



Brussels Programme Centre

The Future of Transport

Strategic Road Infrastructure Priorities – Beyond 2010

30 September 2009

The European Union Road Federation (ERF), the Brussels Programme Centre of the International Road Federation (IRF) welcomes the initiative of the Commission to publish a Communication on the Future of Transport in June 2009 and is pleased to give its contribution to this consultation.

The ERF – IRF BPC firmly believes in the necessity to prepare the road transport infrastructure for the challenges which it will face in the XXI Century. An increase in the number of vehicles and in the number of journeys, coupled with evolving societal needs and the current economic situation, will reshape the European transport sector in the years to come, pushing all the actors to reconsider their priorities.

While legislators all over Europe are acting to confront these changes, it is also of paramount importance that private stakeholders contribute towards establishing priorities and driving through change.

Road infrastructure has evolved dramatically over the past decades, coming from an era, only one century ago, when roads were unpaved and without any safety systems to the current state-of-the-art where the necessity to guarantee fast and efficient mobility is coupled with the most stringent safety measures. It is nevertheless necessary to continue pushing for additional improvements in road transport infrastructure, a drive which the ERF – IRF BPC believes ought to be fuelled by the right policies and strategies.

Given that the growth of transport is directly linked to the growth of the economy, prosperity and competitiveness, these future transport strategies and policies are essential for the economic development of our countries. Such strategies need to be based on correct facts and figures, which reflect the current situation and take into account the exact requirements and needs of citizens in terms of mobility in the future. In this respect, the development of the road infrastructure has an essential role to play. By bringing together stakeholders from the public and private sectors, the ERF – IRF BPC can be a driver of innovation leading to cascading improvements for the users at large.

In order to deliver these improvements to citizens, the ERF – IRF BPC wishes to see increasing investments being committed towards the road infrastructure. These investments are of paramount importance to improve the current situation of the road infrastructure and to prepare it for the challenges we are going to face in the future of transport and mobility. The ERF – IRF BPC has developed the following priorities which, in its opinion, ought to be taken into consideration by the European Commission when setting the guidelines for the Future of Transport.

1. Support transport policies based on a fair analysis of facts and figures
2. Ensure that the Road Infrastructure Safety Management Directive is properly enforced by the MS
3. Give priority to investments that will immediately and economically improve the safety level on the existing road infrastructure for all users, including the most vulnerable
4. Ensure that Road Safety and sustainability aspects are incorporated in all EU-funded road infrastructure projects
5. Optimise the development of road infrastructure tailored to cope with the future challenges of mobility
6. Encourage a global vision considering all modes of transport in a fair integrated approach, which recognises the positive contribution of roads to mobility and prosperity

Reaching our goals – Halving the number of fatalities in European roads

Road fatalities are one of the tragedies of our Century. In 2006 almost 43,000 people lost their lives on the roads of the 27 member States of the European Union¹. While this figure is lower compared to previous years, it is still very far from the objective set in the 2001 European Commission White Paper on Road Transport of 25,000 fatalities by 2010. The ERF - IRF BPC believes that this objective can be reached in the nearby future with all the parties vested with "shared responsibility" through more targeted road safety research and by means of implemented cost-effective solutions available today in the infrastructure sector.

To set the scale, it is as if, every day, an Airbus A318 jet crashed in our continent, leaving no survivors. This example scenario would, however, surely awaken legislators as well as public opinion to the necessity of imposing changes to increase safety of transport, as 117 deaths would make the news every day.

The slow trickle of road deaths, however, seems to elicit a response only when particularly gruesome accidents occur, whilst the rests of the time we seem to be accustomed to the daily bulletin of those who lose their lives on the road. Improvements, though generally slow, have succeeded in reducing the number of overall fatalities from the value of 53,000 in 2001 to the present one, but more needs to be done urgently to speed up this process; and if acting on the driver and on the vehicle surely has its role to play, fast, effective, already available and often cheap solutions can come from the infrastructure side.

There is hence an urgent need to invest in infrastructure safety to optimise the use of current technology and develop new and innovative solutions aimed at ensuring the safety of infrastructure users.

In particular the ERF – IRF BPC believes there are specific needs in the areas of:

Road Restraint Systems

- Developing research on the outstanding role that Road Restraint Systems are playing within the concept of the Road Safety Action Programme of the European Commission (e.g. by means of cost-benefit analysis). By shifting the emphasis more to infrastructure an immediate effect in reducing the fatalities will be obtained;

¹ European Road Statistics 2008, ERF – IRF BPC

- Setting up of the European Installation / Maintenance Standards to ensure an improved correlation between the containment levels of the EN 1317 and the risks of accidents and injuries;
- Promoting further research on Intelligent Barriers in order to provide more information (e.g. for statistical purposes);
- Investigating the effects that innovative systems capable of matching future traffic trends (i.e. European Modular Concept) might/will have on the existing Road Restraint System network in Europe;
- Promoting further research on the possibility of designing a dummy suitable for the EN 1317 impact test in order to have a direct correlation between real-life-injury and severity level;
- Developing research on the design of roads in order to ensure more space for greater working widths of Road Restraint Systems that would directly influence the impact severity levels experienced by vehicle occupants.

Horizontal Road Markings

- Performance of horizontal road markings in wet night conditions;
- Road layout guidance and influence of horizontal road markings;
- Effect of ageing issues over the visibility of horizontal road markings and their performance requirements;
- Preventing lane departure/excursion through horizontal road markings.

Vertical Signs

- Effect of ageing issues over the visibility of vertical road markings and their performance requirements;
- Materials: new innovative retro-reflective materials;
- Studies in the influence of the frequency of roadside objects and the potential threat of driver distraction;
- Effective vertical signs to eliminate night-time artificial illumination.

A Smart Future – Intelligent Transport Systems (ITS)

The steady increase in the mobility of people and goods poses challenges of a new dimension to the European continent. Congestion, traffic safety and the sector's environmental footprint require innovative solutions to be combined with the simpler road infrastructure improvements. Intelligent Transport Systems, although in many cases invisible to the public, are essential towards achieving the aforementioned goals.

ITS applications are very broad, ranging from electronic toll collection to automatic road enforcement, and are expanding rapidly across all modes of transport. Some applications, such as the pan-European in-vehicle emergency call technology "eCall", have already proved to be indispensable tools to make a substantial contribution to road safety. When fully deployed in all Member States in 2010, the technology could save an estimated 2,500 lives every year². Another example is the positive effects on traffic management generated by the use of Real-Time Passenger Information, Road User Charging, Fleet Tracking Systems, and other land based ITS applications that have recently appeared in the market.

Some key applications already make use of the existing satellite navigation systems (e.g. GPS). With the advent of the European satellite navigation system (EGNOS now and Galileo in the future) there will be a revolution in the way each and every European citizen conceives and undertakes his personal mobility.

Today, however, much work remains to be done to speed up the integration of mature applications in our transport system and to foster research activities on new ones. The ERF – IRF BPC strongly believes in the important opportunities offered by ITS technologies and services and is committed to offering its full support to initiatives in the field.

² http://www.esafetysupport.org/en/ecall_toolbox/

In terms of ITS, the ERF – IRF BPC is eager to support initiatives intending to:

- Promote the development of an Intelligent Road Initiative, following the successful example of the Intelligent Car Initiative;
- Develop cooperative systems between infrastructure and vehicle (V2I) and between infrastructure and user (the so-called “talking road”);
- Improve urban mobility management thanks to cooperative traffic control and management systems, in particular management systems for the movement of oversized vehicles;
- Design intelligent parking systems to be implemented within urban environments;
- Create autonomous driving systems, with a specific focus on automated highways;
- Develop innovative crash avoidance systems based on the interaction between the infrastructure and the user;
- Encourage the migration from existing technologies (GPS, radar sensors, etc...) to EGNOS/Galileo technologies, with specific focus on safety of life applications (ADAS, emergency services, Information for vulnerable road users in particular motorcyclists), road charging schemes and accident reconstruction schemes.

Sharing our space – Sustainable roads in a sustainable environment

Due to its potentially detrimental impact on the environment and public health on the one hand and its indisputable positive influence on economic growth and well-being of the citizens on the other, road transport poses one of the main challenges for sustainable development within the EU.

Policies considering the possible reduction of road transport or even its complete eradication would prevent the movement of 73% of freight transport and 91% of passengers and would jeopardise the jobs of around 5.3% of the total European workforce³. Thus the European Commission is looking at other policy tools to promote more sustainable transport, among which an optimised use of all transport modes and a better share of roads between private cars, freight vehicles (including larger vehicles) and other users (pedestrians, cyclists, taxis, public transport such as buses, etc.).

To complement the above measures, the ERF – IRF BPC advises to act upon the transport infrastructure itself, as it currently represents an underexploited opportunity for energy efficiency gains. It strongly advocates for not delaying the necessary investments in infrastructure, which will contribute to decrease traffic congestion and the related CO2 emissions levels.

The ERF – IRF BPC defines roads as sustainable if, through effective planning, design, construction, operation, maintenance and rehabilitation, they have the capacity to use resources efficiently during their life cycle; provide improved transport benefits for the whole community; respect the environment; and enable a range of socio-economic services (notably in terms of enhanced mobility, safety and comfort). Bearing this definition in mind, the ERF – IRF BPC encourages the European Commission to do its utmost best to promote solutions based on the environmental and socio-economic pillars of sustainability.

The Environmental goal

- Developing a methodology to audit the environmental quality of road projects during their complete life cycle, from planning to maintenance, including not only planning, materials, construction, maintenance, service and demolition, but also the evaluation of the optimisation of the energy consumption of vehicles;
- Creating a pool of European experts in environmental and road infrastructure issues to develop the proposed methodology;
- Generating a tool to assess transport modes efficiency, hence allowing to compare their socio/eco/environmental footprint on fair basis;
- Proposing inspired solutions in order to optimise water management and energy and resource economy;
- Contributing to produce infrastructure systems and services supporting eco-driving;

³ European Road Statistics 2008, ERF – IRF BPC

- Elaborating guidelines to optimise the knowledge, the methods, the usage and the global effectiveness of land transport noise reducing devices;
- Developing a standardised method to assess the efficiency of the noise abatement solutions implemented within the European Noise Directive (2002/49/EC).

The Socio-Economic goal

- Linking safety, environment and mobility in the global agenda;
- Proposing a new road infrastructure design/construction process and the optimisation of the existing ones, supporting the European Commission commitment, of a “Sustainable Consumption and Production”, anticipating future demographic developments;
- Evaluating the ways to extend the socio-economic benefits of improved road networks to all categories of road users, roadside communities and peripheral countries or regions;
- Encouraging global approach methods, which encompass all the mobility requirements and also take into account the contribution of roads to the general welfare;
- Analysing the inadequacy of present appraisal methods for capturing the socio-economic importance of roads with a view to making recommendations for a common approach to calculation;
- Reducing the road infrastructure gap between and within MS by implementing EU Standards.

The Road to the future

The ERF – IRF BPC is keen to stress the importance of conducting the right policies in the many fields pertaining to road transport and is adamant that its recommendations will be taken into due consideration by policymakers when outlining their strategic priorities for the years to come.

As statistics show, in fact, road transport is still the most popular form of transport within the European Union and there is a determined need to ensure that citizens are obtaining the best value for their money. This means ensuring their mobility is safe, green, efficient and intelligent, allowing people (and goods) to move at will throughout our continent. Mobility is a right and is directly linked to freedom, quality of life and economic development.

Being an essential part of the entire transport framework, road infrastructure has to be considered in an integrated approach, which does not generate restrictions to mobility and economic welfare, but contributes positively towards the objective of a global efficiency for a safer mobility of persons and goods.

In order to reach this ambitious target, however, it is necessary to continue bettering the products and technologies which we apply to the road infrastructure, so that users can always be confident the best products are at their service. This can be only done if the public and private sectors continue investing into better materials, research for new applications, new technologies, etc.

The ERF – IRF BPC believes it is time for the public and private sectors to rise in order to meet the challenge of fostering the necessary investments for new and better road infrastructure through tailored programmes to develop the key areas of the sector.

Possible legislative steps

- Increase budgetary lines in favour of road infrastructure investments, to improve and update the existing infrastructure, to develop it and make it ready to face the challenges of the future. All European institutions ought to increase their budgetary allocations for road transport in order to achieve the goals mentioned in this document;
- Creation of a European Roads Agency capable of managing funding for road infrastructure (safety, ITS, etc.) within the European Union;
- Appoint one single person to oversee all problems related to road safety. This “Mr. Road Safety” would act as a point of reference for all stakeholders and promote policies and solutions with the 25,000 fatality target (and beyond) in mind;

- Encourage the pooling at European level of national road administrations/bodies within the framework of pan-European organisations;
 - Support research conducted by private entities, also outside of the scope of European co-funded projects, especially when in key areas like road safety;
 - Promote road safety actions and give visibility to the already existing road infrastructure remedial solutions, as these can be immediately implemented and contribute directly to saving lives on European roads.
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The European Union Road Federation (ERF) – International Road Federation - Brussels Programme Centre (IRF BPC)

The European Union Road Federation (ERF), the Brussels Programme Centre of the International Road Federation (IRF) is a non-profit association which coordinates the views of the European road sector and acts as a platform for dialogue, information and research on mobility issues.

The ERF is part of the IRF, which was established in 1948 and has over 500 members in 6 continents. The IRF seeks to promote the benefits of valid road transport infrastructure at all levels of society.

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