

**WRITTEN CONTRIBUTION OF THE ASECAP SECRETARIAT**  
**IN RESPONSE TO THE EUROPEAN COMMISSION'S GREEN PAPER ON A**  
**COMMON STRATEGIC FRAMEWORK FOR EU RESEARCH AND INNOVATION FUNDING**



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**Common Strategic Framework for EU Research and Innovation Funding**

**1. INFORMATION ABOUT THE RESPONDENT**

ASECAP (*Association Européenne des Concessionnaires d'Autoroutes et d'Ouvrages à Péage*) is the European Association of Operators of Toll Road Infrastructures<sup>1</sup>. It is the sole pan-European organization that brings together operators of more than 44.000 km of motorways, bridges and tunnels, from 20 countries<sup>2</sup>. The network of ASECAP's members thus constitutes a large part of the Trans-European Road Network.

ASECAP's mission is to promote tolling as the most efficient tool to finance the construction, operation and maintenance of motorways and other major road infrastructures. ASECAP and its members are committed to:

- Exchanging information and experience, participating in research programmes and further developing and enhancing the direct “user-payer” toll system as an instrument of a sustainable, safe and environmentally friendly transport policy.
- Strengthening the efficiency of their networks and permanently improving the level of services provided to the European citizens, by keeping up with the latest technology developments and the best operational practices.

Generally speaking, motorway companies are actively involved in applied R&D activities pertaining to road transport and make significant investments in this field. Moreover, ASECAP and its members are key players with regard to the deployment of ITS (Intelligent Transport Systems) and are involved in EU-level initiatives in this field (e.g. ASECAP's co-chairmanship of the E-Safety Forum's Steering Group). In addition, several ASECAP members have participated in relevant EU-funded research projects (e.g. CVIS, SAFESPOT, COOPERS). In select cases, ASECAP itself also participates in research projects (e.g. the ongoing FOTsis project funded under FP7), bringing added value through its pan-European dimension and extended network.

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<sup>1</sup> [www.asecap.com](http://www.asecap.com); ASECAP is enlisted in the European Commission's register of interest representatives (ID 76903725494-68).

<sup>2</sup> Source: ASECAP Statistical Bulletin 2011.

According to the ASECAP Secretariat, achieving the objectives put forward in the Europe 2020 Strategy and the Innovation Union requires moving from ideas to concrete deployment by “breaking the ice” and building a realistic partnership between the public and private sectors. For the much-needed coordinated approach on transport research and innovation, the European Commission should establish a permanent corridor with the actual market players in order to understand fully what research is needed, which objectives are to be prioritised and for which the roadmaps the market is mature and ready. Against this background, the ASECAP Secretariat would like to contribute to the discussion launched by the European Commission’s Green Paper on a Common Strategic Framework for EU Research and Innovation Funding, namely by responding to questions 2, 7, 9, 10, 11 and 15.

## 2. GREEN PAPER, SECTION 4.1: WORKING TOGETHER TO DELIVER ON EUROPE 2020

*Question 2. How should EU funding best cover the full innovation cycle from research to market uptake?*

In the field of transport, covering the “full innovation cycle” presupposes a sound understanding of the related value chain. This value chain has many links, each with its own characteristics, actors, maturity, willingness to innovate and related “speed of change” that innovation will bring.

The transport value chain is a system of players/stakeholders who regulate, compete and cooperate. A triangle of regulators, competitors and co-operators, all interacting efficiently within a socially-oriented market reality, is necessary to produce a product of a certain quality (the “transport service”) that the user/consumer will be willing to buy/consume at a certain affordable cost. The main components of this value chain are the States (that regulate), the transport infrastructure (managed by cooperating operators – either public or private), the vehicles (constructed by competitors) and the users (driving the vehicles on the infrastructure).

The above analysis identifies the states, the infrastructure managers, the automotive industry and the citizens/hauliers as the sole stakeholders of a transport market. The quality and the cost of the so-called transport service will depend on the way each stakeholder will understand clearly and respect fully its proper role.

To move successfully from theoretical descriptions to practical interaction/deployment, the actual market players have to be involved from the onset in EU research and innovation policy.

While the State determines the relevant regulatory framework and sets political objectives of a societal nature, the “transport service” and related research priorities will always be the result of the transport market reality based on producer availability and consumer demand: only the “transport producers” (both infrastructure operators and vehicle manufacturers) are able to specify what they can produce and only the users can indicate what they are ready to pay for. To cover the full innovation cycle, EU funding should thus support these market players in gathering the data needed to make better informed choices, while focusing on priorities that can be realistically achieved.

*Question 7. What should be the measures of success for EU research and innovation funding? Which performance indicators could be used?*

Even though academic research has intrinsic value, only the eventual results generated by the activities undertaken constitute the true yardstick for measuring the success of EU research and innovation funding in the field of transport. This implies the actual deployment of cooperative intelligent transport systems, based on a phased approach.

To start with, we must understand:

- “who we are” as regulators, producers and consumers, and
- “where we are” at present.

Subsequently, we will be able to describe our vision and decide on “where we want to go” in the future, define “how we will arrive at our destination” and “gauge the distance” between the present and the future. This will allow us to structure the market game, its players and their tools. Stable, long term, economically sustainable scenarios need to be built, capable of adjusting to the unpredictable. The ensuing stable system should be regulated with consistent rules, properly monitored and enforced. Within the framework set by the regulators, the industry should define the data that need to be collected using intelligent technologies. The industry should then be able to interpret commonly these data, transforming them into a “sea of information” that can be structured into targeted “packages of Information” for interested market groups. The measure of success will depend upon the provision of these commonly understood information packages at an affordable cost and with a given quality – using intelligent technologies and a cooperative system.

### 3. GREEN PAPER, SECTION 4.2: TACKLING SOCIETAL CHALLENGES

*Question 9. How should a stronger focus on societal challenges affect the balance between curiosity-driven research and agenda-driven activities?*

No society can survive without curiosity-driven research, although most of the curiosity efforts are finally lost or forgotten. Organized societies (while fully respecting curiosity as an important factor for research) should evaluate the cost of unregulated curiosity-driven research and the strong benefits of the agenda-driven research of the real market players.

Tackling the complex societal challenges pertaining to transport and mobility requires realistic deployment scenarios for the introduction of innovative and energy-efficient vehicle technologies, the implementation of sustainable transport systems and smart infrastructure management. This poses a double challenge: on one hand, it must be ensured that ideas can actually be transformed into real results; on the other, transport policy must be based on the right premises.

*Question 10. Should there be more room for bottom-up activities?*

Words not properly evaluated like “more” or “less” are rather dangerous when defining future action plans. In different market environments, both answers (i.e. “more room” or “less room” for certain activities) may therefore be the right answer.

It should be underlined that every productive action needs a well-coordinated double-edged approach, top-down *and* bottom-up. A strictly top-down approach is a negative dirigistic approach, while undertaking uncoordinated bottom-up activities leads to chaos. The challenge is to find the right balance.

Future research and innovation in surface transport, across all modes of inland transportation, must start from the full identification of the existing reality and the future objectives.

The second step is managing an “intelligent interaction” of

- the intelligent infrastructure,
- the intelligent vehicles and
- the intelligent human factor (either the driver or the citizen more generally)

in a harmonious cooperative environment, thus producing and delivering to the society an intelligent transport product/service.

Such research and innovation should follow a holistic approach, addressing innovation throughout the entire transport value chain from both micro- and macro-perspectives, and be deployment-oriented. To facilitate the harmonised and realistic deployment of new technologies, research and innovation should be based primarily on the actual needs of the real market players. Therefore, it should be avoided to work towards *a-priori* solutions without involving the market actors from the start. In this respect, it is essential to recognize that the roles of governments and industry are different: whereas governments regulate transport, industry produces transport, both serving the citizen/consumer. Yet, governments lag behind business in their understanding of the real transport characteristics, notably as regards the potential of research in transport intelligence.

In addition, it is essential to acknowledge the “speed of innovation” and capacity to change of each link of the transport value chain. Road infrastructures are in principle not exposed to market conditions, in the sense that road operators are not competing with each other. Therefore, it is not their highest priority to innovate and to apply intelligent transport solutions so as to offer a better service for their road users (even though increased commercialization of road management, especially with electronic smart pricing, is changing the culture of the road infrastructure managers). Because of this reality of the transport value chain, EU research and innovation policy should include, from an early stage, the road infrastructure managers in its planning of research instruments, in order to avoid that future research programmes remain theoretical exercises rather than responses to real market needs.

*Question 11. How should EU research and innovation funding best support policy-making and forward-looking activities?*

When further developing EU schemes for innovative transport research, decision-makers should take into account that transport infrastructure is “a living entity” that constitutes the backbone of the economy and is strictly correlated to growth and a source of economic competitiveness. As stated in the European Commission’s White Paper of 28 March 2011 on future EU transport policy, curbing mobility is not an option. Consequently, EU research and innovation funding for transport should be focused on the deployment of an intelligent transport system that improves transportation and mobility all while containing transport’s negative effects.

In a socially-oriented transport market, research and innovation should also lead to the adoption by the regulators of smart rules conducive to the actual uptake of intelligent technologies by the market players, for the benefit of the citizens.

Consequently, support is needed for realistic decisions:

- By the policy-makers, on what transport service they wish for their societies;
- By the transport producers, on what transport service they can produce;
- By the transport consumers, on what transport service they are ready to pay for, either directly as users or indirectly as citizens.

#### 4. GREEN PAPER, SECTION 4.3: STRENGTHENING COMPETITIVENESS

*Question 15. How should industrial participation in EU research and innovation programmes be strengthened? How should Joint Technology Initiatives (such as those launched in the current Framework Programmes) or different forms of 'public private partnership' be supported? What should be the role of European Technology Platforms?*

Transport research and innovation should follow a new philosophy for “doing business”.

A European way of thinking based on collaboration between the EU, Member States, the industry and the research community will in the long term maximise the attainment of the objectives set by policy-makers at European and national level. Bringing together the vision of research intelligence and the realism of intelligent management will help the transport system to operate more efficiently, namely through the availability of a sustainable, green and smart transport service of increased quality, offered to the European citizens at an affordable cost. Interaction and cooperation should be secured between:

- Intelligent governments (understanding the reality in the field);
- Operators of intelligent infrastructures;
- Manufacturers of intelligent vehicles;
- Intelligent drivers (awareness).

Too often, innovative intelligent technologies remain fragmented, theoretical and uncoordinated ideas, confined to the academic and purely research world. Therefore, it is not surprising that intelligent transport technologies are still under-utilized.

To break the glass wall between “intelligence” and “management”, it is crucial to involve the real market players from the very beginning in the research and innovation process and to take account of their capacity to innovate. This being said, the relevant European Technology Platforms have an important role to play, provided they actually comprise representatives of all the real market players, including road operators (which is all too often not the case at present).

## 5. CONCLUSION

In the transport domain, innovative research should address policy-makers and industry, assisting them to understand “where we are” and decide “where to go”, using technological solutions in order “to get there”. This requires defining the data needed for a commonly measurable transport matrix.

Moreover, innovative transport research should focus on cooperative technologies relating to:

- Intelligent vehicles (V2V, I2V), including long-range electrical cars;
- Intelligent infrastructure (I2I, I2V), including power supply infrastructure;
- Intelligent drivers (HMI);
- Efficient use of intelligent infrastructure, by intelligent vehicles with intelligent drivers applying smart technologies designed for cooperative systems and made available by service providers.

The expected results from such an approach include better mobility, improved protection of the environment, increased efficiency of road operators, faster emergency response, improved safety and security, increased comfort for road users and greater potential for better co-modality.

The results of innovative research have intrinsic value, but are still under-utilized in the real world. It is commonly agreed that transport’s persistent problem is to be found in the long and complex value chain, the big number of players interacting and the different speeds of innovation that each player is ready to follow. Over the past years, rapid advancements in technologies have shaped potential solutions into viable, greener and safer alternatives for the future of transport. However, these solutions are encountering many practical impediments, proving once more that innovation and actual deployment are a difficult challenge.

Understanding transport as an intelligent service will put an end to the “chicken and egg” question of who acts first. The intelligent transport system is a value chain and the first link of the chain is the intelligent infrastructure. There is no intelligent driver or intelligent vehicle if the road network is not intelligent. Therefore, the speed of innovation should be adjusted in order to take into account the innovation capacities of the road infrastructures.

As already underlined, the roads are in principle not exposed to competitive market conditions and they do not live by innovation. Their willingness and capacity to change has to be thoroughly considered by the innovators and researchers. Policy-makers should remember that road infrastructures are built for years (even centuries) and should thus tackle proposals of *a-priori* solutions head-on by insisting on the involvement of road operators from the beginning, in order to ensure the effective deployment of concrete results.

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