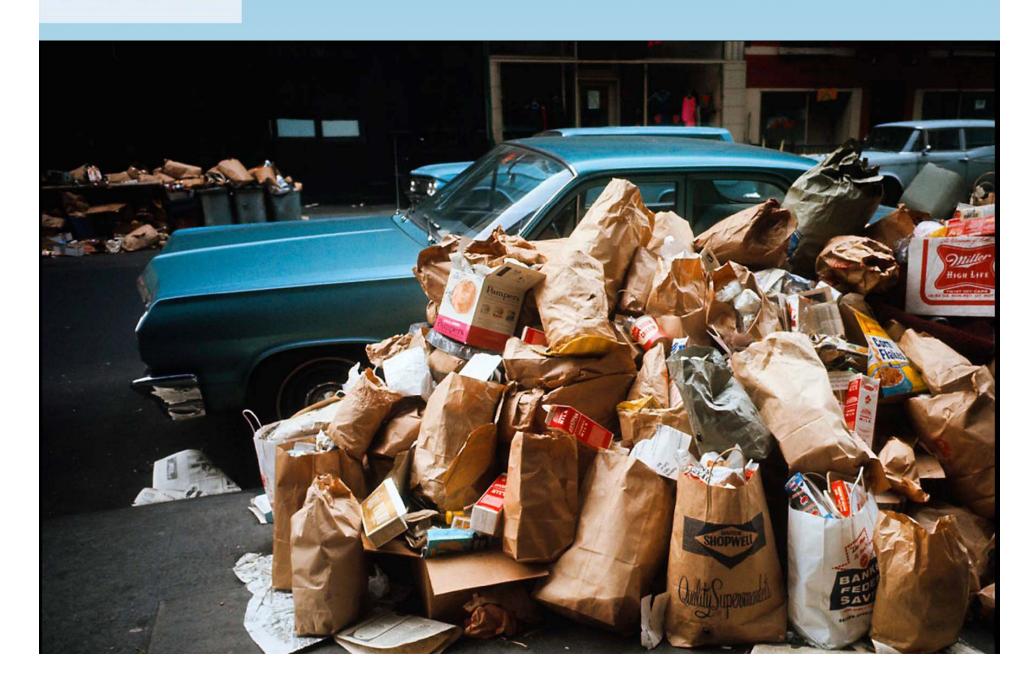


.. a modern sustainable city area.



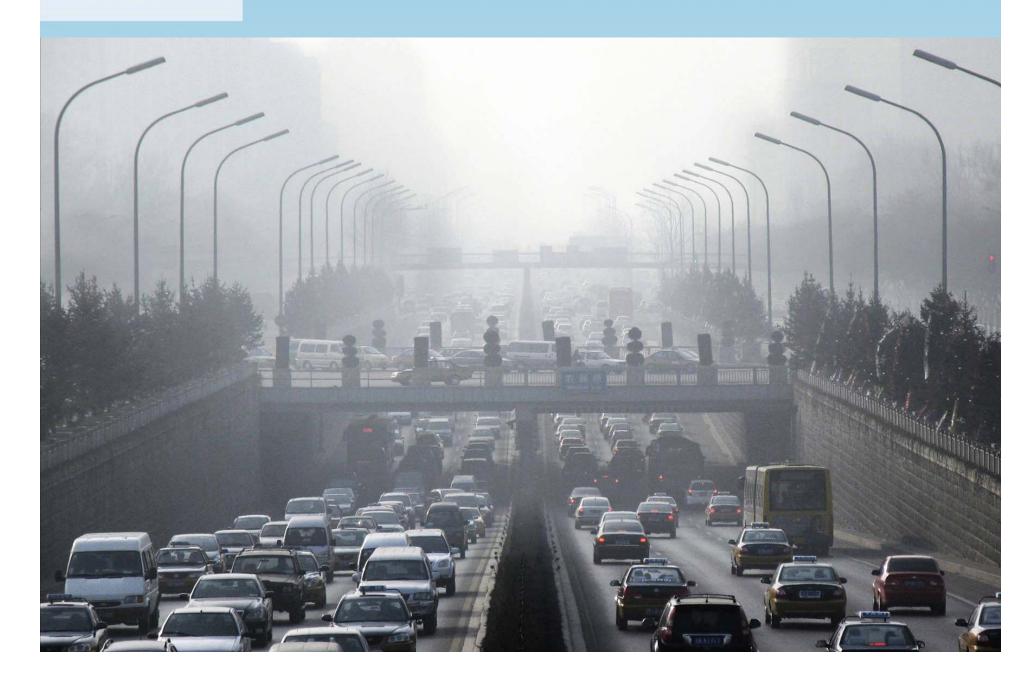




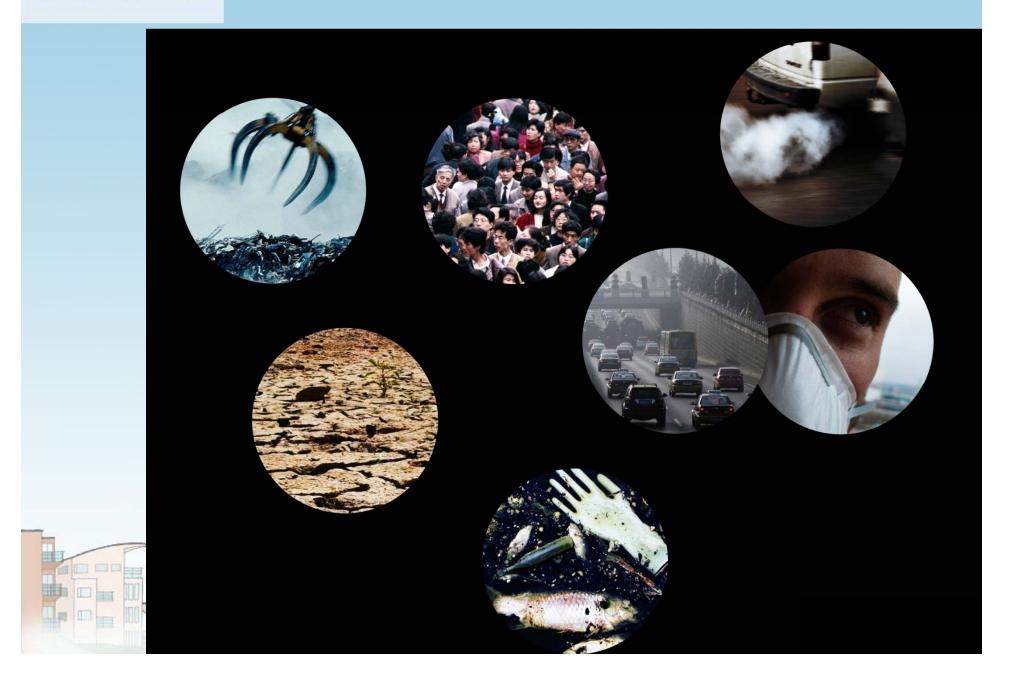






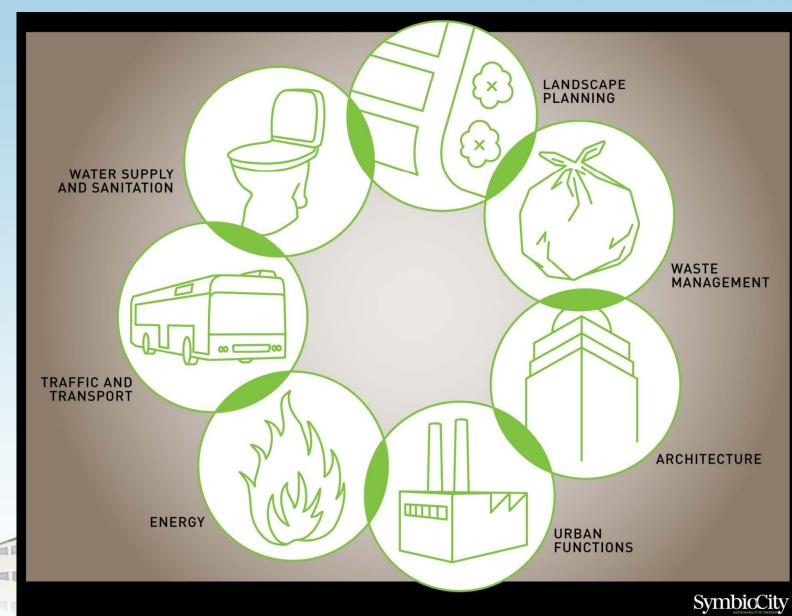


Symbolic City Sustainability by sweden





GlashusEtt **Synergies**





The Olympic project 2004

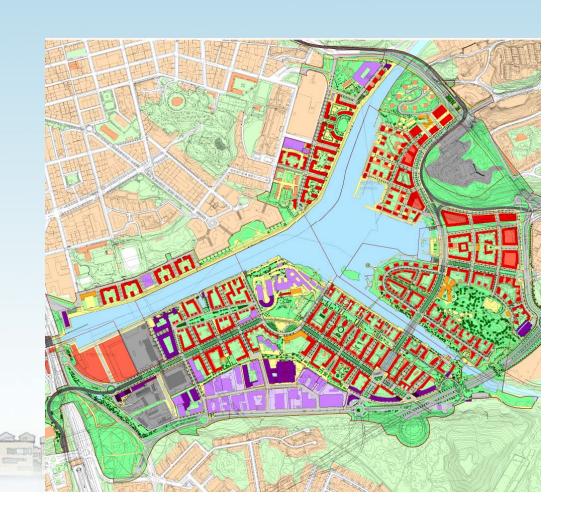


Environmental programme

Lower the total environmental impact by half

Environmental programme

- land use
- soil pollution
- energy
- water and sewage
- garbage
- building material
- transportation
- noise
- green areas



Size: 204 ha (171 ha land)

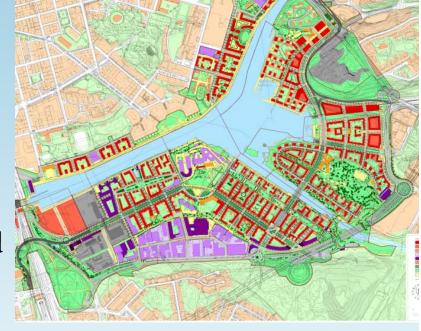


Costs: €4,5 billion

Investment from the City net: €0.2 billion

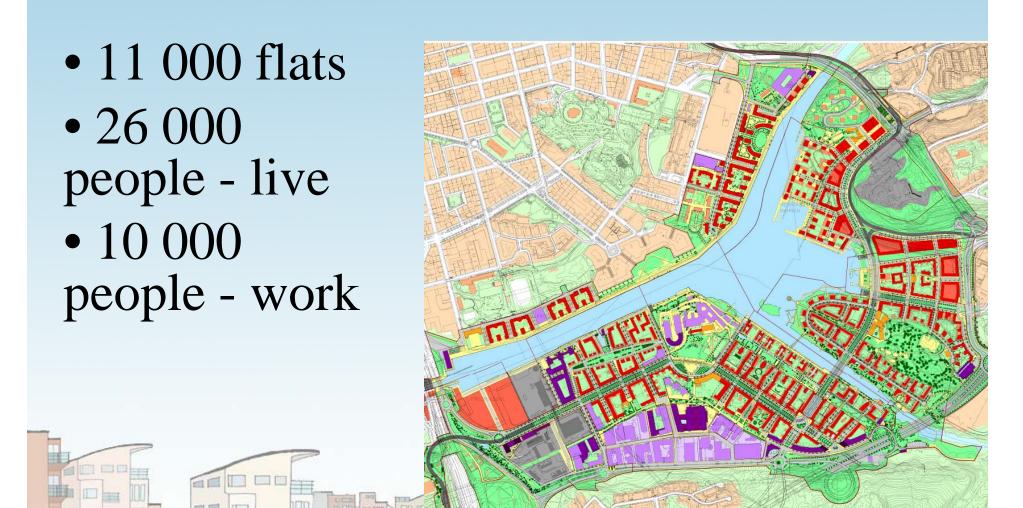
The City of Stockholm had owned almost all land

The land is sold or leased to the developers

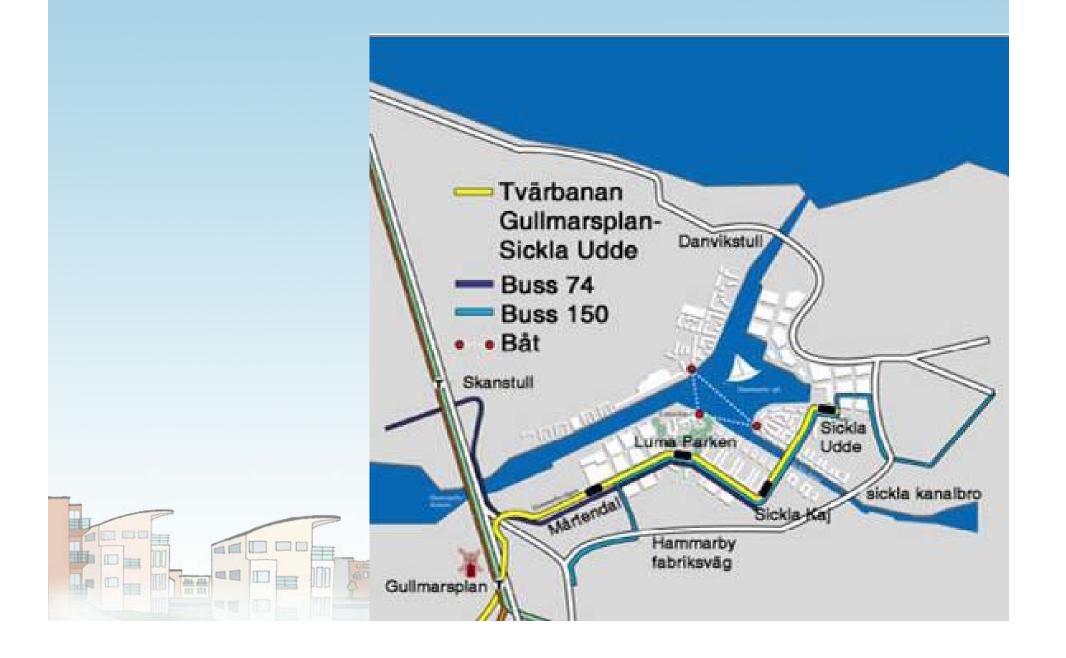


Cooperation between the City Planning Dept and the developers architects.

Hammarby Sjöstad



Local traffic



Local traffic – Tram







Carpool









Environmental index for personal transport to work

• ~ 79 % walk, cycle or use the local transportation system run by the Stockholm Local Traffic Company

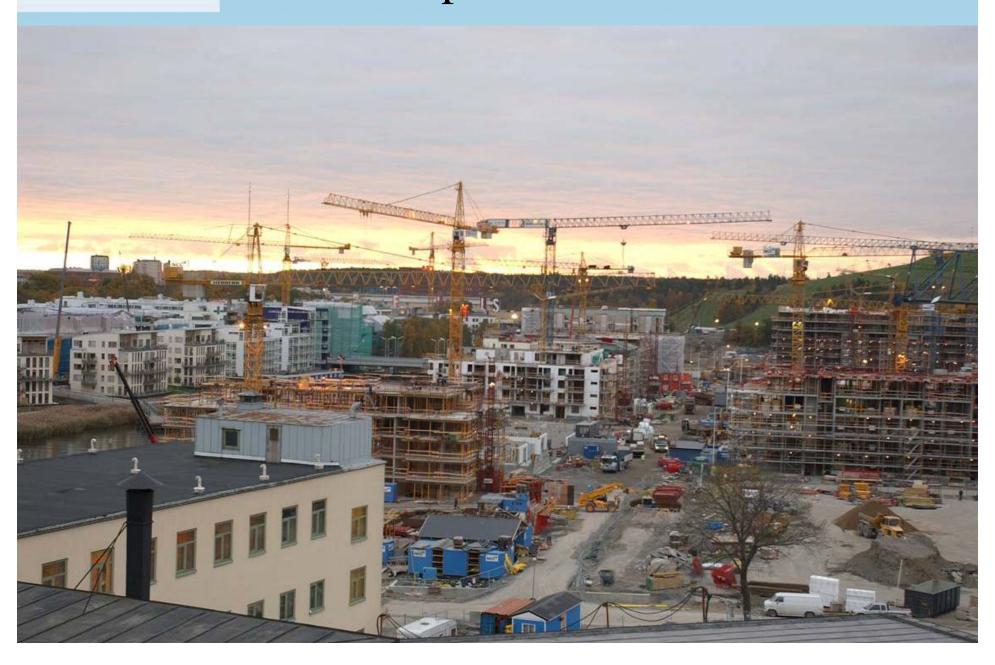
 Decreased usage of the car for travel to work

~ 40 %





Developers – builders



Developer - Energy class





Energi	12
Leverantör Modell	(logo) Fabrikat Modell
Låg förbrukning	
Α	\mathbf{A}
В	
C	
D	
E	
F	
G	
Hög förbrukning	
Energiförbrukning kWh/år (Baserad på resultat från standardiserade	330
provningar under 24 timmar) Verklig förbrukning beror på hur apparaten	
anvands och var den är placerad.	
Volym kyl I	183
Volym frys I	101

Buller	42
dB(A)	
dD(A)	

ytterligare information.

Direktiv om märkning av kyl/frys 94/2/EG

Developer

Extra cost to the total budget

2 - 4 %



Stefan Sjödin, Fortum

The Hammarby modell



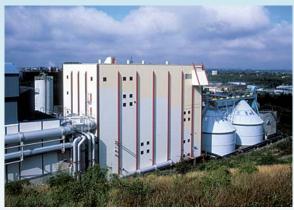
Energy



District heating



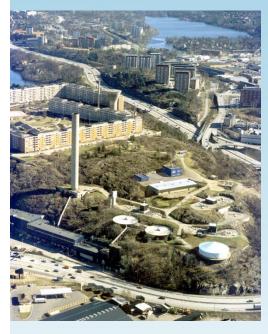
Combustible waste is incinerated



District heating, hot tap water and electricity



District heating



Heat from the purified waste water



District heating,
hot tap water
and district cooling



Solar Energy

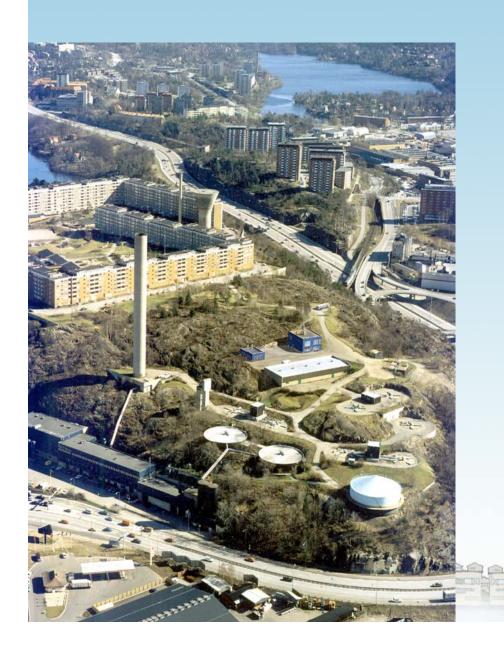
Solar cells





Solar panels

Biogas



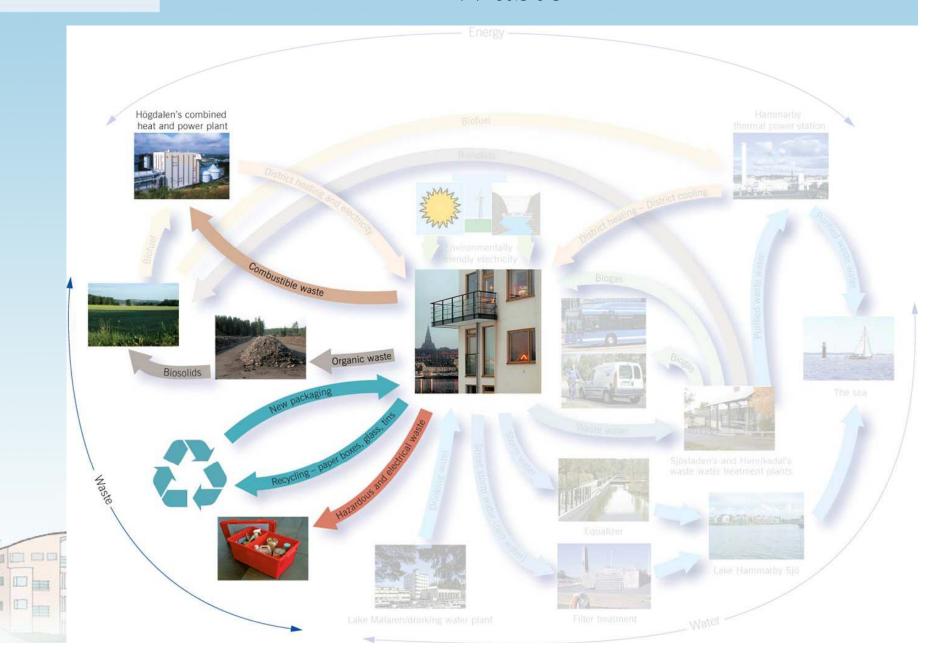




Biogas busses/cars



Waste



Stationary vacuum system for solid waste



Water



Water consumption

200 l/p/day

100 l/p/day

Today 150 l/p/d



Consulting firms:







Developers:



















75 % of all targets built in the buildings and the infrastructure



GlashusEtt

The environmental information centre



Glashus Ett Hammarbysjostad.se - Homepage



Achievement

• Aim: Lower by half

• Result: 30 – 40%

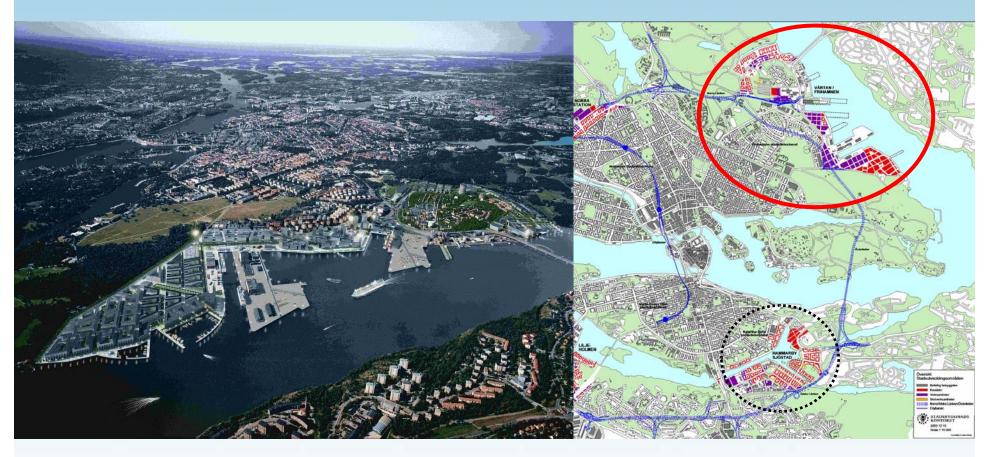


Use the experience from Hammarby Sjöstad





Norra Djurgårdsstaden – The Stockholm Royal Sea Port





Norra Djurgårdsstaden – The Stockholm Royal Sea Port

Over all objective:

- År 2030 är Norra Djurgårdss. fossil free
- År 2020 under 1,5 ton per person
- A Climate adopted area



Lövholmen





Husby – a suburb north of the Inner City9 000 apartments built in the 1960'sin the suburbs of Stockholm

- Improving energy efficiency
 - From 158 to 30 64 kwh/m2/year
- Energy system and supply
 - Photoelectric panels
 - Better use of district heating
 - Reducing the need for bought energy
 - Garbage disposals for biogas production







Congestion tax



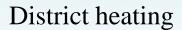
SL – Public transport

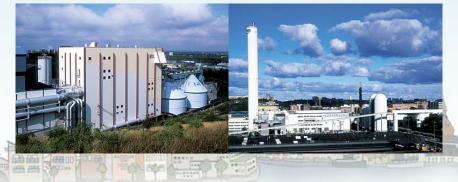


Parks









Glashus Ett The key to Hammarby Sjöstad's

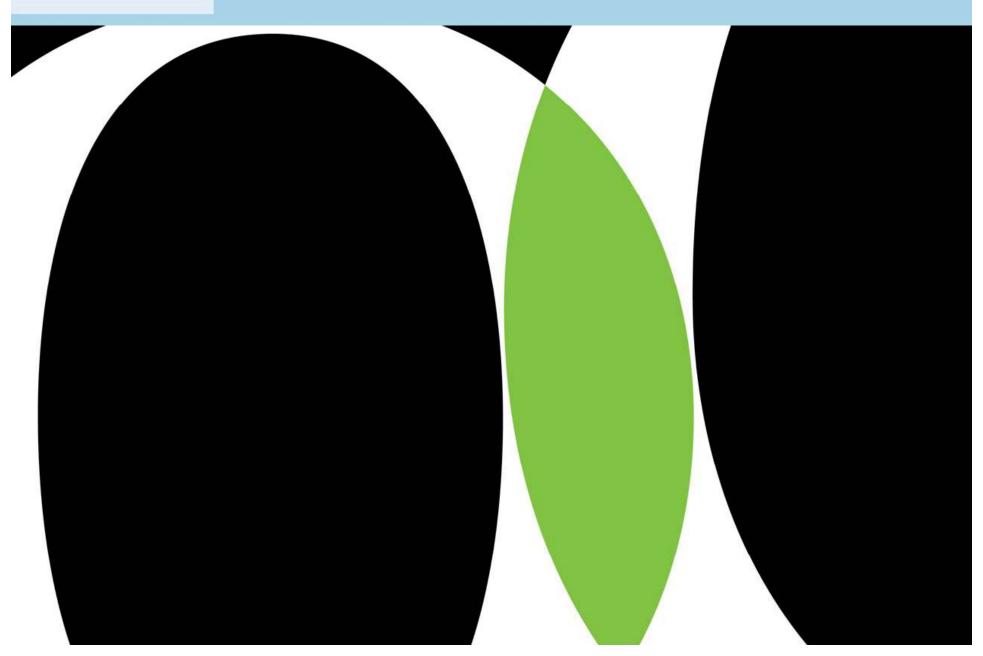
success -



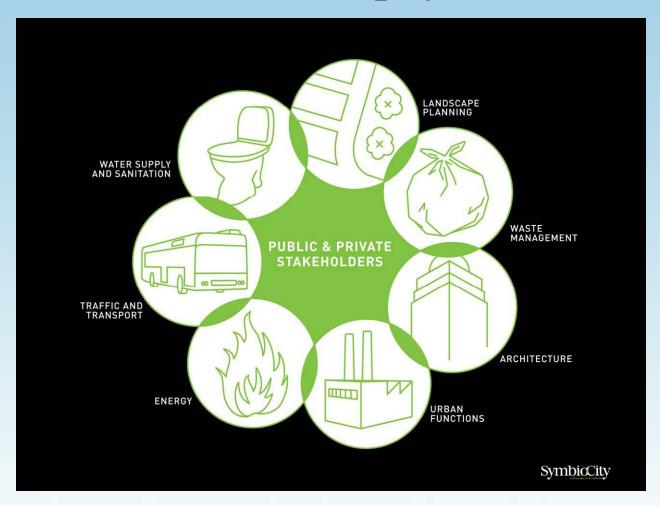
- Integrated planning



Symbiocity

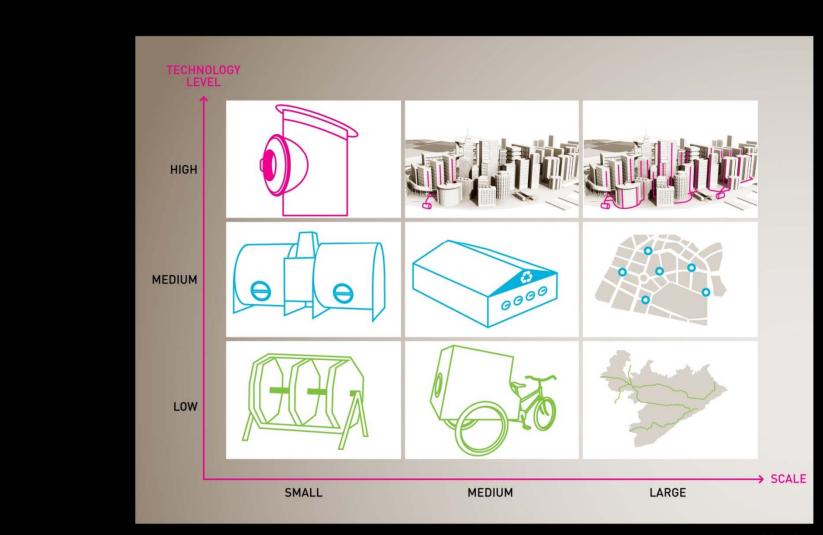


Philosophy

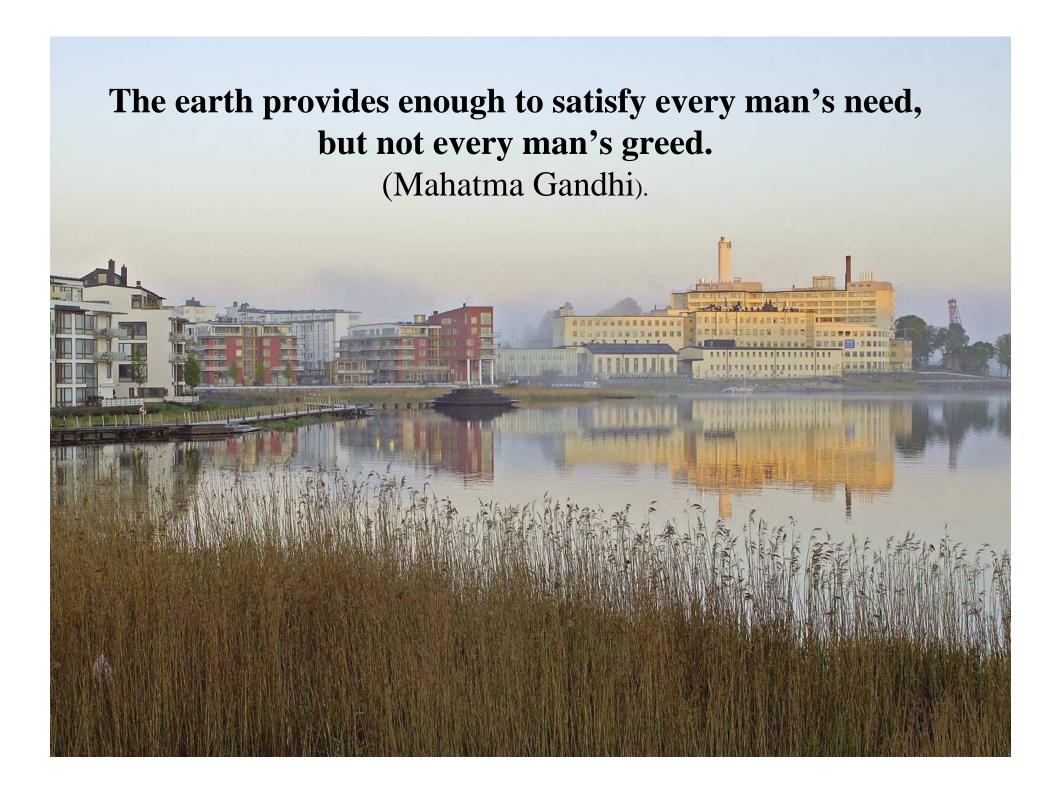




Solutions



SymbioCity



Tack så

mycket!

(Thank you!)

