Information, Co-modality and Drivers Choices

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Convenience of mobility information services

On the micro level - individual
- Support decision making behavior (e.g. mode, route)
- Enhance planning ability (access to detailed information)
- Enhance comfort (e.g. can ‘shorten’ waiting times)

On the macro level - transport system
- Increase efficiency of transport system (e.g. support balancing network)
- Increase safety (e.g. information about accidents)
- Reduce environmental impact of mobility (e.g. increased public transport use)
Mode choice - break up routines

- **Information** = missing link for transition from traditional travel behaviour to a co-modal mobility behaviour - using a variety of transport modes

- **Mode choice** = based on routines
  - built up on the use of one specific well-experienced mode
  - car drivers not only stick to their mode, but also to the way they use the car - route choice & choice of departure times based on experiences

- **Windows of opportunities** to break up routines
  - mid-term: situations of change between life phases (relocation, new job, marriage etc.)
  - short-term: information
Potential of increased PT use due to information

- Shift to co-modal behaviour needs **improved information** about PT & combination of modes
- **High potential of public transport use** due to availability of multimodal travel information:
  - 9.4% of the German population agree to use PT more often (survey: ICT panel by DLR, n=3,500 p)
- What would it mean for the PT demand in Germany?
  - Basis modal split: walking: 24%, cycling 9%, car: 58%, PT: 9%
  - Assumption: replacing every 3rd car trip by PT
  - Increase of 4.5 Mio. PT trips/d
  - Modal split for PT would rise from 9% to 11% - a relative increase of more than 20%!
- Can such an increase in demand be handled?
Potential of specific information for car drivers

- Eco driving is promoted as way to reduce fuel consumption - potential has been demonstrated (accelerating/decelerating behaviour): 10-30% reduction

- Support trip planning & routing on trip

- BUT: Drivers need to benefit from applications and realize added value
  - Travel time reduction
  - Less fuel - less costs!
  - Reward compliance of advises (rerouting)

eCoMove, EC funded IP
Co-modality is on the way!

- Appealing supplementary (individual!) transport services are needed to promote co-modality:
  - **CarSharing schemes** can significantly reduce the number of vehicles in cities
    - Less used vehicles (<5,000km/year) and 2nd or third household vehicles could be replaced in the mid term
    - Can be supported by free parking or exception from congestion charge
  - **Bike sharing schemes**
    - Specifically used in the evening hours with lower PT service, last mile and short trips
    - More than 300 bike sharing systems worldwide from China-Europe-America

Source: Auto-Medienportal.Net/Daimler

Source: deutschebahn.com
Conclusions

- There is certain willingness for behavioural change
- Mobility, especially in big cities is changing - besides PT supplementary individual modes are needed
- New services need to be integrated in the established transport system - trip planning services have to integrate combinations of modes - information is the link!
- Research needed:
  - Who are the users and what trips are done with new services such as bike sharing and CarSharing?
  - How to support the movement?
  - What about smaller cities and rural areas?