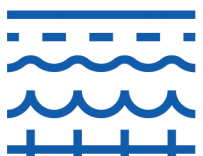


ECG Paper on loaded length for vehicle transporters

JULY 2020



ECG

The Association
of European
Vehicle Logistics

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ECG is advocating a standard minimum loaded length for car transporters in Europe of **at least 20.75m to harmonise many of the existing national laws**. The benefits of such a harmonisation will go beyond the car logistics sector and the internal market. It will result in less trucks on the road.

Finished Vehicle logistics – the importance of road transport

ECG represents the European Finished Vehicle Logistics industry which is a truly multimodal sector as it utilises short-sea shipping, inland waterways, rail and road transport to move millions of vehicles around Europe every year. The sector maximises the utilisation of multimodality where possible as demonstrated by the extensive use of short-sea and rail in the sector. However, transportation of cars by truck remains the most efficient mode, both for national and cross border movements, in most cases. There are various underlying reasons for that. At national level, when transporting a car, the ‘last mile’ is always done by truck (i.e. to reach dealerships). At international level, road transport sometimes is the solution because infrastructure is missing and there is no rail network connecting certain areas of Europe. Also, for rail the sector needs to rely on block trains and therefore requires sufficient volume on any given route. Furthermore, rail capacity is sometimes insufficient in terms of slots assigned for car wagon trains (e.g. Germany) or suffers from a lack of reliability (e.g. France)¹ and for this industry **speed and reliability** are paramount for the customers.

Loaded length of car transporters in the EU – A patchwork of national approaches

At EU level, car transporters are considered as road trains. Council Directive 96/53/EC amended by Directive (EU) 2015/719 lays down the maximum authorized dimensions in national and international traffic for certain road vehicles circulating within the Community. It establishes that in international traffic road trains using extensible coupling systems can in practice attain a maximum length of 18.75m when fully extended.

The authorised loaded length on national roads is often longer than that and in a majority of Member States car transporters have a special recognition in the law and thus specific and longer allowable loaded lengths. The ECG publication “National legislation for car transporters”² documents and translates the appropriate national legislation in each EU Member State, taking into account whether car transporters are mentioned with a corresponding loaded length, whether front or rear overhangs are specified and whether reference is made to the rear extension devices (See Figure 1).

To put an end to **inconsistent approaches by Member States** and the resulting negative impact on the environment, ECG recommends amending Directive 2015/719 and insert a standard minimum loaded length for car transporters in Europe of at least 20.75m.

¹ This is due to the poor performance of rail freight in France, in particular because of the strikes impacting the rail sector.

² ECG, [National legislation for car transporters](#), Version 4

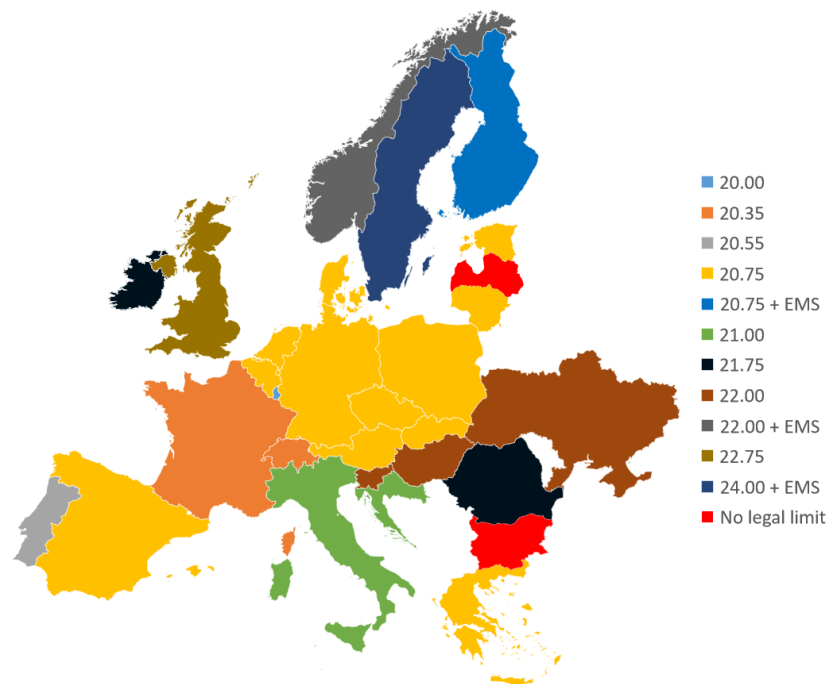


Figure 1 Loaded length of car transporters in metres in EU Member States based on national legislation.¹

International transport – loss of efficiency

The Finished Vehicle Logistics (FVL) sector relies heavily on crossing borders loaded to more than 18.75m. For example, the majority of cars are produced or imported in one country and sold to customers in another country. This proves how much ECG members have embraced the Single Market in addition to multimodality.

However, the patchwork of legislation on loaded length makes the cross-border transportation of cars more complicated. For example, in Germany national legislation allows loaded car transporters of 20.75m: in addition to the 18.75m, Germany allows a front overhang of 0.5m and a rear overhang of 1.5m. In France, the maximum loaded length allowed for car transporters is 20.35m but although France allows a rear overhang of 1.6m, it does not allow any front overhang. Thus, when a car transporter crosses the border from Germany to France it can only be loaded to the lowest common denominator. This means that it can only be loaded to 20.25m:

- No front overhang (France's legislation)
- Rear overhang of maximum 1.5m (Germany's legislation)
- Length of the car transporter 18.75m (EU legislation)

Having a minimum loaded length at EU level would allow car transporters to operate under a harmonised legislation when crossing EU Member States' borders and to maximise efficiency.

Cross-border movements – no EU recognition

Despite the many different sets of national legislation, it is, of course, EU law that applies at internal EU borders between two countries and currently this does not recognise car transporters and their special requirements. In fact the industry has been crossing national borders in the EU with front and rear overhangs for more than 40 years with car transporters loaded to more than 18.75m where both Member States have legislation that allows this on their territory. **Potentially the enforcement authorities in any Member State could identify this and enforce the 18.75m limit at its borders.** In such a scenario, all car transporters moving from one Member State to another could, overnight, be restricted to 18.75m and an average load factor of just 7 vehicles. Given that we have seen some Member States targeting similar situations as revenue generating opportunities, **this scenario becomes increasingly likely** by the day. By putting an end to the patchwork of loaded length, the EU would be alleviating a major legal uncertainty that can damage both the environment and the logistics sector.

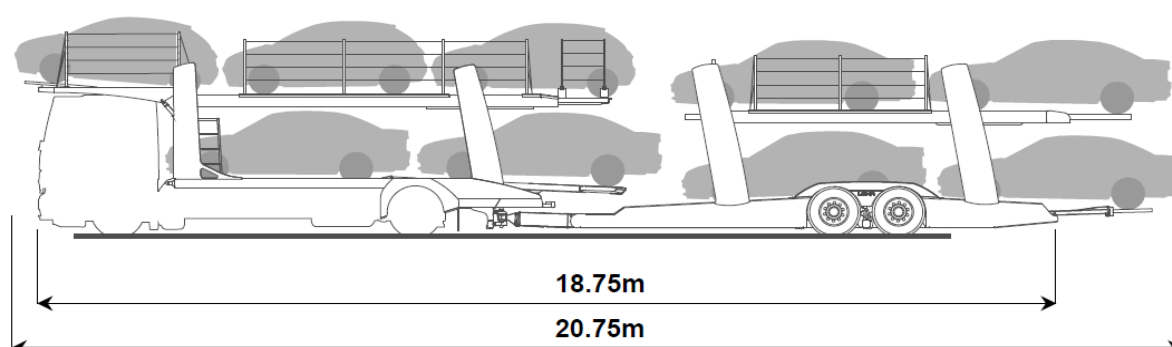


Figure 2 Illustration of load factor for car transporters of loaded length of 18.75m vs 20.75m.

Impacts on CO₂ emissions

Obviously, the carbon footprint of a car per kilometre changes based on the loaded length of the car transporter.

ECG commissioned a study³ by the independent environmental organisation Friends of the Earth (FoE), Italy with the aim to provide a set of reference values on CO₂ emissions for car transporters. The study is based on the COPERT methodology of the European Environmental Agency (EEA) which provides fuel consumption factors for different types of trucks. Car transporters are classified as articulated HGVs (28-34 t) based on their loaded weight.

According to this study, the average load factor of a car transporter in Europe loaded to 18.75m is 7 cars while the average load factor of a car transporter of 20.75m loaded length is 9. The CO₂ emissions for an average car on a car transporter with load factor 7 is 156.92 g/km and for car transporter with load factor 9 it is only 126.03 g/km (See Table 1). **The reduction of CO₂ emissions g/car-km is about 19.5% for trucks of loaded length of 20.75m with a load factor of 9 when compared with a load factor of 7 units.**

³ The study was commissioned by ECG for a project on carbon emissions.

Car transporter loaded length	Load Specific fuel consumptions CO ₂	Specific fuel consumption	CO ₂
<i>Metres</i>	<i>n° of cars per car carrier</i>	<i>g/car-km</i>	<i>g/car-km</i>
	1	283.17	897.51
	2	148.10	469.41
	3	103.08	326.70
	4	80.57	255.35
	5	67.06	212.54
	6	56.82	180.10
18.75	7	49.51	156.92
	8	44.03	139.54
20.75	9	39.76	126.03
	10	36.35	115.21

Table 1 Number of cars transported and CO₂ emitted per car per km (Source: Friends of the Earth, Italy)

In 2019, according to [data provided by ACEA](#), there were about 17.9 m new registrations of passenger cars (PCs) and light commercial vehicles (LCVs) in the EU+EFTA.⁴

New vehicles currently travel at least once by truck, some of them even two or three times with an average of 1.5 times. This means that applied to 2019, there were about 26.85 million vehicle movements by truck. Among these, around 12.89 m cross-border car movements were made by truck (48% of all vehicle movements). The distance covered by a truck in international movements is on average 694km.⁵ Based on these data some considerations can be made on the impacts of loaded length of car transporters on CO₂ emissions:

1. Currently each truck travels with a load factor of 8.2. In 2019 the total amount of CO₂ emissions for the 12.89 m international vehicle movements by truck were about 1,248,277 tonnes of CO₂.
2. If the loaded length of car transporters allowed everywhere in the EU was as a minimum 20.75m, the load factor would increase to 9. CO₂ emissions would, therefore, decrease to 1,127,422 tonnes of CO₂.
3. The impacts would be much higher on the amount of CO₂ emissions if the EU loaded length of 18.75m with a load factor of 7 cars was to be enforced at borders. In this scenario, we could estimate that in 2019 the total of CO₂ emissions would have been of 1,403,842 tonnes of CO₂.

With the harmonisation of loaded length of car transporters at EU level to a minimum of 20.75m, the saving in CO₂ would be:

- **Around 120,856 tonnes** as compared to the current situation with a load factor of 8.2 per car transporter;

⁴ In addition, there are cars constructed in Europe that are exported but mostly these are moved by rail/ship for export therefore they are not taken into consideration for the purpose of this document.

⁵ This estimation is based on a survey conducted among ECG members.

- **More than 276,421 tonnes** as compared to the worst (but possible) scenario of load factor of 7 per car transporter.

Due to the shape of their loads, there is no point for car transporters to use **aerodynamic devices** as allowed by EU legislation to reduce fuel consumption. However, the reasoning above demonstrates that they can make more gain in CO₂ emissions by increasing their load factors with the same rolling stock that is already in use (no additional investments).

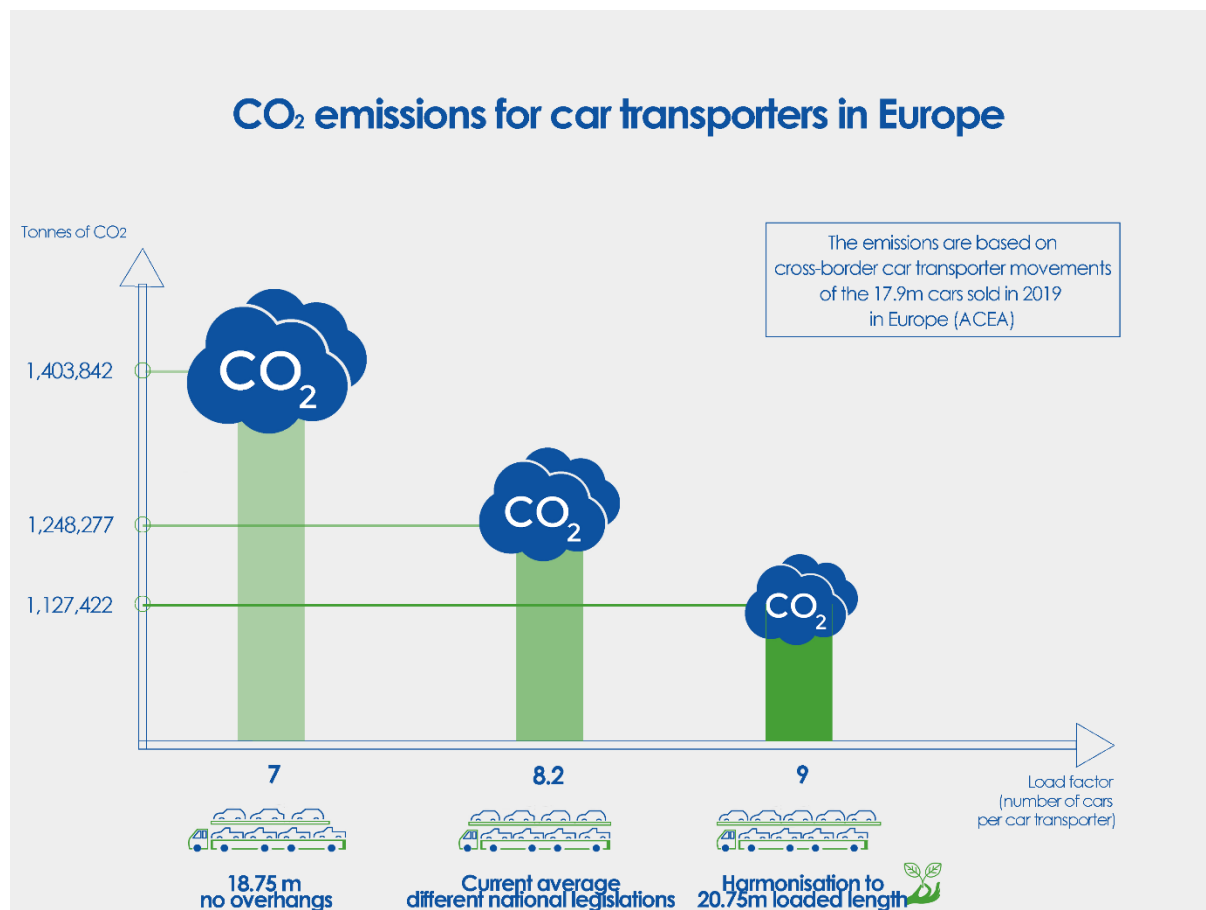


Figure 3 CO₂ emissions for car transporters in Europe

Other benefits of 20.75m vs. 18.75m loaded length

The harmonisation at EU level of the loaded length of car transporters to a minimum of 20.75m would result in several benefits:

- The overall efficiency of the sector would improve as car transporters would be allowed to operate in all EU countries with an average load factor of 9 cars. **Less trucks** would be needed on the roads thereby decreasing congestion and the number of accidents. It is also important to note that **safety** will not be impaired with this extended length as the rear overhang has a narrower shape which allows for a constant swept turning circle.
- The **cost** will reduce as the loads will be optimised and the same number of cars will be shipped with less trips. This cost cutting is compatible with the objectives of greening road transport as demonstrated above. It allows EU institutions to contribute to the post-Covid-19 recovery

plan in favour of the automotive industry with an automatic environmental string attached! It will benefit the industry as well as the consumers.

- The logistics sector has been suffering since many years from a **shortage of drivers**. The FVL sector is affected even more as transporting cars requires specific and lengthy training which makes the job less attractive for drivers. Harmonising loaded length at EU level would mean that one set of rules apply everywhere simplifying the work of drivers who travel from one Member State to another. It would also require less training hours on loaded length and how to follow the different national legal requirements. Here again, the impacts of the Covid-19 pandemic can be partly overcome thanks to efficiency gains.
- The lack of harmonisation on loaded length at EU level does not allow car transporter operators to operate in a single market. A single set of rules would provide **legal certainty** and will ensure a common interpretation at EU level.