



INTERNATIONAL TRANSPORT FORUM
2014 ANNUAL SUMMIT
“Transport for a changing world”

ECTRI INPUT

February 2014

The European Conference of Transport Research Institutes (ECTRI) is an international non-profit association that was officially founded in April 2003. It is the first attempt to unite the forces of the foremost multimodal transport research centres across Europe and to thereby promote the excellence of European transport research. Today, it includes 24 major transport research institutes or universities from 19 European countries. Together, they account for more than 4,000 European scientific and research staff in the field of transport. ECTRI as the leading European research association for sustainable and multimodal mobility is committed to provide the scientifically based competence, knowledge and advice to move towards a green, safe, efficient, and inclusive transport for people and goods.

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ECTRI is an association including 24 major research institutes from 19 European countries. It promotes sustainable mobility through an integrative, multimodal approach of the transport system.

Transport is doubtlessly a key facilitating factor in a rapidly globalizing economy and increasingly interlinked societies and social networks. But not enough is known on the impact of these changes on the transport system, e.g. of emerging social media on mobility needs and travel behavior. The multiplication of virtual contacts via Internet will certainly impact the perceived needs for physical contacts. The *ITF Transport Outlook 2013* speaks of a 'shift of in the global economic center of gravity to emerging regions'. The *ITF Transport Outlook 2011* indicates a growth of the mobility share of non-OECD countries from less than half in 2000 to 78% of passenger mobility and 69% of freight mobility in 2050. On the other hand the once emerging economies as China are already showing symptoms of "maturity" (increasing labor costs, ageing population, scarcity of resources...)

How does the transport system have to cope with this unprecedented growth and diversification of demand at a global level? Transport networks form the vital arteries of our economies and that facilitate our patterns of living. Transport enables the trade in our global economy and is a vital aspect of the labor market mobility that delivers higher economic productivity and lower inflation. It is essential that the transport system remains open and able to cope with this changing demand. But the growth in the provision of infrastructure is limited by financial, spatial and environmental constraints. Furthermore, an increasingly complex transport system is vulnerable to exogenous (climate change/adverse weather conditions, terrorism) and endogenous (congestion, accidents) disturbances. Looking at the geometry of the transport system at a global level we have to abandon the idea of East-West corridors in the Northern hemisphere as the main axis of transport flows and consider it as a network connecting all the continents.

All these considerations lead to the conclusion that our changing world needs a transport system that is robust and flexible, able to adapt and develop under changing conditions. Some elements are essential:

- System approach: the transport system is more than the interaction of means of transport and their infrastructure. It encompasses technical, organizational, legal, social and financial structures and their interactions. At the same time it is not a rigid and hierarchical system, but a versatile organism adapting to changing political and market parameters. A thorough understanding of the dynamics ruling this system is needed in order to influence it and assess its impacts;
- Multimodality: a flexible and robust transport system has to take advantage of all its transport modes with their specific characteristics and provide smooth interfaces between them. The 'transport chain' as a time-sequential concept should be complemented by a thinking in alternative, parallel options ("synchromodality"). Furthermore the term 'surface transport' may be losing relevance in a global perspective. A better integration of air transport (passenger and freight) and maritime transport (freight) in the multimodal thinking is needed;

- Better use of existing capacity: the rather volatile trends in economic development and related transport flows, the (present) limited availability of funding opportunities combined with the size and long term character of investments in transport (infrastructure) call for a better use of existing resources. Maintenance is a key issue as is high quality (real time) information for users and decision makers;
- Increase understanding and predictability: the increased complexity of the transport system and its importance for a modern society and a globalized economy require a good understanding of the key 'drivers' influencing its development. The emergence of new social and economic phenomena as internet and social media, or also *e-freight/e-commerce* when it comes to the movement of goods, may alter the mobility patterns dramatically. There is a need for a long-term vision on the transport system, although it may deviate from problems experienced or solutions accepted by the present generation of citizens. Research should play a major role to reconcile this gap by offering consistent paths into the future.

The urban and technological dimensions deserve special attention. Urban aspects will be increasingly important, as a growing percentage of Europe's citizens will live in cities. In urban conurbations the transport system has to serve competing flows of long distance and commuting trips, passenger and freight transport. Furthermore, urban mobility alongside measures in the field of urban planning and energy-saving buildings is a major factor in realizing the vision of a "carbon neutral" city. On the other hand the urbanization trends accentuate the task of the transport system to serve rural areas, often associated with an ageing population and social exclusion.

Technology plays a decisive role in meeting the challenges society is facing. Policy guidance is required as we deal with competing concepts in the field of propulsion systems, energy sources, information systems etc. The examples of the supersonic aircraft and magnetic levitation show that traditional and new technologies do not necessarily coexist. A thorough technology monitoring and assessment of short and long term solutions is an important policy task.

ECTRI would like to reiterate its commitment to these efforts by promoting integrated multimodal research through the cooperation of its 25 members, its international collaboration agreements and its involvement in European Technology Platforms and other initiatives shaping the European Research Area in transport.