

INTRODUCTION OF LONGER & HEAVIER VEHICLES

IMPACT ON ROAD INFRASTRUCTURE

DECEMBER 2013



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INTRODUCTORY REMARK

On 15 of April 2013 the European Commission presented its Proposal for a Directive of the European Parliament and the Council amending Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic.

Last year the E. Commission tried to legalize cross-border traffic of heavier and longer vehicles of 25.25 m, weighing up to 60 tons without consulting the E. Parliament by trying to interpret unilaterally a clause in the Directive 96/53. Because of the overwhelming opposition from the Parliament to this “undemocratic” approach the E. Commission changed its attitude. The E. Commission, without having carried out any impact assessment, is now proposing a new directive which introduces “aerodynamic” longer vehicles while in parallel allows the international transit traffic of mega-trucks between consenting adjacent countries.



Impact of gigaliners on road infrastructural capacity

ASECAP considers that the policy makers, when examining the introduction of longer and heavier vehicles into the system, must first take into account the absorption capacity of the infrastructure sector.

More specifically, they must consider the following infrastructural aspects as key elements/inputs for their analyses:

*Motorways built in Europe are designed to meet the existing standards of weights and dimensions which are valid for over 45 years. **The existing motorways' network is not designed for longer and heavier vehicles.** The basis for national and European regulations and therefore also for infrastructure planning & building is Directive 96/53/EC which sets out the maximum allowable vehicle loading dimensions in national and international road transport in the EU. A general review of this legislation would lead to massive investments and infrastructural adjustments:*

- **Negative effects on bridges bearing structures;** bearing structures have to be massively reinforced due to the higher loads but also to maintain the current safety standard (in cases of a crash, higher dynamic stresses which are triggered by mega-trucks must be absorbed by crash barriers of greater dimensions. Since these dynamic forces must also be absorbed by the bearing structure, this too would have to be massively reinforced);
- **Negative effects on Tunnels;** several European countries have territorial characteristics (Alpine regions etc.) that consequently lead to remarkably high proportion of tunnels. Increasing the maximum authorized truck dimensions also increases the fire load (proportionally to the cargo which is carried). This requires massive structural changes to the tunnel cross-sections. The parking niches/breakdown bays and the dimensioning of the cross cuts have not been dimensioned for gigaliners. The safety installations and the estimation of the potential for danger would thus have to be completely reassessed;



- **Access/Capacity limits to rest areas and parking lots;** as it is mandatory to conform to driving periods and rest periods obligations, mega-trucks would cause serious difficulties in terms of secure parking capacity;
- **Difficulties on links between primary and secondary roads** (ie.: junctions, roundabouts); applicable regulations and parameters for road construction refer to the "standard vehicles" which are currently in use. In this context it must also be stated that in almost all cases a journey begins and ends on the secondary road network. It is necessary therefore to take the structural conditions of this network also into account;
- **Lack of sufficient data and records on the impact of gigaliners circulating simultaneously on the same stretch.**

Impact on Road Safety

A general introduction of heavier and longer vehicles is not compatible with the ongoing EU Road Safety targets. The following aspects must be carefully taken into consideration:

- **Impacts of accidents** would be more serious with a likelihood of an increased fatality rate.
- **Tunnels safety** at risk! Several European countries have territorial characteristics (Alpine regions etc.) that consequently lead to remarkably high proportion of **tunnels** on the primary road network. Tunnels cross-sections, parking niches/breakdown bays and ventilation ducts would need massive readjustments;
- The **psychological impact** to light vehicles' drivers behavior should not be underestimated;



- Existing standards for **guardrails/crash barriers** are not adequate for 60 t. vehicles;
- **Access limitations to emergency parking** in cases of breakdown; parking niches are not dimensioned for longer vehicles;
- To **retrieve gigaliners in cases of breakdown**: special equipment would be needed which is not a standard for fire brigades or breakdown services
→ high risk for emergency procedures following accidents;
- **Enforcement will become a problem** as the existing enforcement rules for Heavy Goods Vehicles are not conceived to control weights, load and general status of gigaliners → transgressions, a major risk for traffic safety
- cannot be controlled or enforced
- **Vulnerable users**, and in particular powered two wheelers would be more at risk

Financial impacts

ASECAP considers that the policy makers, when examining the introduction of longer and heavier vehicles into the system, must first take into account the absorption capacity of the infrastructure sector. More specifically, they must consider the following infrastructural aspects as key elements/inputs for their analyses:

As already indicated, new infrastructure specifications and standards able to meet the new requirements, must be defined and built. Such standards must be accompanied by a serious and reliable calculation of the cost of the needed investments in the road infrastructure network.

We all recognize that such considerations do not comply with the current negative economic and financing framework in the EU member states reflecting the budgetary constraints which put into prohibition programs related to infrastructure maintenance and upgrade.



Conclusions

Taking into account:

- a) That giganliners **require massive investments** on both sides of the road transport market, i.e. the road haulage industry and the TERN infrastructure network.
- b) That primary and secondary **road networks in Europe are not designed** for vehicles with weights of 60 t. and dimensions up to 25.25 m.
- c) That, if no infrastructure measures are taken, mega-trucks will be a **major risk** for EU's objectives in terms of accidents and fatalities reduction.
- d) That the needed **investments on the TERN are far higher** than the ones assessed in the EU Commission funded studies which do not include important parameters.
- e) That the following **indicative list** of additional issues has to be thoroughly scrutinized:
 - Incidents management
 - Noise limit requirements
 - Pavement damage

ASECAP asks the policy makers to re-open the studies and invite their authors to go beyond the limited group of stakeholders they have consulted and ask the scientific input of road infrastructure operators and their experts, in order to seriously assess whether the EU primary network is ready to absorb 60 t. vehicles traffic.

ASECAP reminds that the free circulation of giganliners on the European motorways, tunnels and bridges would affect different elements of the transport industry and – mainly – infrastructure managers who provide a safe, secure and efficient mobility on their networks. For these reasons, ASECAP invites all the parties involved to re-examine every aspect related to the introduction of mega-trucks on European roads and consider under which conditions the structural capacity of the infrastructure network can accept such vehicles.

