



KNX city

Vision

www.knx.org

Challenges in cities

- Cities are worldwide responsible for...
 - ...two third of the total energy consumption
 - ... 60% of the total water consumption
 - ... 70% of the production of greenhouse gases

- More than 50% of the world population live already today in metropolitan areas
 - → Until 2050 it will be up to 70% of the world population

Positive Trends: Building

Energy efficiency is on the rise



"Energy management in buildings is the first and easiest way to create an energy efficient city"

Challenges for buildings:

- Energy efficiency in the city is not only to save final energy of the building. Energy efficiency means to consume when renewable energies are generating.
- The energy management of buildings requires the interaction of the **Building** with the **Infrastructure**

Positive Trends: Mobility

Demand for green mobility increases



"The Green Mobility and especially the Electromobility avoid harmful emissions"

Challenges for the mobility:

- Emissions will be only avoided, if it is possible to charge the batteries of eCars in cities predominantly with electricity from renewable energies
- The charging of eCars in private hands requires the interaction the **Building** with the **Mobility**.

Positive Trends: Infrastructure

Smart Grids provide intelligent city solutions



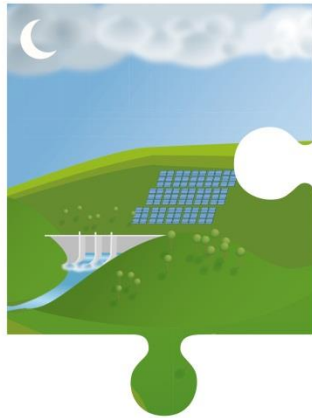
"Smart grids enable a comprehensive interoperable energy management in cities and link power grids with ICT"

Challenges for the infrastructure:

- A comprehensive energy management requires the necessary interfaces to the individual trades
- The energy management of entire infrastructures requires the interaction of the **Building** with the **Mobility** and with the **Energy Generation** based on the smart grid

Positive Trends: Energy generation

Renewable Energies are set by the world



"Renewable energies are worldwide considered as a carbon-neutral way to generate energy"

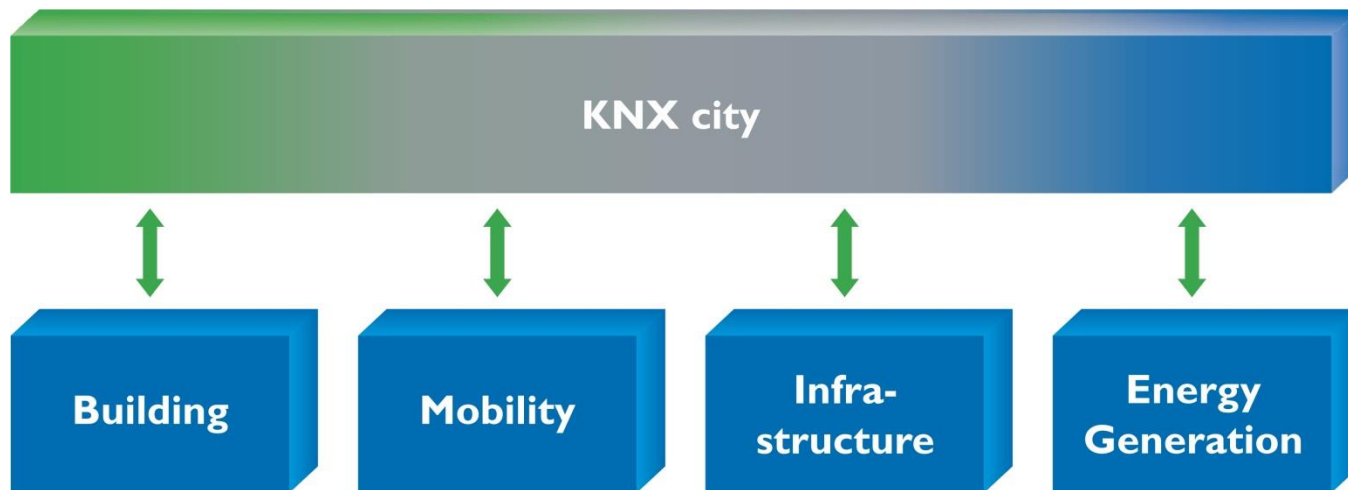
Challenges for Renewable Energies:

- The volatile renewable energy power generation represents a major challenge for power supplies and infrastructures
- The decentralized arrangement of renewable energies such as roof photovoltaic systems requires the interaction of the **Building** with the **Energy Generation**

KNX city

... the way to make cities energy efficient

KNX city offers solutions in the interaction of buildings, mobility, infrastructure and energy generation



KNX city

- **KNX city...**

...the overall energy saving solution for buildings

...control of eCar charging through KNX

...uniting distributed facilities to one overall network

...integrating renewables with KNX



Creating Green, Comfortable and Energy Saving Buildings for Modern City Life



The worldwide STANDARD for home and building control

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