



## MAKING ROAD SAFETY AUDITS A EUROPEWIDE TOOL

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# Policy (“a shared responsibility”)



**White paper on  
Transport 2001**



**Road safety action  
programme 2003**



**Mid term review of  
Road safety action  
programme 2006**



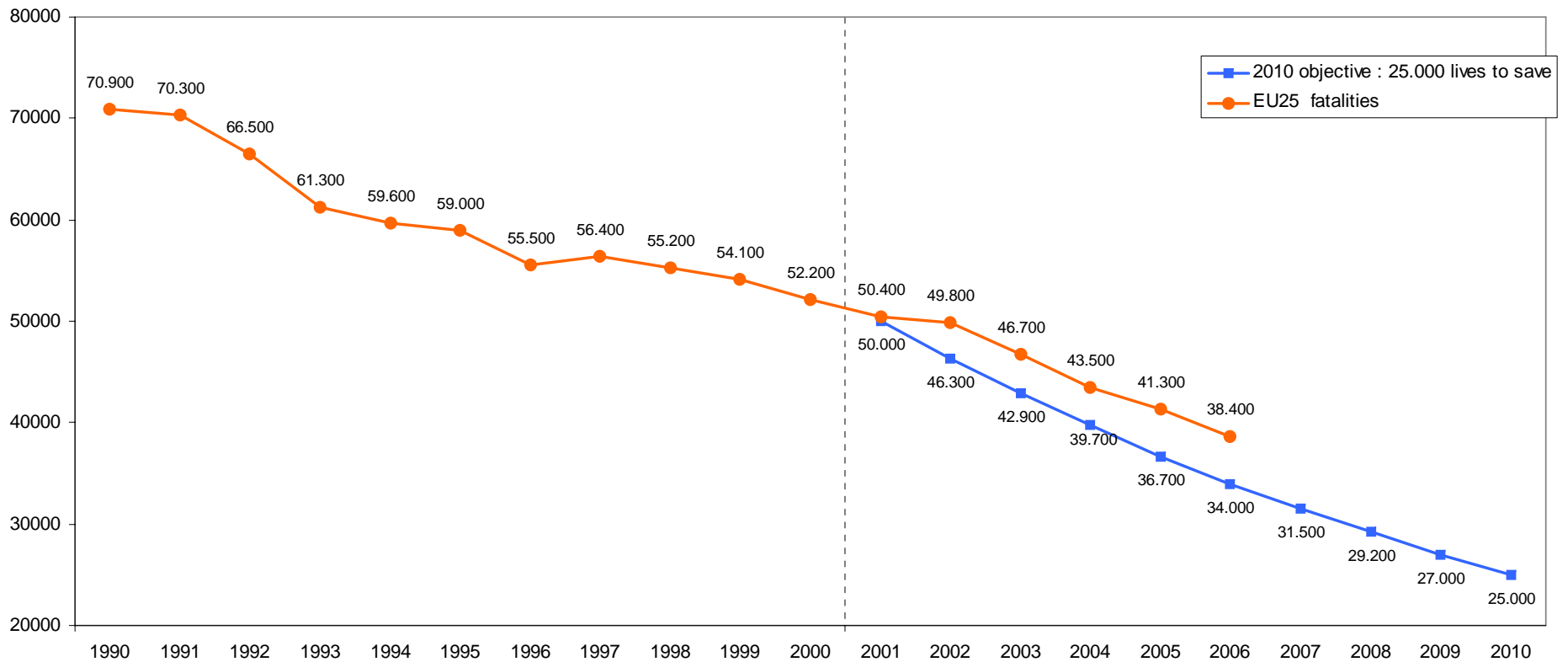
## Reminder...

- Over the period 2001-2010: -50% road accident victims (global target)
- A "shared responsibility"
- Integrated approach at the EU level

# Fatalities - evolution 1990-2010

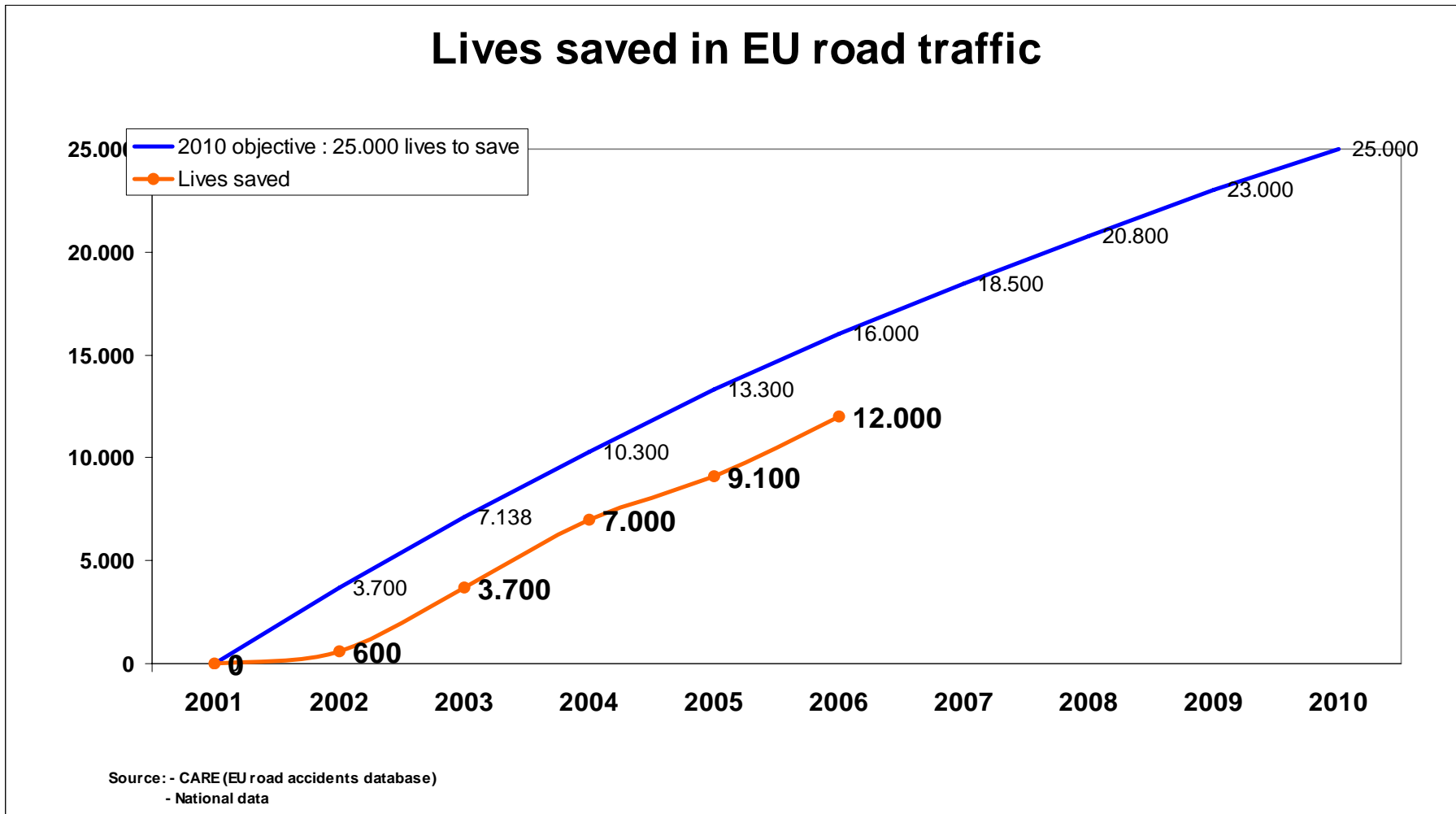


Evolution 1990 - 2010  
EU fatalities



Source: - CARE (EU road accidents database)  
- National data

# Lives saved - evolution 1990-2010





## Main causes of fatalities

- Speeding : 11 000 / year
- Alcohol : 10 000 / year
- No seat belts : 10 000 / year
- Pedestrians : 2 000 / year
- “Saturday Night Fever” : 2000 / year  
(pop aged 18-25 on week-end nights)



## Focus on Road infrastructure: Today's main problems

- Decreasing budgets for road infrastructures vs. more attention to the level of safety of roads
- Inability of “old” roads to absorb the increasing traffic
- “High risk road sections” (even on modern roads!)
- Various levels of responsibility within each Member State
- Heterogeneous signs, signals, road markings, road side features (even in a single Country!)



# Infrastructure Safety?







# Infrastructure Safety?





# Infrastructure Safety?





## Road Infrastructure Safety Management: Objectives

- **To bring about a common high level of safety of roads in all EU Member States**
- **To ensure that safety is integrated in all phases of planning, design and operation of road infrastructure**
- **To use the limited funds for more efficient construction and maintenance of roads**



## Focus on Road Infrastructure: A coherent package of measures

- Regulatory actions necessary on:
  - **Safety Impact Assessment** (new roads - pre-design phase)
  - **Safety Audits** (new roads - design, construction & early operational phases)
  - **Network Safety Management** - management of “High accident concentration sections” (existing roads)
  - **Safety Inspections** (existing roads)
- Package of measures recommended by the High Level Group on Road Safety



# Road Safety Audit

## *Definition*

Independent detailed systematic and technical safety check relating to the design characteristics of a road infrastructure project and covering all stages from planning to early operation

## *Objective*

To identify and rectify dangerous road elements at the different stages of a project

# Diffusion of the procedures in the Member States

A High Level Expert Meeting on “Infrastructure Safety” was organised in Vienna on 24-25 January 2006

The table summarises in which of the 25 Member States the instruments are already in use

Road Safety Impact Assessment	AT	BE	CY	CZ	DE
	DK	EE	EL	ES	FI
	FR	HU	IE	IT	LT
	LU	LV	MT	NL	PL
	PT	SE	SI	SK	UK
Road Safety Audits	AT	BE	CY	CZ	DE
	DK	EE	EL	ES	FI
	FR	HU	IE	IT	LT
	LU	LV	MT	NL	PL
	PT	SE	SI	SK	UK
Network Safety + High-Risk Road Section Management	DK	EE	EL	ES	FI
	FR	HU	IE	IT	LT
	LU	LV	MT	NL	PL
	PT	SE	SI	SK	UK
	AT	BE	CY	CZ	DE
Road Safety Inspections	DK	EE	EL	ES	FI
	FR	HU	IE	IT	LT
	LU	LV	MT	NL	PL
	PT	SE	SI	SK	UK



## Road Safety Audit: participants

- Mostly, three different parties are involved in the audit process:
  - ❖ **Client**: The organisation responsible for the project. This is often the road authority or local stakeholders but also private investors.
  - ❖ **Designer**: A person or team commissioned by the client to develop the road schemes. The design team can be part of the client's organisation.
  - ❖ **Auditor**: A person or team commissioned by the client to carry out the audit. The auditors should be independent from the designer's organisation.





## Road Safety Audit: requirements

- The audit shall form an integral part of the design process of the infrastructure project
- Auditors shall:
  - have experience in road design, road safety engineering and accident analysis
  - undergo an initial training and follow periodic re-training
  - not be involved, at the time of the audit, in the conception or operation of the infrastructure project





## Road Safety Audit: process

- Auditors shall set out safety critical design elements and prepare an audit report
- Only safety relevant aspects shall be part of the audit report
- The audit report shall describe the potential hazards and result in relevant recommendations on how to solve the problem
- The decision whether or not a recommendation is accepted is in any case taken by the client

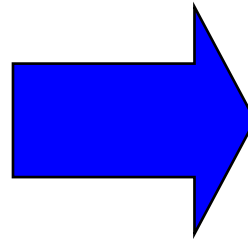


## Road Safety Audit: process

- In case of acceptance of the recommendations, the client shall instruct the designer to make the changes in the design
- It is advisable that possible solutions are concertedly worked out by auditor and designer
- In the case of a refusal of the recommendations, reasons shall be stated by the client
- The audit process should be an active, self-enhancing process, involving all participants



# Road infrastructure safety management Remedial measures

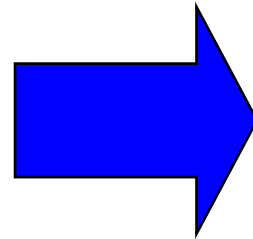


**Protected light columns**



# Road infrastructure safety management

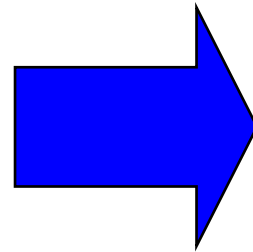
## Remedial measures



**Safe and effective safety barriers transition**



# Road infrastructure safety management Remedial measures



**Safety zone before unprotected rock**

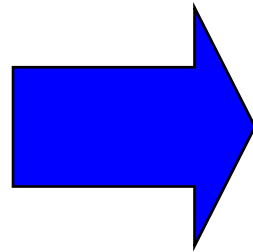






# Road infrastructure safety management

## Remedial measures



**Protected bridge poles**





## Thematic networks funded by EC in the field of Infrastructure Safety

- EuroRAP II – European Road Assessment Programme  
[www.eurorap.org](http://www.eurorap.org)
- RISER – Roadside Infrastructure for Safer Roads  
[www.erf.be/section/ep/riser](http://www.erf.be/section/ep/riser)
- ROSEBUD – Road Safety and Environmental Benefit-Cost and Cost-Effectiveness Analysis for Use in Decision-Making  
[partnet.vtt.fi/rosebud/](http://partnet.vtt.fi/rosebud/)
- IMPROVER – Impact Assessment of Safety Measures for Vehicles and Road Equipment



## Thematic networks funded by EC in the field of Infrastructure Safety

- **FORMAT – Fully Optimised Road Maintenance**  
[www.rws.nl/rws/dww/home/format/](http://www.rws.nl/rws/dww/home/format/)
- **RIPCORD/ISEREST – Road Infrastructure Safety Protection**  
[www.ripcord-iserest.com/](http://www.ripcord-iserest.com/)
- **IN-SAFETY – Infrastructure and Safety**  
[www.insafety-eu.org/](http://www.insafety-eu.org/)
- **RANKERS – Ranking for European Road Safety**  
[www.erf.be/section/ep/rankers](http://www.erf.be/section/ep/rankers)
- **IASP – Identification of Hazard Location and Ranking of Measures to Improve Safety**





## Websites on Europa

<http://ec.europa.eu/...>

- Commission transport website  
... [transport/index\\_en.html](#)
- Road safety section  
... [transport/roadsafety/index\\_en.htm](#)
- CARE (the EU road accident data base)  
... [transport/care/index\\_en.htm](#)
- Charter  
... [transport/roadsafety/charter.htm](#)



***Thank you for your attention!***