



Association Européenne des Concessionnaires
d'Autoroutes et d'Ouvrages à Péage



ASECAP Position Paper

On

European Commission proposal for a Directive of the European Parliament and of the Council

“On minimum safety requirements for tunnels located on the Trans-

European Road Network”



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TABLE OF CONTENTS

EXECUTIVE SUMMARY	4
1 – FOREWORD	6
2 - TECHNOLOGY CHANGES AND ADAPTS; A DIRECTIVE SHOULD SET GUIDELINES AND TARGETS AND LET THE TOOLS DEVELOP	6
3 – THE COMMON EUROPEAN ROAD SAFETY POLICY MUST RELY UPON MEMBER STATES ORGANIZATIONS AND MUST NOT HINDER INNOVATION AT NATIONAL LEVEL	8
4 - THE PROPOSED TUNNELS CLASSIFICATION METHOD IS NOT APPROPRIATE.....	9
5 - POSSIBLE CONSEQUENCES ON TRAFFIC AND SAFETY	10
6 – THE PROPOSED MEASURES IMPLY HIGH COSTS	11
7 - CONCLUSIONS	12

EXECUTIVE SUMMARY

ASECAP is the European Association of toll infrastructures operators.

ASECAP members operate some 19.000 km of tolled infrastructures, the most of that lies on the Trans-European Road Network and includes very large amount of tunnels, both in number and in overall length, as well as major Alpine tunnels.

From the experience gained in decades of operation, European toll operators have a considerable knowledge in safety related issues, and in tunnels safety as well.

Experts of toll operators sector are members of international committees on tunnels safety in well known international organisations, such as UNECE, OCSE and PIARC.

Upon this basis, ASECAP felt appropriate to comment on the European Commission proposal for a Directive of the European Parliament and of the Council “On minimum safety requirements for tunnels located on the Trans-European Road Network”.

Although welcoming an action aimed at improving European Road Safety, ASECAP wants to point out some issues likely to hinder the practical achievement of the intended targets.

The following chapters explain, in detail, the ASECAP general position, that can be summarised as follows:

- A European Directive can and must set safety strategic lines and targets that Member States must commit to. A European Directive, as it is equally the case for national legislation, should not be burdened with technological details, which are likely to change in time and to have entirely different results according to the location. Once the intended safety targets have been fixed, technical and technological choices and innovation should be left to Member States and operators.
- Any tunnel classification scheme at European scale, provided that it is applicable, must be sound (i.e. accepted by experts and technicians) and shared (i.e. agreed by Member States). The proposed method does not seem to fulfil the given conditions.
- The proposed measures and timing would imply the start of a large quantity of road-works, likely to disrupt traffic and even endanger safety on those networks that present a higher tunnel density.

- The proposed organisation is complex and does not take into account national legislation and practices as far as duties and liabilities are concerned. Again, clear rules applied by Member States responsible authorities could be more effective.
- Although research on technical innovation can also be performed at international level, by international organisations, yet Member States must fully assume any decision regarding the implementation at local level that cannot be neither enforced nor cancelled by no centralised body.
- The tunnel safety issue is part of the overall road safety: investing for tunnel safety is right, but we need to optimise the global result. The provisions contained in the proposal imply high expenditures; therefore they must guarantee a significant improvement in the European road safety records. Investments for tunnels safety are obviously needed and welcome, but for those equipment and features that have actually proved to be cost-effective. Furthermore, the costs the proposal shall entail are very high and, for some European Member States in particular, very difficult to pay. Case analysis on a *Ad hoc* basis is essential.

ASECAP experts are ready to disclose detailed technical comments on the proposed text in the technical discussion phase on the draft Directive, both at European and national level.

ASECAP experts on road tunnels safety are at disposal of the European Institutions and are ready to co-operate towards an enhanced road safety in Europe.

1 – FOREWORD

ASECAP has the technical and operational responsibility on a motorway network that is basic for current and future European road communications. For this reason, ASECAP hopes that the future Directive on road tunnels safety will be so balanced as to lead toward a real improvement of the of the European motorway network safety standards; in fact these are the standards the Motorway Concessionaires have to compare their operation and results with on a daily basis and on site. ASECAP operators deal daily with a very high number of tunnels, all of considerable length, including major Alpine tunnels.

A large amount of resources is yearly devoted by ASECAP operators to road safety enhancement, both in research activities at national and international level – ASECAP experts are members of working groups or committees dealing with tunnels and tunnel safety in well known organisations, such as UNECE, OCSE and PIARC.

This effort results in a steadily decreasing accident record on their motorways, also due to the approach “fully-tailored” on the actual needs of the different motorway stretches and structures, including tunnels.

Of course, due to obvious reasons of continuity and homogeneity ASECAP operators do not have a different approach between TERN and not TERN structures, in particular when safety issues are at stake.

Based on the above, ASECAP considers as appropriate to submit its comments on the European Commission proposal for a Directive of the European Parliament and of the Council “On minimum safety requirements for tunnels located on the Trans-European Road Network”.

2 - TECHNOLOGY CHANGES AND ADAPTS; A DIRECTIVE SHOULD SET GUIDELINES AND TARGETS AND LET THE TOOLS DEVELOP

Bearing in mind these principles, we think that the draft Directive should be amended significantly, as far as technical details are concerned in order to fix the safety related principles and targets. This shall bind Member States within a reasonable delay to the definition of the most effective measures to achieve those targets, with a sound cost/benefit analysis based on the national scenarios.

The draft Directive goes beyond the mandate the European Commission acquired through the approval of the White Paper on “European transport policy for 2010: time to decide” and coming from the article 71 of the Treaty, since the draft Directive does not only depict the general guidelines for the harmonisation of the minimum safety requirements, but also goes into detailed analysis, envisaging precise operational provisions that would not seem to fall under the specific competence of the European Commission.

Generally it is well known that, in compliance with the provisions of the Treaty, the European legislative harmonisation when ruled by means of a Directive must define the necessary requirements (of safety, in this given case). Each Member State is free to establish any provision it may deem appropriate to match the harmonised levels, also taking into account all differences in terms of geographic conditions, weather, habits, as well as the various protection levels existing at national, regional and local level.

This analysis is not academic nor is to be taken as an excuse. It also has very relevant practical consequences, since the strict compliance with the text of the draft Directive would entail a rather heavy burden for ASECAP members, given the very high number of tunnels on the TERN part under their operation.

As a matter of fact, according to the proposed classification of Annex 1 of the draft Directive, a high percentage of TERN tunnels operated by ASECAP is likely to be included in class I and II; as a result those tunnels will fall under the obligation to adopt all the foreseen measures concerning installations and structures.

Of course this circumstance, besides the already mentioned economic difficulties when prescriptions for classes I and II were confirmed, would cause contrast among:

- objective difficulties in the execution of works;
- very high impact on the territory and on the circulation of vehicles due to the simultaneous opening of a large number of road works;
- obvious and lasting repercussions on road safety due to endless years of road-works on the sections with the highest concentration of tunnels.

The proposed text represents also an atypical regulatory situation concerning a crucial problem of safety choice. As a matter of fact, the draft Directive, while establishing duties and identifying operative detailed solutions, defines in parallel the corresponding levels of liability for Member States.

3 – THE COMMON EUROPEAN ROAD SAFETY POLICY MUST RELY UPON MEMBER STATES ORGANIZATIONS AND MUST NOT HINDER INNOVATION AT NATIONAL LEVEL

The draft Directive sets a rather structured organisation for safety, where three levels of responsibility are foreseen: 1) an Administrative Authority that shall have a technical body for inspections, called 2) Inspective Body, and 3) a Tunnel and Safety Manager, to be named for each tunnel).

Generally, tasks of public works surveillance are already well defined in Member States (together with the appropriate levels of liability), and certainly in those countries where ASECAP is already present. As a result there could be an overlapping and due to the definitions being proposed, probable conflicts of competence could arise vis-à-vis the organisations already in place.

As a matter of fact, technical checks, works planning and execution responsibility in the field of road infrastructures management are charged in figures already defined by national regulations.

In particular when quick decisions are needed, the closer to the tunnel the organisation responsible, the better the management of any foreseeable event.

The Operators - whether public or private does not matter at all - must be in charge and “feel” in charge, since each tunnel has its own history and peculiarities being therefore impossible to fit in at the practical level in a unique comprehensive European-scale scheme.

Member States should commit themselves to ensure, through their national organisations, that the European targets shall also be achieved with regard to safety in tunnels, as they already do in other fields.

It is not clear why, as to safety in tunnels only, safety management should be subject to a discipline different from those criteria commonly adopted for traffic safety by authorities and organisations in Member States.

Furthermore, the approach proposed in the draft Directive on the handling of “innovative techniques” does not seem appropriate. The approach itself proves how the envisaged directive goes far too much into detail. It seems unfeasible that Member States authorities have to ask some central authority in Brussels for a waiver whenever they wish to adopt a technical or technological improvement which is not clearly mentioned in the directive. Not even national legislation is so restrictive as to impose the principle that “whatever is not mentioned is forbidden”. The subsidiarity

principle should be obviously applied for the sake of efficacy and European research. That not being the case, there is a sensible risk that techniques may become obsolete while knowledge remains incomplete and no full scientific consensus is achieved, notwithstanding that in the process a fast technical development may intervene.

4 - THE PROPOSED TUNNELS CLASSIFICATION METHOD IS NOT APPROPRIATE

The Annex 1 of the European Directive concerns minimum safety requirements, the classification of road tunnels 5 classes, based on tunnel length and traffic volume.

These classification criteria are definitely not appropriate, and there is no evidence that they are based on any of the recommendations put forward by the internationally recognised Committees dealing with tunnels safety (e.g. OCSE, PIARC, UN-ECE). We have no evidence that the thresholds being proposed result from any scientific basis, since none of the above mentioned organizations seem to have fixed such limits.

In the first place, considering motorway tunnels accident risk, it would be better to use elementary classification criteria that would be sensible to share at international level (e.g. presence of mono- or bi-directional traffic, to what road category the tunnel belongs, etc.).

If “traffic volume” must be kept as a parameter (perhaps in order to optimise the possibility of harmonising existing European technical standards) then it should be used not for tunnel classification as such, but for the definition of tunnel equipment, however introducing different thresholds based on distinct national features, and also taking into consideration each territorial reality, where traffic characteristics vary significantly.

Anyway, that tunnels should be classified according to “absolute criteria”, in precisely delimited classes based on length and traffic volume, results in a highly inappropriate principle, just as much as the provision establishing that tunnel classes should be shown at the entrance (Annex 3, point 2.4).

In practice, users would certainly believe that tunnels belonging to the upper classes are less safe than the rest of the network, and this is certainly not true, as accident records clearly demonstrate. In fact, experts’ findings at accident location and distribution point out that those tunnels with high traffic volumes and the highest length are not at all the most “unsafe”.

This notice would prove to be wrong and if supported by important institutions, could even be misunderstood by the press and therefore affect the “public image” of those road sections with a dense tunnel network.

As for those notices that could benefit to users, we underline that tunnel length is already shown at the entrance of the tunnel in many European countries.

And finally, no tunnel classification scheme can ignore the difference between updating a tunnel in operation and applying the classification to new structures.

Any approach must include different time schedules and measures such as:

- tunnel upgrading already under way (with heavy consequences for safety during the works, cost and traffic disruption, etc.);
- tunnel restoration already in project and/or under way (additional costs, no traffic disruption, etc.);
- designing of new tunnels (no practical consequences).

5 - POSSIBLE CONSEQUENCES ON TRAFFIC AND SAFETY

Generally it doesn't seem appropriate to define one single term for the execution of the upgrade works.

It would be more coherent that by way of the European Directive it be binding for Member States and operators to carry out tunnel upgrade plans, according to fixed targets as well as tunnel density in a network (i.e. the higher the density, the higher the burden and the consequences on traffic, in which case a *ad hoc* timetable must be negotiated at local level) bearing in mind parameters like, for instance, the number of tunnels in each 100 km-stretch of motorway network.

As a matter of fact, although it is always possible within a reasonable span of time to adapt a network with few tunnels, the need to always ensure a service that is up to the users' expectations leads to the conclusion that a motorway cannot withstand an indefinite number of road works at the same time within a limited space.

The definition of a plan by road operators/authorities, based on specific priority criteria (set in compliance with detailed knowledge of the specific network and its operative problems) would avoid incoherent applications of the agreed regulations.

6 – THE PROPOSED MEASURES IMPLY HIGH COSTS

In a period of public budget curtailing conflicts may arise as to European priorities since the provisions being proposed imply high costs. Cost-effective measures are of course an issue that cannot be neglected, which means that road operators must make the most use of all available resources aiming at the best possible results.

Decisions are not often easy, since certain relationships between the available parameters are not yet based on objective data and even the cost/benefit analysis produced by the European Commission show that the investments in tunnels refurbishment are not cost effective when compared with the overall improvement of safety levels along the network.

As a result, an overall investment of several billion € could also mean, for certain European Member States, a non-effective use of financial resources under the chapter of road safety, especially where there are many tunnels, since in general the safety level for particular structures such as bridges and tunnels does not prove to be worse than for “open-sky sections”; on the contrary, statistical data give evidence of better safety records for these structures.

Therefore, knowing that the cost/benefit ratio is rather unfavourable should lead to some adaptability when establishing technical regulations intended for road and tunnel safety.

Based on the above considerations, ASECAP believes that the following measures should be taken both by National and European Authorities together with all road operators:

- More requirements should focus more on low-cost measures (provided that they are sufficiently effective), and less on the most expensive ones (unless one can really be sure they are very cost-effective);
- Help the populations and drivers in particular to increase awareness and acceptance of a social risk that technicians and operators already know, in full compliance, and that is probably lower than any ordinary risk of entailed by transportation in general;
- A proper timetable should be established for each road/motorway section, in agreement with operators and Member States authorities, according to the European strategic lines in order to tailor actions to the actual needs and characteristics of the European roads network; “one size fits all” solutions could lead to ineffective or at least non cost-effective measures.

Some additional considerations that can also prove to be useful concern the feasibility of the Public Private Partnership envisaged as a powerful tool for TENS development.

As for toll motorways, the new trend towards privatisation entails some new constraints, since listed companies would see their business seriously affected if compelled to carry out the expected expenditure within a very short notice. This would bring negative effects for European investors. State-owned toll motorway companies would encounter serious problems as well, since compliance with European regulations on concessions (even in the case of a public investor) requires rather strict accounting regulations.

Expenses must be recovered (so as to avoid bankruptcy for businesses, if worse comes to worse), as well as unexpected expenses. In this specific case the unexpected expenditure criteria would be a legal provision, and then only two solutions could be envisaged:

- direct transfer of resources from the public sector;
- extension of the concession period and of the number of years necessary to recover the loss.

In both cases compliance with European rules must be checked, since in principle both actions should be strictly forbidden for the sake of the Common Market.

This issue must of course be dealt with before any final decision is taken on the applicable measures, because the whole framework of the draft Directive could fail if the needed resources will not be available (see also chap. 1).

7 - CONCLUSIONS

Although welcoming an action aimed at improving European Road Safety, ASECAP must point out some issues likely to endanger the practical achievement of the agreed targets and time schedule.

The effective application of road safety measures along the TERN must be dealt with as a complex infrastructure, where each stretch and category has a role to play according to the type of the structure, the location etc.

If it is feasible to define European targets in terms of road safety, and namely of tunnels safety, the generalisation of these targets in time and space is an issue of its own, since the European territory

is not coherent and that the behaviour of European citizens (and drivers in particular) changes both in time and space.

As for technical provisions, these should come from high standing international organisations with experience in this field, but they cannot be enforced at a European scale on the existing infrastructure.

Given some European strategic lines, certainly most appropriate and favourable, local authorities and operators must apply the most adequate strategies and tactics that will make the tunnel safety dream a reality, bearing in mind as well that no European road stretch could ever be totally accident free.

The European road tunnels safety performances have proved so far to be better than those of the open road stretches, thus posing the problem of what are the main priorities in terms of road safety enhancement.

Any decision must take these records into account, together with the financial consequences of the application of future rules on European Member States' budget.

Cost-effectiveness must also be taken into account as a leading concept, in the interest of all European citizens.

Based on the above, ASECAP is sure that the future Directive on road tunnels safety will be so balanced as to lead to a real enhancement of the European motorway network safety standards.