



Commercial Vehicle of the Future

How evolving technologies will impact road safety and operational efficiency.

Freight transport and logistics is a key driver of economic growth and mobility of cargo in Europe is largely dependent on roads. The Commercial Vehicle of the Future Report examines how the vehicles of tomorrow will ensure an efficient, reliable, socially responsible, safe and sustainable future road transport sector.

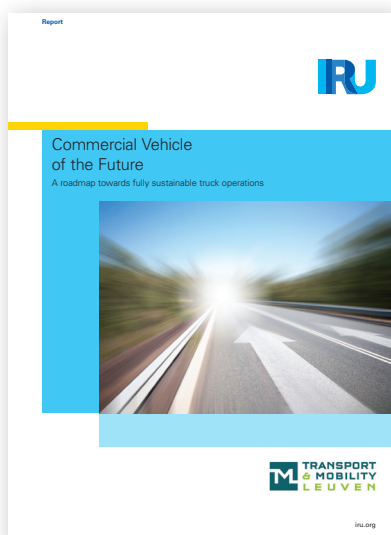
Decarbonisation and operational efficiency

IRU's Commercial Vehicle of the Future (CVOF) links decarbonisation to road safety and operational efficiency giving it a unique vision on the future of road freight transport and logistics in the EU. The report's aim is to take stock of how evolving technologies and trends could shape the use of commercial vehicles in the future, how they might help the sector meet the EU's ambitious carbon emissions reduction goals for 2030 and 2050 and how these measures might have wider positive benefits.

The commercial vehicle of 2050

The commercial vehicle of 2050 will need to enlist a variety of measures to contribute to reducing carbon emissions and further increasing road safety and operational efficiency, in order to meet the ambitious EC target of reducing carbon emissions by 60 percent. It will be challenging to reach these targets by following a "business-as-usual" approach. Instead, fundamental improvements are required, particularly regarding powertrain and fuel technologies.

The vehicle capable of satisfying these targets, which is perhaps better conceived as a "carrier" as it may look very different to today's commercial vehicle, will be modular and interoperable. It will have to run primarily on renewable energy sources and will need more flexibility in weights and dimensions. It should be fully connected and fully autonomous with extensive use of intelligent transport systems.



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In partnership with





CVOF Reflection Group

The CVOF report was developed by the CVOF Reflection Group, a public–private partnership of EU road transport professionals, civil servants and experts. Their objectives were to develop medium-term and long-term policy and business recommendations, to propose an action plan on how to reach a 30 percent reduction in carbon emissions by 2030 and a 60 percent reduction by 2050. The latter target is based on the European Commission’s target and the former on IRU’s “30-by-30 Resolution” to voluntarily cut carbon emissions by 30 percent by 2030.

How to get there?

Measures which could contribute to reducing carbon emissions and would increase road safety and operational efficiency.

- Propulsion systems and energy carriers
- Alternative and renewable fuels
- Aerodynamics
- Tyres and lightweighting
- Vehicle driving
- Driver training and awareness
- Intelligent Transport Systems
- Connectivity - between vehicles and between vehicles and infrastructure
- Digitalisation
- Optimising operational organisation and sharing economy
- Rules on weights and dimensions

“Innovation is revolutionising the way people and goods move. Digitalisation, e-commerce, electro-mobility, automated driving, connected vehicles and infrastructure, and new logistical concepts and practices are among the initiatives already shaping the way both businesses and citizens approach mobility and transport. Modal thinking about transport is making way for complementary multimodal freight and logistics networks, interconnected worldwide.”

Umberto de Pretto, Secretary General IRU