

Tunnel safety – an EU perspective

PIARC – FASTIGI tunnel safety workshop 16 February 2017, Rome



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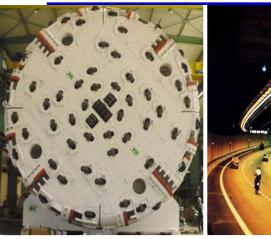
Road Safety Unit Directorate-General for Mobility and Transport European Commission



First, a step back in time to 2002...



European Commission















Proposal for a Directive on minimum safety requirements for tunnels in the Trans-European Road Network

26 November 2002





Accidents are costly

Absence of action is detrimental. Accidents in tunnels have proven to be extremely costly in many respects.



 Direct costs of recent tunnel fires, including reparation amount to 210 million € per year. 11 people died in the St Gotthard accident, 39 in the Mont-Blanc accident and 12 in the Tauern accident.

- Indirect costs on the economy resulting from the closure of a tunnel are huge. In the case of the Mont-Blanc tunnel these amount to 300 450 million € per year for Italy alone.
- Tunnel closure is also prejudicial to the European
 economy: it increases transport costs, reduces
 competitiveness and negatively impacts road safety due to
 longer journeys which in turn increase pollution costs.

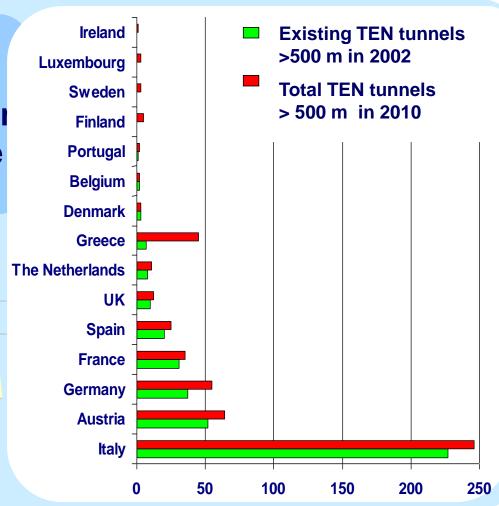




Targeted tunnels

Tunnels of the **Trans European Network** longer than **500 meters** in **operation** under **construction** or at the **design** stage.

The density of tunnels in **Italy** and **Austria** exceeds by far the density of tunnels in the EU



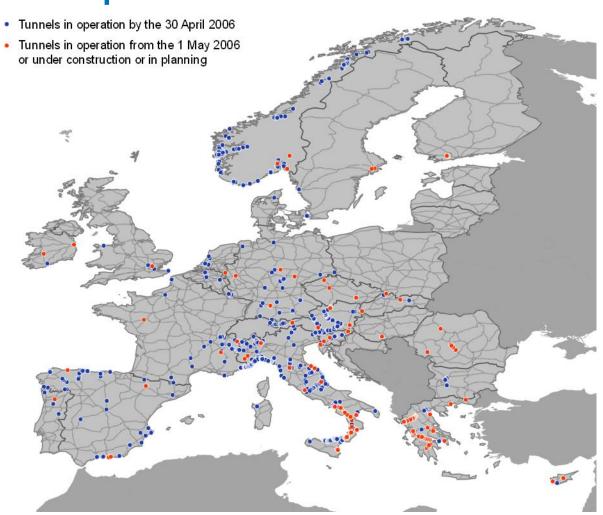




and now coming back to the present...

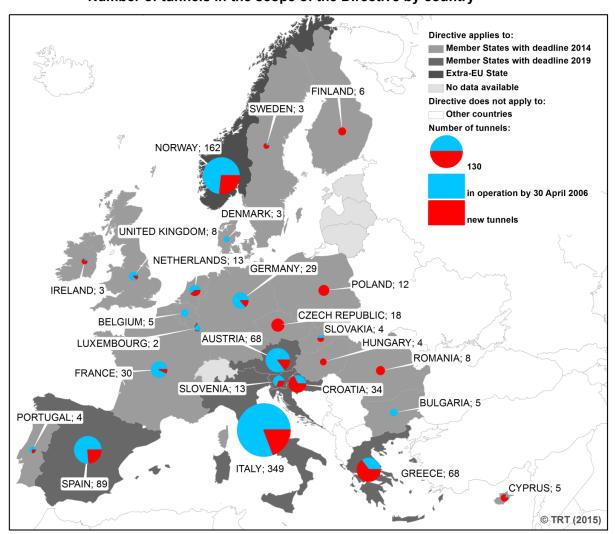


Scope of the Tunnel Directive





Number of tunnels in the scope of the Directive by country





Possible derogations from the specific technical requirements of the Directive – 1/3

- Article 3 (2)
- where certain structural requirements laid down in Annex I can only be satisfied through technical solutions which either <u>cannot be achieved</u> or can be achieved <u>only</u> <u>at disproportionate cost...</u>
- the administrative authority... may accept the implementation of <u>risk reduction measures as an alternative</u>...
- provided that the alternative measures will result in equivalent or improved protection
- The efficiency of these measures shall be <u>demonstrated</u> <u>through a risk analysis</u> in conformity with the provisions of Article 13



Possible derogations from the specific technical requirements of the Directive – 2/3

- Article 14
- In order to allow the <u>installation and use of innovative</u> <u>safety equipment</u> or the <u>use of innovative safety</u> <u>procedures...</u>
- which provide an <u>equivalent or higher level of protection</u> <u>than current technologies</u>, as prescribed in this Directive,...
- the administrative authority may grant a derogation from the requirements of the Directive on the basis of a duly documented request from the Tunnel Manager.



Possible derogations from the specific technical requirements of the Directive – 3/3

- Annex I, 1.2.1
- <u>Limited derogations</u> from the minimum requirements may be allowed provided that...
- there are <u>imperative reasons</u> underlying the limited derogation envisaged
- alternative risk-reduction measures are to be used or reinforced in order to ensure <u>at least an equivalent level</u> <u>of safety</u>
- proof in the form of an <u>analysis of relevant risks</u>



Derogations summary

- Derogations are always subject to the following requirements:
 - Alternative measures are implemented to ensure that tunnel users enjoy <u>equivalent or improved protection</u>
 - Efficiency of alternative measures is demonstrated through a <u>risk</u> <u>analysis</u> which is performed <u>for individual tunnels</u>
 - European Commission always needs to be informed in advance



Alternative measures (1/2)

- Alternative measures are not specifically defined in the Directive
- Alternative measures can be either preventive measures or damage limiting measures
- Illustrative examples of preventive measures may include traffic restrictions or reduced speed limits with measures that ensure that these speed limits are observed or improved lighting
- Illustrative examples of damage limiting measures may include additional capabilities for emergency response or increased fire protection measures



Alternative measures

- As a general rule each measure always needs to be justified through individual risk analysis for the particular tunnel concerned
- If derogation for an innovative technique is already approved for one tunnel in accordance with the procedure described in the Directive, it may also be applied to other tunnels



Ongoing revision of EU road infrastructure safety management legislation

- Starting point is ex-post evaluation of existing legislation (tunnels – TRT, roads – Transport & Mobility Leuven)
- Impact assessment support study launched in August 2016
- On-line public consultation will be carried out March-May 2017
- If impact assessment approved by the Regulatory Scrutiny Board, legislative proposal could be adopted in Q1 2018



Commission

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STATISTICS

The EU publishes various statistics and other data on road safety



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European Road Safety Charter



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Publications

Second European Motorcyclists' Forum - 03/10/2012 14/09/2012

Call for proposals with a view to obtaining grants in the field of road safety for the organisation of a youth forum for road safety (DG MOVE/C4/SUB/01-2012) - English only

05/09/2012