

## Background paper on EU mega trucks study

(TREN/G3/318/2007. Transport & Mobility Leuven (TML) et al.: „Effects of adapting the rules on weights and dimensions of heavy commercial vehicles as established within Directive 96/53/EC. Final report”, published on January 16, 2009, on the European Commission's website – Directorate General for Energy and Transport – [http://ec.europa.eu/transport/strategies/studies/strategies\\_en.htm](http://ec.europa.eu/transport/strategies/studies/strategies_en.htm))

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### I. The central statements made by the study:

1) Introducing mega trucks will lead to considerably cheaper road freight transport. The study's authors regard the **reduction in the cost of road freight transport** as being **beneficial for society**. (page 72: “The introduction of LHVs is expected to reduce the road transport cost by 15 to 20 % in comparison to normal HGV trucks.”; page 144: “To conclude, all costs and benefits were added in one table. Positive numbers indicate a benefit to society, negative numbers a cost.”)

2) **Based on the assumption** that the modal shift from the railways and inland waterways to the roads will be negligible, the study's authors **claim that introducing mega trucks would lead to fewer road vehicle-kilometres**.

**Following this line of reasoning** – and in spite of individual conclusions to the contrary – **positive deductions are made regarding traffic safety and environmental impact**.

(Page 10: “Additionally, positive effects were predicted for safety and emissions, both mainly due to a reduction in road vehicle-km (-12.9 %), despite the fact that the individual LHV is more unsafe and more polluting than a regular truck.”)

3) **The serious disadvantages of mega trucks are explicitly confirmed:**

- **Mega trucks are a danger to traffic** (page 14: “The safety of the individual LHV is worse than that of a smaller truck.”)

- **Mega trucks will require enormous infrastructure investments** (page 14: “Infrastructure investments need to be paid.” page 141: “[...] for replacements or reconstruction of bridges. An extrapolation to EU 27 based on the tonne-km would give a cost of 22.9 to 45.8 billion euro.”)

- **Mega trucks are environmentally damaging** (page 10: “[...] the individual LHV is more unsafe and more polluting than a regular truck.”)

4) **Although they acknowledge the modal shift** from the railways and inland waterways onto the roads, **the authors assess the impact as negligible without providing substantive evidence**.

(page 10: “Even when some transport is shifted from rail (-3.8 % tonne-km) and inland waterways (-2.9 % tonne-km) to road, the road transport sector still grows.” [sic!])

5) **The study's authors conclude by recommending that mega trucks be permitted in Europe**.

(page 14: “The general recommendation is that introducing LHVs in Europe can be done without harming European society in general.”)

## II. Critical review of the study's central statements:

The authors' overall positive assessment of introducing mega trucks in Europe rests on one central assumption:

The authors regard any modal shift away from road freight transport's competitors as negligible, which leads them to deduce that there will be a reduction in road vehicle-kilometres.

The central aim of this review therefore is to examine whether the assessment of low modal shift impact, and the assumption that there will a reduction in road vehicle-km, are plausible and applicable.

**The conclusion is unequivocal: the basis for the authors' assessment does not hold up under examination.**

Details:

**- The authors' conclusions regarding the impact on modal shift are implausible and in part even factually incorrect.**

For example:

- The authors confuse transport volume (measured in tonnes) with transport performance (measured in tonne-kilometres):  
On page 10, the authors specify the reduction in transport performance for rail and inland waterways ("rail (-3.8 % tonne-km) and inland waterways (-2.9 % tonne-km)"). In fact, the reduction calculated by the authors for the railways and inland waterways was transport volume in tonnes, see page 68.
- **The study's authors use different reference values to measure the development of competing modes of transport:**  
When referring to the railways and inland waterways, transport volume in tonnes is used: For HGV road freight transport however, the measure is transport performance in tonne-km, see pages 66 to 68. **It is not possible to make a reliable assessment using different reference values.**
- **The authors' hypotheses on transport markets are not applicable:**  
The study's authors expect that permitting mega trucks would only have a negative impact on local railway transport (page 14): "Rail and inland waterway transport will grow somewhat less than expected, leading to a risk of local rail lines getting into difficulties." This expectation is not very realistic, since mega trucks are designed for use on medium-distance and long-distance routes, as explicitly stated by their supporters. This means that mega trucks will compete directly with the railways on medium and long-distance routes, and on cross-border journeys. **The impact on modal shift for medium and long-distance routes and on journeys crossing borders is expected to be considerable.**
- **The different competitive conditions in the various transport markets are completely ignored by the study's authors:**  
In their assessment of the impact on modal shift, the authors do not differentiate between the type of goods nor the mode of transport (combined transport, single-carriage transport, block train) when considering the market situation. **The authors' generalised approach does not even come near to the reality of the situation.**

- **There are no precise figures to back-up the authors' claims:**

The authors claim that the volume of rail freight transport will continue to grow, despite the introduction of mega trucks (page 10: "rail will still grow and the growth rate will be only somewhat lower than in the case of no LHVs.")

The fact that the authors base their statement on a definition for transport volumes that is not conventional in statistics (neither national nor European) is surprising enough (see page 314). Focusing on transport volume and ignoring transport performance is also not very informative. However, not even the authors' unconventionally defined data can substantiate their claim that volumes of rail freight transport will continue to grow. If one compares the volume of rail freight transport in Germany that the authors calculate for 2020 based on the assumption that mega trucks will be permitted (300.1m tonnes, scenario 2) with the status quo using the same definition, then it can be seen that there will be no growth in rail freight transport (compare German Federal Office of Statistics (Statistisches Bundesamt, Fachserie 8, Reihe 2)).

**In fact, the authors' own figures provide absolutely no evidence of continued growth, but rather of the stagnation of rail transport.**

- The authors' **claim of low impact on modal shift** can only be made if based on **exceptional assumptions** with regards to price elasticity; there is a lack of convincing reasoning for making these assumptions.

The author's are forced to concede that their assessment of modal shift become invalid if their assumption are modified even slightly, see page 72: "However, using the assumption of a more price-sensitive market in the calculation approach, a road transport growth of 13% could be reached, while rail and inland waterways would decline by 14% and 11% respectively."

**The authors fail to explain why they base their calculations solely on extreme assumptions with only low impact on modal shift.**

- **The problems of induced HGV traffic resulting from the introduction of mega trucks**, as well as the modal shift, **are classified as negligible by the authors.**

This is particularly difficult to understand since a central argument made by the authors is the cost reduction of road freight transport resulting from the introduction of mega trucks. The authors were made aware of the connection between lower costs in road freight transport and induced traffic in the period prior to the study. (See speech by Jos Dings (T+E) at the stakeholder workshop on March 4, 2008; in particular the reference to a study by the Dutch Ministry of Transport).

**Against this background, the implausibility of the authors' assumption that there would be a reduction in road transport performance, once again become apparent.**

- **The authors' evaluation of other scientific studies is biased. Studies that are critical of mega trucks are viewed with scepticism by the authors, or put into another perspective. In contrast, studies that are biased in favour of mega trucks are classified as valuable, even if they lack scientific substance.**

Examples:

- In 2007, the German Federal Ministry of Transport commissioned the study 'Transport-economic impact of innovative goods vehicles II', which found considerable modal shift impact. The Federal Transport Ministry's study was carried out by K+P Transport Consultants in cooperation with the Research Association for Intermodal Transport (Studiengesellschaft für den kombinierten Verkehr e.V.). K+P Transport Consultants are independent consultants for freight traffic and transportation, and the members of the Research Association for Intermodal Transport include companies from German industry and the transport sector, and the Federal Trans-

port Ministry.

The authors' verdict on this study was as follows (page 195): "This report provides a detailed overview and a sound methodology. Nevertheless it should be taken into account that this report is conducted in coalition with the research foundation pro combined transport."

- In 2007, MTRU transport planning consultants carried out the study "Heavier lorries and their impacts on the economy and the environment" for the British association Freight on Rail. The study came to the very clear conclusion that mega trucks do not lead to a reduction in road vehicle traffic.

The authors commented (page 188): "This document contains some useful numbers from practical experience, yet is focussed only on the British situation, i.e. with maritime transport as an alternative for Modular vehicles. As this situation is unique in Europe, this document can be used only when discussing the UK."

- In contrast, the authors find that statements made by the association representing the interests of mega truck manufacturers (ACEA) are useful, even though they are not even quoting from studies but from letters (page 167): "Useful knowledge for safety, road wear and emissions."
- The study's authors are equally euphoric when it comes to a Power Point presentation from the truck manufacturer Scania (page 203): "Good ideas to show where the state of the art and the legislation could progress. Valuable data."
- The authors' assessment of a draft opinion that was discussed in the European Economic and Social Committee (page 179) is particularly unprofessional: "Good state of the art overview on the modular concept and the efforts across Europe to evaluate its feasibility and potentials with respect to increasing freight demand, ecological and economical aspects and impacts on society."

**This assessment blatantly contradicts the evaluation reached by the European Economic and Social Committee itself:** "The overall feeling about this opinion was rather unfavourable. Many members objected to the title of the document and the logic used to write it. The main reproach was the lack of a balanced approach in assessing the merits of 'eco-combis'." (Meeting of the TEN section on October 5, 2007. Full minutes can be found here: [http://eescregistry.eesc.europa.eu/viewdoc.aspx?doc=%5c%5cesppub1%5cesp\\_public%5cces%5cten%5cpv%5cen%5cces1381-2007\\_pv\\_en.doc](http://eescregistry.eesc.europa.eu/viewdoc.aspx?doc=%5c%5cesppub1%5cesp_public%5cces%5cten%5cpv%5cen%5cces1381-2007_pv_en.doc))

**- The opinions of European institutions on mega trucks are factually misrepresented:**

The authors' claim that the European Economic and Social Committee (EESC) supports the introduction of mega trucks is factually incorrect and completely unacceptable (page 179): "Opinions of the EESC as mentioned in the report are: The Directive 96/53/EC should be amended in such a way as to permit the use of these combination vehicles in international transport. The EESC recommend to lose no time adopting the directive with a view to authorising cross-border transport operations between states in which the use of Ecocombis is permitted. [...]"

**In fact, the text quoted by the authors was rejected entirely by the committee responsible because it was considered to contain mistakes:** "The TEN section proposes that the opinion TEN 291 is to be withdrawn from the EESC's works. This statement was adopted by 61 votes in favour and 9 against with 2 abstentions." (Meeting of the TEN section on November 6, 2007. Full minutes can be found here:

[http://eescregistry.eesc.europa.eu/viewdoc.aspx?doc=%5c%5cesppub1%5cesp\\_public%5cces%5cten%5cpv%5cen%5cces1616-2007\\_pv\\_en.doc](http://eescregistry.eesc.europa.eu/viewdoc.aspx?doc=%5c%5cesppub1%5cesp_public%5cces%5cten%5cpv%5cen%5cces1616-2007_pv_en.doc)).

### III. Summary:

In their study, the authors repeat the usual arguments put forward by LHV supporters that permitting mega trucks would lead to a reduction in road transport performance (road vehicle-km). However, the authors provide no robust evidence or plausible reasoning in support of their arguments. At the same time, the authors are unable to deny the fact that numerous scientific studies have now reached the conclusion that due to the large-scale modal shift from the railways and waterways, as well as induced traffic, no reduction in road vehicle-kilometres resulting from the introduction of mega trucks can be expected.

The lack of evidence supporting a reduction in road vehicle-kilometres therefore also invalidates the authors' argument that it could have positive effects on traffic safety and the environment.

With their positive assessment, the study's authors also confuse benefits to society with individual interests: costs amounting to billions for funding infrastructure upgrades will be paid by taxpayers, while the cost savings will only benefit the road freight sector.

In contrast, the study's authors are forced to acknowledge explicitly the negative impacts of mega trucks: safety risks, billions of euros in infrastructure costs, higher emissions.

**In conclusion, it can be said that on January 16, 2009, the European Commission published a study that contradicts itself. The essential individual conclusions reached in the study confirm the arguments made against introducing mega trucks. However, in spite of this, the study's authors come to an overall positive conclusion on introducing mega trucks in Europe, but at the same time fail to provide any concrete or convincing evidence for their positive assessment.**

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