Draft for discussion

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ERTRAC Position Paper

ROAD TRANSPORT RESEARCH AND INNOVATION IN HORIZON EUROPE AND EUROPEAN COMPETITIVENESS FUND 2028-2034

SUMMARY

In the context of the new EU budget 2028-2034 and the preparation of the follow-up of Horizon Europe, an important question arises for the future of Road Transport Research: Besides the setup of a Joint Undertaking to support the competitiveness of the automotive sector, will there still be a funding space to address other research challenges of road transport? ERTRAC and the associations supporting this position paper are convinced that European collaborative research is necessary to address the systemic road transport research needs critical to improving the efficiency, sustainability, safety and resilience of the whole mobility system and reaching the related EU targets. Some of these needs will be addressed by the Joint Undertaking for the automotive sector, the scope of which will be defined during 2026, but others will not. Therefore, ERTRAC calls for the standard Work Programmes of the next Horizon Europe 2028-2034 to include a budget for Road Transport Research covering these additional needs. Moreover, the European Competitiveness Fund should provide support beyond Horizon Europe to accelerate the deployment of innovative transport solutions, as mobility is a key component of competitiveness.

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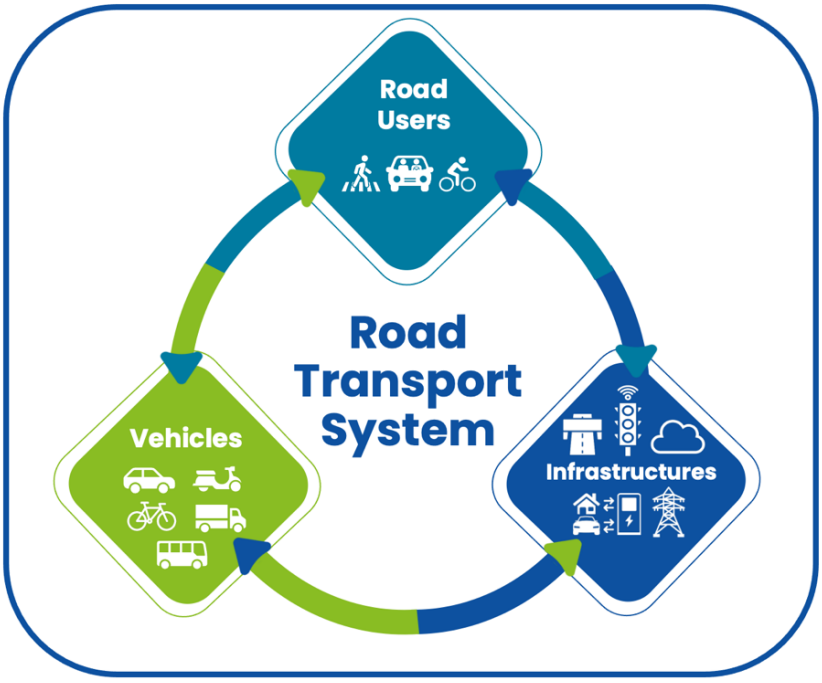
As announced by the EC Industrial Action Plan for the European automotive sector, a new Joint Undertaking (JU) is expected to be proposed within the next Multiannual Financial Framework. This future Automotive JU should become a key tool to organise European collaborative research for the sector, bringing together the activities from the previous partnerships 2Zero, CCAM and Batteries. The R&I activities funded by this future Automotive JU will follow the guiding principle to support the competitiveness of the European automotive industry. The exact scope will be defined during 2026, following the Memorandum of Understanding signed between the European Commission and the associations representing the 2Zero, CCAM and Batteries partnerships, and with the support of the EURIAS expert group set up by the EC.

A ROAD TRANSPORT R&I SYSTEM APPROACH BEYOND THE AUTOMOTIVE PARTNERSHIP

While being supportive of this process, ERTRAC wants to stress the need for continued R&I support for the transformation of the whole road transport and mobility system. This is in line with the mission of ERTRAC and with the EU Sustainable and Smart Mobility Strategy**.** The system approach, taking a holistic view of the road transport system's core elements (road users, physical, digital and energy infrastructures, and all types of road vehicles), is of crucial importance to deliver benefits to society and transform a pan-European system of highest relevance for the daily life of citizens. While it is expected that some system integration elements will be included in the scope of the future automotive JU, others will not.



It is not the aim of this paper to define which elements should be included or not in the JU, the goal is rather to stress the importance of all such systemic R&D needs to be well covered in the future. ERTRAC therefore, calls upon the EC, the EP and Member States to ensure that the future Automotive JU will be complemented by continued funding for Research for the Road Transport System in the standard Work Programmes of the Horizon Europe budget 2028-2034.

Topics such as urban mobility, public transport, logistics, road safety, physical and digital road infrastructure, energy infrastructure, active modes, shared mobility, etc. are systemic topics that are fundamental to preserving and improving the mobility of people and goods. Moreover, they can contribute substantially to the reduction of socio-economic costs.[1] R&I activities in Social Sciences and Humanities, such as policy and socio-economic research, R&I on business models

[1] For road safety alone, the estimated socio-economic cost savings would add up to the trillion-euro range, if the longer-term EC policy targets were met [Ref.: ERTRAC Safe Road Transport Research Priorities for 2025 – Safer and More Sustainable Mobility for All, 17.11.2023]

and on human factors are also indispensable for informed decision-making. Multi-stakeholder R&I collaboration in these areas is necessary to advance on objectives set by EU policies, including the climate and energy transition goals set in the European Green Deal, and the transport policy goals set in the Sustainable and Smart Mobility Strategy. Moreover, topics such as efficient urban mobility and high-performance road infrastructure are of key importance for the economic competitiveness of the EU, well beyond and complementary to the automotive sector. European collaborative research on these topics and the system perspective should therefore be preserved.

The multi-stakeholder collaborative approach has been promoted for many years by ERTRAC and has proven to be the right approach to address systemic challenges where one actor alone is not able to solve challenges or implement solutions. Such an approach also contributes to R&I activities that study synergies between sectors. As ERTRAC is the only platform bringing together all the different public and private sector stakeholders in road transport research and innovation, ERTRAC will be happy to continue advising the European Commission and EU Member States on precise research needs in line with its recently updated Road Transport Vision 2050. ERTRAC stands ready to continue its mission beyond 2028 and calls for good coordination on which research topics will be covered within the automotive Joint Undertaking and which ones should be addressed by the standard Work Programmes.

Future road transport research needs are provided in the new 2026 Strategic Research Agenda of ERTRAC: some may contribute to the competitiveness of the automotive industry, others are important for the transformation of the European transport system, many of them with a longer-term perspective and with the potential to bring substantial socio-economic benefits. Such research will contribute significantly to the sustainability, safety, accessibility, inclusiveness and resilience of the road transport system, as an important enabler for the mobility of people and goods as well as long-term prosperity of the industry in Europe.

ROAD TRANSPORT R&I BEYOND FP10: RTR INNOVATION IN THE ECF

The EC proposal on establishing the European Competitiveness Fund (ECF) acknowledges the importance of the different elements of the road transport system, listing “the development and deployment of smart mobility, including vehicles, infrastructure, connected and automated mobility, smart traffic management systems and related services“ as activities to support the ECF policy window “Clean Transition and Industrial Decarbonisation”. Consequently, ERTRAC suggests that the tools of the ECF should include transport as one of the key sectors to be supported. Indeed, in addition to the automotive industry being one of the most important industrial sectors of Europe, the transport system is absolutely vital for the efficient functioning of the economy, as all businesses rely somehow on transport to conduct their activities. The European Competitiveness Fund should therefore include budgets and tools to support a more efficient transport system, e.g. to accelerate and scale the implementation of innovation in urban mobility, logistics, infrastructures, etc.

Therefore, ERTRAC strongly supports the establishment of a coherent funding mechanism covering both R&D under the Horizon Europe programme and market implementation under the European Competitiveness Fund. Road transport should be one of the sectors for which this coordination is implemented with great ambition. And an appropriate governance including the stakeholders should be set up to ensure efficient linkages between FP10 and the ECF tools.

Spotlights

URBAN MOBILITY

Cities are important focal points for road transport policies (TEN-T, AFIR, ITS Directive) and innovation and hold many of the keys for the EU to be able to reach its Green Deal ambitions. With electrification at scale, automation and growing digitalisation, the number and variety of mobility practices (private, public, shared) in cities is growing – both for the movement of people and goods. Shared mobility services are well-established, urban applications of CCAM are at the verge of a breakthrough, active travel modes are indispensable. And citizen mobility patterns are evolving towards more sustainable and efficient choices. This evolution requires reshaping urban physical, digital and energy infrastructures to meet users' needs and sustainability targets. Its impact on all urban mobility stakeholders (industry, operators, researchers…) needs to be carefully analysed. It requires the role of public authorities, in collaboration with all relevant stakeholders, as planners and orchestrators of an urban mobility ecosystem, which combines both public and private sector-driven mobility services, is inherently multimodal, universally accessible and puts public transport and active travel at the core. Innovative services have shown great potential to improve the economic performance, accessibility, inclusivity, and sustainability of people and goods transport in cities. At the same time, however, they represent certain risks, which must be anticipated through **well-thought-out integrated urban mobility policies, supported by road transport research going well beyond issues of automotive competitiveness**.

ROAD INFRASTRUCTURE

Automotive innovation and road infrastructure performance are **inseparable**. As FP10 (2028–2034) and the future Automotive Joint Undertaking are defined, dedicated Road Infrastructure R&D&I must remain firmly anchored in the standard Horizon Europe Work Programmes. Vehicle innovation can only deliver its promised value if it operates on safe, resilient and future-ready infrastructure, recognising the increasingly diverse aspects to infrastructure management. **Without parallel investment in infrastructure research, Europe risks creating a structural bottleneck to its own green and digital transition**.

Europe's physical road network is under mounting pressure: ageing assets, constrained budgets and rising maintenance backlogs coincide with new demands from electrification and automated driving. Accelerated wear, higher lifecycle costs and increasing exposure to extreme weather and hybrid threats — highlighted by the war in Ukraine — make resilience and security strategic imperatives. Predictive, data-driven maintenance and smarter asset management are essential to ensure cost-effective interventions and ensure efficient use of public funds.

Alongside this is the need to develop our digital road infrastructure, which will offer a valuable platform for managing our physical assets and support deployment of automotive innovation. This digital infrastructure will also advance circularity and support Europe's climate action and sustainability commitments. It will enable policies that enhance European sovereignty by opening markets for circular economy, recycling and low-carbon materials. It will also support new business models that are essential for the successful extension of green public procurement, lifecycle optimisation and stronger domestic value chains.

The availability of an efficient physical and digital road infrastructure network is a **cornerstone of European competitiveness**, supporting logistics efficiency, territorial cohesion and strategic autonomy. FP10 must secure strong, visible and dedicated R&D&I support to ensure Europe's transport system remains robust, innovative and sovereign.

ROAD SAFETY

Road safety is a highly relevant research domain to achieve societal benefits, saving the lives and protecting the health of EU citizens. It is supported by a strong policy ambition, the Vision Zero: a transport system in which human life is the paramount concern and no-one is killed or severely injured anymore. In the EU Road Safety Policy Framework 2021 - 2030 "Next steps towards 'Vision Zero'", the EC emphasizes the importance of this vision not only as a numerical target, but as a mindset, and adopts the **Safe System Approach** as the basis of its future road safety policies. At the same time, the society and technology are rapidly evolving. The developments include digitalisation, AI, new types of vulnerability, and other elements providing new challenges, new solutions and new opportunities.

This approach implies that responsibility for road safety is shared by all relevant stakeholders including individual road users as well as system designers and operators from the public and private sector, and considering also new aspects and entrants due to the evolving mobility landscape. This is essential, as all layers of safety need improvement: road user behaviour, road infra-structure, vehicles and mobility solutions, road safety management, and post-crash response. Consequently, **the Vision Zero policy ambition can be achieved only if a system approach is taken and if all elements of the road transport system are addressed in a balanced way**.

LOGISTICS

Road freight transport is undergoing a profound transformation driven by the green and digital transitions, with major implications for commercial vehicle products and services and for the logistics systems in which they operate. With around 75% of intra-European freight flows relying on road transport, this transition is of strategic importance for the European economy. Beyond these, several systemic dimensions related to the evolution of logistics must be addressed:

- **Digitalisation and intelligent logistics systems.** The deployment of artificial intelligence, electronic Freight Transport Information (e-FTI) and European logistics data spaces are enabling end-to-end visibility, optimisation and coordination of freight flows. These developments underpin the Physical Internet and require physical, digital and semantic interoperability across actors and modes, strengthening the **integration of road transport within data-driven multimodal logistics networks**.

- **Logistics nodes as multimodal, energy and digital hubs.** Ports, terminals, freight villages, warehouses and consolidation centres act as key system integrators between transport modes, energy systems and digital platforms. Their adaptation, through access to renewable energy, grid reinforcement, smart energy management and digital tools for modal synchronization is essential to support zero-emission, increasingly automated logistics operations and to fully exploit new vehicle technologies and services in synchromodal operations.

- **Freight and logistics in urban mobility systems.** Freight transport is an integral part of urban mobility and spatial planning. New vehicle types for last-mile delivery, such as cargo bikes and delivery robots, together with logistics concepts including urban consolidation centres, micro-hubs and alternative delivery points, are reshaping urban logistics in response to e-commerce growth, circular economy models and changing demand patterns, requiring coordinated transport, energy and digital approaches.