

Sustainable Cities of the Future Stockholm Royal Seaport

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Norra Djurgårdsstaden: Stockholm Royal Seaport



#royalseaport



Stockholms
stad



Sustainable Urban Development Programme

Stockholm Royal Seaport is leading the way to a sustainable future



Model for sustainable urban planning

Testing ground to apply BAT and best processes

Up-scaling

VIBRANT CITY

55 % rental apartments, 45 % condominiums

12 % (30 %) commercial space

33 m² public open space/apartment



ACCESSIBILITY AND PROXIMITY

2,2 bicycle parkings/apartment

10 % carpool parkings in public space

5 minutes to daily services

3 buslines + **subway** in the area

With current requirements the reduction of CO₂ emissions is approximately

- **50 %** compared to Stockholm standard.



RESPONSIBILITY FOR CLIMATE AND RESOURCES

ENERGY-EFFICIENCY

Energy performance

- **40 %** compared to national building code

PV (solar cells) production **1 GWh/yr**

With current requirements the reduction of CO₂ emissions is approximately

- **70 %** compared to Stockholm standard.



RESPONSIBILITY FOR CLIMATE AND RESOURCES MATERIAL & WASTE MANAGEMENT

22 % of the area has been remediated,
40 % of excavated material has been reused

Residual waste **215** kg/apartment/yr

44 % of households have improved their waste-separation habits



PARTICIPATION AND CONSULTATION

1,700 participants in the Sustainable Kids' Forum

5,500 workers attended sustainability training

27,000 visitors from more than 60 countries



LET NATURE DO THE WORK

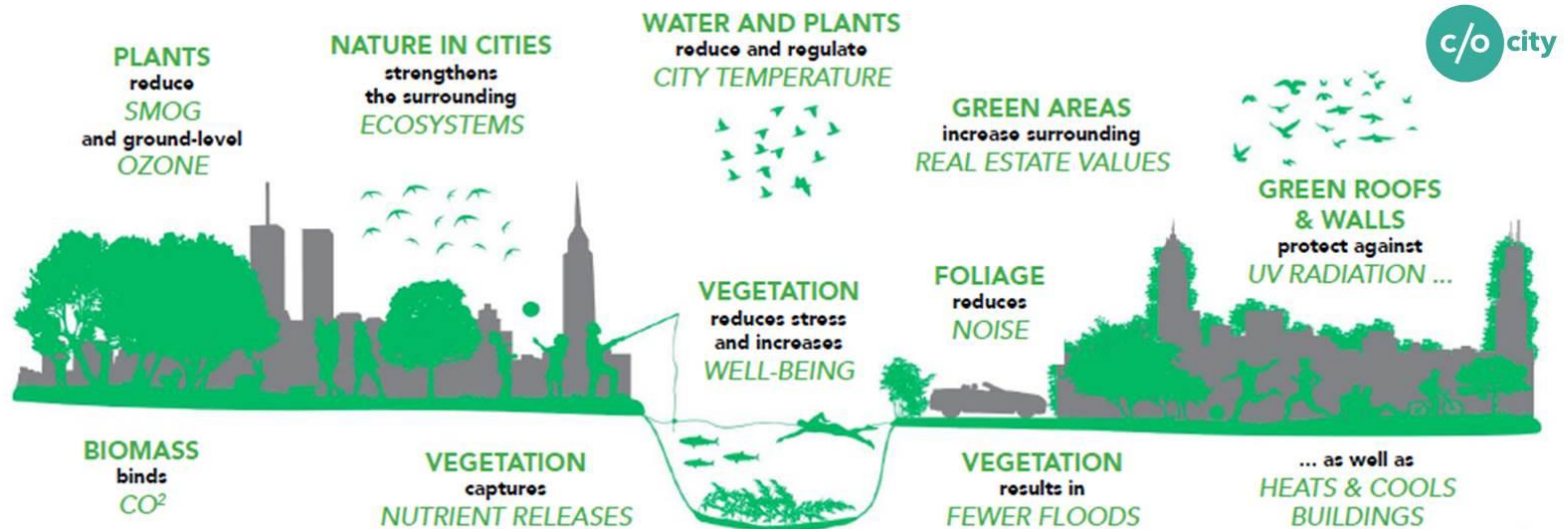
- Stormwater as a recourse
- Strengthened ecosystems
- Social functions



- Green Space Index



LET NATURE DO THE WORK



(Illustration: C/O City)

LET NATURE DO THE WORK

From passive decoration → Active
components

22 m² new park/apartment

Stormwater discharge reduced by **40 %** from roofs
and **70 %** from public open space

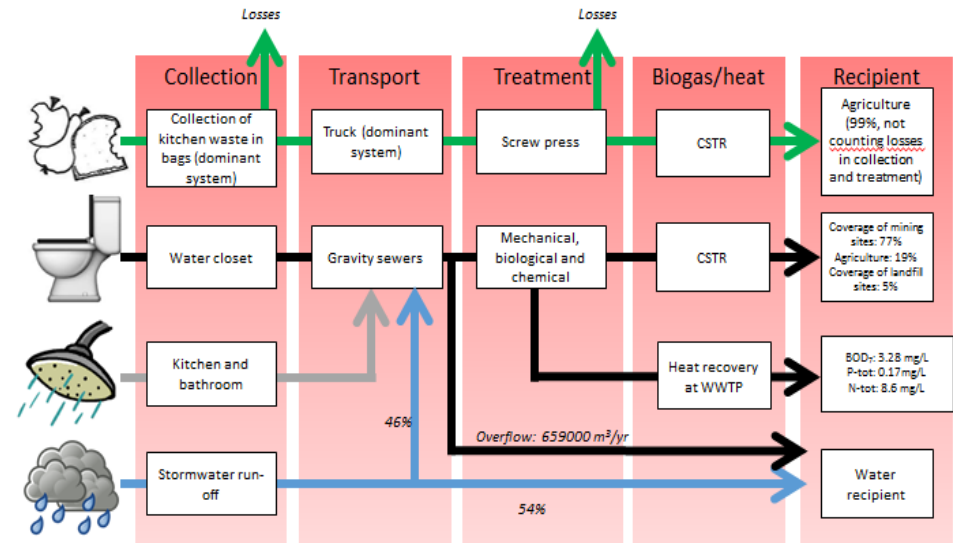


Stockholm's "Green Factories" (Wastewater Treatment)

- 100 % coverage
- Extremely efficient treatment processes ($P = -96\%$, $N = -77\%$, $BOD_7 = -98\%$)
- Production of biogas (15,8 Nm³ annually)
- Heat "mining" from wastewater (1 100 GWh annually)
- Residue sludge certified for use in agriculture,

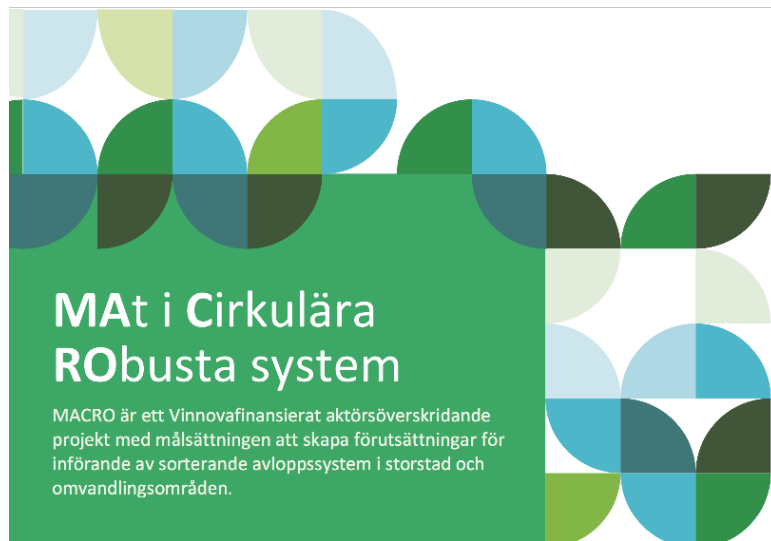
Is this not enough?

RESPONSIBILITY FOR CLIMATE AND RESOURCES WASTEWATER MANAGEMENT



RESPONSIBILITY FOR CLIMATE AND RESOURCES

WASTEWATER MANAGEMENT



POTENTIALS

Increased biogas potential

Increased heat recovery

Increased nutrient recovery

Reduced GHG-emissions

Substantial Socio-economic benefits

RESPONSIBILITY FOR CLIMATE AND RESOURCES WASTEWATER MANAGEMENT

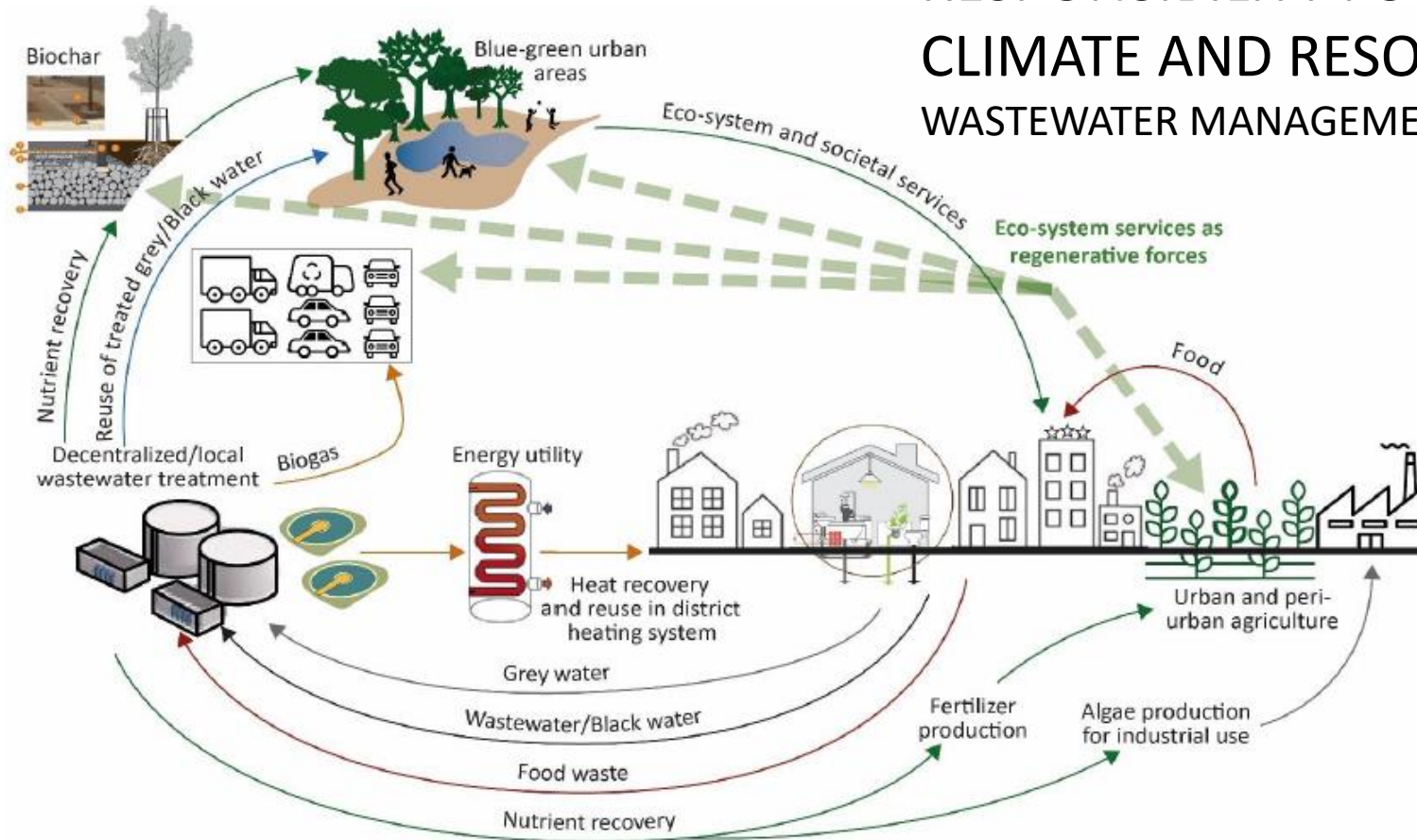


Figure 8: Circular sanitation in Stockholm

Tack!



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HOW WE WORK

