



Rijkswaterstaat
Ministerie van Verkeer en Waterstaat

Contribution to Road Safety by infrastructure

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Transport and Navigation,
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The Netherlands; and

President of 

13 October 2010

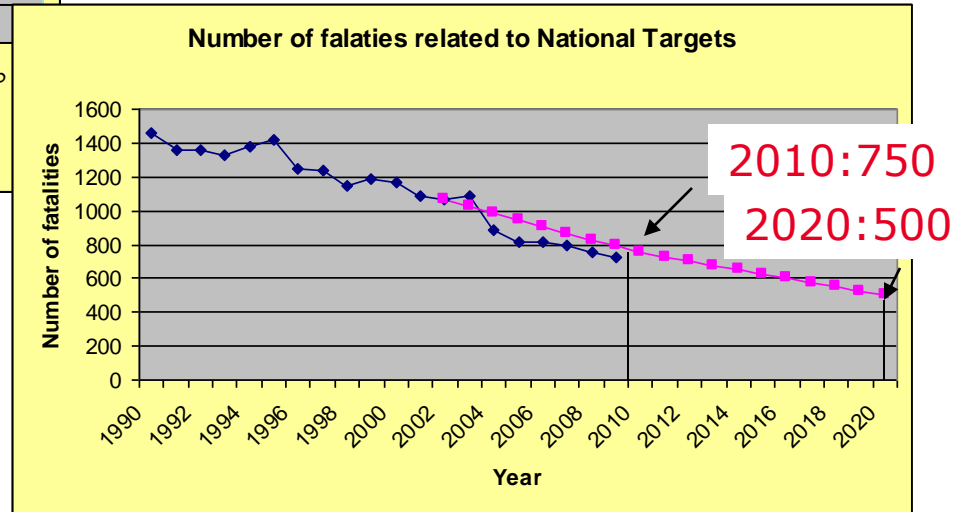
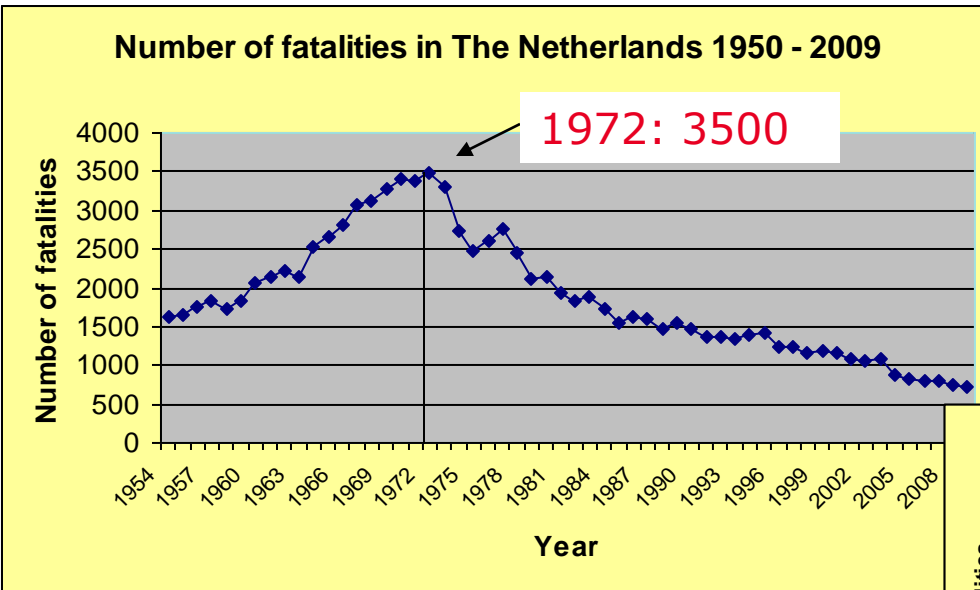


Fatalities on the roads in Europe ...



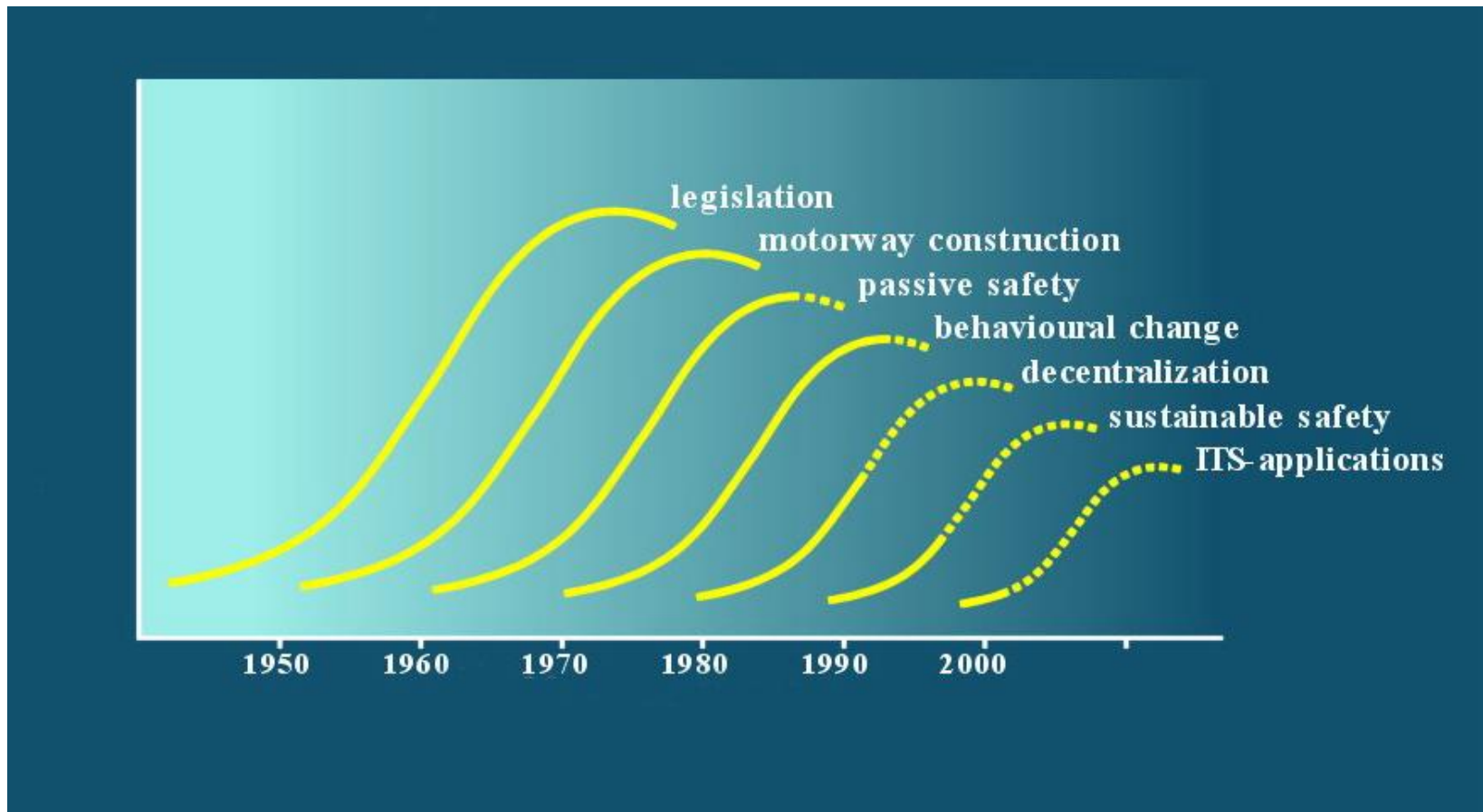


Number of fatalities in the Netherlands 1950-2009



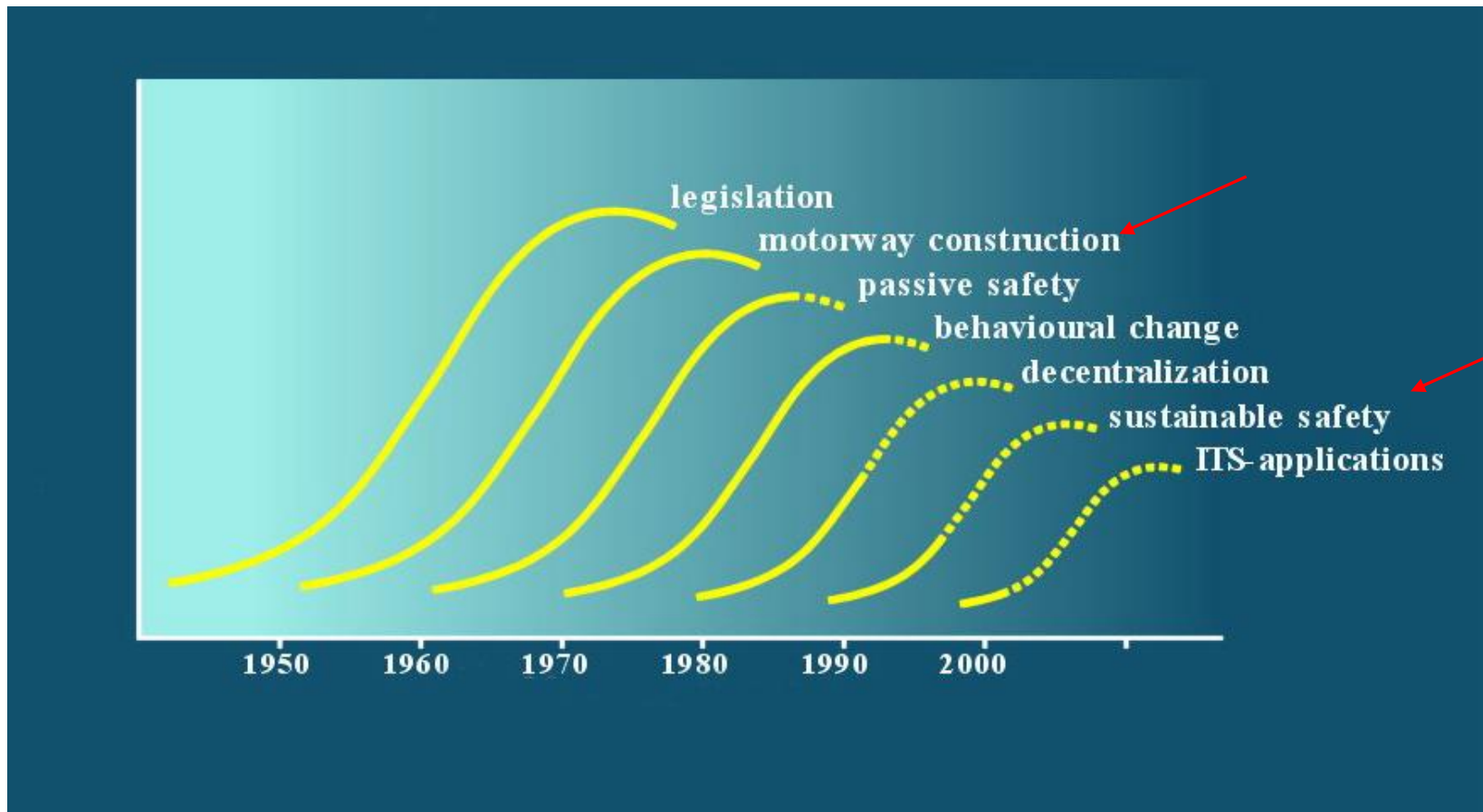


Measures for road safety in the Netherlands from 1950 onwards



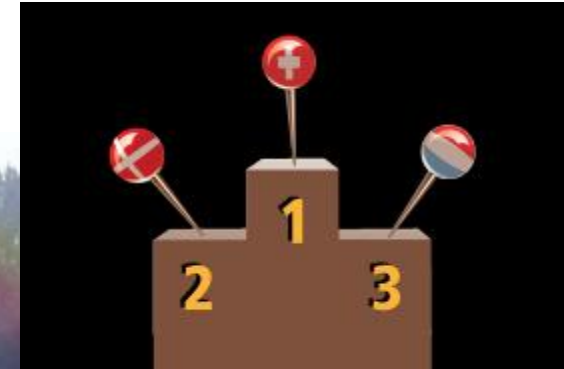


Measures for road safety in the Netherlands from 1950 onwards





Measures: Motorways



High standards
Integrated safety
approach



Managed Motorways: the 2 Basic Concepts



HSR lane



Hard shoulder (safety zone) only available outside peak hours



Plus lane



Re-division of the roadway
Hard shoulder always available



Dynamic Trafficmanagement



5 Traffic control centres

Traffic information



Section Control and motorway controlling system



Measures: sustainable safety program

Underlying philosophy:

Prevention of serious accidents

When accident happens, seriousness as little as possible

Forgiving roadsides?





Measures Sustainable Safety Program

- 1997: Agreement Start up Program Sustainable Safety:
 - Minister of Transport Public Works,
 - Municipalities
 - Provinces
 - District water boards
- Implementation of a number measures
 - Road classification
 - Extension of 30 km zones → 70% of roads inside built-up areas
 - Extension of 60 km zones → 57% of roads outside built-up areas
 - Extension number of Roundabouts
 - Mopeds on the carriageway
 - Road markings





Effectiveness of investments in infrastructure

SWOV (The balance struck; 2009) comes to the following conclusions about The sustainable Safety Program in the The Netherlands 1998- 2007:

In the period 1998 – 2007 the number traffic fatalities and fatality rate showed a larger decrease than in the preceding period

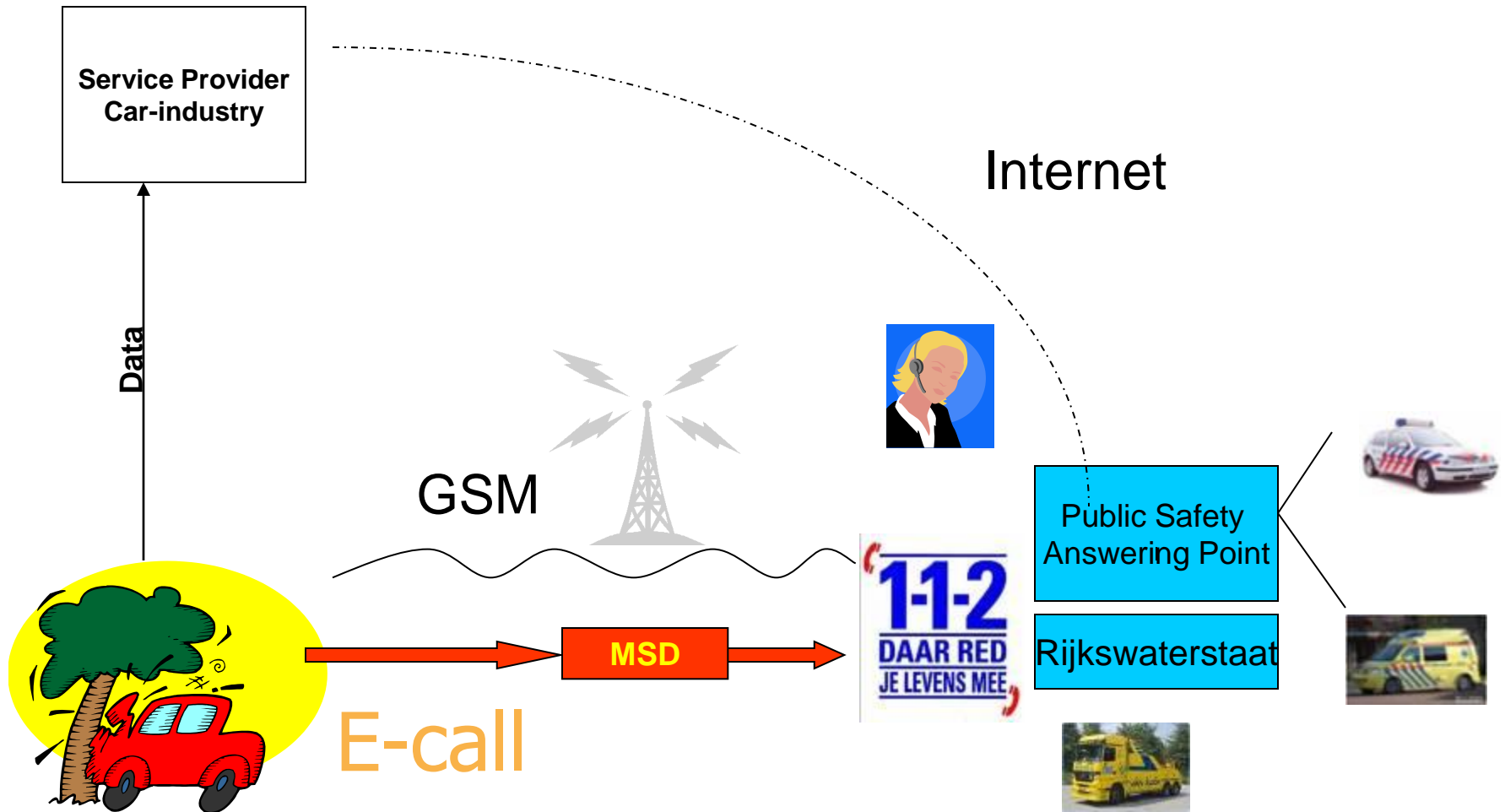
The measures (also incl. enforcement, vehicle and information campaigns) that were implemented most probably contributed to these positive development

In 2007 they resulted in a decline of 300 – 400 traffic fatalities which amounts to more than 30% (approximately 50% for infrastructure measures)

The measure were also socially cost effective; the benefits exceeds the cost by a factor of four

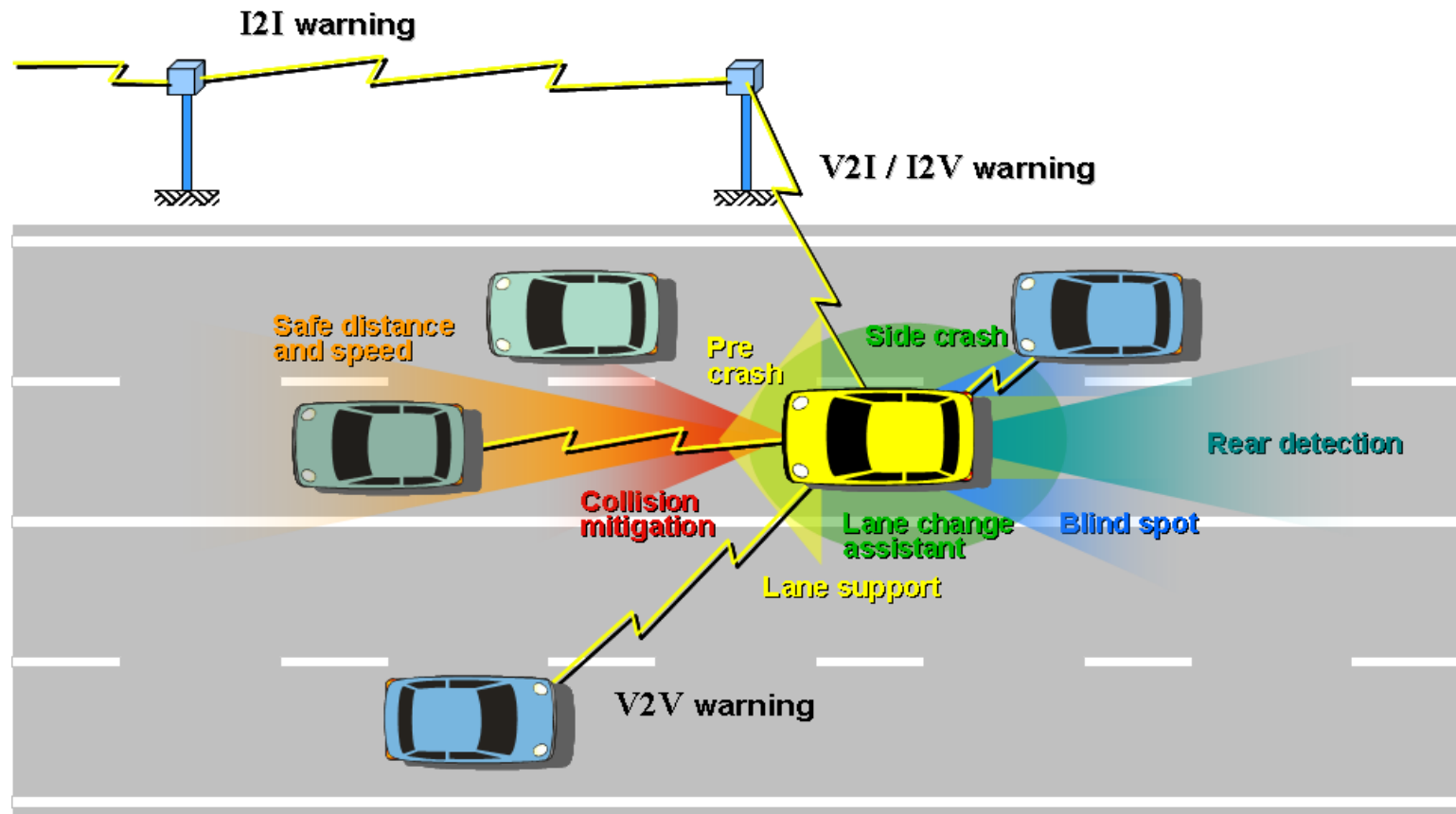


E-Call in The Netherlands





ITS of the future





Forever Open Roads

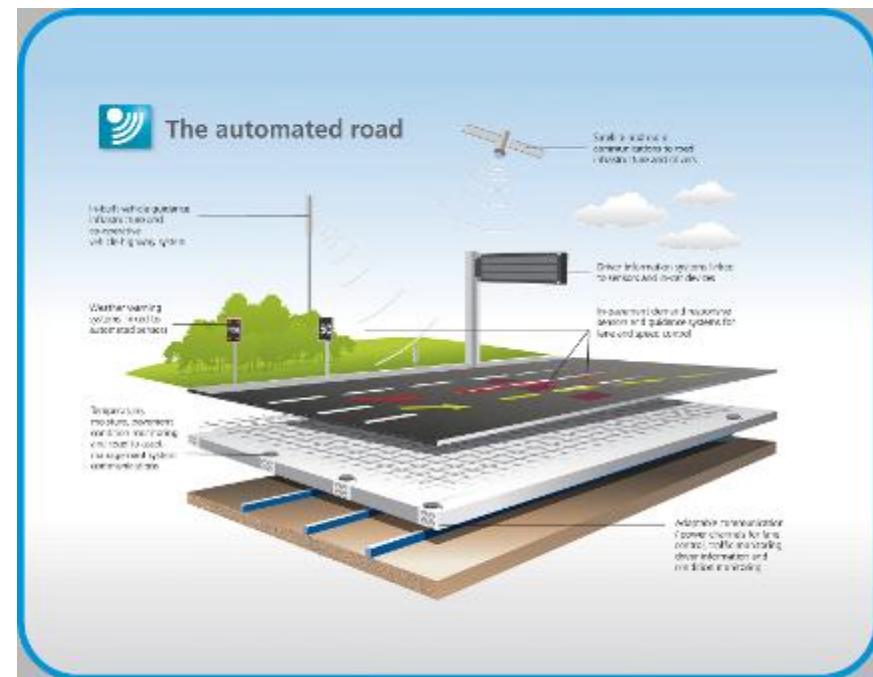


The **Forum of European National Highway Research Laboratories (FEHRL)** has set itself the challenge to develop a truly inspiring vision for how roads will be built and maintained in the 21st century.

The Forever Open Road will tackle global challenges such as climate change, carbon reduction, energy saving, as well as the increasing need for journey time reliability in response to rising demand

At the same time, it will help meet European goals to provide transport infrastructure that is:

- Safe and secure
- Cleaner, quieter and more energy efficient
- Highly competitive and sustainable
- Provide enhanced mobility
- Based on optimised, efficient seamless systems





PILOT4SAFETY – Pilot project for common EU Curriculum for road safety experts: training and application on Secondary Roads

DG MOVE project

Start date: 1 June 2010

Duration: 24 months

Budget: € 1.3M



Background

Directive 2008/96/CE on road infrastructure safety management applies only to TEN-T road network

while

the highest number of fatalities occurs on the so-called "secondary roads"

(2 lanes paved roads outside urban areas)





To overcome this shortcoming, PILOT4SAFETY is focusing on developing curricula and tools for the auditing and inspections of secondary roads in a group of EU regions.



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The overall objective is to have a number of regions applying the same approaches of Directive 2008/96/CE to secondary roads with a consequent reduction in the number of road fatalities.

Pilot4Safety Partners

FEHRL - Coordinator

ASTRAL Lazio

CDV Brno

Generalitat de Catalunya

Prefecture of Thessaloniki

Randers Municipality

<http://pilot4safety.fehrl.org>



Conclusions

- Infrastructure measures have long term positive effect on road safety
- The sustainable safety program in The Netherlands has saved 300 – 400 extra lives (50 % for the implemented infrastructure measures)
- The cost of infrastructure measures are substantial but also cost effective. The avail cost ratio runs up till 4
- To reach the ambitious road safety targets it's still effective to invest in road infrastructure
- The mean time we should also invest in further development of in-vehicle and roadside technology and in traffic management measures.
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- The mean time we should also invest in further development of in-vehicle and roadside technology and in traffic management measures.
- Knowledge transfer is on current and emerging technologies and practises is essential