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ERTRAC letter responding to ECs questionnaire about lead markets

ERTRACs has the objective to monitor and coordinate road transport research and ensure that the results of the research are implemented in products and services across Europe – towards a sustainable mobility and competitiveness of one of the largest European sectors.

In addition of the supply side in R&D, e.g. FP7, it is highly appreciated, that the EC is taken into account as well the demand side of innovation - as indicated in the recent communication on innovation strategy for the EU, see COM (2006) 502.

Analysing the output of European research activities in terms of successful innovations and it is obvious that various barriers prevent the visible research results in our day - to - day life and the commercial markets.

In the recent questionnaire to the European Technology Platforms the EC identified five specific areas which are often seen as road blocks or needs in the complete innovation chain - influencing the implementation of research results.

Following examples may illustrate this out of ERTRACs perspective and the road transport sector.

1. Regulation of markets of products and services

For road infrastructures the (in most cases public) investors avoid new technologies which by virtue of being innovative are inherently associated with some form of risk. This is a result of a combination of due to the rigid rules established by treasuries and a generally risk adverse culture. Examples of this include new low noise pavements. Although it is sometimes recognised that even for decisions for investing public money a certain percentage of risk should be acceptable, the general response is to avoid innovation. In such circumstances, the acceptance of harmonised standards will also overcome the barriers to innovation.

Strict cost/benefit analysis tends to neglect future societal benefits with an appropriate discount rate. Therefore road owners tend to suboptimize the infrastructures in terms of the societal benefit in the long term.



For vehicles, the upcoming 60t truck state-of-the-art-technology faces regulatory barriers in various nations, leading to a fragmented European market for heavy goods transport. As a result the potential advantages for reduced road pavement damage and improved logistics - including less congestion - cannot be leveraged across Europe.

2. Product standardisation

Common standards are seen as important not only all over Europe, but in addition as a basis in international markets for European industry. Examples are modern LED sources (for front lights), gas vehicles and fuel cell vehicles, biofuels and infrastructure components (intelligent transport systems incl. specific traffic data), which all offer potential future markets. But careful consideration is needed since setting standards based on the best current technology might limit options for the development and roll-out of more radical innovations.

3. Intellectual property protection

For the European transport sector IPR issues are important not only within Europe itself but worldwide as well due to the high export activities. The Common - and affordable - European Patent which is being discussed since years, without an political agreement, would help to reduce cost and efforts which are needed in order to protect the significant R&D investments of this sector. The European transport sector with a high export volume needs a reliable IPR situation worldwide, therefore the EC should support the transport industry in discussions with nations like China in order to prevent violations of official agreements.

4. Public procurement

Most public procurement directives in Europe are seen as much more restrictive than it needs to be – as a consequence engineers don t take risk to advise new technologies to authorities. The majority of all public procurement is led by regional authorities which need to take the cheapest offer only - avoiding any new industry products being used in a test bed situation. Again this issue is related to a generally risk adverse culture in the public sector.

5. Risk capital

The large investment needed for establishing a new infrastructure for hydrogen as an alternative fuel for environmentally clean vehicles is exceeding the risk acceptable for industry - the access to risk capital will be instrumental in order to complement the high R&D investment for clean vehicles towards a



more sustainable mobility in Europe.

The production process of next generation biofuels has to be demonstrated in a large volume production first before successfully entering the market and is another example for a need of access to risk capital .

Clearly access to risk capital is also limited by the opportunities for recouping the investment. In the case of products aimed at the public sector market or where protection of intellectual property is poor, then risk capital is difficult to access. This is especially the case where products are developed for cross-border markets – both within and outside of the EU.

These are just examples and may be complemented by those of other relevant European Technology Platforms in technologies being used in road transport as well, such as Embedded systems/ARTEMIS or Biofrac.

As far as lead markets are concerned, public policy may have a significant role in supporting business introducing new technologies – via lead customers or launching customers, e.g. in the past in areas like GSM or Airbus.

In ERTRACs view there are some potential lead markets for European road transport sector

"Hydrogen as alternative fuel for transport"

" Intelligent CaR " (intelligent car and road)
incl. telematic technologies, infrastructure and services

"Next generation biofuel"
esp. the processing of next generation biofuel

" Zero environmental impact road transport "
providing a European wide clean and free mobility

"Heavy goods - vehicle and logistics"
which covers the vehicles, the infrastructure and all processes

The first 3 themes will presumably be reported and pursued by other relevant ETPs or European initiatives and will be supported by ERTRAC as well.



The lead markets mentioned above will generate other related innovations in various technological disciplines and Europe keeps - for the time being - a favourable position on the global market.

Due to the fact that ERTRAC is an umbrella organisation of associations, specific data on market volume will be discussed in detail with our members and may be forwarded to the EC.

Some conditions and requested policy actions are mentioned above in order to shape a favourable and advantageous business environment for taking up the new technologies.

In ERTRAC's Strategic Research Agenda various detailed topics are described along the four pillars Mobility, Safety and Security, Energy and Environment, Design and Production - which cover the new technologies needed for the lead markets mentioned above. A concrete road map will be generated and relevant research clusters are to be determined with other European Technology Platforms working on similar fields.

In order to ensure a fast take up of all research topics in the market, it is mandatory to complement the public and private research activities with policy measures such as those five mentioned in EC's questionnaire. Only a harmonized action of all stakeholders like in ERTRAC will reduce the risk of new technologies - for example in a topic like Heavy Goods Vehicles and Logistics .

Best Regards,

A handwritten signature in black ink, appearing to read 'R. Kunze', written over a vertical line that extends downwards from the signature.

Prof. Rudolf Kunze