Towards a sustainable transition in cities

Hans Schnitzer
Urbanization is a global trend
There is a need for action!

- In cities life 60% of the world population
- Cities spend 75% of the energy
- Cities cause 80% of the global air emissions
Cities Facts:
Source: World Resources Institute

- Up to 70% of global CO₂ emissions come from cities.
- There are 800 million vehicles on the road today. Without interventions, that number is set to grow to 2-3 billion by 2050.
- The world's cities produce about 1.3 billion tons of waste every year.
- More than 1.2 million people die in traffic-related deaths every year.

In 2007 the urban population exceeded the rural population in the world.
In 2050 almost 70% of world population will live in urban areas (source: UN).
In Europe already 68% of the population lives in cities.

The XXI century is called to be the century of cities.
And how about Brazil? How is the situation in Brazil? How many Mega-Cities are there? What is the rate of urbanization? How many cities have a sustainable development plan? Who made these plans? Have people been involved? Did this plan affect your life?
Urbanisation in Brasil

https://thedevelopmentblog.wordpress.com/2013/06/20/293/
Energy transition and transition to a sustainable economic system will take place in cities - or it will fail.
How cities grew

From small circles to large bubbles with radial structure

... and what usually happens to large bubbles?...
City development in Stockholm
Growth or development
How cities could grow
From small neighborhoods to large agglomerations with many neighborhoods
Urbanism charters

After 50 years new development guidelines for cities are published

- **Athens Charter 1943**
  - Separate functions of city quarters

- **Aalborg Charter 1994**
  - European Cities & Towns Towards Sustainability: Integrated development

- **Leipzig Charter on Sustainable European Cities 2007**; the cities recommend:
  - Making greater use of integrated urban development policy approaches
  - That special attention is paid to deprived neighborhoods within the context of the city as a whole.

- **Freiburg Charter for Sustainable Urbanism 2012**
  - The Charter has 12 principles to guide planning and development if a sustainable city is to be achieved.
Integrated means:

- **Living space**
  - From newborn to old

- **Job opportunities**
  - For all kind of qualification

- **Education**
  - From kindergarten to life-long learning

- **Culture**
  - Opera and festivals, museums, cinema, temples, ...

- **Leisure**
  - Sport, pubs, bars, meditation, ...

- **Medical services**
  - Doctors, hospitals, ...
Let me introduce Jahn Gehl
Why do we work with cities for a sustainable development:

The decisions that national leaders, local officials, developers, and planners make today will determine how billions of urbanites will live over the next century.

Traditional models of city development can hinder economic growth, spur greenhouse gas emissions, and endanger lives.

Compact, efficient cities can alleviate poverty, combat climate change, and make services like water, energy, and transport more accessible.

Action is needed
People don’t resist CHANGE; they resist being CHANGED.

Richard Beckhard; he was a pioneer in the field of organizational development.
The city seen as a system
What are the products and services?

INPUT

MATERIAL
- raw material
- auxiliary material
- other material

ENERGY CARRIERS
- fuels like gas, oil, coal

ENERGY
- mass free, like electricity or district heating

OUTPUT

Products and services

material emissions
- solid waste
- gases
- waste water

energetic emissions
- waste heat
- noise
Tesla baut Standort in Graz - und sucht Mitarbeiter

veröffentlicht am 20.10.2014 von Stefan Mey

Tesla Model S: Das stille E-Auto soll künftig öfter über Österreichs Straßen rollen.
E-Jaguar wird in Graz produziert

Interactive in small groups

- Why do people move to cities?
- How do companies select the cities where they expand (and create jobs)? – how can cities attract companies
SAO PAULO

Strengths – Weaknesses –
Opportunities-Threats
Innovations are about finding:

- a new way of thinking
- a new way of working
- a new way of planning
- a new way of organization
- a new development pathway

New symbols

Innovation is not easy
What would you do, if you were the major of your home city for 30 days?
City's symbols and skylines

Religion - Temples
City's symbols and skylines

Democracy - parliaments
City's symbols and skylines

Banks, business
What is the image of a smart city?
Thank YOU!
And don’t forget to reduce your footprint.