ACEA

EUROPEAN AUTOMOBILE
MANUFACTURERS' ASSOCIATION

THE TRUCK OF THE FUTURE : INNOVATIVE, FUEL-EFFICIENT, SAFE

The vision presented in the 2011 White Paper on Transport Policy is the one of "a competitive and resource-efficient transport system". Its ultimate target is to achieve a 60% reduction in greenhouse gas emissions by 2050 - a challenging target to which all modes of transport need to contribute.

For road freight, one of the measures proposed by the European Commission is to adapt the current rules covering heavy goods vehicles (the 'weights and dimensions' directive 96/53), so that aerodynamic improvements can be made.

The European Automobile Manufacturers' Association (ACEA) welcomes a revision of this legislation. If the five key principles highlighted here are taken into account, this important and long-awaited proposal will represent a step in the right direction towards more innovative, more fuel-efficient and safer trucks for tomorrow.[1]

1- This paper does not intend to address all the complex issues involved in revising the 'weights and dimensions' legislation. It simply intends to put forward the key guiding principles recommended by the industry.

1 STABILITY AND FLEXIBILITY

With a stable and flexible regulatory framework, we will be on the right road to developing the truck of future.

This means that the industry needs legislation that will survive over time and that will allow it to adapt to the kind of road transport that our society and economy will need in the future.

2 THE RIGHT CONDITIONS FOR A GLOBAL INDUSTRY

The European commercial vehicle industry is increasingly a global player. In 2012, exports of heavy-duty vehicles grew in value by 18%, resulting in a trade balance surplus of €6 billion.

It is therefore crucial that any new European regulatory requirements do not hinder the global competitiveness of this key European industry. Regulations that introduce unique European cab dimensions would clearly have such a negative impact.

The industry fully supports the aim of improving the aerodynamics characteristics of trucks. The best way to achieve this, however, is through a more flexible approach that removes some of the existing regulatory restrictions, rather than by imposing a fixed design.

Turning circle
The design should be safe and comply with PBS on handling and manoeuvrability

3 CORRECT IMPLEMENTATION OF THE PERFORMANCE-BASED APPROACH

The industry welcomes the Commission's 'performance-based' approach with 'essential requirements' regarding the safe handling, manoeuvrability and safety of heavy-duty commercial vehicles. This will also allow for important aerodynamic improvements at the rear and to some extent to the front of the vehicle.

Regarding the front of the vehicle, it is more important to allow increased space for fuel-efficient measures such as improved cooling and the introduction of waste heat recovery solutions. Such measures have significant positive effects on fuel consumption and CO_2 emissions.

This performance-based approach, if correctly implemented, will allow industry to further incorporate innovation into vehicle designs.

The design should be safe and comply with performance-based standards (PBS) with respect to impact on infrastructure, safe handling and manoeuvrability. The industry recommends the PBS approach to handling and manoeuvrability currently applied in Canada, where 'vehicle envelopes' define the general vehicle layout, shape and configuration (maximum size and weights). Vehicles which fit within these 'vehicle envelopes' are proven to be in compliance with the applicable PBS.

In the EU, PBS related to weights and dimensions as well as safety already apply.

IMMEDIATE and COST-EFFECTIVE:
Improvements to the rear of the truck (5-6% fuel economy) could be implemented on 100% of the box body fleet within three-four years. Improvements to the rear of the truck can be introduced on existing vehicles. Improvements to the front, on the other hand, have more limited effects on fuel consumption (from 1% to 3%, with the best trucks on the marketplace today only gaining 1%). These improvements will not be fully realised until the existing fleet has been renewed. This is estimated to take about 20 years due to the fact that redesigning the cab is an extremely complex and time-consuming task, and that the product life-cycle of a truck cab is on average 15 years.

4 RESPECTING THE DIVERSE USAGES FOR TRUCKS - TODAY AND IN THE FUTURE

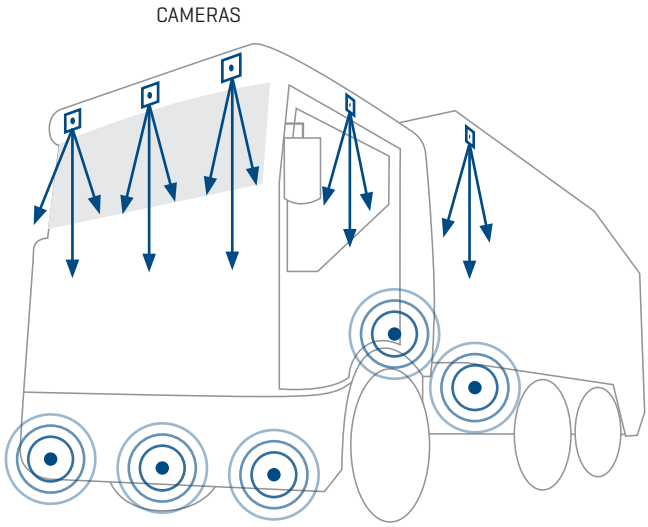
The most optimal aerodynamic design depends very much on the usage of the vehicles and will likely evolve over time. There is no 'one size fits all' solution, as there is no single recipe for the 'best aerodynamic design' which can be applied across the wide range of different vehicle usages.

Some vehicles are specialised for urban distribution and some are used outside urban areas for long-haul operations. These vehicles also face varying requirements with regard to safe handling and manoeuvrability including forward, rear and side vision. Also their safety characteristics with regard to other road users differ.

Some current restrictions in directive 96/53 should be removed and be replaced by relevant PBS in order to allow manufacturers more flexibility to design the safest and most fuel-efficient vehicles according to their usage. In cases where vehicles are used both in and outside urban areas, they would have to comply with all applicable requirements.

5 A NEW TECHNOLOGICAL APPROACH TO SAFETY

Regarding requirements on forward, side and rear vision, the use of new technologies (such as cameras and proximity detectors) can provide a quicker, more flexible and a more efficient way to improve safety with respect to pedestrians and cyclists than re-designed cabs.



COMMERCIAL VEHICLES AT A GLANCE

- ACEA has 7 commercial vehicle members operating in 19 EU member states: DAF Trucks, Daimler Trucks, IVECO, MAN Truck & Bus, Scania, Volkswagen Commercial Vehicles and Volvo Group.
- The commercial vehicle sector is a major industry, with over 2 million units produced per year and a turnover of €70 billion annually.
- The commercial vehicle industry is a key part of the EU economy. It represents 11% of EU automotive employment, accounting for 250,000 direct manufacturing jobs, and 3.6 million direct and indirect jobs.
- Europe's commercial vehicles fulfill the majority of transport needs. They are responsible for more than 75% of freight carried over land, and deliver 18 billion tonnes of goods per year.
- The EU automotive industry is a leading source of innovation, investing €26 billion into R&D and applying for 8,500 patents per year.
- The European commercial vehicle industry is a global player. In 2012, exports of heavy-duty vehicles grew in value by 18%, resulting in a trade balance surplus of €6 billion.

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Avenue des Nerviens 85
B–1040 Brussels
T +32 2 732 55 50
F +32 2 738 73 10
www.acea.be