

Revision of the Weights & Dimensions Directive

A well-oriented first step that can be improved to increase sustainability and logistic efficiency

Glass for Europe welcomes the European Commission's (EC) proposal for a revision of Directive 96/53/EC (COM(2023) 445/2) but considers that additional improvements are needed to increase logistic efficiency and reduce transport's CO₂ emissions in the EU.

European flat glass manufacturers organize thousands of transports every year to deliver products to their customers. The value chain, which includes multinationals and thousands of SMEs, relies on well-harmonized rules and on local schemes allowing trucks with 5 or 6 axles to be heavier than 40 tonnes.

Glass for Europe **supports the objectives to push transportation towards more sustainability** and suggests generalising the weight allowed for trucks with 5 or 6 axles to 44 tonnes. This would help optimise flat glass transportation, reduce the number of trucks used, and cut CO₂ emissions.

Glass for Europe **welcomes the clarification of the EC on the rules to apply when Member States increase their weight limit at national level**. Yet, some limitations proposed about the equal treatment of national and international transport should be removed to ensure long-term harmonisation.

Against this background, Glass for Europe calls for policymakers to implement two main improvements:

1. Generalizing the maximum weight of trucks with at least 5 axles to 44 tonnes

- ▶ **Modify Annex 2.2 to set the maximum weight of vehicle combinations with 5 and 6 axles to 44 tonnes** to reduce flat glass transport's CO₂ emissions.

This measure may allow a cut of 7 to 10%ⁱ of the CO₂ emissions related to flat glass transportation. Beyond flat glass, case studies have shown that the overall impact of increasing the maximum weight of heavy-duty vehicles is environmentally beneficialⁱⁱ.

While increasing the use of intermodal transports and switching to zero-emission vehicles will take time (need for technological innovation and adequate infrastructure), using heavier vehicles for flat glass transportation would allow immediate results since no change of equipment would be neededⁱⁱⁱ.

- ▶ **Alternatively, Annex 2.2.2 could be complemented with a section allowing vehicle combinations to weigh 44 tonnes when they include a flat glass inloader semi-trailer, i.e., combinations of a 2 or 3 axles vehicle with a 3 non-transverse axles (bespoke^{iv}) semi-trailer**

Float glass must be transported in large panes^v of indivisible mass. Although the glass inloaders' design is optimized to increase transport efficiency, the 40 tonnes limit leads manufacturers to ship glass in underloaded glass inloaders, only because adding panes would exceed regulatory limits in weights.

If an increase in weight would be allowed for this specific situation, the increase of 44 tonnes 5 or 6 axles trucks on the road would remain minor – it is evaluated that max. 5000 glass inloaders are used in the EU today - but the emissions cut from flat glass transportation would be significant. Besides, glass inloaders have a recognizable design and shape^{vi} which would permit easy monitoring by authorities.

2. Ensure that the maximum weight to enter or leave a Member State is always identical to the one allowed on the Member State's territory.

- ▶ **Suppress EC's Article 4b (2) & (3)** which limits the provisions of EC's Article 4b (1) to vehicles up to 44 tonnes and ends the provision from 2035 on. This will ensure long-term harmonised rules and enable CO₂ emissions cuts.

The EC's Article 4b (1) goes in the right direction by ensuring that when a Member State allows for higher weights in national transportation, it shall also allow these weights for international transportation. Yet, the EC proposal still leaves possibilities for Member States to disregard this rule for vehicles heavier than 44 tonnes, or for all vehicles heavier than the directive's limit after 2034.

The future directive should eliminate this kind of unjustified double standard. If a Member State possesses adequate infrastructure and rules to allow heavier vehicles in national transportation, they can welcome international transportation with the same vehicles, including from non-EU countries.

Glass for Europe is the trade association for Europe's flat glass sector. Flat glass is the material that goes into a variety of end products, primarily in windows and facades for buildings, windscreens and windows for automotive and transport as well as solar energy equipment, furniture and appliances. Glass for Europe brings together multinational firms and thousands of SMEs across Europe, to represent the entire building glass value-chain. It is composed of flat glass manufacturers, AGC Glass Europe, Guardian, NSG-Group and Saint-Gobain Glass Industry, and works in association with national partners gathering thousands of building glass processors and transformers all over Europe.

ⁱ These values are based on a common calculation methodology used by flat glass logistic experts of member companies of Glass for Europe. For more information on the method and parameters used, e.g., average payloads if all trucks in the EU could weigh at least 44 tonnes, the used CO₂ emission factors, or the estimated levels of empty running, please contact Glass for Europe.

ⁱⁱ Alan C. McKinnon. "The economic and environmental benefits of increasing maximum truck weight: the British experience." *Transportation Research Part D: Transport and Environment* 10, no. 1 (2005): 77-95.

This study estimates that in the UK, raising the maximum weight of HGV from 40 to 44 tonnes has resulted in cutting 294'300 tonnes of CO₂ emissions, 1919 tonnes of NO_x, and 68.4 tonnes of PM₁₀ between 2001 and 2003.

K.P. Glaeser and A. Ritzinger. "Comparison of the performance of heavy vehicles results of the OECD study: 'moving freight with better trucks'." *Procedia-Social and Behavioral Sciences* 48 (2012): 106-120.

Alejandro Ortega et al. "Are longer and heavier vehicles (LHVs) beneficial for society? A cost benefit analysis to evaluate their potential implementation in Spain." *Transport reviews* 34, no. 2 (2014): 150-168.

ⁱⁱⁱ Glass has high volumetric mass and increasing the weight of the glass load does not significantly increase its volume. For instance, fifteen 4mm thick glass panes represent a weight of about 2.9 tonnes and amount to adding only 6cm of thickness over the entire length and height of the trailer which is doable with current transport equipment used by the sector.

^{iv} The glass inloaders semi-trailer has no fixed floor; it is a stillage, a separated beam structure, that serves both as a reusable carrier for all glass panes and as a structural part of the glass inloader. This modularity helps maximise the load's height (bigger glass panes), which notably contributes to increasing processing efficiency and reducing processing waste. The glass inloader semi-trailer can also be lifted (up or down) to permit the loading of the standardized flat glass panes. Its specific shapes make it immediately recognizable as a bespoke semi-trailer that can conveniently transport flat glass only.

^v Standard panes have a length of 6m, a height of 3.21m, and a varying thickness, depending on client needs (e.g. 4mm width is a common thickness for building glass).

^{vi} For a better overview of the functioning and design of flat glass inloaders:

<https://www.faymonville.com/products/inloader/floatmax/>
<https://www.langendorf.de/en/products/inloader/floatliner/>