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Embargoed until 8:45 AM, 4 November 2010

Perspectives for a Sustainable Mobility

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Session 5, Keynote Lectures: "Future Technologies II: Mobility"
Our Common Future, Essen, November 4, 2010

Summary

The world perspective for a sustainable mobility is rather dim. Today almost 7 billion people live on this globe. In forty years this might be more than nine billion. Most of them wish a better mobility, if possible an auto-mobility like in Europe or North America. They also want to participate in global trade and the exchange of knowledge and goods.

During the last one or two decades the transport of people and goods increased dramatically. And this was only the beginning. By 2020 car sales in developing countries will increase by the factor 6, by 2030 the number of cars in the world will be doubled.

Worldwide almost 13 percent of the CO² emissions are caused by the transport sector today. According to forecasts of IEA these might increase by 40 percent until 2030. Also within the European Union, where the emissions of the transport sector cause about 20 percent, the increase since 1990 was about 30 percent.

Nevertheless, the European Union will reduce these emissions until 2020 by 30 percent. Germany set for this time a national goal of 40 percent. Therefore, this speech will focus on the German and European context. Recent trends which determine urban mobility here and what strategies are needed to achieve a more sustainable perspective will be analysed.

The author's definition of daily mobility shows that not mobility but the effort for mobility has increased during the past decades in Europe. Therefore, better mobility with less traffic is not just fictional but a serious task and a manageable challenge for the future.

After decades of increasing motorization and car use, the most recent national and local surveys on mobility behaviour in Germany from the year 2008 indicated an increase in public transport and bicycling and a decrease in kilometres driven by car - an astonishing result. Reasons for this might be the influence of a growing proportion of senior citizens, economical reasons that led to an increase of more households without cars and changes of values with new mobility preferences, especially among the younger generation.

With an emphasis on modal split decisions, the author illustrates potentials for a more sustainable development in urban mobility. In order to improve mobility, he mainly suggests replacement of ineffective short car trips through cycling, walking or bus hopping, as well as providing better mobility services to ease multi modal behaviour. These modal shifts could also relax congestion and help to improve accessibility and reliability of the necessary commercial traffic. Almost fifty percent of the German population has access to a private car. The majority of car owners use it as a habit without knowledge about alternatives. About 60 percent of the car trips serve leisure purposes.

A major reason for unsustainable development in the past is a lack of integration of different policies and planning processes for more multimodality, more linkage between the transport systems and the planning sectors to avoid noise, to clean the air and to secure mobility. The state of the art of

integrated mobility planning in Germany is introduced. The wide range of integrated measures is of particular interest. New infrastructure for road traffic will get a different priority, when the importance of maintenance and goal achievement of environmental objectives has to be considered at the same time. Economical measures like road pricing influence demand to a great extent and could replace costly infrastructure. All kinds of “soft measures”, in particular mobility management and services to inform about best mobility choices will be of increasing importance. The desired sustainable modal shifts, however, would lead to other necessary investments in the public transport sector and for the instalment of multi modal mobility services.

In conclusion, main barriers for a more sustainable development of urban mobility in Germany are summarized on the one hand. On the other hand the large CO²-reduction-potential is identified, if some of the habitualized car drivers – about 40 to 45 percent of the urban population - would realise their auto-mobility with public cars or by car sharing. Considering the modal choice independently from the available private car in a more rational way would lead for these people to 50 or 60 percent less car trips in an urban environment. One public car could replace up to ten private cars and helps to save valuable urban space.