Future Mobility

- 2030: World population around 8 billion people, approximately 60% located in urban centers (2050: 75%)

- New mobility and vehicle concepts are needed to meet the growing demand for freight and passenger traffic efficiently and environmentally friendly

- Passenger transport shall enable mobility with low energy consumption, zero emissions and mitigate congestion and accidents

→ Electromobility is a key technology to reach these goals
Modal split of the future: main challenges

Mobility behaviour: changing societies & lifestyles & needs

- **Drivers of changing mobility needs**
  - Ageing society
  - Urbanisation
  - Owning a car plays a diminishing role for young people
  - More rational view on mobility establishes (awareness concerning sustainability and lifestyle)
  - Large growth rate forecasted for car-sharing

→ the future transport system needs to be intermodal, interactive, dynamic and tailored to people's needs/preferences
Mobility and spatial (urban) planning

- Efficient Mobility is also a question of spatial planning and urban/regional
- Integrated approach of mobility strategies, intermodal electromobility concepts, and urban planning
- Local authorities, transport operators, developers, energy providers and residents have to work together to break new paths

→ Cities and regions need customized solutions, based on the same technology

Integration into transport system

- Integration of electric mobility in individual transport
  - Pedelecs, e-bikes, electric scooters
  - Hybrid & electric cars
  - Fleets (logistics)
- Infrastructure: sharing systems, charging stations; integrated into building concepts
- Integration of electric mobility in public transport systems
- New Mobility Services: Information technologies

→ Intelligent control of traffic flow combines comfort, safety, efficiency and freedom in mobility
New Mobility needs – new mobility services

- value-chain is shifting from manufacturing value-added services in the field of the „new mobility“ industries
- Intertwined network (being online) & available technologies
- eMobility providers must enlarge their scope of services
- e.g. innovative Commuter Information Services delivering real time information for a commuter’s entire intermodal trip and suggesting alternative routes

→ A mix of various mobility and information services will establish

MOBILITY ON DEMAND

Creating methods and technologies for an attractive urban mobility system

- Optimisation of transport system
  - through new mobility concepts
  - Intelligent routing and planning
  - Optimising transport infrastructure

- Crucial to achieve this goal is:
  - Data collection and analysis
  - Simulation
  - Optimisation
Mobility on Demand – New Mobility Systems

- Make electric vehicles available at stations at short spatial distances across the city

- Using a travel card one can always rent a car and park at the next station at your destination.

- Users can enjoy the benefits of private vehicle, without having to deal with the cost, insurance, service, repair, and finding a parking space.

Electromobility’s Technical beacons in Austria

- *emporA / empora 2*
  - Integration of electromobility, connected with other modes (PT, Carsharing systems)
  - Co-modal tour- and route planning
  - Real-time data, range information, meteorological data
  - Information about POIs (PT stop, Car-Sharing station)
  - Mobile App providing all information along the whole travel chain for pre- and on-trip planning
Opportunities in urban and rural environment

High density population area

- Flexible, electric mod-systems
- Create a completely new mobility network but require new approaches to urban and infrastructure planning
- must meet user needs and be affordable; vision: no privatly owned car
- Crucial to the success are availability (time and location), costs for the user

Rural area

- First/Last-Mile to public transport station and P&R (commuters)
- Trips > 100km
- garage or carport can be converted with little effort to a charging point.
- High Potential in tourism

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