

ASSIST



ASsessing the **Social** and economic **Impacts** of past and future **Sustainable Transport** policy in Europe

The impact of future challenges on the transport system

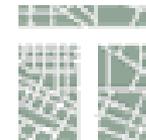


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Consortium partners



Background and information

Following slides show resumed results of impact assessments for selected 'transport policy measures' (TPM) against the background of the future challenges.

Subsequent slides show the summary of initial impact assessments of selected 20 TPMs in the light of the future challenges. The assessments are given by three different colours:

- impacts are positive with regard to European transport policy objectives
- impacts are insignificant with regard to European transport policy objectives
- Impacts are negative with regard to European transport policy objectives

Background and information - Explanation of impacts

Transport demand:

- Traffic: vehicles
- Transportation: movement of people; transport of goods

Transport supply:

- Infrastructure: links, nodes
- Transport services: passenger transport companies, logistics service providers

Challenge: Climate change

Description of the challenge: Due to climate change, a change of weather conditions: More rain in North, more drought in Southern Europe

Impacts:		
Traffic	On average more delay due to extreme weather (rain/snow)	●
Transportation	Avoidance of travel, travel to nearby locations. More telework?	●
Infrastructure	Prepare for extreme weather: Bridges, dikes, channels, etc. Positive for society, yet at huge costs.	●
Transport services	Being prepared for extreme weather conditions	●
Policy response	Mainly supply side: Support Research and Technological Innovations. Take adaptation measures for infrastructure and transport services. Create awareness, promote telework	

Challenge: Fuel shortage

Description of the challenge: Fossil fuel supply will run out over the next decades.

Impacts:		
Traffic	No direct impact. Maybe adaptation of driving behaviour	
Transportation	Avoidance of travel, travel to nearby locations. More telework?	
Infrastructure	No direct impact foreseen.	
Transport services	More fuel efficient transport services both in freight and passenger transport. Greener vehicles, electro mobility	
Policy response	On the demand side promote fuel efficient driving behaviour and telework. On the supply side: Promote research and technological innovations. Maybe think about a fair distribution of fuel among citizens. Adaptation measures, move towards alternatives.	

Challenge: Pollution/Noise

Description of the challenge: Fighting emissions and noise to improve health and environment

Impacts:		
Traffic	No direct impact upon traffic. Indirect through Pricing may lead to less traffic	
Transportation	No direct impact upon transportation. Indirect through Pricing may switch mode	
Infrastructure	No direct impact upon infrastructure. Indirect	
Transport services	Transport services may become greener	
Policy response	Measures needed to reduce pollution and noise. On the demand side the goal needs to be to change the behaviour of the user (Pricing) and to create more awareness (Flanking measure). On the supply side more efficient vehicles and infrastructural adaptations.	

Challenge: Urbanisation

Description of the challenge: Increase of proportion of persons living in cities, due to people moving away from rural areas

Impacts:		
Traffic	More traffic in urban areas, though not necessarily by car. Congestion might become a problem	
Transportation	More transportation by different modes. Shorter distances travelled. On other hand sprawling leads to longer distances	
Infrastructure	Capacity of infrastructure might become insufficient	
Transport services	More demand for transport services, both passengers and freight. May lead to inefficient services.	
Policy response	Good planning measures in combination with other disciplines. Promote mass transit or slow modes instead of car. On supply side reduce bottlenecks in both road and public transport.	

Challenge: Ageing

Description of the challenge: Increasing number and proportion of elderly people

Impacts:		
Traffic	Other traffic patterns, to leisure instead of work. Travel on different time of the day. Leads to less congestion. Safety is at stake, higher fatality rate for older pedestrians	
Transportation	On average a leisure trip is shorter than a work trip. Different activity patterns lead to different transportation patterns. Probably other modes, like public transport, though these should be clean, secure and safe.	
Infrastructure	No direct impact foreseen, maybe need to increase safety	
Transport services	Elderly people ask for clean, safe and secure transport services	
Policy response	Promote off-peak travel, review safety measures, promote clean, safe and secure transport services	

Challenge: Migration

Description of the challenge: People moving between countries. Has increased over the past decades. Gap in wages, different demographic pattern

Impacts:		
Traffic	More inhabitants cause more traffic. Car has welfare status.	●
Transportation	Though status of car is high, use of public transport is high, due to low income.	●
Infrastructure	Increase in inhabitants lead to more pressure on infrastructure	●
Transport services	People need more time to communicate: puts pressure on communication and services	●
Policy response	Partly outside transport sector: integrating people. Furthermore, creating awareness concerning communication and perceptions.	

Challenge: Insecurity

Description of the challenge: Terrorism and feeling of insecurity

Impacts:		
Traffic	No direct impact for passenger transport, unless other activities or destinations are chosen. Might lead to less traffic, though it is assumed that this impact is very small. In maritime transport it may lead to different routes	
Transportation	Some may choose other activities or locations. On the other hand it is assumed that this impact is very small. Only after a major incident this will have some effect, but soon it will be reduced. If fear continues to grow, the impact will become bigger	
Infrastructure	More security on vital points in the infrastructure, like seaports, airports, stations, bridges, tunnels. Costs will be high.	
Transport services	More security on transport services. Costs will be high. In maritime transport extra services against attacks needed or guidance by military services. In air transport already measures are being taken (as a consequence of 9/11)	
Policy response	Especially measures on the supply side (services and infrastructure). Seek international cooperation for security in maritime transport.	

Challenge: ICT

Description of the challenge: Growth and development of information and communication technology. Leads to unified communication and integrated telecommunications

Impacts:		
Traffic	Might be replaced by telework, more accurate route information, more efficient routes, reduction of accidents, more sophisticated pricing measures	●
Transportation	Other activities (more leisure), less travel, shorter distances	●
Infrastructure	ICT may help a smooth transport on the network, safer infrastructure	●
Transport services	More accurate route information leads to better services. Accurate track and trace. More efficiency.	●
Policy response	Promote research and technological innovations, Accuracy and Efficiency in other parts of the transport system.	

Challenge: Globalisation

Description of the challenge: Increasing unification of world's economic order through reduction of barriers. Also more integration of regional economies, societies and cultures.

Impacts:		
Traffic	More international traffic, leading to more maritime and air transport, including more emissions. Might also replace or enforce traffic by telecommunication. On the tails of the trip more land mode transport like road, especially near seaports and airports.	●
Transportation	Different activities and locations. Different travel patterns. More freight transport in first place. More passenger trips for leisure and business. Also average length increases	●
Infrastructure	Capacity near seaports and airports under pressure	●
Transport services	High quality, fast international services needed. More pressure on borders for smooth and efficient passing	●
Policy response	Demand and supply measures. Demand to reduce effects like emissions (Pricing), Supply to increase capacity on the network and to reduce undesirable waiting times on borders.	

Challenge: Fragility Monetary Union

Description of the challenge: Improve European growth and strengthen the internal market. Avoid a collapse.

Impacts:		
Traffic	More freight transport in international market. In case of a collapse of the Union, a reduction might occur	
Transportation	More activities and locations are chosen throughout EU. In case of a collapse the activities may shift to other locations. Average trip distance may become shorter, thus less emissions	
Infrastructure	Less budget available for infrastructural project in case of a collapse	
Transport services	Transport service will suffer from borders in case of a collapse. Also trade becomes more problematic due to different currencies in that case	
Policy response	Outside transport system. Measures should focus upon supply side to reduce barriers between countries.	

Challenge: Debt

Description of the challenge: Debt becomes a challenge when debt size is exceeding the underlying real economic values.

Impacts:		
Traffic	No direct impact upon traffic. Only through a reduction of the number of trips due to different activities. Less congestion expected.	
Transportation	Negative impact upon different activities and thus upon transport between these activities. Reduction of emissions. Reduction of demand for transport. Less resources for transport (especially leisure)	
Infrastructure	No budgets available for new infrastructure of maintenance of infrastructure. On the other hand investments to fuel economic growth.	
Transport services	Negative impact on transport services. Less service, shrinking turn-over in transport sector	
Policy response	Investment in infrastructure to fuel economic growth. Focus investments and measures where impact is largest.	

Challenge: Outsourcing

Description of the challenge: Transfer of functions to other locations or third parties, like production.

Impacts:		
Traffic	Longer trip distances on average, especially in freight transport. More emissions in that sense	●
Transportation	Increase of transport costs, although in the production costs its proportion is often limited.	●
Infrastructure	No direct implications for infrastructure	●
Transport services	Transport services will change. If it concerns services itself it may become more efficient.	●
Policy response	In general it is assumed to have an effect on transport demand through extra costs. Promote research into the impacts and the chances.	