

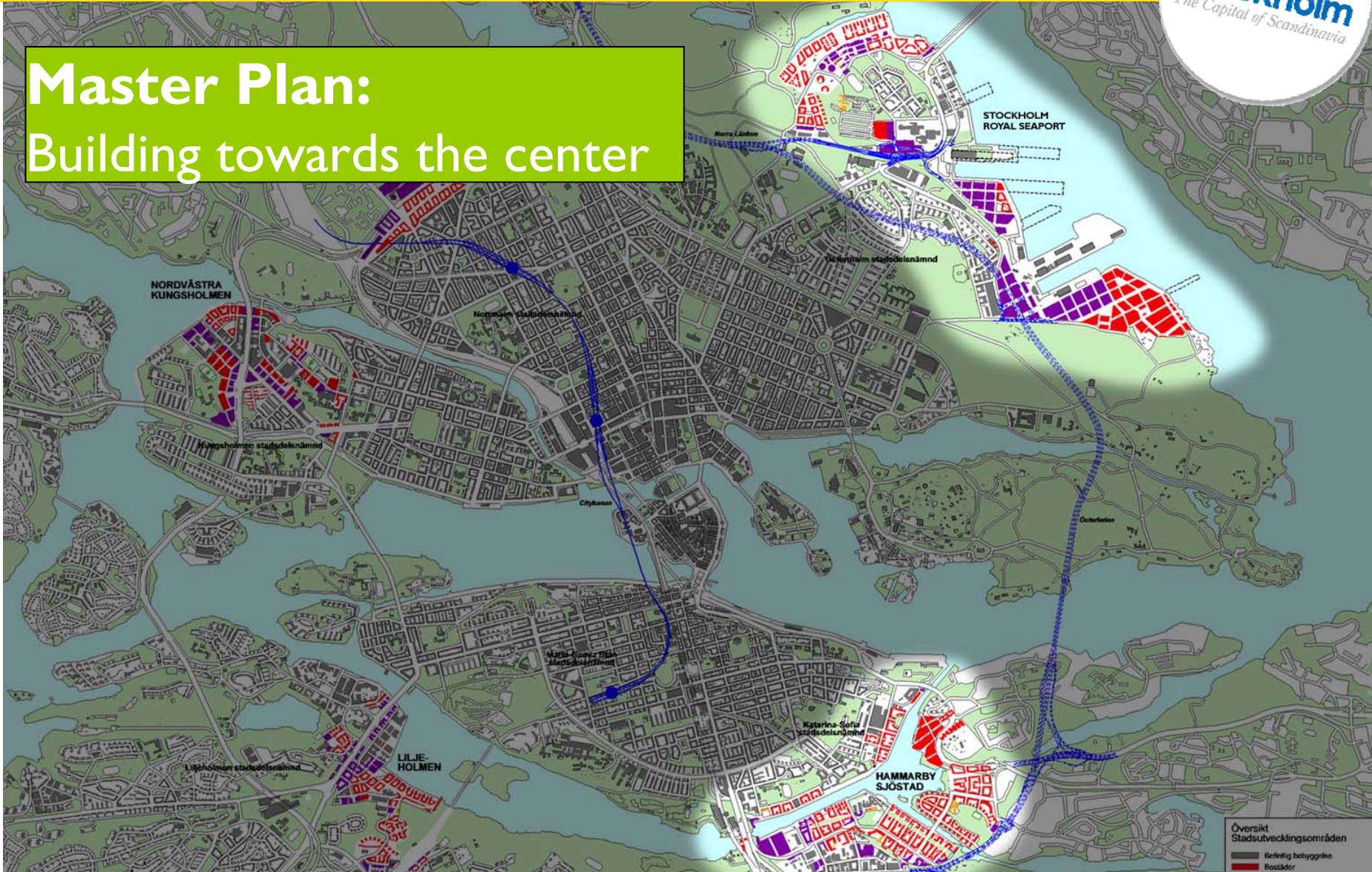


# Stockholm Royal Seaport





# Master Plan: Building towards the center





# Stockholm Royal Seaport



## 2010

- Oil depot
- Container terminal
- Ports
- Gas plant

## 2030

- 10,000 new homes
- 30,000 new work spaces
- 600,000 m<sup>2</sup> commercial space
- Modern port and cruise terminal
- 236 hectares sustainable urban district
- Walking distance to city centre

**From a brown field area to a modern sustainable urban district**





# Stockholm Royal Seaport

## A worldclass environmental city district



# Environmental profiling

## Vision

A world-class environmental city district

## Overall goals

In 2030 Stockholm Royal Seaport is fossil fuel free and Climate+

In 2020 CO<sub>2</sub>-emissions are not more than 1,5 ton per person (CO<sub>2</sub>e)

Stockholm Royal Seaport is adapted to a changed climate

SRS has high environmental- and sustainability goals





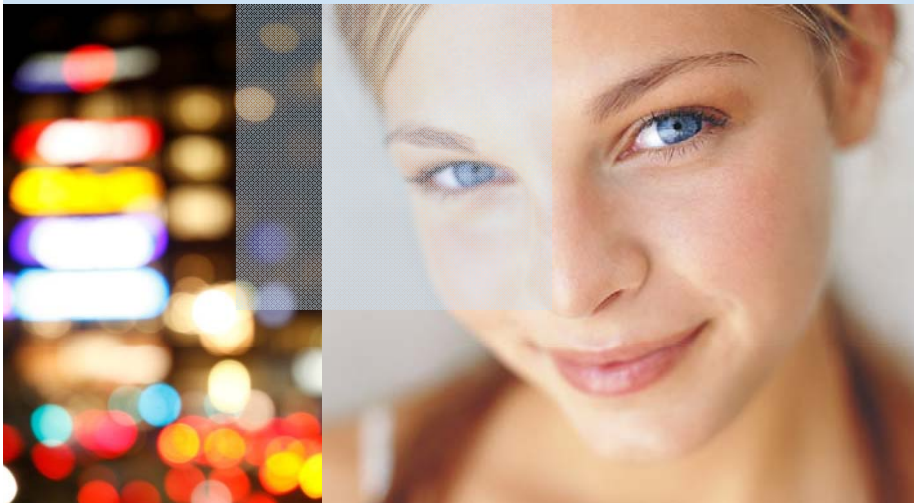
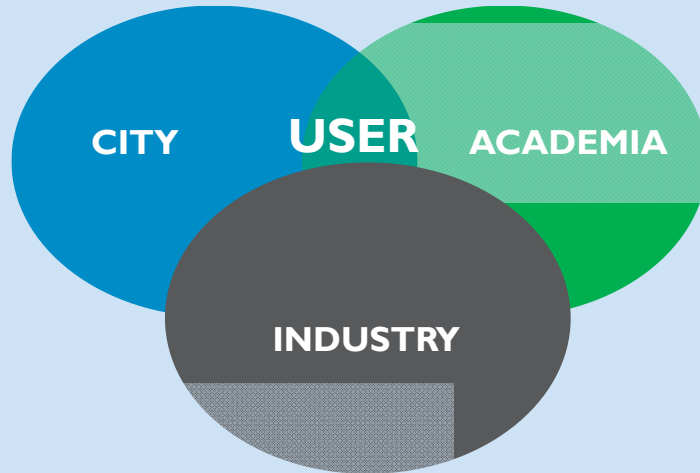
## Focus areas:

- Sustainable energy use
- Sustainable transportation
- Ecocycle systems
- Sustainable lifestyles
- Adapted to a changed climate

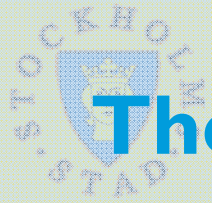




# Working Together!



*“No one can do everything, but everyone can do something”*



# The Worldclass Agreement



## Key Stakeholders

-committed to the  
vision and  
active participation







# Master Programme for Env & Sust in SRS



**VISION**  
SRS - a World Class Environmental City District

**OVERALL GOALS**

Climate	Ecological sustainability	Social sustainability	Economic sustainability
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**FOCUS AREAS & SECTORS**

Climate Adaptation	Sustainable Energy	Ecocycles		Eco-efficient transport & buildings		Sustainable living	
Climate adapted & Greening living environment	Sust Energy System	Sust Recycling System	Sust Water & Sanitation	Sust transports	Ecodesigned buildings	Sust Lifestyles	Sust Business

Vision Goals Measures	Vision Goals Measures	Vision Goals Measures	Vision Goals Measures	Vision Goals Measures	Vision Goals Measures	Vision Goals Measures	Vision Goals Measures
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**ACTION PROGRAMS (phases & activities)**

Infrastructure	Housing & commercial buildings	Lifestyles	Business
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# ACTION PROGRAM - Requirements for construction of housing, phase Norra 2, SRS

- 1. Ensuring environmental achievements
- 2. Adaptation to a changed climate
- 3. Ecodesign of buildings and real estate
- 4. Environmental impacts

- 5. Health and comfort
- 6. Humidity protection
- 7. Noise protection
- 8. Energy conservation

- 9. Resource conservation
- 10. Sustainable transportation
- 11. Sustainable lifestyles
- 12. Delivery of building to the owner and user





# Energy requirement I - on developers

55 kWh  
per m<sup>2</sup> x year

- passive houses towards  
plus houses





## Energy requirement 2 - on developers

30 %

- locally produced  
electricity by renewables



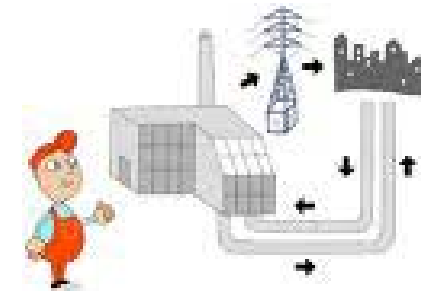
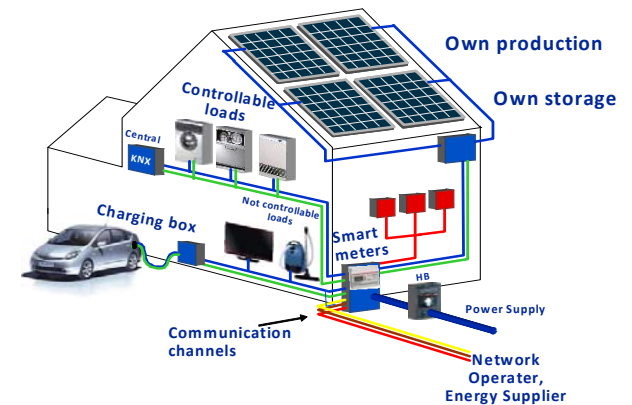


# Sustainable Energy System in SRS



## Energy Vision and Goals

- Fossil free and Climate+ until 2030
- Low Level of Energy Use (products & systems)
- Passive- and plus houses
- Biofueled CHP system (incl recovery of waste / heat)
- Smart Grids for electricity (and heat)
- Local production of electricity by renewables
- Ecolabelled electricity
- Measuring energy use in all households / buildings
- Minimizing comfort cooling / use passive cooling tech
- Energy Quality Hierarchy (use high energy quality only for needs that require high energy quality)



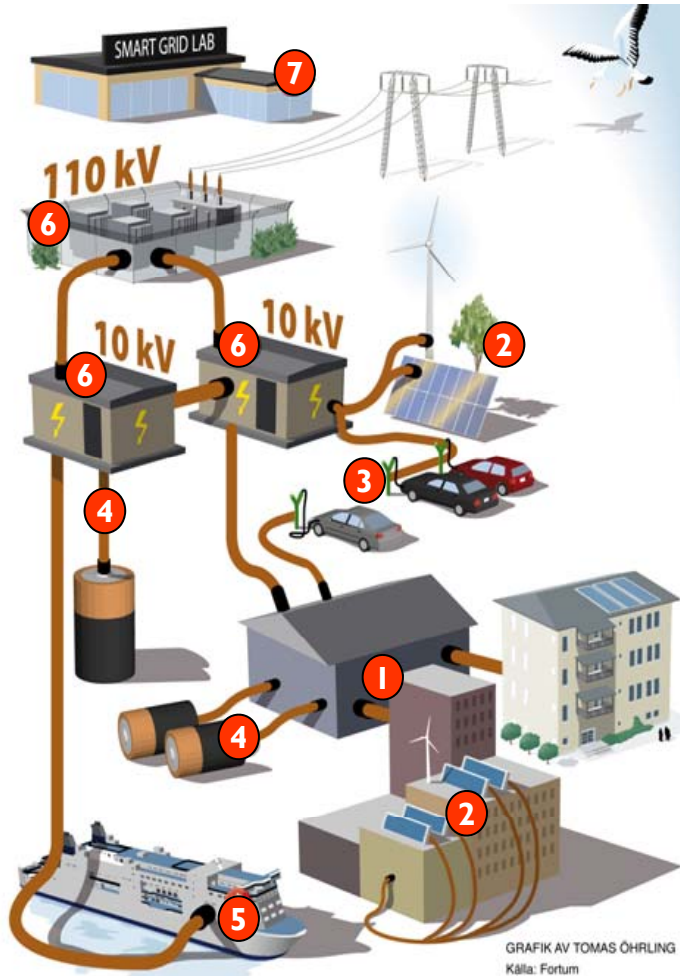


# The development of the smart grid is more than using new technology



- Learn about the new functionalities of the grid in the transformed sustainable urban energy system
- # New technology solutions
- # New business models
- # New market rules
- # New role of the customers and customer behaviors
- Transfer learning's into market rules and commercial applications

# Fortum and ABB is planning for a large scale smart grid system in Stockholm Royal



- 1 Smart homes/Buildings and Demand Response
- 2 Distributed Energy Systems
- 3 Integration and Use of electric vehicles
- 4 Energy Storage for customers and the grid
- 5 Smart electrified harbour
- 6 Smart Primary Substations
- 7 Smart Grid Lab (part of an innovation Center)



# Sustainable Transportation



## Traffic hierarchy

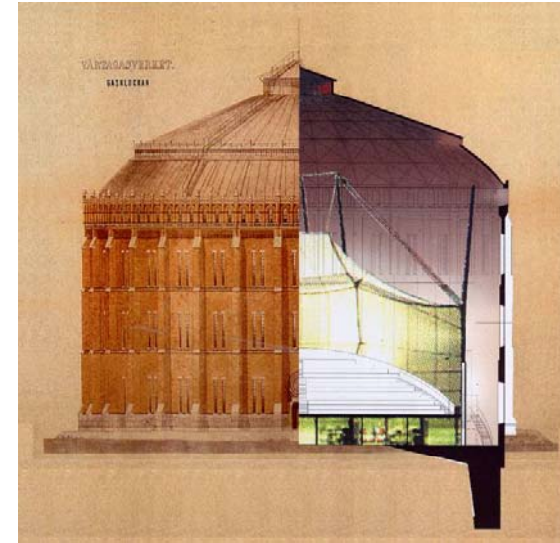
- Walking & Biking
- Public transport (metro, buses, tram, boats)
- Car Pools (biogas & electric)
- Private Cars (biogas & electric)





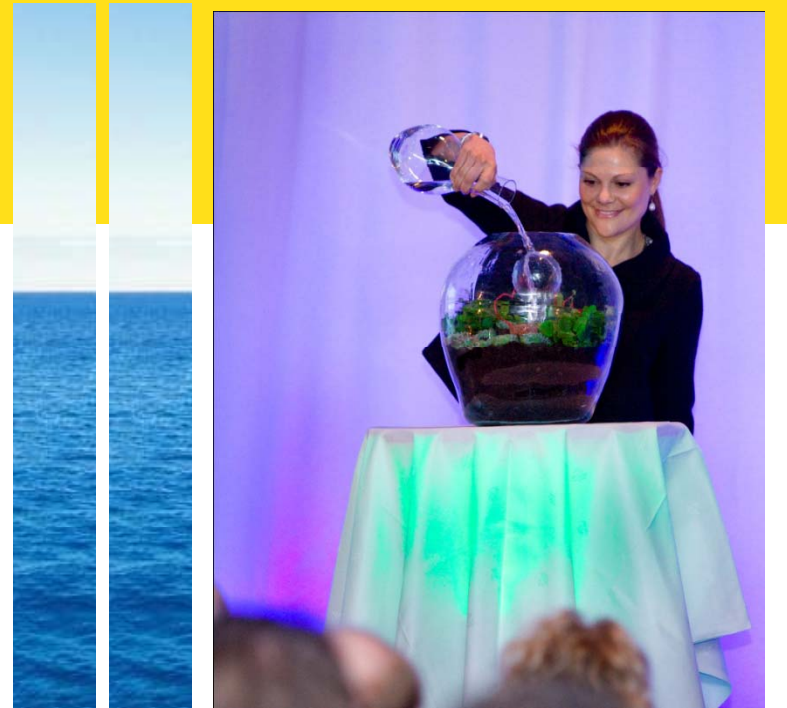


# Old Gaswork becomes Cultural Centre



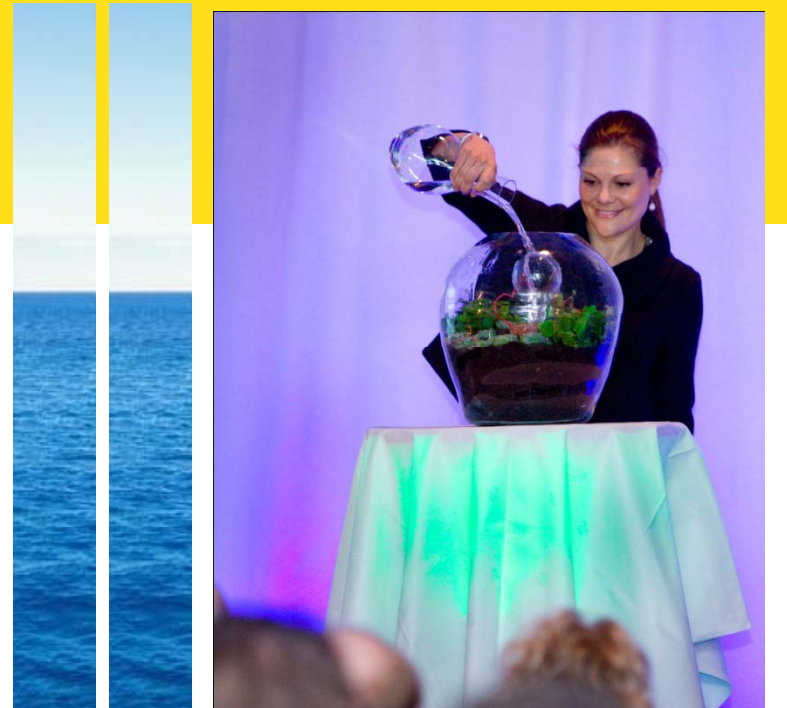
## Activities

- Innovative R&D projects
- Visitors Center
- Business Meeting Point
- Learning programmes
- Workshops



## R&D Projects

- Smart Grid Project
- ICT for Sustainability
- Climate+ Development Program
- Sustainable Lifestyles Project
- Evaluation Model Research Program
- Etc





# Model for Evaluation



Continuous follow-up and evaluation  
in planning, construction  
and operation phases



# CLIMATE<sup>+</sup>

Climate Positive  
Development Program



CLINTON  
**CLIMATE**  
INITIATIVE

In partnership with the  
**U.S. Green Building Council**



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**WELCOME !**