



45TH ASECAP STUDY & INFORMATION DAYS 2017

The Concession model in the decarbonization era: preparing the infrastructure of the future

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Maintenance and Preservation of the assets:

Ensuring the highest standards for safety

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The road sector in Europe: Facts and Figures

➤ Length:

- European Road Network: +/- 5.5 million km

➤ Contribution to the economy:

- Direct: 5 million jobs or +/- 5% of the EU GDP*
- Indirect: 14 million jobs or +/- 11% of the EU GDP**

➤ The major community asset:

- Estimated reconstruction value: > 8 trillion €***

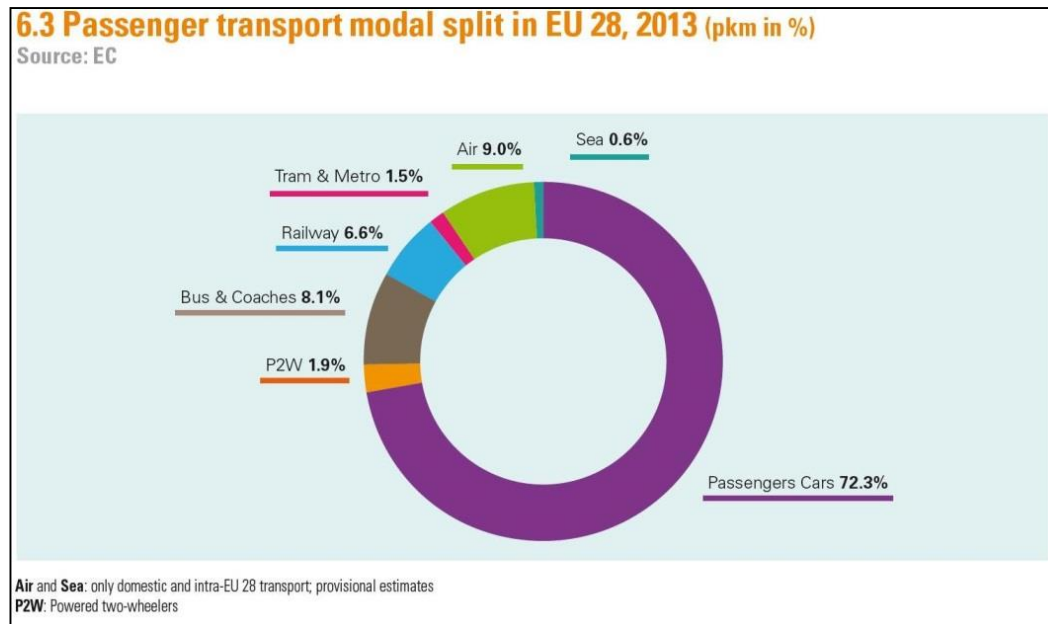
* Source: EC

** Source: ERTRAC

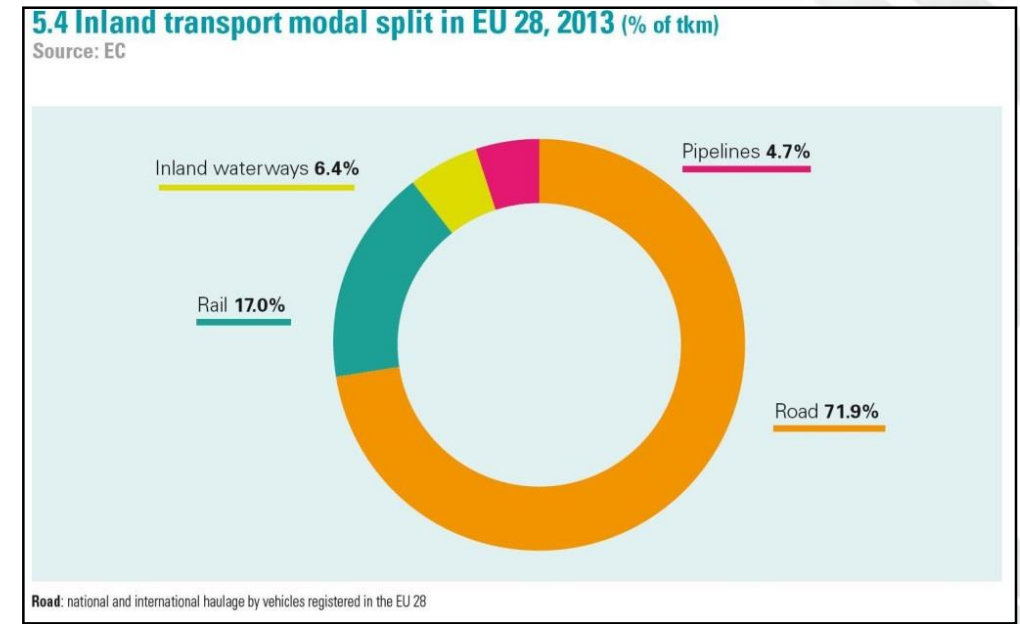
*** ERF estimation

Roads are the backbone of the economy

82,3% of EU inland passenger transport

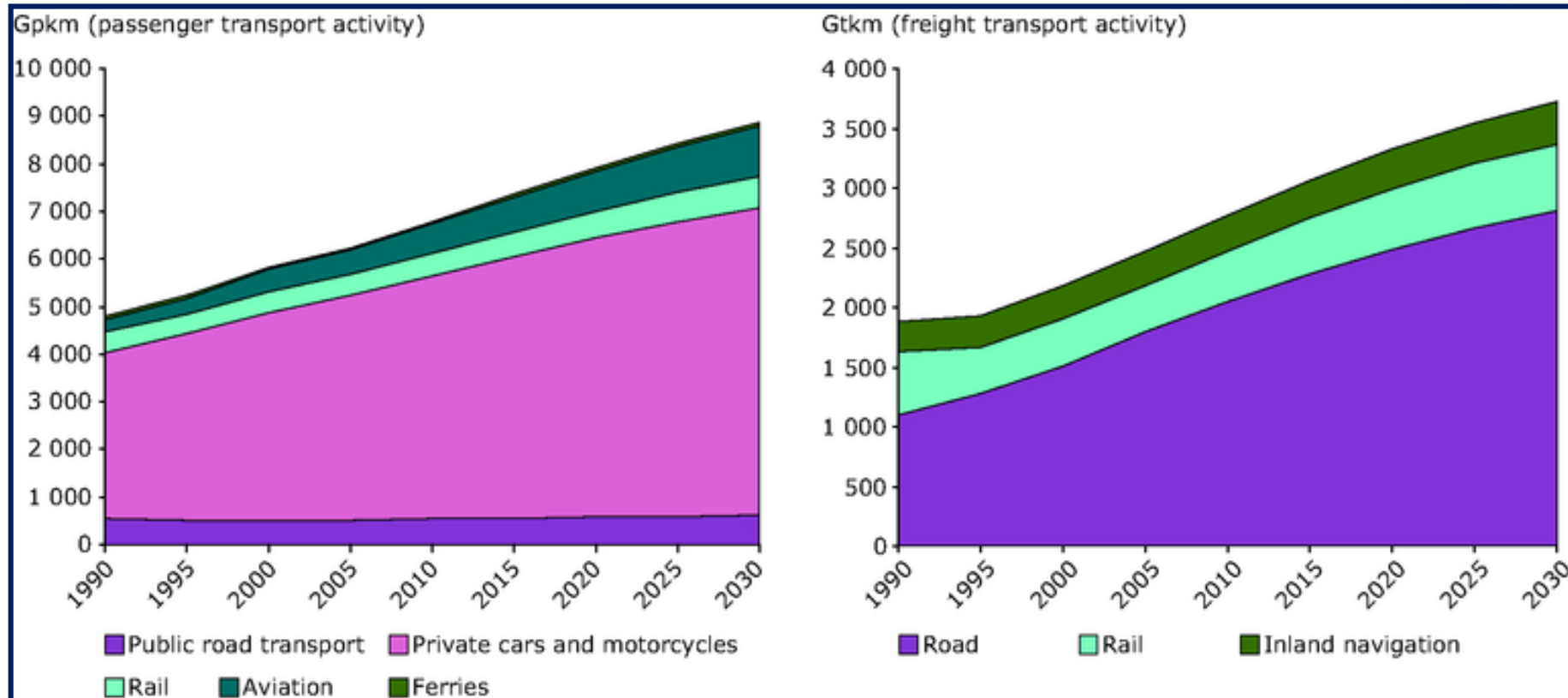


71,9% of EU inland freight transport



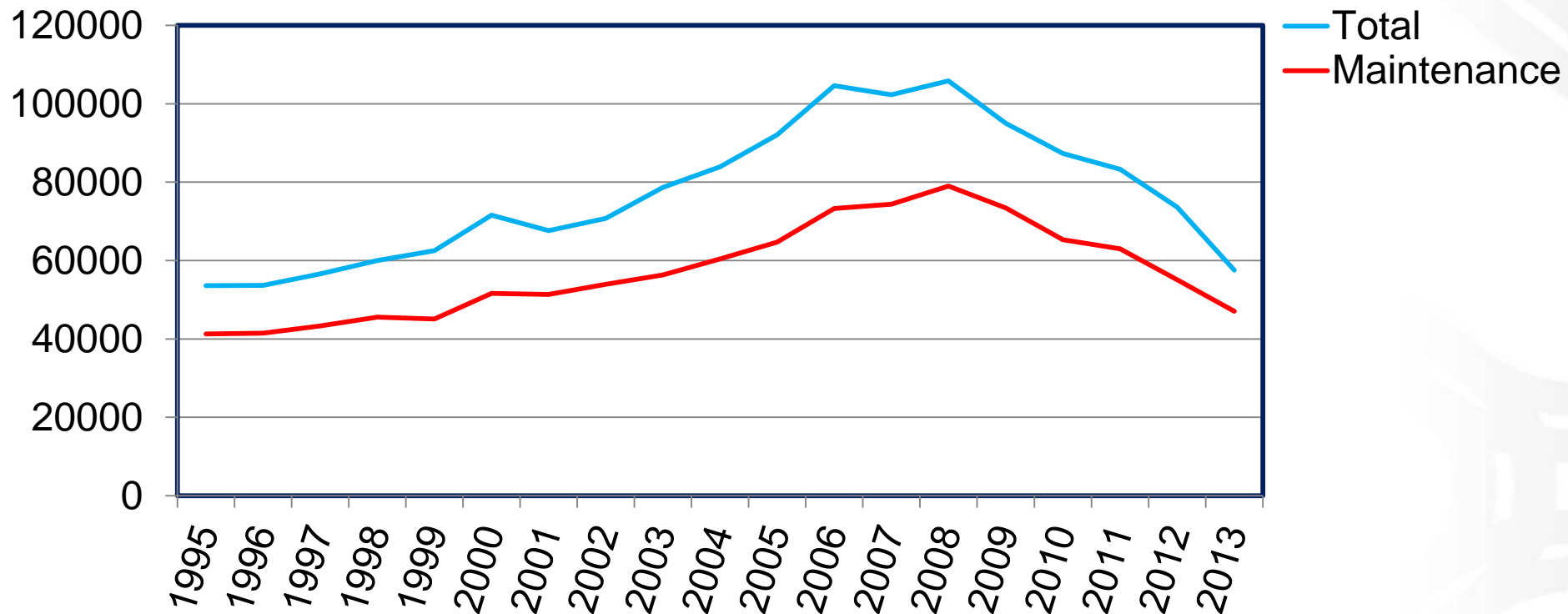
Roads are the backbone of the economy

Evolution forecasts



Trends in road infrastructure financing

Evolution of road infrastructure investments in 26 EU countries
– total and maintenance (in M €)



Consequences of the backlog in maintenance (1)

➤ Impact on the economy

- Loss of value
- Reduced mobility



➤ Impact on Road Safety

- Degradation
- Risks of accidents and dangerous situations



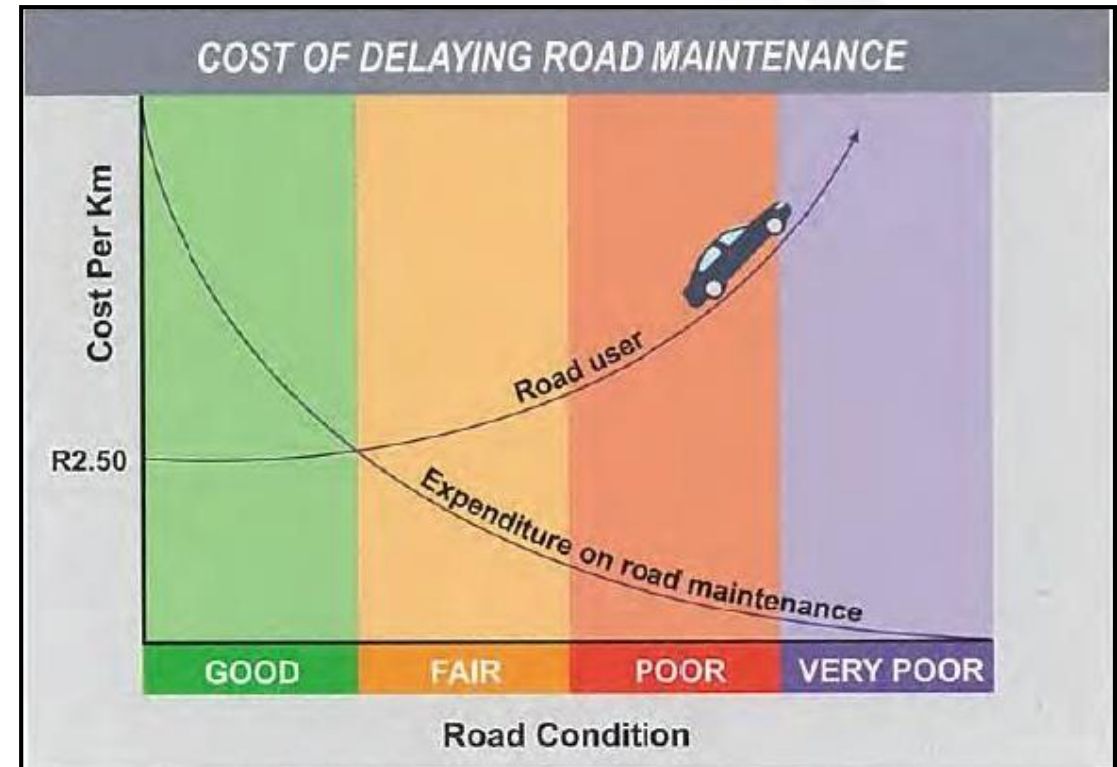
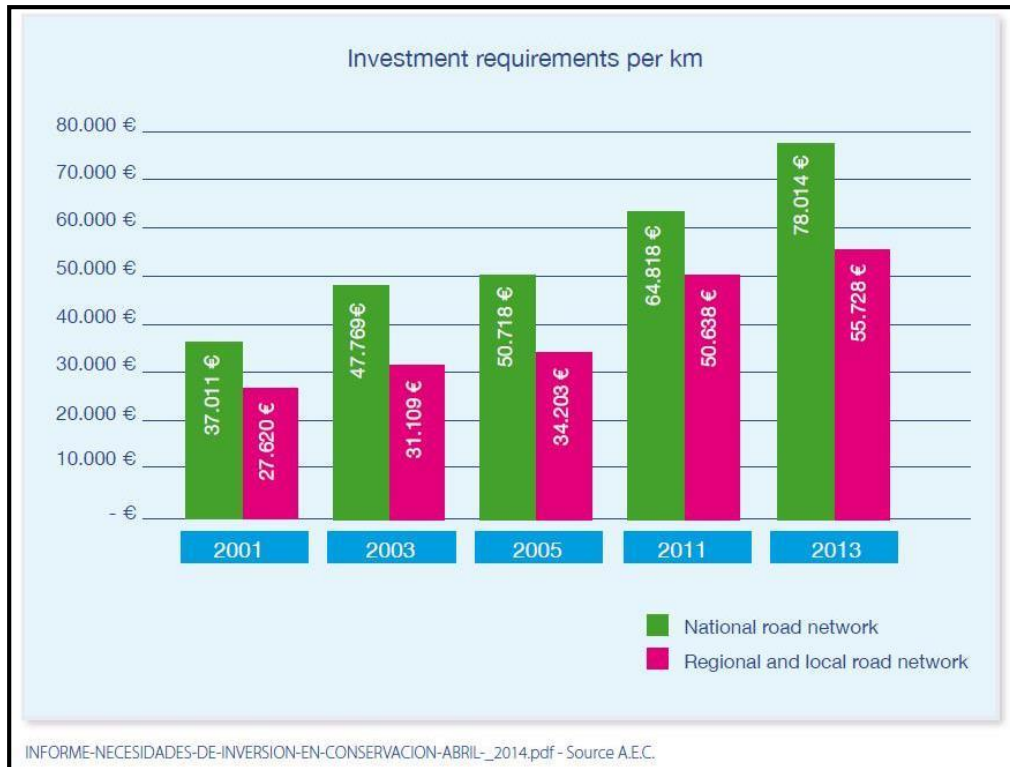
➤ Impact on the environment

- Traffic jams, congestion
- Increased emissions



Consequences of the backlog in maintenance (2)

Management costs for the road owners and usage costs for road users



Example: Leverkusen bridge A1 (Germany)

- Very dense industrial area (chemical industry)
- Important traffic (high percentage of HGVs)
- Ageing structure – maintenance backlog
- Closed to traffic > 3,5 T from Dec. 2012 to March 2013
 - Estimated social cost (loss of time, additional fuel consumption, delays...):
80 million €
- Closed again to heavy traffic from June 2014, until...?



Example: Lecco and Ancona (Italy)

➤ Lecco bridge collapse (October 2016):

- 1 dead
- 5 injured



➤ Ancona bridge collapse (March 2017):

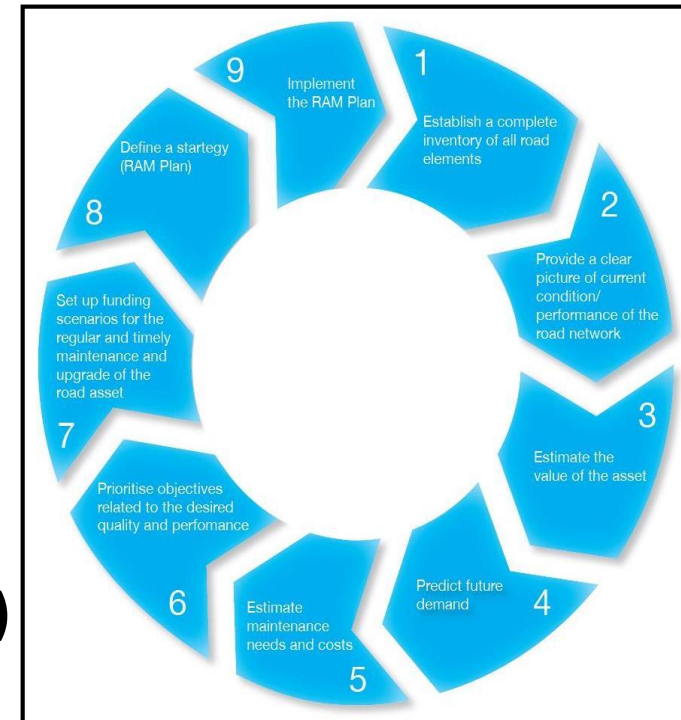
- 2 deaths
- 3 injured



Smart Management of the Road Infrastructure (1)

➤ The Road Asset Management Approach

- Consider the road as an asset
- Knowledge of the value and the current condition of the asset
- Regular financial and technical evaluation
- Use of key performance indicators
- Level of service
- Long-term perspective
- Through the whole life cycle (construction, operation, maintenance)
- Adaptation, improvement and upgrade
- Better strategy and decision making tools
- Pluriannual financing programmes
- Incorporate future evolution (climate resilience, traffic, new vehicles, new mobility patterns, new usages...)



Smart Management of the Road Infrastructure (2)

New opportunities (1)

➤ Research / Development / Innovation

- Lots of RD&I from the industry side
 - ✓ Materials (sourcing, recycling, disposal...)
 - ✓ Equipments (speed, performance...)
 - ✓ Processes (technologies, additives, resilience...)
 - ✓ Assessment methods (GHG of CO₂ calculators, social responsibility...)
 - ✓ New vehicle technologies and road usages

- Encourage, support and coordinate actions for innovation and implementation
 - ✓ Legislative and regulatory framework (reinforced cooperation public/private)
 - ✓ Incentives for performance, long-term objectives
 - ✓ Innovative contracting and management methods
 - ✓ Optimisation of resources for maintenance and improvement
 - ✓ Incorporation of new technologies (e.g. ITS,...)

Smart Management of the Road Infrastructure (3)

New opportunities (2)

- Improved dialogue and cooperation between stakeholders
 - **Better communication with road owners**
 - ✓ Platforms of exchange of knowledge
 - ✓ At all levels (European, national, regional, local)
 - ✓ Long-term vision (competitiveness)
 - ✓ Improved mobility

 - **Include the road users in the framework**
 - ✓ Better ownership on the citizen side
 - ✓ Social cohesion and improved integration of roads to all transport modes
 - ✓ Level of Service: 'Road as a Service'



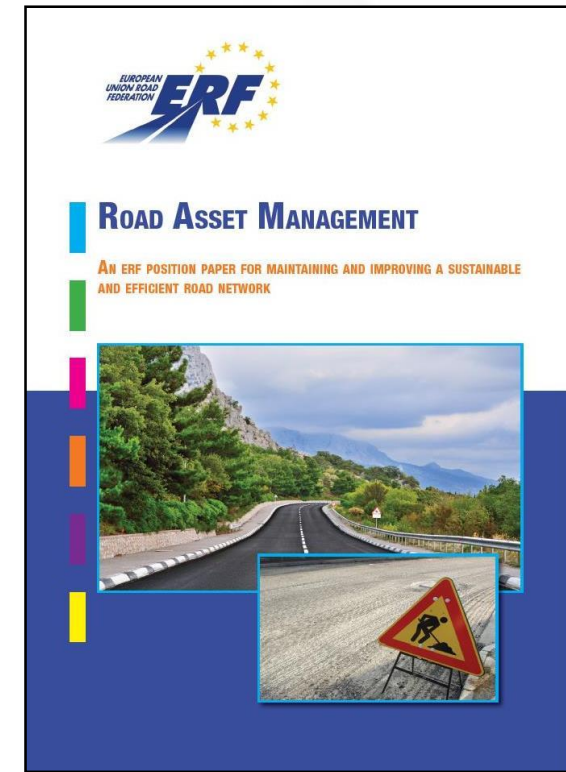
The ERF commitment

The ERF Manifesto on Road Asset Management



http://www.erf.be/images/stories/Road_Asset_Management/Screen-ERF.pdf

The ERF Position Paper on Road Asset Management



<http://erf.be/images/Road-Asset-Management-2014-07.pdf>



The Voice of the European Road

Thank you for your attention

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