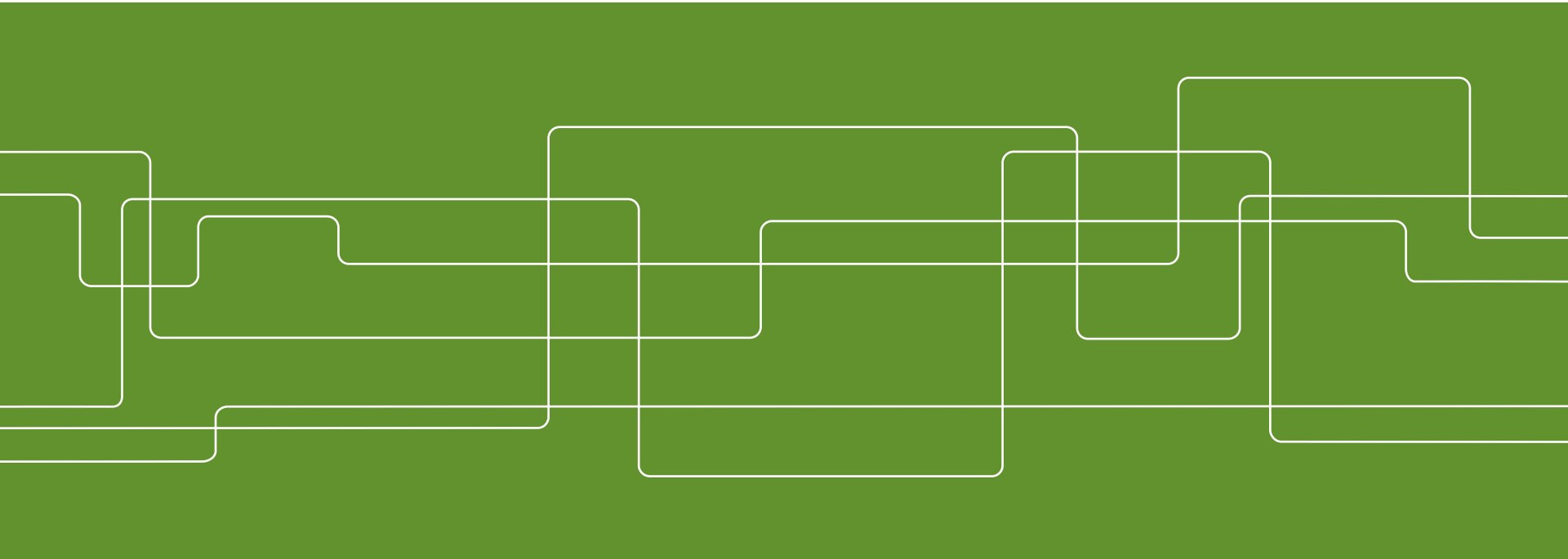




Smart Sustainable Cities (SSC)

- a definition, an agenda, and a network

Mattias Höjer, hojer@kth.se, Centre for Sustainable Communications, CESC



What is a **Smart** Sustainable City?

- a tool, not a target
- a concept, not a sign of performance
- products, services and systems built on **information and communication technology**



What is a Smart **Sustainable** City?

- A target, rather than a description
- In our work, environmental sustainability as first priority
- Can be interpreted in terms of e.g. the Bruntland definition or the Swedish environmental quality objectives

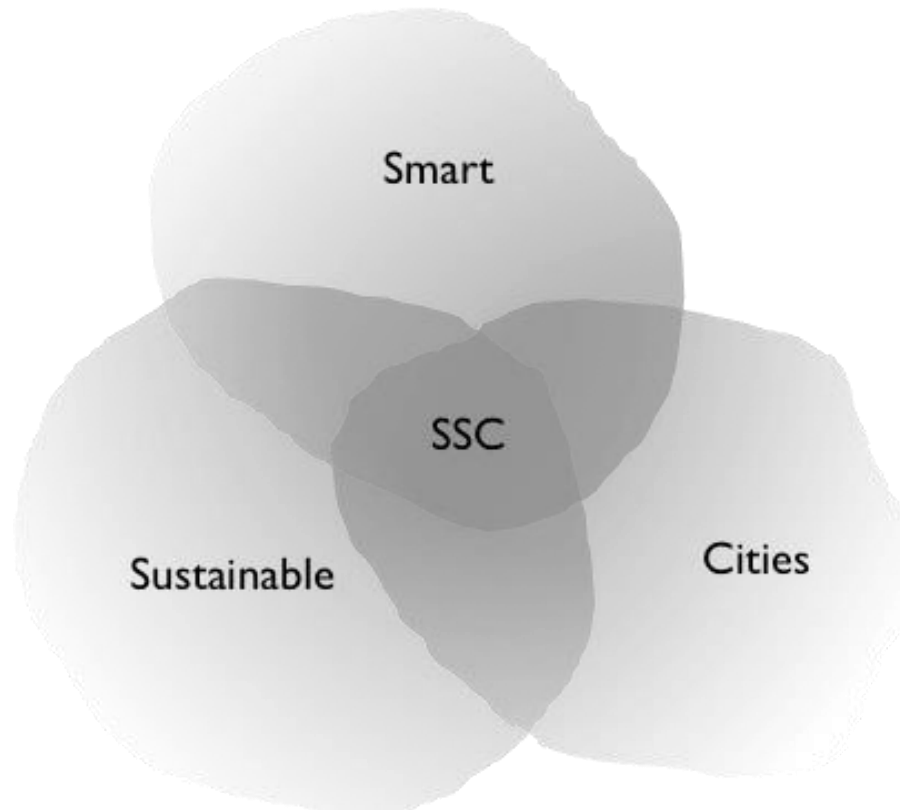


What is a Smart Sustainable City?

- A description of where tool (Smart) and target (Sustainable) are to be implemented
- Focus on citizens in urban areas and their energy use and the environmental effects they cause
- To some extent focus on administrative borders



What is a **Smart Sustainable City**?





A definition of **Smart Sustainable City**

A Smart Sustainable City is a city that meets the needs of its present inhabitants,

- without compromising the ability **for other people** or future generations to meet their needs, and thus, does not exceed local or planetary **environmental limitations**, and
- where this is supported by **ICT**

Höjer and Wangel
Smart Sustainable Cities – definition and challenges
In: Hilty, L.M., Aebischer, B. (eds.)
ICT Innovations for Sustainability
Springer, Heidelberg New York 2015



European Innovation Partnership, EIP, SCC, Strategic Implementation Plan, 2013





A Strategic Innovation Agenda SSC - SIA

and

a network at KTH

KTH-SSC



A national Strategic Innovation Agenda

ABB
Ericsson
HP
Intel
Siemens
TeliaSonera

Electrolux
Fortum
IBM
NCC
Sweco
Vasakronan

City of Malmö
City of Gothenburg
Skåne Regional Council
City of Stockholm

Chalmers
KTH Royal Institute of Technology
Lund University

SP
Swedish ICT

HS2020
Swedish Union of Tenants

ITU – SSC (FN)
Swedish Transport Adm



The network KTH-SSC

KTH-SSC is a network for Smart Sustainable Cities with approximately 15 research groups from four of the schools of KTH. We exchange knowledge regarding e.g.

- The Strategic Innovation Agenda SIA-SSC
- EU-projects, such as Grow Smarter
- Education

and it is **one** possible entrance point for contacts with KTH on Smart Sustainable Cities.



Peter Gudmundsson, Rektor KTH:

“Technology and Sustainability are two main drivers for KTH. In Smart Sustainable Cities, those meet and therefore KTH is quickly increasing its research and innovation activities within the field. I strongly support this Agenda and we are already using it for further developing our cooperation with actors from industry, cities, research institutes and universities and for strengthening KTH's role as an international top university.”

Ulf Troedsson, vd Siemens AB:

“Our future is strongly influenced by global megatrends like energy transition, climate change, urbanization, digitalisation, and a growing and aging population. Siemens is a strong player, offering solutions for the challenges and opportunities that these trends entail, but we can not develop the solutions alone. We need more private and public players going in the same direction, and therefore I think it is important that we from industry support the Strategic Innovation Agenda for Smart Sustainable Cities”



Thanks!

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Industrial Ecology and KTH – Energy platform



Challenges for Smart Sustainable Cities

Development of **assessment methods** to ensure that cities identified as Smart Sustainable Cities are in fact sustainable;

Complementing **mitigating measures** to avoid rebound effects;

The relationship between **top-down and bottom-up** initiatives needs further exploration;

Strategies for strengthening city governments' **competences** are needed;

Governance models for smart sustainable city development must be considered.

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