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Position Paper

Road Transport Research in Horizon Europe Follow-up

SUMMARY

With the proposal for the new EU budget and the preparation of the Horizon Europe follow-up (2028-2034), an important question arises for the future of European Road Transport Research: Beside an Automotive Partnership / Joint Undertaking focussing on the competitiveness of the automotive industry, will there still be a funding space for Road Transport Research addressing other challenges of road transport, that EU citizens are facing in their daily lives? ERTRAC and the associations supporting this position paper are convinced that dedicated funding for such Road Transport Research is necessary to address the systemic road transport research needs critical to improve the efficiency, sustainability, safety and resilience of the whole European mobility system.

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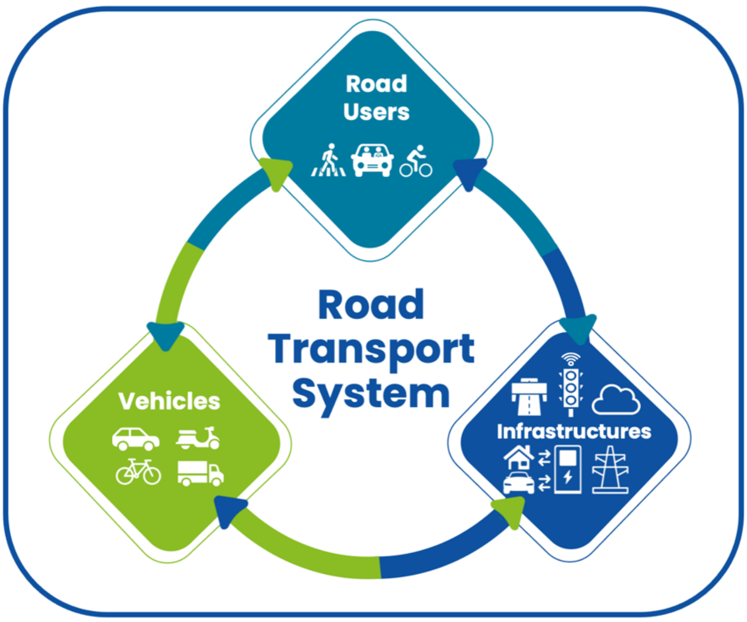
As announced by the EC Industrial Action Plan for the European automotive sector[1], a new dedicated Joint Undertaking (JU) should be implemented under the new Multiannual Financial Framework (MFF): This future Automotive JU should become a key tool to organise European collaborative research for the 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 provide support for the competitiveness of the European automotive industry. They are likely to focus on technological aspects, with the core product of the automotive industry – the motor vehicle – at the centre.

In this context, while being very supportive of the creation of this dedicated instrument, **ERTRAC wants to stress the need to complement this support for the competitiveness of the automotive industry with continuous R&I support for the transformation of the whole road transport system,** which the EC Sustainable and Smart Mobility Strategy[2] is aiming at**. The system approach, taking a holistic view at 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 lives of citizens.** Topics such as urban mobility, public transport, logistics, road safety, road infrastructure, energy infrastructure, active modes, etc. are systemic topics that are fundamental to preserve and improve the mobility of people and goods. Moreover, they can contribute substantially to the reduction of socio-economic costs.*



Consequently, policy and socio-economic research, R&I on business models and on human factors is important for informed decision making, as well. European collaborative research on these topics, the system perspective, and the multi-stakeholder approach supporting them should be further strengthened.

[1] COM(2025) 95 final, Brussels, 5.3.2025
[2] COM(2020) 789 final, Brussels, 9.12.2020
* 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]

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[3], and the transport policy goals set in the Sustainable and Smart Mobility Strategy. The EC proposal on establishing the European Competitiveness Fund (ECF)[4] acknowledges the importance of the different elements of the road transport system by "supporting the development and deployment of smart mobility, including vehicles, infrastructure, connected and automated mobility, smart traffic management systems and related services" as specific activities to support clean transition and industrial decarbonisation policies. How that can be implemented, however, remains open for the time being.

The multi-stakeholder collaborative approach, which is essential for such R&I, 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 the issues. To continue this multi-stakeholder commitment to work on road transport innovation, we call on the European Commission to ensure that these systemic road transport research topics can still be addressed in the timeframe 2028-2034 by Horizon Europe and by complementary funding under the Competitiveness Fund, for example in regular calls beside the Automotive JU and in (joint) flagship initiatives.

As the only platform bringing together all the different stakeholders in road transport research, ERTRAC will be happy to continue giving advice to the European Commission and to EU Member States on precise research needs in line with its recently updated Road Transport Vision 2050, that reflects very well the road transport related elements of the EC Sustainable and Smart Mobility Strategy.

Spotlight on 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 new mindset, and adopts the **Safe System Approach** as the basis of its future road safety policies.

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. This is essential, as all layers of safety need improvement: road user behaviour, road infrastructure, vehicles, 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**.

[3] COM(2019) 640 final, Brussels, 11.12.2019
[4] COM(2025) 555 final, Brussels, 16.7.2025

Complementarity to the thematic scope of the Automotive JU will be the guiding principle, while strong links will be actively established to the JU, so that innovation strengthening the competitiveness of the automotive industry can be smoothly embedded in the transformation of the European road transport system. By nature, this transformation is a medium- to long-term process, whereas the competitiveness of automotive industry needs decisive action on a much shorter timeline to maintain a strong production base as well as development and research capacities in Europe.

While more details will be provided in the new ERTRAC Strategic Research Agenda to be published in Q1 2026, the following list already gives examples of future road transport research needs that may not contribute directly to the competitiveness of the automotive industry, but are still important for the intended transformation of the European road transport system, many of them with a longer-term perspective and with the potential to save substantial socio-economic costs. In addition, such research will contribute significantly to the sustainability, safety, accessibility, inclusiveness and resilience of the road transport system as the most important enabler for the mobility of people and goods in Europe:

Spotlight on Logistics

Road freight transport is undergoing a profound transformation, driven by the green and digital transition. This transformation is not only relevant for the commercial vehicle manufacturers, but for the whole economy, as 75% of the intra-European transport flows are on road.
In addition to technology, also the usage and operational models of commercial vehicles must change significantly. Without research on these models, the commercial vehicle industry will fail to create value to their customers, as these innovations reshape the entire sector and the way logistics operations are designed and executed. Related research needs include:

- **New logistics models** respecting high interdependencies between CAPEX (battery packs), charging needs, range and payload of trucks, and considering new challenges and opportunities, such as sustainable e-commerce, as well as logistics with innovative aerial services and delivery robots.

- **Access to low-cost renewable electricity** at manufacturing and logistics sites, where transport operations begin or end, acting as levers for decarbonization across the value chain, including smart bidirectional charging / energy trading, and supporting peak shaving and energy system optimisation.

- **Redefinition of operational models, workforce requirements, and the integration of logistics and transport systems** with the digital transition and with the automation of logistics chains in particular.

01 Seamless mobility of people and goods for the benefit of all EU citizens

- Ensure seamlessness of mobility services while staying cost effective
- Cost structure to internalise external costs and finance sustainability
- Join forces for a well-functioning digital mobility ecosystem for people and goods
- Improve the ability to understand and anticipate user roles, needs and behaviour based on existing and future values
- Intelligent rebalancing of land-use and urban space
- Seamless mobility for all across the diverse EU contexts
- Integrating active and healthy mobility in the multimodal transport system
- Smart and multimodal freight and logistics
- Impact of infrastructure and vehicle cooperation on humans (drivers, road users, logistics and the population in general)

02 All-round protection: safety and security

- Infrastructure design for road safety across diverse urban and rural contexts
- Road safety on two wheels
- Inclusiveness in occupant protection and HMI design
- Predictive road safety management
- Evidence-based prioritisation of road safety measures and their integration in a sustainable road transport system
- Physical security and civil preparedness
- Unleashing the potential of CCAM to enhance road safety in rural areas

03 Environmental sustainability: Energy and resource efficiency, decarbonisation and excellent air quality

- Energy infrastructure for clean fuels and vehicles
- Holistic optimisation of resources by maximising the use of renewable materials and energy
- European approach for green energy supply
- Encourage societal support for rapid changes and investments in road transport
- Raising awareness on the real environmental and other external costs
- Improved road construction solutions and road surface technologies
- Adaptation of road infrastructure for future vehicles and operations
- Minimising non-tailpipe emissions

04 Highly efficient and resilient road transport: a key element of the European mobility system

- Predict and mitigate the impact of climate change on the road transport system
- Create resilient and safe physical and digital infrastructures
- Road construction for durability, efficiency and sustainability
- Adaptive and flexible traffic management and supporting functions
- Efficient demand management

Spotlight on 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 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. This evolution requires reshaping urban physical, digital and energy infrastructures. It also requires the role of public authorities as planners and orchestrators of an urban mobility ecosystem, which combines both public and private sector-driven mobility services, is inherently multimodal 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 urban mobility policies, supported by road transport research going well beyond issues of automotive competitiveness**.