

## Sustainable City Development – local implementation of the UN Sustainable Development Goals

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The conference had the aim to mix academia and practitioners and to be dialogue-based rather than one-way communications.

- 460 participants (23 countries)
- 45 accepted papers
- 23 paper presentations
- 103 presentations in total
- Study tours in the city







## **Discussion** points

- How green is green enough: green infrastructure as participatory process, ecosystem service based development, identity-fostering
- Smart energy efficiency: metering and monitoring, technical solutions, smart energy and the user, smart girds
- **Rapid urbanisation**: empowerment, participation, from reaction to proaction, temporary use of space, new type of information sharing
- Education for sustainable development: SDG as framework, education across generations and classes,
- Food for sustainable cities: urban gardening, multi-purpose green areas, education
- Social consequences of the 4th industrial revolution: space as a neutral and equal arena, protect and value the commons, inspire and empower
- **Business Improvement Districts**: 8/80 concept, create safety and trust, create space for people, mixed housing and building use
- **Culture and sustainability:** combine consumption and production of culture simultaneously, empowerment through culture







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## **Regional Snapshop Sweden**

Questionnaire	Rating	Explanation
The role of urban planning policies in supporting or constraining high levels of building performance	3	Local authorities have a high degree of planning autonomy, ambitions vary. National legislation that limits local requirements.
Extent to which requirements for sustainable building performance are included in building regulations / codes	2	<ul> <li>Planning regulations are not ambitious for nearly zero energy, do not cover climate adaptation or mobility aspects or material use.</li> <li>Construction waste and flexible use is possible and supported.</li> </ul>
Progress in adapting existing and new buildings to risks related to climate change (wind, flooding, heat stress, etc.)	3	Climate adaptation is difficult to handle in planning and building law. The private sector is considering changing climate (long history of good insulation). Existing buildings are difficult to adapt due to social consequences

Progress in reducing carbon content of fuels or electricity used for building operations	5	Swedes electricity is nearly carbon free (nuclear and hydropower), district heating is widespread. The use of other fuels for building operations is minimal.
Progress in reducing embodied energy and/or embodied emissions in construction	3	There is a history of timber frame construction, which is increasingly applied for multi-family housing. Prefab concrete construction is however still most common.
Energy and emissions performance of the existing residential stock	3	Renovation in existing buildings is difficult (and a ticking bomb) due to the social consequences. There are some good pilot cases.
Energy and emissions performance of the existing public and commercial stock	4	The two agencies that own 95% of the state-owned buildings are to implement the whole 3% target

Efficiency of management and operations of existing buildings	2	Energy in general is rather cheap in Sweden, which limits economic benefits of energy efficiency measures.
Achievement of nearly-zero operating energy and/or emissions in new buildings	4	In new construction awareness and the possibility to do R&D and be a frontrunner is strong in the private sector. New commercial buildings have high ambitions and are energy efficient. In residential buildings energy demand is according to building standards, if not lower. Due to the national electricity mix, carbon emissions are low.
Reduction of energy demand in appliances and equipment	4	Sweden has implemented a tax on CO2, energy consumption has remained more or less stable despite an increase in GDP. A reduction of energy demand in appliances is counteracted by an increased use of appliances.
Progress in educating and training key actors (regulators, investors, designers)	2	There are some training and education possibilities for some professions, but often it is up to the individual or the organisation to educate or provide the possibility to do training.



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