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Weights and Dimensions Directive amendment: impractical and ineffective measures for the railway sector

As the EU institutions are debating the European Commission's proposal to amend the Directive governing the Weights and Dimensions of commercial road vehicles (96/53), CER, ERFA, UIC, UIP and UIRR presented today a joint study¹, carried out by the consultants d-fine GmbH, on the impacts of the Commission's proposal.

The study confirms the concerns of the rail freight industry. Should the Commission's proposal be enacted without substantial changes, the proposed measures would have disastrous consequences from a socio-economic and sustainability perspective:

- **Allowing the cross-border circulation of European Modular System (EMS) trucks might entail lower freight rates** on the currently dominant low-density high-volume freight market, which is the segment projected to grow most dynamically over the coming decades for all land transport modes. However, **operational efficiency improvement for trucks should not only translate to lower freight rates, but also simultaneously produce meaningful progress towards the EU Green Deal's policy goals** and a reduction of inland freight transport's externalities (decarbonisation, energy efficiency, air quality, noise, accidents, congestion).
- The proposed increase in the permissible gross weight of trucks and **the authorisation of EMS would lead on average to a reverse modal shift of up to 21 %** for all rail segments and **16 % for combined transport**. This could result in up to **10.5 million additional truck journeys per year**, emitting up to **6.6 million tonnes of additional CO₂ emissions** and generating additional external costs amounting up to **€2.2 billion**. More than **€1.15 billion extra tax payer funding per year would be needed for road infrastructure maintenance**.
- Although they are designed and labelled to serve the interests of intermodal freight transport, **most of the measures are impractical, ineffective, or unnecessary**.

The damage caused by the Commission's amendment proposal is linked to the expected widespread use of EMS trucks, or gigaliners, which would come as a result. A tripling of external costs would dramatically outweigh the potential CO₂ savings of **less than 10 % per-vehicle**. Additionally, the reduction in operating costs per tonne-kilometre or per m³-kilometre of up to 25 % would outperform door-to-door combined transport, even though **it operates with an up to 90 % smaller carbon-footprint and brings an energy efficiency that is up to 70 % better than trucks**.

¹ https://uiprail.org/content/uploads/2024/01/20240111-Study_WeightsDimensions-Phase-II_v1.1.1.pdf

Three aspects of the amendment proposal were assessed in detail:

- **The impact on door-to-door combined transport operations**
 - (1) None of the longer EMS combinations can be handled in combined transport without increased operational complexity,
 - (2) Longer semi-trailers (> 13.6 m) are technically not compatible with combined transport assets and;
 - (3) Longer and heavier vehicles or vehicle combinations pose operational challenges for terminal operators (parking areas, circulation, lifting capabilities) and for combined transport operators and rail freight operators (train composition).
- **The impact on the various rail freight segments** such as single wagonload and full trainload traffic risk a potential reverse modal shift up to 21 %.
- **The impact on road haulage in terms of energy efficiency and road degradation**
 - (1) More axles potentially reduce the stress on the road infrastructure, but they also result in higher unladen weight and lower efficiency per tonne of freight.
 - (2) 10 trucks with 44 tonnes gross weight are more damaging than 15 trucks of 40 tonnes.

Upon evaluation of the results of the study, the commissioning associations put forward the following recommendations to the European co-legislators:

1. **The 40-tonne gross vehicle weight limit for border crossing trucks should remain the rule between EU Member States.** Exceptions should only be possible for the road legs of intermodal cross-border operations.
2. **Only zero-emission vehicles should be allowed an additional gross weight,** and only as long as the energy density of the batteries requires it (assuming a 1,000 km range).
3. Irrespective of the introduction of the EMS, **standard dimensions should be maintained for all types of loading units** in order to ensure continued compatibility with different transport modes.
4. While the introduction of longer or heavier vehicles would reduce road transport costs, **the modelled reverse modal shift would lead to a drastic increase in external costs. This must therefore be taken into account** when designing the measures, in order to favour other transport modes, such as rail, which offer significant advantages in terms of external costs and sustainability.

Statements

Alberto Mazzola, Executive Director of **CER** stated: *"The positive modal shift impact of Greening Freight Transport and the TEN T revision will be jeopardised by the revision of the Directive on weights and dimensions of road vehicles. This study confirms that the Commission proposal, if approved as it stands, will induce a modal shift from rail to road and as a result increase transport external costs and emissions, reduce road safety, and increase road maintenance costs. While CER does not object to the support of road Zero Emission Vehicles, we nonetheless call on legislators to keep the current limits of 40 tons for cross border road traffic and to eliminate those clauses favouring megatrucks crossing Europe".*

Conor Feighan, Secretary General of **ERFA** stressed: *"It is difficult to see how the proposal in its current form will not contribute to reverse modal shift. As pointed out within this study, the impact of this proposal will be felt by all types of rail freight transportation, not just single wagon transport. Whilst it is important that zero-emission vehicles are incentivized in road, it is important that these incentives are limited to zero-emission vehicles only and consideration is given within the proposal for encouraging intermodal transport."*

François Davenne, Director General **UIC**, added: *"From a silo perspective, these proposed amendments look to be a good contribution to greening the freight market in Europe. In reality, the legislative proposal seriously jeopardizes any attempt to create a truly interoperable supply chain. This is the case within the rail sector and between different modes of transport. It looks like longer and heavier trucks are still technically compatible with combined rail-road transport. In practice a significant portion of the current combined transport market will be negatively impacted. With the current proposal the realized market growth of more than 50 % over the last 10 years is endangered."*

Gilles Peterhans, Secretary General of **UIP**, commented: *"Setting standards for heavy-duty vehicles shouldn't be done to the detriment of a necessary interoperability between the modes of transport. We strongly call on the European institutions not to forget the EU's Green Deal objectives and the fact that those can only be achieved by fostering a shift to rail".*

Ralf-Charley Schultze, President of **UIRR**, pointed out: *"Technology neutrality as well as the ultimate greening objective require that the European co-legislators update our laws so that the most energy efficient and least environmentally burdensome transport solution prevails, instead of enacting measures that increase the 76 % market share of road transport only, half of which is long-distance transport today. Door-to-door Combined Transport effectively delivers all our European transport, energy, climate, environmental and social policy objectives."*

Issuing associations

CER - The Community of European Railway and Infrastructure Companies (CER) brings together more than 70 railway undertakings, their national associations as well as infrastructure managers and vehicle leasing companies. The membership is made up of long-established bodies, new entrants and both private and public enterprises, representing 71 % of the rail network length, 76 % of the rail freight business and about 92 % of rail passenger operations in EU, EFTA and EU accession countries. CER represents the interests of its members towards EU policymakers and transport stakeholders, advocating rail as the backbone of a competitive and sustainable transport system in Europe. For more information, visit www.cer.be or follow @CER_railways on X.

ERFA - ERFA is the European Association representing private and independent rail freight companies. ERFA members share a commitment to work towards a non-discriminatory, competitive and innovative Single European Railway area by promoting attractive, fair and transparent market conditions for all rail freight enterprises. More information on www.erfarail.eu.

UIC - UIC is the worldwide organisation for the promotion of rail transport at a global level and for the collaborative development of the railway system. It brings together more than 200 members across all 5 continents, including railway undertakings, infrastructure managers, and railway service providers. UIC also maintains close cooperative links with all stakeholders in the rail transport domain around the world, including manufacturers, railway associations, and public authorities, as well as in other domains and sectors whose experience may be beneficial to rail development. UIC's main tasks include understanding the business needs of the rail community, developing innovative programmes to identify solutions to those needs, as well as preparing and publishing documents such as reports, specifications, guidelines, and IRSs that facilitate the implementation of these new solutions. For more information, visit www.uic.org or follow us on X @uic or LinkedIn.

UIP - Founded in 1950, UIP – the International Union of Wagon Keepers, with its seat in Brussels, is the umbrella association of national associations from fourteen European countries. It represents more than 250 freight wagon keepers and ECMs with more than 238'000 freight wagons, performing 50 % of the total rail freight tkm throughout Europe. UIP represents its members' concerns at international level. By means of research, lobbying and focused cooperation with all stakeholders and organisations interested in rail freight transport, UIP wants to secure the long term future of rail freight transport. For more information, visit www.uiprail.org.

UIRR - The International Union for Road-Rail Combined Transport represents the interests of European road-rail Combined Transport Operators and Transshipment Terminal Managers. Road-Rail Combined Transport (CT) is a system of freight forwarding which is based on efficiently and economically inserting electric rail into long-distance (road) transport chains through the use of intermodal loading units (ILU). For more information, visit www.uirr.com.