



ACARE position on “A sustainable future for transport” (the European Transport Policy) EC communication (2009)279/4

ACARE welcomes the publication of the EC communication on “a sustainable future of transport (EC COM (2009)279/4) and the possibility for ACARE to participate in the debate.

The communication outlines the EC’s political goals for a future sustainable transport system on the basis of trends and challenges and the possible instruments to implement them.

Based on its mission, ACARE would like to give inputs to the following topics:

- Sustainable transport system
- transport to respond to society’s needs (safe, secure, accessible, environmental friendly, comfortable and affordable)
- transport networks and intermodality:
- funding/finances/pricing
- research, technology and Innovation to prepare solutions

Sustainable transport system

The EC communication is outlining, that the present economical and societal concept will still need transport for goods and passengers,

According to its white paper, EC is looking for a decoupling of transport from GDP development, but history has shown that previous decoupling efforts could not be realized, as the global economic system is based on transport means (globalisation, just in time production,) There may be constraints (e.g. from congestion) on some areas of transport (particularly roads) which could effect the linkage between transport growth and GDP but overall, and particularly for aviation, this goal seems to be questionable if not unrealistic and has to be carefully reviewed.

Nevertheless a decoupling of environmental impact from transport growth is necessary to create a sustainable transport system. Technology will be a significant part of such solutions. Therefore policy should support the development of a sustainable transport system, which allows growth of economic welfare, combined with growth of transport, but with reduced impact on the environment. The appropriate political goal should be the decoupling of the impact on climate from growth of transport (and economy).



Transport to respond to society's needs (safe, secure, accessible, comfortable, affordable and environmental friendly)

EC assumes that pricing based primarily on the environmental impact will be the main control option for the choice of the transport mode by passengers and goods. From ACARE's point of view this assumption seems too limited¹ and has to be widened.

Transport policies in general (and therefore also the future of research) will have to respond to society's needs, which have been identified by the group of personalities in its Vision for European Aeronautics in 2020 as a safe, secure, accessible, comfortable and affordable air transport system. Furthermore the society's needs are affected by the passenger's choice of travel mode with regard to distance, time, speed and reachability of his destination.

As this was accepted by all stakeholders (Member States, Commission, airlines, airports, manufacturing industry, research establishments, Eurocontrol, regulators) in the air transport system, ACARE has elaborated its strategic research agendas to fulfil these widely by society accepted needs.

Following ACARE's approach, all transport related technology platforms (ERRAC, ETRAC, Waterborne) use in principle the same concept of challenges for their respective transport mode.

ACARE would like to point out that the future global sustainable transport system needs to be at the same time environmentally friendly, safe, secure, accessible, affordable and comfortable. ACARE would like to propose to use this holistic approach including all challenges with special emphasis on sustainability.

Transport means (vehicles, networks and intermodality)

To ensure the above defined sustainable transport system the various elements of the global transport system and the system itself will have to be improved:

- innovation of sustainable vehicles
improvement of vehicle efficiency and sustainability incl. alternative fuels, safety, security, comfort, increased routing capacity, seamless adaptation of vehicles and infrastructure
- improvement of the individual networks (e.g. air transport system/SESAR, Railroad/ETCS, ...)
Topics like Single European Sky, political and technological needs for efficient and sustainable modal networks, accessibility of networks, ...
- improvement of the interfaces between transport modes / intermodality

¹ Provided a cheap system is not or barely (oder poorly) accessible and uncomfortable, only a few customers will choose the cheapest solution (Example: Low cost airlines created a new market, but only in very limited case they replaced the traditional airlines).



airports as link between air transport and road/rail transport, integration of air transport with high speed rail transport, as well as understanding the impact of transport on the climate.

Funding/finances/pricing

As outlined above pricing is a major point for choosing transport modes/means.

Before pricing can be applied with respect to the impact on the climate, it is necessary to understand the complete impact of transport and its modes on the climate.

This knowledge needs to be shared and agreed upon worldwide, to form a basis of sound scientific, economic and social understanding of the environmental impact for a global pricing system.

For some modes of transport a European system might be established as a pilot for the rest of the world. But global transport networks and society's choice of transport modes like air transport, shipping and even rail and road transport will need a global solution to ensure appropriate handling and also a level playing field for international transport means.

ACARE encourages a worldwide approach to discuss and probably set up worldwide systems for setting prices according to the environmental impact.

But pricing according to the environmental impact will not be sufficient to decouple environmental impact from growth of transport (and economy). Additional efforts are necessary to develop new technologies for transport to reduce the environmental impact.

Therefore ACARE proposes that the income created from such pricing systems should be (at least partially) (re)invested in the necessary research:
(pricing without investment in research will decrease transport with the consequence of decreasing economic welfare, whereas pricing and reinvestment in research will increase and support research, as only with better innovations transport and economic growth can be decoupled from the impact on the climate, which should be the primary goal)

Research, technology and Innovation to prepare solutions

Apart from regulative aspects a main driver for solutions will be appropriate research and development for all levels of transport (global transport system, individual transport systems like ATS, infrastructure, vehicles, propulsion).

Long product and system cycles will need strategic approaches, as decisions today will have their impact in the longer future. The only way to ensure this is a continuous debate between all related stakeholders, as done in ACARE, where MS, regulators, manufacturing industry, operators, research, universities are working together to



define jointly the strategy for aeronautical research in Europe (not only technically but also with respect to institutional enablers).

The European research and innovation system needs to cover the whole innovation chain from gaining knowledge, developing technologies, demonstrating technologies, system demonstration and implementation. This will need the cooperation of all research stakeholders from universities, research organisations up to industry, including operators, regulators, ..., as outlined in the sketch below.

Sketch showing the whole innovation chain needed

Optimisation/Improvement of innovation and research processes in Europe in order to enhance sustainable transport and to serve the spirit of the European identification and integration process.



ACARE has identified the following topics as guideline for future transport related research. Work should cover the wide remit of the whole transport system:

- Atmospheric science research to better (or fully) understand impact of transport (and transport modes) on the climate,
- Vehicle oriented research to cover societies needs, this will include improvements on the level of the vehicle and in particular new energy concepts
- Modal system research to improve the individual transport systems like air transport, maritime, rail, road, also including operational aspects (like ATM, airport, airline operation)
- Transport research to better understand how to use the best suited transport mode, to compare the various transport modes, and to improve interfaces between transport modes,



Main messages by ACARE (Summary)

- To ensure a sustainable future transport system the political goal should be a decoupling of environmental impact from growth of transport (and economy) (Decoupling growth of transport from growth of economy seems not to be an appropriate realistic goal)
- Sustainable transport needs to respond to society's needs and therefore needs to be (in addition to environmentally friendly) safe, secure, accessible, comfortable and affordable.
- Several levels of transport need to be tackled: the overall transport system, the individual transport modes and the various infrastructures incl. vehicles.
- With respect to EC's approach on pricing (costs related to the environmental impact) ACARE would like to highlight the need to fully understand the various impacts of transport and its modes/vehicles on the climate.
- On the basis of a worldwide accepted knowledge ACARE encourages a worldwide approach in case pricing on the basis of environmental costs is applied.
- Income generated from environmental based pricing systems should be (at least partially) invested in research and technology in order to decrease the environmental impact of transport and to decouple environmental impact from transport and economic growth.
- A suitable European research and innovation scheme needs to be maintained and improved to ensure the complete innovation chain. This research system needs to cover atmospheric, vehicle related, modal and intermodal system related, and overall transport related research.

ACARE will continue to prepare the future for a sustainable air transport system as part of a sustainable global transport system. Therefore ACARE will be glad to continuously contribute to the debate on the future of transport.