Smart buildings and smart cities ☑

Data of Your Paper ☑

Topic

- ○ Resilience
- ○ Lifestyle
- ◉ Building
- ○ Resources
- ○ Tourism
- ○ Energy

Title of the Paper
Smart buildings and smart cities

Form of Presantation

- ○ Poster
- ◉ Presentation

Short Description (maximum 2500 characters)

Up-scaling of smart buildings – the solution for smart cities?
A lot of research has already been done to create smart and innovative buildings, there are new guidelines that make buildings more energy-efficient, etc. but is it enough to simply up-scale smart buildings to create a smart urban district, a sustainable city for the future? What preconditions have to be fulfilled to make a bunch of smart buildings a smart city?
A smart city is more than the sum of smart buildings which this paper aims to show.
The paper is based on a research study (ZEUS 2020 – Zero Emission Urban Study). The vision of the 'zero emission city' has the ability to add a vivid picture to the mission of sustainable urban development that is more comprehensible than the abstract term "sustainability". Due to the integration of topics like traffic/mobility/logistics, energy management, sociology/social demographics or climate change and its effects on cities, the study provides basic knowledge for an orientation about the "emission free city" and develops innovative ways and models for construction, urban development and life in cities in the 21st century.
ZEUS 2020 aimed towards the discovery and formulation of a new life concept in the urban environment. Starting at the planning phase - integrating future inhabitants from the beginning - all the way to the particular use of the facilities, it examined and newly defined all steps of the process, particularly regarding the reduction of CO_2 emissions. From the perspective of the consortium, this approach, combined with a sustainable involvement in the topic, guarantees a realizable solution that is fit for the future.
The model, which was found this way, was checked in an urban area of a project partner city in general and also in regards to its flexibility concerning local/regional characteristics. Finally, the transfer of the model to other cities/regions represents an important outcome of the study. The designed model can serve as the basis for a standardized process for the development of city districts/areas, similar to an environmental compatibility evaluation.
So the aim of this paper is to present relevant results of the project and to show how these results can contribute to the discussion about sustainability in urban

development.