Résumé of "Networks for Mobility 2006"

The 3rd International Symposium "Networks for Mobility“ once more brought together about 150 specialists from science, industry, and politics. On October 5th – 6th they discussed problems of transportation and mobility in an interdisciplinary framework. The participants came from 31 different countries. The interest of 21 scientists from East European countries was especially remarkable. The name of the symposium - "Networks for Mobility“ - has been programmatic for the symposia from the very beginning. Networking the planning, technical and socioeconomic aspects, connecting different transportation modes, and electronic networks in telematic systems are included in this program. However, the interdisciplinary exchange of the different experts on transportation with colleagues of urban planning, ecology, information technology, car technology as well as economy and social science also played a major role.

The symposium focused on integration, modelling, and system planning, as well as on the applications of integrated solutions for mobility. It covered the following main topics:

- Transportation System Planning
- Traffic Control and Telematics
- Transportation and Environment

Never before the aspects of a sustainable mobility have been discussed so extensively. Especially some invited speakers have grappled with the impacts of fast growing mobility and asked for measures like raising the prices of fuels, producing energy saving cars or generating a new mobility behaviour. The positions of some representatives to the future of individual mobility are quoted in the following.

The engineer Michael F. Jischa intends to give long-term perspectives to the automobile. His demands include a "3 litre technique" to be provided by the industry, a "3 litre driver", i.e. a suitable consciousness in society, and "3 litre legislation“ by politicians, for example a speed limit.

The measures he proposes are:

- a fast change of power train concepts with fuels which are free of CO2 or CO2-neutral,
- leasing instead of buying, which encourages production of recyclable vehicles,
- integrated transportation concepts like car-sharing or a better change of goods to rails
- coupling of efficiency strategies with sufficiency strategies.
From his point of view the early industrialised countries have to show that these proposals can be successfully realised. Only in this way is there a perspective which will be accepted by other countries. The process of a management oriented towards the model of sustainability must be initiated by European countries. Jischa says, “It is well known what must be done” and demands from all parties concerned (industry, politics, society), “We must move from recognising to acting”.

The city planner Michael Wegener identifies negative consequences for the development of the economy as well for the quality of life and daily mobility in cities with increasing energy prices, but at the same time he states that

- the best perspectives for achieving the Kyoto aims can only be found in higher prices for fuels, because a reduction of greenhouse gases, air pollution, and traffic noise can only be achieved by reducing traffic,
- higher prices for fuels will stimulate the development of energy-saving cars,
- the combination of measures to improve public transport and to promote mixed and condensed settlements will reduce the dependency of cities on automobiles, thus preparing the cities for future increases of fuel prices.

The Indian economist Amitabh Kundu states that the spatial morphology in the less developed countries strongly depends on the existing transportation system. These countries which have to give a larger share in the globalised world

- have invested in the improvement of traffic networks, but mainly in the linking of a few metropolitan cities with the main political and economic activities,
- have neglected transportation and economic networks between rural settlements and urban centres,
- must be aware that the capital will be guided increasingly in smaller cities and projects for poor people, and that access to the traffic infrastructure is guaranteed for all people,
- should not blindly accept and transfer highly developed technology from early industrialised countries.

The English economist Roger Vickerman goes into alternating effects of mobility and economy. He concludes that
• mobility is often seen as a symbol of freedom and promoting mobility a main
policy goal,
• mobility, especially for freight, has grown faster than the economy in recent years
leading to mounting congestion and environmental pressure,
• sustainable mobility would require transport prices which reflect the true resource
costs of providing that transport, particularly in road transport and aviation,
• people might accept lower levels of personal mobility and more local sourcing of
the goods they consume and activities they pursue – perhaps achieved by
rebalancing of prices of fuel,
• personal carbon accounts could be a means of achieving a greater recognition of
the problem, but these would need to take into account the differing spatial
structures and the locations of jobs, shops, leisure centres etc. and the changing
structure of households and families.

Sustainable mobility is thus a complex concept and one which politicians will find it
extremely difficult to legislate for given the apparent sacrifices which will be required of
current generations to enable a sustainable future for future generations.

André Vits (EU – DG Information Society and Media) refers to the initiatives of the
European Commission and the contributions of telematics to sustainable transport by the
"Intelligent Car Initiative“. With regard to the aspects of safety, intermodality and energy
efficiency, the last aspect is of greatest importance for sustainability. The potential can
be shown by the fact that
• cars equipped with Intelligent cruise control can reduce fuel consumption by 28%;
• 13 traffic lights networked to optimise traffic flow lead to a reduction of 560 tons
of fuel/year,
• Eco-driving assisted by in-car-instruments can reduce fuel consumption by 5-10
%

With respect to emission reduction and more efficient driving, the following aims can be
reached by telematics solutions:
• Improving intermodal changes and logistic concepts,
• Saving of interurban mobility for all,
• Integrated and interoperable vehicle concepts as well as improved communication
between vehicles and between vehicles and infrastructure.
The transportation planner Ullrich Martin comments on the relevance of public transport. None of the existing means of transportation is able to solve the recent and coming traffic problems by itself. New systems are not available yet. That means public transport will also be an indispensable important part of an overall transportation system in the future to ensure mobility.

But public transport is not a better system by definition. That’s why searching for new, innovative solutions is a permanent process to improve the position of public transport at the competition.

Focal points we must deal with are

- Infrastructure financing (including re-financing of existing structures), contracting, and efficiency,
- Real-time management optimisation of processes,
- Enforcement of intermodal solutions as well as
- Customer related planning and information systems.