



Transfrigoroute International

The Inter-Professional Organisation Serving Temperature-Controlled Transport and Logistics

TI Position Paper on the Revision of Directive 96/53/EC on Weights and Dimensions

Transfrigoroute International (TI), the specialist independent umbrella association for the temperature-controlled road transport, fully encourages the overall goal of the European Commission to reduce greenhouse gas emissions by 60% until 2050, as laid out in its Transport White Paper. Thus, TI welcomes the revision of Directive 96/53/EC with the aim to – *inter alia* – adapt the legislation to new technologies and needs, while facilitating the overall reduction of energy consumption and emissions.

Aerodynamics is a necessary but not sufficient condition

TI supports and promotes the use of aerodynamic devices and points to the variety of options already available today with a positive effect on CO2 reduction. Aerodynamics plays an important role with regards to energy consumption and efficiency and as such we support the position of the IRU. **However, the specificities of the temperature-controlled vehicles offer many other means to improve our overall environmental performance that need to be explored.**

Sector specificities

Our sector bears certain specificities that clearly differentiate it from the rest of the road transport sector, such as:

- the need for space in the insulated bodies to allow correct airflow;
- the need for space for thick insulation walls in the insulated bodies to control the temperature;
- the need for space to separate the container into several independently controlled temperature zones by the use of insulated dividing bulkheads: multitemperature allows to combine operations and reduce distribution flows;
- the relatively light weight of the perishable goods transported by our trucks; and
- the need for space for certain non HFC-based refrigeration alternative technologies such as liquid nitrogen based systems

Energy efficiency of temperature-controlled transport & Weights and Dimensions

All the above means that dimensions of vehicles are critical for our sector. Indeed, allowing for more air flow, better insulation, and more multi-temperature transports would have a much bigger impact on energy efficiency than would a single focus on aerodynamics.

TI recommends and welcomes a framework for exemptions from the Weights and Dimensions Directive for refrigerated vehicles where these would lead to better efficiencies linked to the sector's particularities.

At the same time TI calls upon decision-makers to take into account the impact of any change in the authorised weights and dimensions of vehicles on the value of existing fleets and demands that hauliers are guaranteed reasonable transition costs.



Transfrigoroute International

The Inter-Professional Organisation Serving Temperature-Controlled Transport and Logistics

Without a doubt, exceptions to the rules of Directive 96/53/EC for vehicles transporting temperature controlled goods and perishable foodstuffs would help to become more energy-efficient in terms of, amongst others:

- Logistics' flow (more goods in less trucks, thereby reducing CO2 emissions);
- Energy consumed (better airflow and enclosure of traditional refrigeration units and thermal protection of door openings in distribution);
- Alternative sources of refrigeration; and
- Hygiene conditions and increased shelf life of products (airflow and insulation).



Transfrigoroute International

The Inter-Professional Organisation Serving Temperature-Controlled Transport and Logistics

ANNEX

About Transfrigoroute International

Founded in 1955 as a non-profit association, TI is the specialist independent umbrella association for the temperature-controlled road transport sector. TI comprises 18 national member associations in Europe and North Africa and unites some 1,500 members involved in temperature-controlled logistics and the transportation of foodstuffs by road tanker vehicles. TI is open to both haulage companies which transport foodstuffs or perishable goods using insulated/refrigerated vehicles, as well as manufacturers of commercial vehicles, trailers, vehicle bodies, refrigerating equipment, and accessories, as well as technical testing organizations.

The social responsibility borne by the temperature controlled transport industry by far exceeds the proportion of the total EU fleet size, estimated to be approximately 10% compared to other transport activities. **Our sector plays a vital role in ensuring the continuation of the cold chain for perishable foodstuffs by assuming the legal obligations under the General Food Law for the public health and safety of all 500 million EU consumers.**

As such, Transfrigoroute International would like to emphasise the specificities of refrigerated vehicles and logistics in the context of truck weights and dimensions. **In order to promote energy-efficiency, TI would recommend and welcome a framework for exemptions from the Weights and Dimensions Directive for refrigerated vehicles where these would lead to better efficiencies linked to the sector's particularities, be commercially viable for transporters, and as long as reasonable transition costs are guaranteed for operators.**

Temperature-controlled road transport specificities

Air flow – It is vital to understand that in order to transport perishable goods, essentially foodstuffs, the temperature-controlled air must flow over, under and through the load removing heat from the walls, floors and ceilings in order to prevent the growth of pathogens which could be harmful to public health and food safety.

Insulation – Furthermore, by their nature temperature-controlled vehicles need insulation in the side and front walls, floor and ceiling as well as the rear door in order to preserve the temperature of the products being transported. The thicker the walls the better the insulation and energy efficiency of the vehicle.

Multitemp transport – Finally, refrigerated semi-trailers operating in the EU can be equipped to transport loads in two or even more different temperature zones within the same semi-trailer. This is done by splitting the trailer into two or more temperature zones by the use of insulated dividing bulkheads. This increases the efficiency of road transport, insofar as it allows for the optimisation of distribution and increases load factors, dividing by as much as 3 the number of vehicles making deliveries to a single location.



Transfrigoroute International

The Inter-Professional Organisation Serving Temperature-Controlled Transport and Logistics

Weights – Goods transported under temperature controlled conditions, such as food, medicines, or flowers, are generally not very heavy. Therefore, semi-trailers loaded with perishable goods transport are always much lighter than the authorized maximum loading of 40 tons (or more depending on the Member State specific exceptions).

Energy efficiency in the context of temperature-controlled road transport

All the above means that dimensions of vehicles are critical for our sector. **In fact, in order to promote energy efficient temperature-controlled road transport, increasing the aerodynamic aspect is just one important element amongst many others.** Indeed, allowing for improved air flow, better insulation, and more multi-temperature transports would have a much bigger impact on energy efficiency in the context of temperature-controlled road transport than would a single focus on aerodynamics.

In the context of temperature-controlled road transport, energy efficiency has to take into account both CO₂ emissions and emissions of other greenhouse gases.

CO₂ emissions

Refrigeration equipment used in the road transport sector is predominantly powered by diesel engines or by alternators driven from the vehicle engines. **Increasing the internal load length, thereby enhancing the flow of cooled air around the food would reduce the energy consumption of the refrigeration equipment and thus reduce the CO₂ produced.**

Furthermore, as was laid out by the Commission's White Paper on transport, 25% of all CO₂ emissions occur in urban cycles: much of this is due to congestion, but also to inefficient urban distribution methods. Better and innovative urban planning, such as night deliveries with silent vehicles, especially for supermarkets in large population centres, where socially and commercially acceptable, would hence have an important impact on CO₂ emissions. Yet, one of the main issues in the context is the noise emitted by temperature-controlled transport as this is a nuisance to local residents. **If more space was made available to enclose the refrigeration units this would allow for additional noise abatement of the refrigeration equipment and lead to significant reductions in noise outputs, thereby allowing for immediate and simple actions to tackle CO₂ emissions in urban cycles.** It would also reduce energy loss from the refrigeration units.

As regards multitemp transports, it is currently not possible to transport two separate loads totalling 33 euro-pallets ground placements (which is the total amount of euro-pallets placements which should theoretically exist in a typical 13.6 m semi-trailer). This can result in the semi-trailer running partially loaded whereas **an increase in the internal load space would permit the trailer to transport two or more partial loads up to 33 euro-pallets placements and reduce empty or partially empty running of the equipment.** As said above, this would lead to an optimization of transport routes, thereby reducing CO₂ emissions. A further increase of loading capacities could allow for even more efficient transport of perishable goods.

Other greenhouse gases

To reduce greenhouse gas emissions by 60% until 2050, as was laid out by the Commission White Paper on Transport, it is important to reduce the effects of fluorinated gases, which have a strong global warming potential. Currently, F-gases are excluded from the Regulation 842/2006/EC in the



Transfrigoroute International

The Inter-Professional Organisation Serving Temperature-Controlled Transport and Logistics

context of road transport. In the framework of the consultation on the revision of this regulation, TI has hence called for the inclusion of road transport in the scope of the Regulation. Currently alternatives to the compression of HFC refrigerants are being developed, such as cryogenic solutions using either CO₂ or liquid nitrogen. **It would be important for temperature-controlled vehicles to have enough space to be able to carry the necessary reservoir for these alternatives.** Indeed, should the transport sector be included in the F-gas regulation, it will be important to allow for the proper development of alternatives without making this kind of road transport economically non-viable for operators.

Free-movement of goods and food safety

Finally, it would be worth considering introducing a harmonisation allowing for trans-border transport of perishable foodstuffs.

Indeed, it is problematic that the differences in the weights and dimensions allowed in the different Member States lead to a reduction of cross-border transport. Because of this, a vehicle would have to unload its loading at a border to reload it on a different vehicle.

Breaking the cold chain is a real problem in this context and therefore, in order to promote the free movement of goods, a better harmonisation – also in the context of allowing cross border experiments – should be envisaged.