

European Commission proposal to amend the EU rules on weights and dimensions

IRU Position on the European Commission proposal to amend the EU rules on weights and dimensions

I. IRU POSITION

IRU welcomes the European Commission's new proposal to amend the EU's weights and dimensions rules. The proposal manages to balance four important elements: the incentivisation of new vehicle technologies, the creation of more operational flexibility, the creation of new opportunities to further improve the load factor in road and intermodal transport, and the stimulation of trials with innovative concepts. A revision of the current rules will also have to be complemented by a revision of the relevant type-approval rules to facilitate the market uptake of the new concepts and technologies, especially in the zero-emission range.

IRU has identified several areas where the proposal could be further improved:

1. Goods transport vehicles

- **Phasing out cross-border operations with non-zero-emission vehicles:** The phasing out date for the use of certain propulsion technologies for cross-border operations must be removed from the proposal. Alternatively, any phasing out date should not contradict the targets set for 2040 in the Regulation on CO₂ standards for heavy-duty vehicles. Regulation (EU) 2019/1242, not Directive 96/53/EC on weights and dimensions, sets targets for the market uptake and, indirectly, the use of zero-emission vehicles.
- **Zero-emission vehicles:** An article should be included introducing amendments to the type-approval Regulation (EU) 2018/858 to facilitate the type-approval of trailers and semi-trailers with an auxiliary propulsion system, including e-trailers and semi-trailers.
- **Longer vehicle cabins:** Increased driver comfort in the cabin should be added as one of the conditions to allow a vehicle to exceed the maximum authorised length to help address the driver shortage challenge.
- **European Modular System (EMS):** Member States should be encouraged to cooperate to mutually recognise EMS driver certificates. An evaluation process of cross-border EMS use should be included together with a potential extension of its scope. EMS trials should be renewable after five years.
- **Goods vehicles and combinations not in conformity with the characteristics set out in Annex 1 of the Directive:** It should be ensured that existing cross-border operations with vehicles or combinations not complying with the characteristics set out in Annex 1 can continue, providing that there is mutual consent among the concerned Member States, and that these operations do not significantly affect international competition in the road transport sector.
- **Intermodal transport:** Obligatory routing information should be made available by Member States for road legs of intermodal transport operations carried out by vehicles exceeding four metres in height.

- **Vehicle logistics:** The harmonisation of the loaded length at 20.75 metres should apply to all vehicle transporters, not just to those with open bodies, to avoid discrimination against other types of vehicle transporters. The description of the harmonised loaded length solution should be further fine-tuned to better reflect operational reality.
 - **Indivisible load transports:** The proposal should be more ambitious. Further specifications for the granting of permits and the online planning of routes should be included together with special measures for the proper consideration of indivisible load transports by IAP (Intelligent Access Policy) systems and weigh-in-motion systems.
- 2. Buses and coaches**
- **Zero-emission vehicles:** The increase of the maximum authorised driving axle weight to 12.5 tonnes should be extended to all zero-emission two- and three-axle buses and coaches. The maximum authorised weight of the centre axles with twin tyres of articulated buses should be 11.5 tonnes.
 - Where appropriate, references to **four-axle articulated buses** should be consistently included in Annex 1 of the Directive, specifying the values for maximum authorised length, weight and axle loads.
- 3. General**
- **Alternatively fuelled vehicles:** Carbon-neutral fuels should be included in the list of alternative fuels mentioned in the Directive. Dual propulsion vehicles should continue to be recognised as alternatively fuelled vehicles.

II. ANALYSIS

On 11 July 2023, the European Commission tabled, as part of the [Greening Transport Package](#), a legislative proposal ([COM\(2023\) 445](#)) to amend Directive 96/53/EC on weights and dimensions. The proposal aims to address the low uptake of zero-emission heavy-duty vehicles (HDVs), the fragmentation of the market for longer and heavier vehicles, and the ineffective and inconsistent enforcement of the weights and dimensions rules.

The new proposal is far more ambitious than the last amendment in 2015. It establishes additional incentives for alternative fuel and zero-emission passenger and goods vehicles as well as for vehicles used in the framework of intermodal transports. It further harmonises cross-border road transport with standard combinations, including combinations used in vehicle logistics, creates a framework for cross-border transports with European Modular System (EMS) combinations, and establishes, for the first time, more harmonised rules for the transport of indivisible loads by road. Finally, it further encourages innovation by enabling national and cross-border trials with new vehicle concepts and cross-border transports between consenting Member States with vehicles and combinations not complying with the rules laid down in Annex 1 of the Directive.

For IRU, the new proposal contains an acceptable balance between the incentivisation of new and cleaner vehicle technologies, the creation of more operational flexibility and new opportunities to further improve the efficiency and load factor in road and intermodal transport, and the stimulation of trials with innovative concepts. These elements can positively contribute to the short- and long-term decarbonisation of road and intermodal passenger and goods transport.

Some provisions in the proposal could be further improved. To facilitate the actual market uptake of new products and technologies, the revision of the weights and dimensions rules should be followed by a parallel revision of the type-approval rules. A further revision plan should also be included. The newly proposed rules, once adopted, should not be considered as the definitive solution.

1. Goods transport vehicles

a) Intermodal goods transport

IRU considers that the broadening of the scope of the 44 tonnes maximum authorised weight in intermodal transport will make the use of accompanied and unaccompanied transport more attractive. An additional weight derogation of four tonnes for zero-emission vehicle combinations is an added benefit.

Zero-emission vehicles and vehicles equipped with aerodynamic devices may be more prone to being damaged during transshipments. Such vehicles require extra care. To encourage the use of zero-emission vehicles in intermodal transport, it will also be necessary to address several concerns among transport operators about the allowance of alternative fuel and zero-emission vehicles to be carried with other modes of transport.

The proposal also encourages innovation by increasing the maximum authorised height to 4.3 metres for the carriage of high cube containers on a standard semi-trailer container. High cube containers are increasingly used in maritime transport and require solutions to be carried in port hinterland. A height increase could remove the need for a special permit which currently exists in many Member States. However, this comes with additional accident risks, as bridges and tunnels are not built for such vehicles. Some Member States have already granted special authorisations for the carriage of such containers, providing comprehensive route information that indicate where vehicles carrying such containers can drive. It should become obligatory for all Member States to have such comprehensive route information available to transport operators.

Operational practice in several Member States has also shown that the additional authorised maximum length of 15cm is not always sufficient to allow the carriage of 45-foot containers on all 13.62m standard container semi-trailers. The use of 45-foot or even 48-foot containers in maritime transport is becoming increasingly popular. The possibility to carry a 45-foot container not only depends on the 15cm length derogation but also on the construction of the container itself, especially on corners of the container and the presence and size of a container tunnel at the bottom. These challenges could potentially also be addressed by authorising the use of slightly longer semi-trailers for the carriage of 45-foot containers in intermodal transport. Shippers should always provide transparent information about the type of 45-foot container to transport operators, so that the right vehicle combinations can be foreseen for the road legs of intermodal transports.

IRU calls for:

- Modifying the newly proposed Article 4a to reflect that the electronic information system for route planning should be accessible to all road transport operators, not only to applicants with special permits.
- A consideration to allow national and cross-border carriage of 45-foot or longer containers in intermodal transport with semi-trailers with a length of up to 15 metres.

b) Cross-border operations with standard vehicle combinations

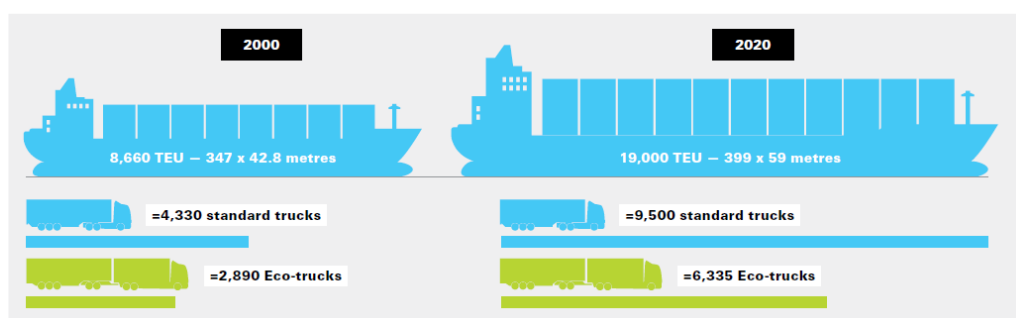
IRU welcomes the further streamlining of maximum authorised weights for national and international transports between Member States allowing more than 40 tonnes for national transports. The allowance of 44 tonnes will provide additional legal certainty and more operational efficiency due to an additional carrying capacity of 10%. There are, however, serious concerns that this allowance will only be granted to operators with zero-emission vehicles from 1 January 2035. Regulation (EU) 2019/1242 on CO₂ standards for heavy-duty vehicles already sets objectives for the market uptake of zero-emission vehicles. The 2023 proposal to amend this regulation states that 90% of all new heavy-duty vehicles must be zero-emission by 2040. This still allows the option to choose and use other technologies if certain mission profiles cannot be carried out in the same way with zero-emission vehicles. Directive 96/53/EC should not be more restrictive than Regulation (EU) 2019/1242. For IRU, the weights and dimensions Directive should preferably not phase any propulsion technologies.

IRU calls for:

- Modifying the newly proposed Article 4b and relevant preambles to remove any reference to a phasing out of certain propulsion technologies for cross-border operations. Alternatively, any proposed phase-out date should not be more restrictive than the targets set for 2040 in Regulation (EU) 2019/1242 on CO₂ standards for heavy-duty vehicles.
- c) The European Modular Concept (EMS)
- The use of EMS

IRU fully supports the possibility for Member States to allow the national and cross-border use of EMS on their territory providing that several conditions relating to the maximum weights and dimensions allowed on their territory and relating to the accessible network are fulfilled. Where national use of EMS is allowed, cross-border operations can no longer be refused.

Figure 1: Number of trucks needed for the hinterland transport of the load of a container ship.



For the first time since its inclusion in EU legislation in 1996, explicit rules are being proposed to enable cross-border operations with EMS. These vehicle combinations improve transport productivity and consume less fuel, thus producing less CO₂ emissions as they consolidate freight from smaller commercial vehicles. Given these economic and ecological advantages, such vehicles are eco-trucks. IRU examined their advantages in terms of their use in road and intermodal transport, results are shown in figures 1 and 2.

There are some concerns that Member States may still create barriers for the cross-border use of EMS combinations using elements which go beyond the scope of the weights and dimensions rules, such as the professional qualifications of drivers. Member States with national rules for the use of EMS should be encouraged to cooperate to avoid that drivers qualified to drive EMS in one Member State have to redo training and exams in another one.

IRU sees the current proposal only as an intermediate solution, not a definitive one. Eventually, the EU weights and dimensions rules should evolve to allow the national and cross-border use of EMS on the comprehensive Trans-European Transport Network (TEN-T) and feeder routes without an application of the lowest common denominator. It should also be noted that any phasing out date for cross-border non-zero-emission EMS combinations is premature at this stage. The purpose of EMS combinations cannot yet be equally served by a zero-emission equivalent.

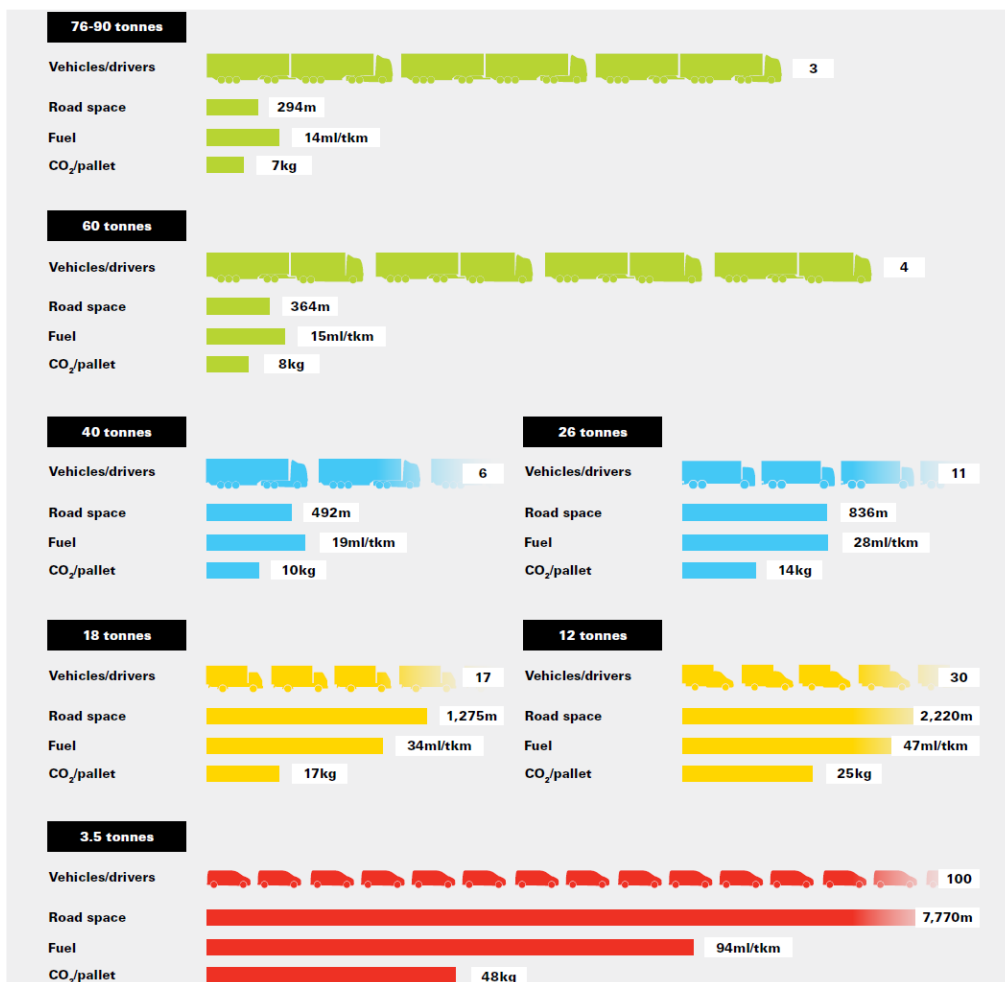
IRU calls for:

- The inclusion in the new Article 4a of a provision encouraging Member States to cooperate to avoid drivers certified to drive EMS to retake exams in another Member State.
- The inclusion in the new Article 4a of a reporting obligation for the European Commission every three years after the transposition date of the new rules to

evaluate to use of cross-border EMS and to explore possibilities to extend the scope of its use.

- A clarification of preamble 12 to exclude any reference to any potential phase-out date for the cross-border use of non-zero-emission EMS combinations.

Figure 2: Comparison of the number of vehicles, road space, fuel and CO₂ emissions for a 200-pallet load¹.



– Trials with EMS

The proposal also extends the scope for EMS trials to cross-border operations. This will allow more thorough live testing of vehicle concepts under various circumstances and over a wider variety of distances. A trial period is limited to five years which may not be sufficient to determine the level of maturity of a vehicle concept in all circumstances. A prolongation of the period should be possible. However, it should be subject to a proper justification provided to the relevant national competent authorities.

IRU calls for:

- The possibility to prolong EMS trials beyond five years in Article 4.5.

d) Longer cabins

The road goods transport sector is facing a chronic shortage of drivers. It is essential to improve the working conditions of drivers wherever possible, including in the vehicle cabin. It is positive that the current proposal allows vehicles and combinations to exceed

¹ Source: Cider, L. Larsson, L. Sweden, 2019.

the maximum length laid down by the Directive provided that their cabs deliver improved aerodynamic performance, energy efficiency and safety performance. IRU suggests to also use this derogation to create more comfort for the driver in the cabin which goes further than the "suitable sleeping facilities", as mentioned in Article 8.8 of Regulation (EC) No 561/2006. A contemporary and humane working environment for drivers should be created. In principle, the cab must offer more space for "working and living" during long-distance journeys lasting several days.

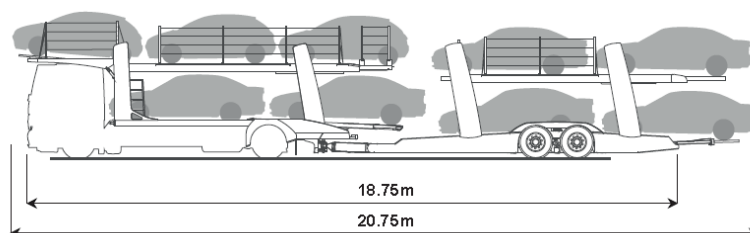
IRU calls for:

- An amendment of paragraph 1 of the newly amended Article 9a to include improved driver comfort in the cabin as one of the conditions for exceeding the maximum vehicle lengths.
- The consideration of a possible amendment of Article 8.8 of Regulation (EC) No 561/2006 to further define the driver comfort in the cabin for new vehicles. A relevant article could be added in the current proposal.

e) Vehicle logistics

With limited potential to improve their energy performance, vehicle transporters are currently allowed, in most Member States, to exceed the maximum authorised lengths laid down in point 1.1 of Annex 1 by using overhanging loads. This significantly increases their loading capacity. But these national derogations are not harmonised, which is a challenge for cross-border operations and leads to unnecessary penalties. IRU supports the alignment of the load length for vehicle logistics combinations, as it will make cross-border operations more efficient and will have a positive impact on fuel consumption and CO₂ emissions.

Figures 3: Vehicle logistics combination at 20.75m length compared to 18.75m.



The harmonisation of loaded length up to a total of 20.75 metres across the EU will allow an efficient use of vehicle transporters' capacity and an improved environmental performance². Most importantly, it would allow vehicle transporters to lawfully cross borders in the EU and operate in the single market with loads surpassing 18.75 metres (limit for road trains as of point 1.1 of Annex I). Unfortunately, the proposal does not fully reflect the sector's operational reality and should be fine-tuned.

IRU calls for a fine-tuning of the second paragraph of the new Article 8c to reflect that:

- The harmonisation of the loaded length through overhangs should apply to all vehicle transporters covered in point 1.1 in Annex I and not be limited to only open vehicle transporters for which there is not an agreed definition and in order to not discriminate against other types of vehicle transporters.
- Where the load protrudes in the front, the axles of the transported vehicle should rest on the body structure (except for articulated vehicles). At the rear, at least the forward axle of the vehicle(s) transported should rest on the body structure of the vehicle transporter (see Figure 3).

f) Indivisible loads

IRU supports the proposal's encouragement towards a further simplification and facilitation of the authorisation process for indivisible load transports, including granting

² ECG paper on loaded length of vehicle transporters, July 2020

on a non-discriminatory basis and the creation of a digital single window for applications. Member States are also encouraged to align their national rules and practices in the field of markings, pictograms and signalling. This should already facilitate the increasing number of cross-border indivisible load transports. The proposal could have included more elements to facilitate the preparation of national and cross-border indivisible load transports, including for permit applications, roadside checks, available road networks and escort vehicles. Several Member States already have a basic network where indivisible load transports can be rather easily allowed with a permit. Similar to the requirements for EMS, Member States could be encouraged to provide transparent information on this available network and ensure connectivity with similar networks in neighbouring countries. This could create further facilitation in the granting of permits and the establishment of appropriate routing for national and cross-border indivisible load transports.

IRU calls for a modification of:

- Article 4.3 to encourage further harmonisation of the appearance, markings and signs of escort vehicles and pilot cars among Member States.
 - Article 4.3 to specify delays for the granting of permits involving one or several competent authorities.
 - Article 4.3 to encourage Member States to provide transparent information on the basic network where indivisible load transports can drive, where these exist, and to connect this network with similar ones in neighbouring Member States.
 - The new Article 4a(c) to introduce a digital route planning system usable for transport operators in the single national access point.
 - Article 10d and new Article 10da to ensure that any automatic detection system in the road infrastructure or IAP properly reflects the nature of indivisible load transports and couples the conditions laid down in the permit with the access granting system to avoid unjustified penalties.
- g) Goods vehicles and combinations not in conformity with the characteristics set out in Annex 1 of the Directive

IRU is concerned that the newly proposed Article 4.1(c) will put an end to existing cross-border operations between consenting Member States with vehicles or combinations which deviate either in terms of length, width, height and/or weight from what has been outlined in Annex 1. Many cross-border operations with vehicles or combinations deviating from the characteristics of Annex 1, as defined by the Directive, have been taking place between consenting Member States for several decades without significantly affecting international competition in the transport sector. Specialised vehicles or combinations are used for these operations because the circumstances do not allow the use of vehicles or combinations commonly used throughout the EU. The proposal should codify these operations instead of banning existing practice already accepted by consenting Member States.

IRU calls for:

- Amending Article 4.1(c) to ensure that existing cross-border operations with vehicles or combinations not complying with the characteristics set out in Annex 1 can continue, providing there is mutual consent among the Member States concerned and that these operations do not significantly affect international competition in the road transport sector.
- h) Higher maximum authorised weight for six-axle vehicles and for the driving axle

Today, the maximum authorised weight of the driving axle is 11.5 tonnes. According to point 4 in Annex 1, this axle must be able to carry at least 25% of the total weight of the combination in cross-border operations. Therefore, the maximum authorised weight of a five-axle vehicle combination with one driving axle cannot be more than 46 tonnes. Any five-axle combination exceeding this weight requires a second driving axle or a higher maximum authorised weight of the driving axle. Alternatively, a six-axle vehicle

combination could be used but the current proposal limits the maximum authorised weight to 40 tonnes, which limits the efficiency of such vehicle combinations.

A general higher maximum authorised weight for the driving axle could contribute to ease challenges relating to the weight distribution in the vehicle and reduce the risk of overweight, especially when a vehicle is partially loaded in a situation involving several loading and unloading places.

IRU calls for:

- An amendment of the maximum authorised weight limit for six-axle vehicle combinations mentioned in point 2.2 of Annex 1 from 40 tonnes (44 tonnes for intermodal) to 46 tonnes.
- An amendment of the maximum authorised weight limit of the driving axle of non-zero-emission vehicles to 12.5 tonnes.

2. Buses and coaches

a) Alternative fuel and zero-emission buses and coaches

The higher maximum authorised driving axle weights for certain types of zero-emission buses and coaches are considered as being positive. However, IRU is concerned that without a wider extension of this incentive to all types of zero-emission buses and coaches, especially three-axle vehicles, operators could face challenges complying with the maximum authorised axle weights when they have a maximum authorised weight of 30 tonnes. Not only should driving axles be allowed to have higher maximum authorised axle weights, the centre axle with twin tyres of articulated buses should have a maximum authorised weight of 11.5 tonnes to be able to go to 30 tonnes maximum authorised weight with an optimal passenger distribution and without risks of exceeding axle weights.

IRU calls for:

- An extension of the maximum authorised weight of 12.5 tonnes on the driving axle to all zero-emission two- and three-axle buses and coaches and in consequence to allow the tandem axles for zero-emission vehicles to increase from 19 to 20 tonnes.
- An extension of the maximum authorised weight of the centre axles with twin tyres of articulated buses to 11.5 tonnes.

b) Four-axle articulated buses

IRU welcomes the further clarifications for the weights and dimensions for two- and three-axle articulated buses. The four-axle articulated bus has not yet been considered. Until now, it has been included in Directive 96/53/EC under the general heading of "articulated bus" without further details.

IRU calls for consistent inclusion, where appropriate, of references to four-axle articulated buses specifying the following weights and dimensions:

- A maximum authorised length of 21 metres and compliance with the current turning circle requirements.
- A maximum authorised weight of 32 tonnes with the possibility to have a four-tonne weight derogation for ZEVs.
- A maximum authorised weight of the driving axle of 12.5 tonnes and of 11.5 tonnes for twin non-driving axles.

3. General

a) Alternative fuel and zero-emission vehicles

Additional weight and dimension derogations for zero-emission vehicles should allow road transport operators to have a better compensation for the load capacity losses coming from the weight and space requirements of zero-emission technologies. The

possibility of additional length for zero-emission vehicles will also allow safety concerns to be addressed for hydrogen and battery-electric technology. The objective of the zero-emission vehicle manufacturers should be to continue working on the reduction of their empty weight and improving vehicle autonomy.

Motor vehicles, trailers and semi-trailers are not necessarily built, owned or operated by the same entities. Furthermore, trailers and semi-trailers are very often towed by different motor vehicles.

It must be ensured that transport operators interested in investing in zero-emission or more energy-efficient motor vehicles, trailers and semi-trailers can do so unhindered by legal flows. EU type approval legislation still does not facilitate the type approval of trailers and semi-trailers with an auxiliary propulsion system, a very serious barrier to their market uptake and use.

Whereas the market uptake of zero-emission vehicles and combinations should certainly be encouraged, IRU still considers it to be premature to restrict other alternative fuel vehicles and technologies, including carbon-neutral fuels and dual propulsion systems. Road transport operators must be able to choose which type of vehicles best suit their mission profiles. They should not be forcibly pushed towards using a technology which does not fit their purpose. Operators should be able to enjoy compensations for potential carrying-capacity losses for a wide range of alternative fuel and zero-emission technologies.

IRU calls for:

- The inclusion of carbon-neutral fuels in the list of the “alternative fuels” definition in Directive 96/53/EC. In the preamble, a consideration should be added that vehicles which can only run on carbon-neutral fuels should also be recognised as “zero-emission” vehicles.
- Maintain the current definition of “alternatively fuelled vehicle” as introduced by Directive (EU)2015/719.
- The inclusion of an article introducing amendments to the type-approval Regulation (EU) 2018/858 to facilitate the type approval of trailers and semi-trailers with an auxiliary propulsion system, including e-trailers and semi-trailers.

b) Proof of compliance and enforcement

IRU welcomes the clarifications introduced for the proof of compliance for intermodal goods transport. Drivers and transport operators will have to use the documents listed in Article 3 of the Combined Transport Directive. It should be noted that the application will depend on the implementation of the Electronic Freight Transport Information Regulation (eFTI) and the outcome of the upcoming revision of the Combined Transport Directive.

The possibility for Member States to implement Intelligent Access Policy (IAP) schemes to regulate, monitor and ease access of heavy-duty vehicles to specific roads is also welcomed. IRU would like to stress that Member States should give guarantees, whether they implement IAP or not, that transparent and easily accessible information will be provided to transport operators and drivers on weight, length, width or height restrictions, including routing information for specific types of vehicles, including EMS, indivisible load carriers, or vehicles with a height exceeding four metres.

IRU calls for:

- A modification of the new Article 10da to indicate that Member States shall provide the listed information either through an IAP or other easily accessible digital sources, and not necessarily only through National Access Points.

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