



System demonstrators for climate neutral cities – learnings from a mission-oriented instrument for urban transformation

IEA EGRD Workshop on Technologies and Innovations for the Climate-Neutral City

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System innovation

” ... a way of working where several systems and structures change at different levels at the same time. It usually occurs through small, incremental changes combined with more large-scale and comprehensive efforts. Together, they provide long-term social change.“



We must innovate how we innovate.

What's keeping system innovation back?

Too often, projects

- are isolated and focus on individual solutions and specific contexts
- have limited time frames
- have a limited mandate for innovation, which excludes issues such as policy, regulations, and financial logics
- neglect - and lack the ambition to change - underlying relationships, power structures, and value flows in existing systems
- rarely challenge underlying paradigms, mental models, and cultures in existing systems
- lack a multidimensional approach



Systems perspective is key

Infrastructure

Behaviour, culture and values

Business models, investments
and procurement

Policies and regulations

Technology, products and
processes

System demonstrators

- Mission oriented approach
- Systems perspective/system understanding
- Broad (and deep) mobilisation
- Portfolio of measures, addressing different policy levels
- Focus on learning – and scaling
- Digitalisation
- Limited geographic and/or thematic system



Held together by the city/municipality

The 4-step model

Step 1: Agree on a mission for the system demonstrator

Step 2: Map and analyse the system

Step 3: Identify barriers and opportunities

Step 4: Design and implement a portfolio of measures

In parallel: Continuous orchestration of the demonstrator with the purpose of learning, scaling, and creating 'the new norma

The model is iterative and non-linear.



Differences to business as usual

- Focus on process rather than objectives in proposal assessment
- Agile approach
- Reflexive learning – for both projects and funding agencies



Objectives

- Increase the speed of the urban transformation
- Better scalability of measures
- Contribute to the development of governance and system innovation
- Test new methods/measures



The demonstrators

- CoAction Lund
 - 27 partners, from public sector, private sector, academia, civil society
 - - A climate-neutral Lund in 2030 - Achieve the "third goal" (= 1/3 cycling & walking, 1/3 car traffic, 1/3 public transport) - Open, flexible, digital and robust energy systems
 - Geographically limited to northeast Lund
- STOLT - Stockholm Local Transitions
 - 28 partners, from public sector, private sector, academia, civil society.
 - 1) Reduced car travel, 2) Attractive urban environment and 3) Electrified vehicle fleet.
 - Geographically limited the environmental zone 3 in central Stockholm, and Stockholm old town

Learnings

- System analysis is hard – elaborated methods are needed
- Stepwise development has benefits
- Create arenas for dialogue and exchange
- Fail is ok – but analyze it
- Avoid innovation-lingo



Tack!



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