

EUCAR

Perspective on Commercial Vehicles

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Introduction

Commercial Vehicles

Commercial vehicles come in all shapes and sizes

Fulfilling a huge range of functions

- Mini-buses, articulated buses, urban delivery vans, container trucks, ambulances, fire trucks, dumpers, crane trucks, pick-up trucks, etc.
- Many essential public services are delivered by trucks and vans: postal and courier services; emergency services; and waste management



Commercial vehicles and transport in Europe

Trucks and vans provide an efficient door-to-door mode of transport

- Link producers, businesses and consumers
- 14.7 billion tonnes transported per year
- 76% of all goods carried over land in Europe are delivered by trucks
- 90% of the value of all goods in Europe is transported by truck
- 85% of all goods carried by trucks are transported over short distances



Perspective on Commercial Vehicles

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Commercial Vehicles in EUCAR

Safer, cleaner and more efficient road transport **with fully integrated** Commercial Vehicles in the mobility and logistic systems.

Diversified powertrain set-up for propulsion, **fitting the specific needs of operation** (urban, regional, long-haul).



Collaboration between manufacturers and infrastructure providers will **optimise the use of digitalisation** promoting safer and more efficient road transport.

Fully integrating the Commercial Vehicles in the future mobility and logistic system will drastically increase transport efficiency

- Effective logistic operations are closely linked to economic growth and societal benefits
- The evolution of logistics will change the Commercial Vehicle ecosystem requiring further adaptation.
- This includes vehicle manufacturers, logistic operators and fleet owners, that influence future decision making towards more sustainable road transport.



Fully integrating the Commercial Vehicles in the future mobility and logistic system will drastically increase transport efficiency

- While further developing commercial vehicle technologies, we need to address a wider system scope considering vehicles, trailer, loading units, services and logistics operations.
- A better integrated road transport will improve the quality of life by reducing emissions (including noise) and congestion.



Reaching targets for carbon neutral transport by 2050 requires the most effective and efficient use of sustainable propulsion technologies

- The powertrain set-up for Commercial Vehicles shall match the specific needs of road transport operation (urban, regional, long-haul).
- In urban areas CV will achieve zero impact emissions by electrification.



Reaching targets for carbon neutral transport by 2050 requires the most effective and efficient use of sustainable propulsion technologies

- Decarbonisation of long-haul transport will require several technologies. This includes vehicles powered by batteries, fuel cells or advanced combustion engines. We will also see new solutions such as electric roads.



Reaching targets for carbon neutral transport by 2050 requires the most effective and efficient use of sustainable propulsion technologies

- Recharging and refuelling infrastructure are needed to reach the full potential of decarbonisation for future CV powertrain technologies.
- Sustainable energy carriers from renewable sources are needed for carbon neutral transport by 2050.
- The future CVs will therefore use hydrogen, electricity, synthetic e-fuels and bio-fuels in the most effective way.



Transport will be highly affected by digitalisation and automation

- Digitalisation and automation will increase the potential to improve road safety and logistics operations beyond current limitations.
- Future commercial vehicles will reach higher levels of automation in a step-wise approach; first in confined areas, then in logistic corridors and gradually towards open roads.



Transport will be highly affected by digitalisation and automation

- For truck platooning, the full efficiency potential is reached through interoperability.
- Commercial vehicles need to become even more self-intuitive and easy to use. This is especially crucial for vehicles that combine automated and manual driving.



Transport will be highly affected by digitalisation and automation

- Specifically urban use cases (last mile delivery, people movers, etc) are highly complex due to the dynamic environment (traffic configuration and specifically vulnerable road users' interaction).
- Commercial Vehicle manufacturers will cooperate with all relevant stakeholders to optimize the potential of digitalization and automation for transport.



EUCAR Projects

Commercial vehicles

ENSEMBLE

Enabling Safe Multi-brand Platooning for Europe

Objective	Pave the way for the adoption of multi-brand truck platooning in Europe to improve traffic safety, throughput and fuel economy.
Expected Achievements	Develop solutions to ensure robustness, reliability and interoperability of the platoon operation in real road conditions. Promote multi-brand platooning by demonstrating in real traffic conditions across national borders.
Benefits for society	Making road transport more efficient and safer
	
Partners: 20 (DAF, IVECO, MAN, SCANIA, VOLVO Group) Budget: 26 M€ Funding: 19 M€	

AEROFLEX

Aerodynamic and Flexible Trucks for Generation of Long Distance Road Transport

Objective	Develop and demonstrate new technologies, concepts and architectures for complete vehicles meeting future logistics and co-modality needs to be met for the different segments and markets.
Expected Achievements	Define the knowledge, concepts and technology to improve the efficiency of long-range freight vehicles by 18-33% while drawing up recommendations for implementing the results within European regulations and in the transport & logistic industry.
Benefits for society	Making road transport more efficient and safer



Partners: 23 (DAF, FCA, IVECO, MAN, SCANIA, VOLVO Group)

Budget: 12 M€

Funding: 9.5 M€

Conclusion

- Commercial Vehicles are important for European citizens in many ways
- EUCAR and its members are committed to safer, cleaner and more efficient road transport
- Ensure economic productivity, jobs and growth by establishing leadership for European value chains through research and innovation
- Invest in research and innovation and address the key challenges for 2030 to provide benefits to society
- Public private partnerships are needed to accelerate innovation