

RESEARCH TO IMPROVE ROAD SAFETY

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SWOV Institute for Road Safety

Research

the Netherlands

MISSION OF SWOV - a

To improve road safety by using the results of research

Two tasks:

- conducting scientific research
- disseminating knowledge and information

MISSION OF SWOV - b

Target audience (national, regional, local and international)

- road safety professionals
- other professionals
- decision makers
- ngo's, press, politicians

SWOV Institute for Road Safety Research

- interdisciplinary research institute
- in the Netherlands
- a non-profit organisation
- 75% subsidised by Dutch Ministry of Transport
- founded in 1962: 40 years anniversary
- founded by the public and private sector
- staff: 60 people
- budget: 5 million euro per year

THE NETHERLANDS: SOME FACTS

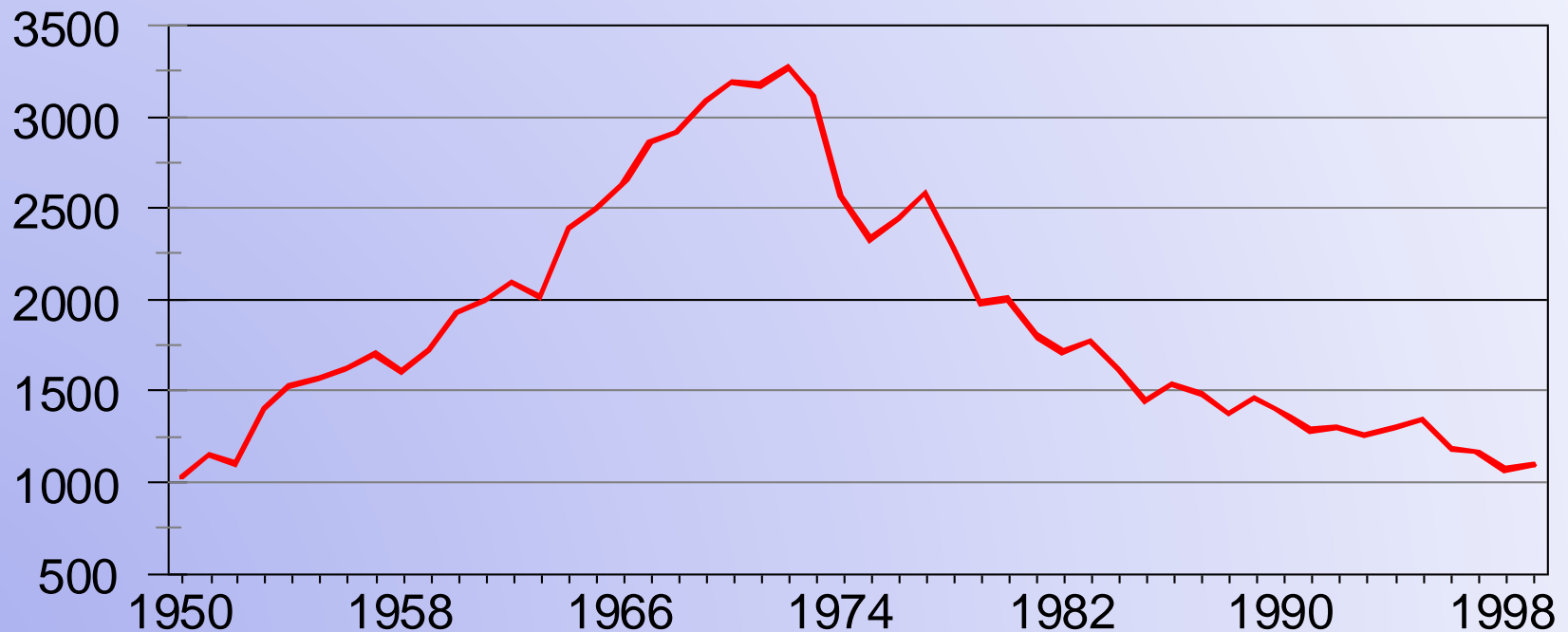
- 16 million inhabitants
- 383 inhabitants/km²
- 8 million motorised vehicles
- 13 million bicycles
- 125 billion vehicle kilometres/year
- 120,000 km road length
- 40% of kilometres on motorways

THE NETHERLANDS: SOME ROAD SAFETY DATA

- 993 road deaths in 2001
- 3264 road deaths in 1970
- in 1970: fatality rate: 7.06
- in 2001: fatality rate: 0.85

FATALITIES IN THE NETHERLANDS

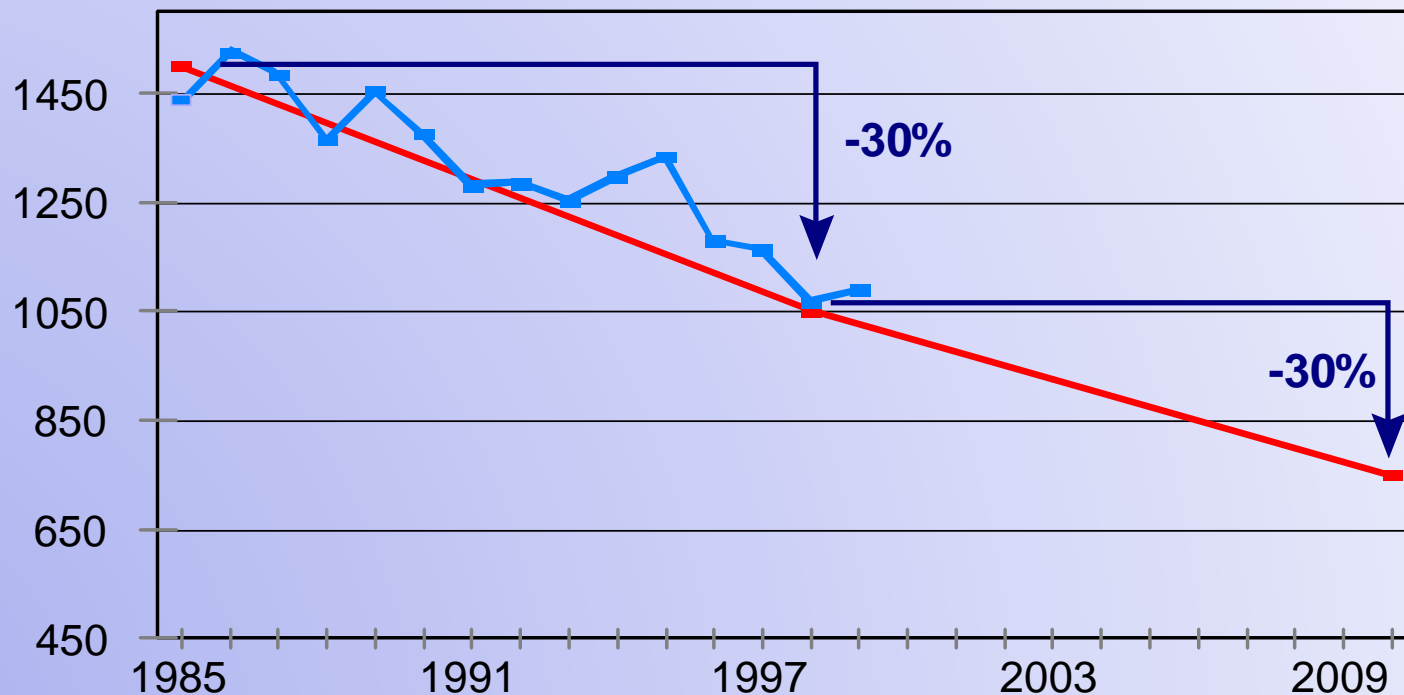
Since 1950



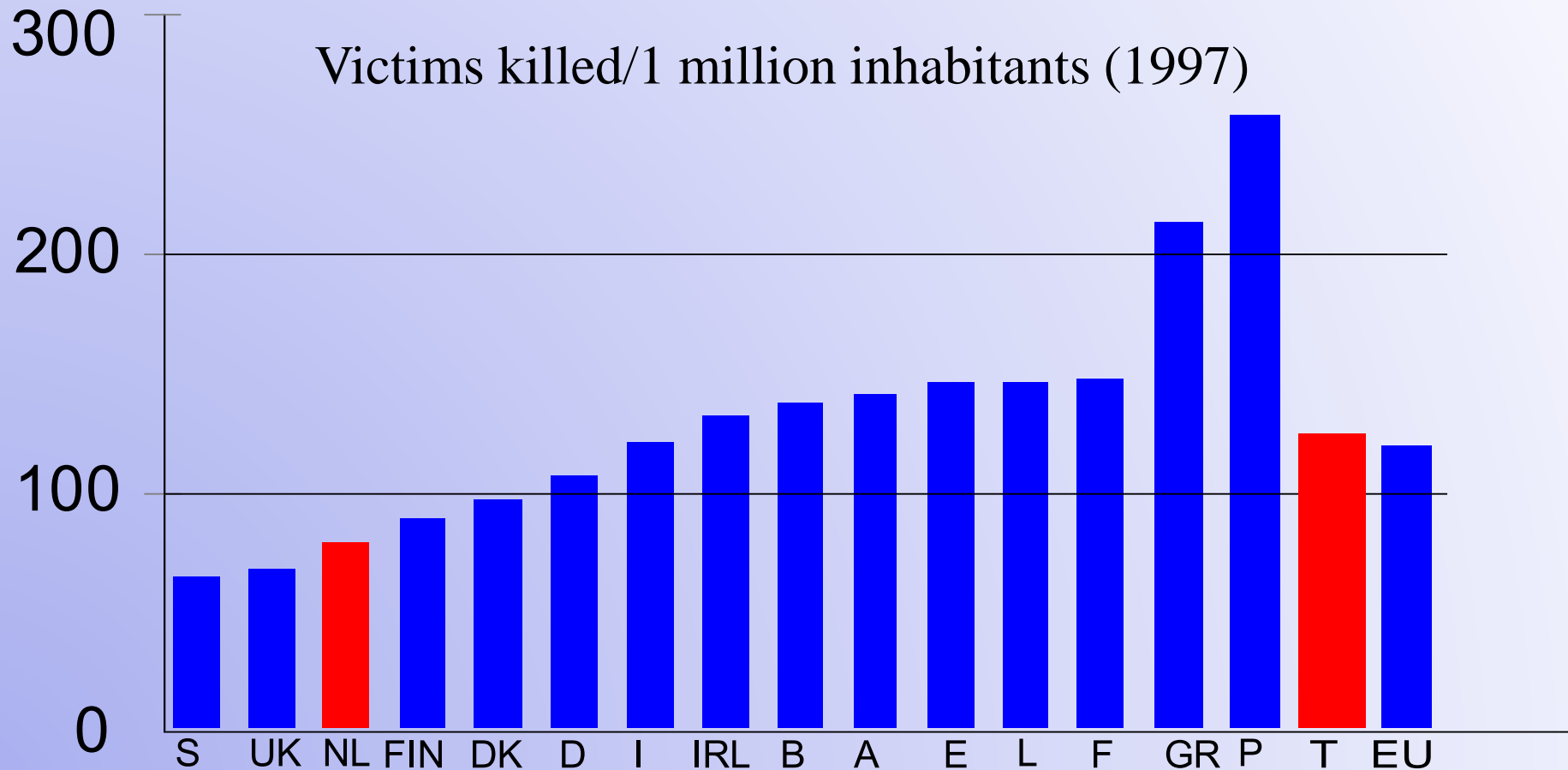
ROAD SAFETY POLICY IN THE NETHERLANDS

Quantitative targets

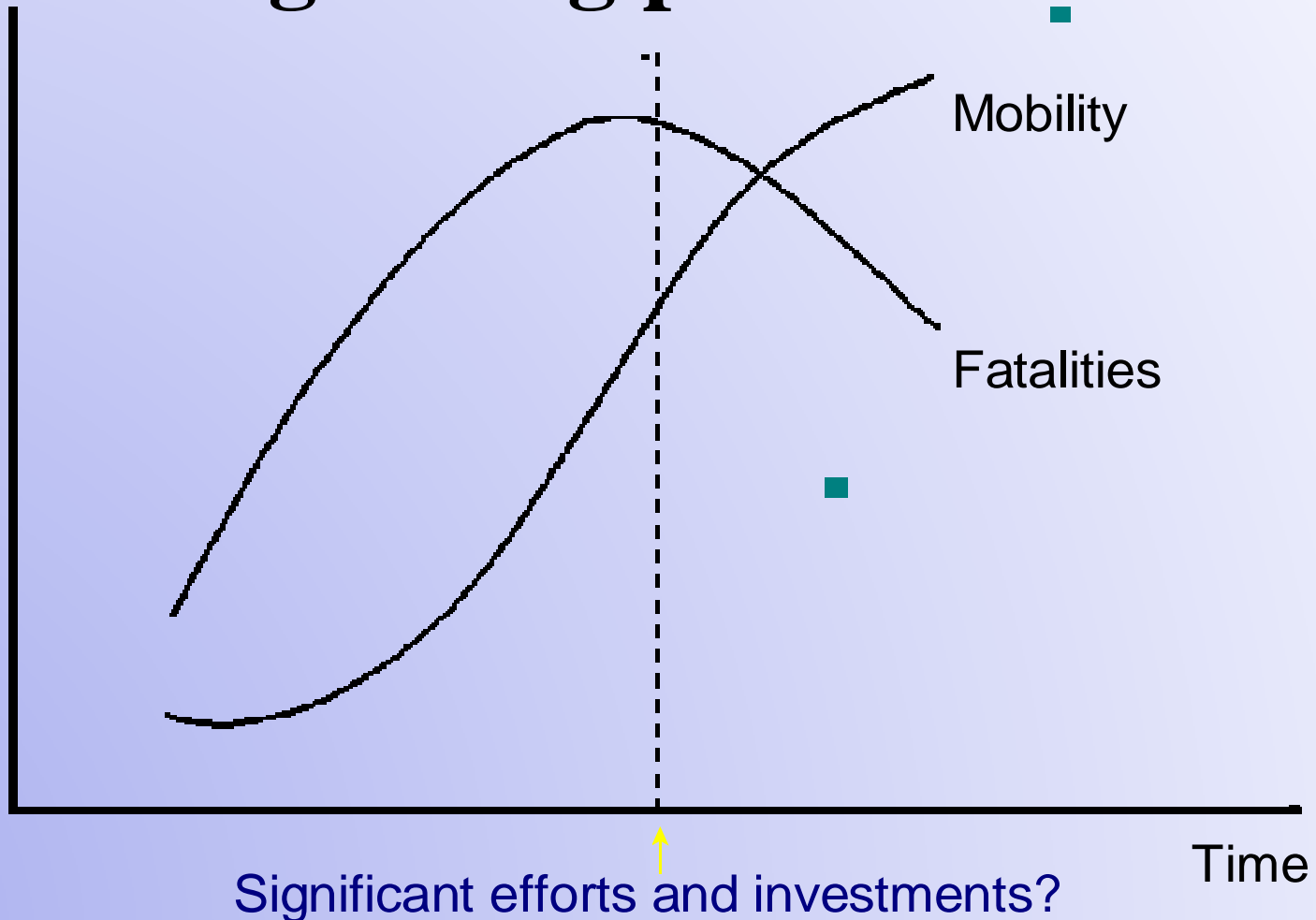
Fatalities



FATALITIES IN THE NETHERLANDS

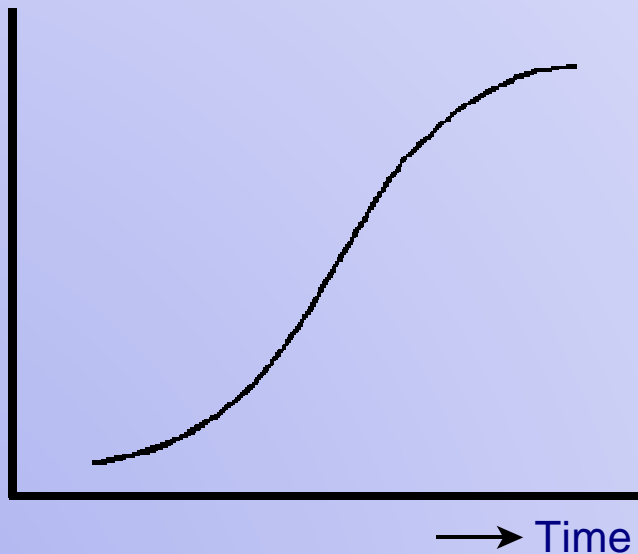


ROAD ACCIDENTS: a growing problem?



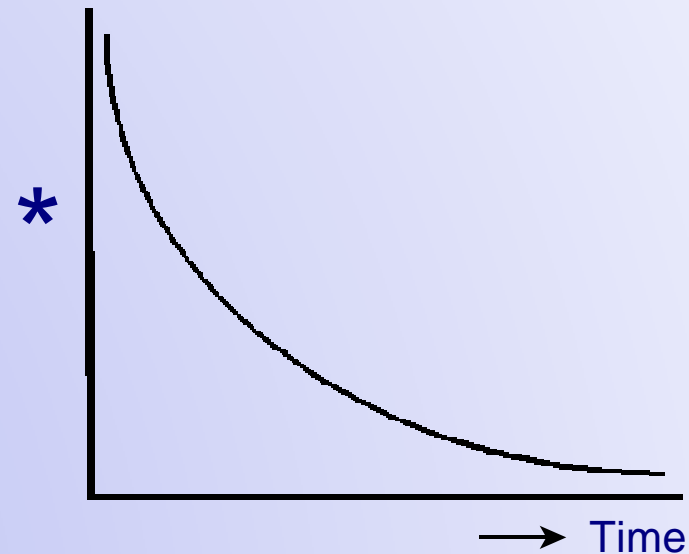
ROAD ACCIDENTS: a growing problem?

Mobility



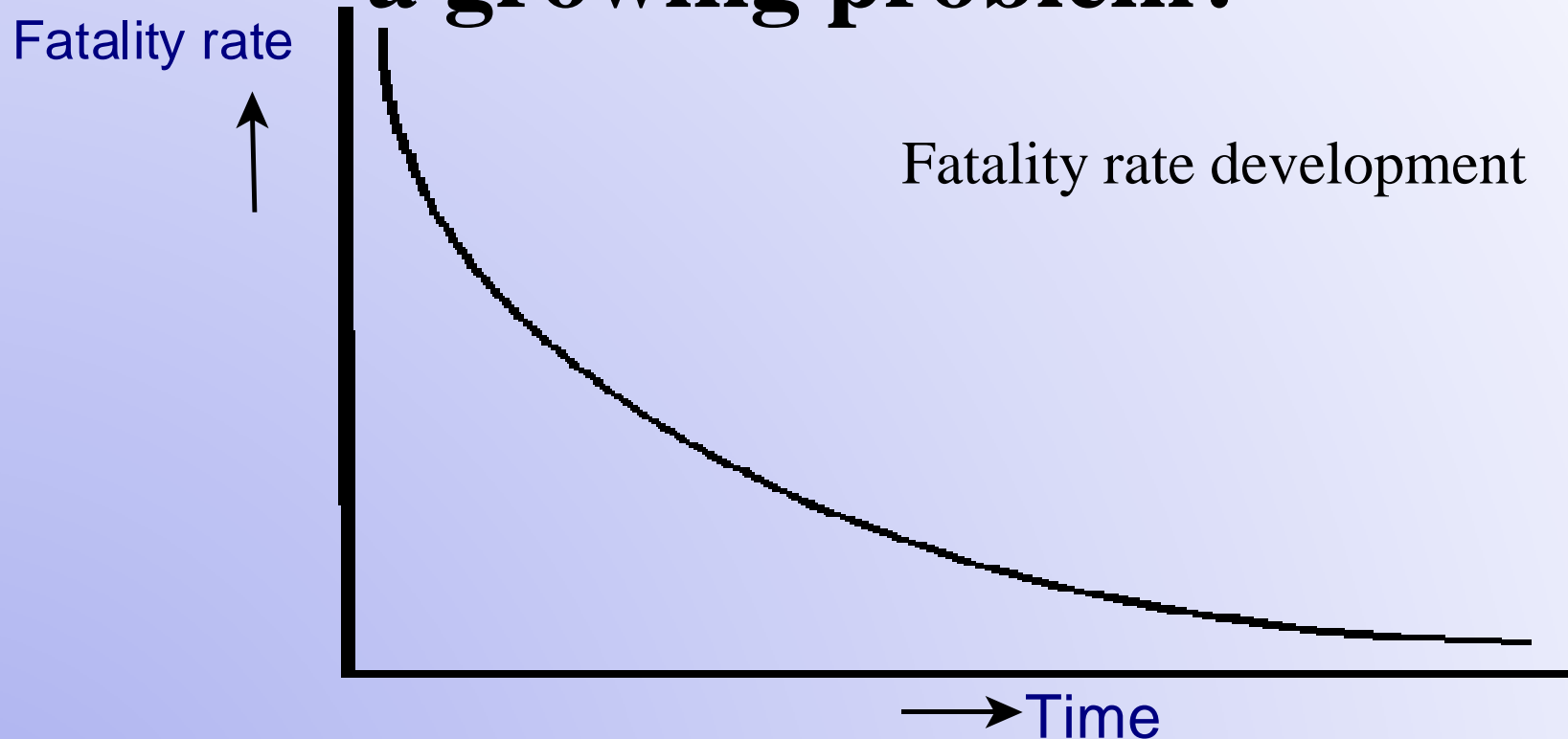
[km]

Fatality rate

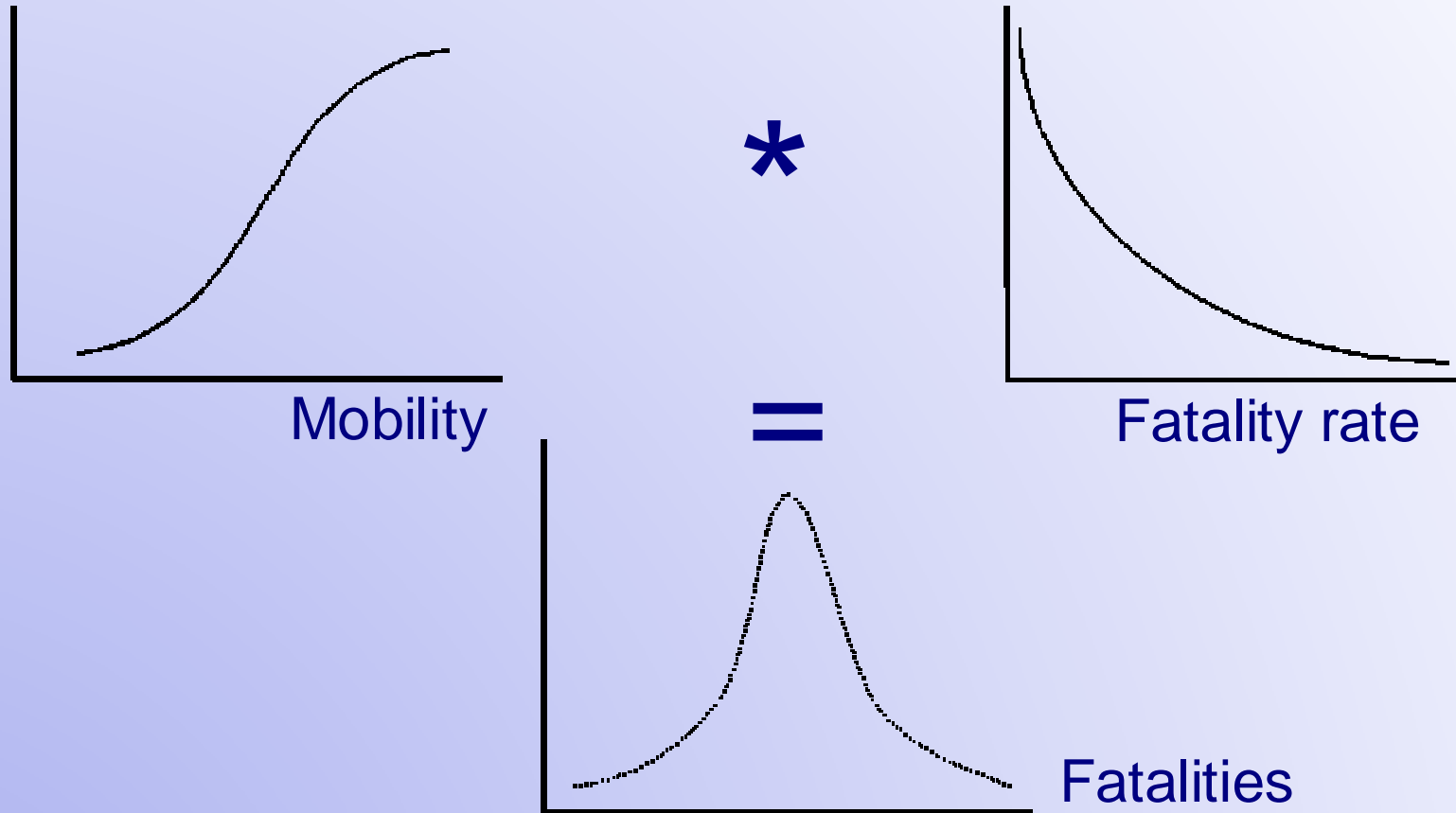


* [Fatalities/km]

ROAD ACCIDENTS: a growing problem?



- No natural law or spontaneous development, but adapt society to growing traffic
- Enlarged, renewed, improved and well- maintained road traffic system



- Sharp increase in mobility has to be accompanied by a sharp decrease in fatality rates; otherwise increase of number of fatalities

THE HISTORY OF ROAD SAFETY

1920 - 1950: Accident
proneness!

1940 - 1950: LOOK FOR
ONE DOMINANT
ACCIDENT CAUSE

1900 - 1920: Accidents
are **BAD LUCK!**

THE HISTORY OF ROAD SAFETY

2000: Better and more
cost-effective implementation

Netherlands: **SUSTAINABLE
SAFETY**

1980 - 2000: 'Educating'
poor performing
road user

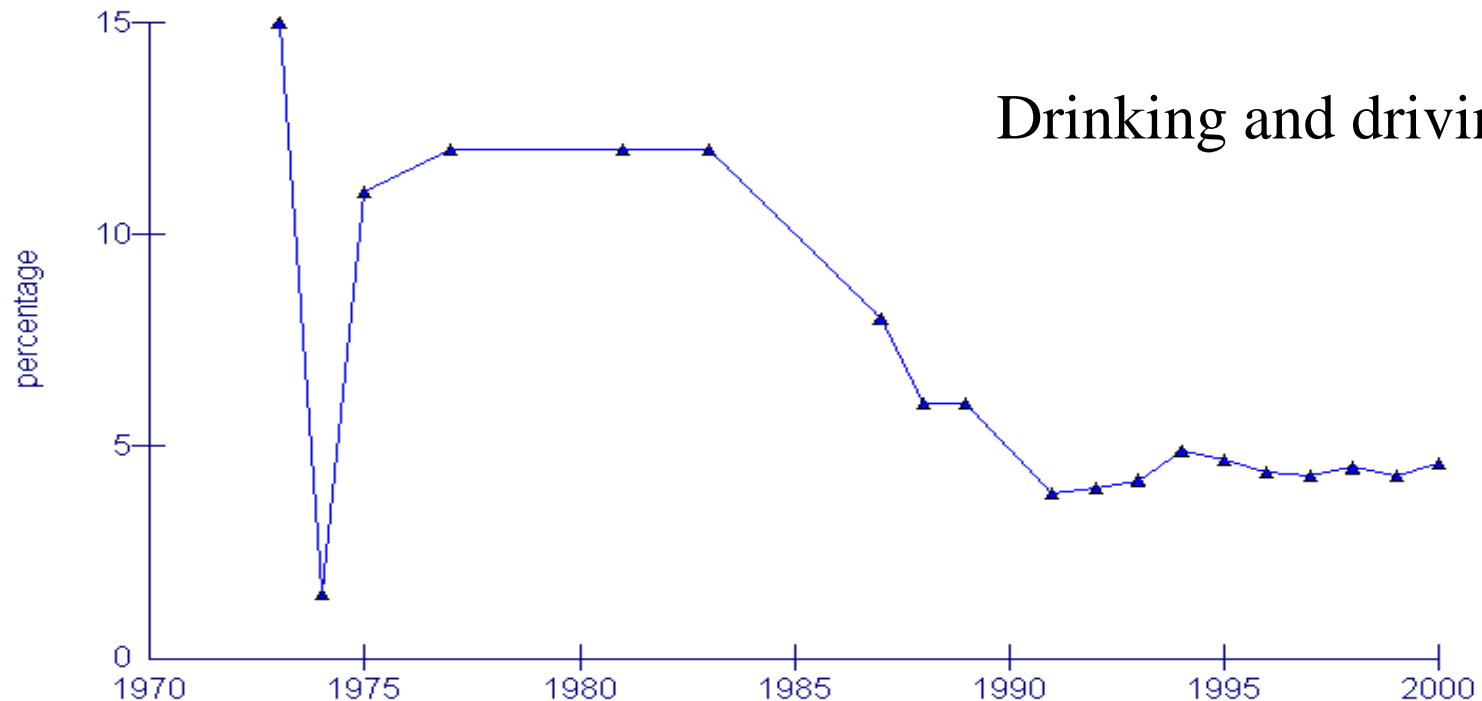
1950 - 1980: **SYSTEM APPROACH:**
combination of circumstances pay attention to them all

ROAD SAFETY POLICY IN THE NETHERLANDS

- high political interest
- road safety targets
- National Road Safety Plan “sustainable safety”
- Ministry of Transport as central authority
- provinces with co-responsibilities
- municipalities with co-responsibilities
- police districts with responsibilities
- national road safety research institute (SWOV)
- grassroots organisations/ngo’s (PRI-related)

ACTIVE ROAD SAFETY POLICIES OVER THE YEARS

Car drivers with a BAC > 0,5 promille regio (The Netherlands)

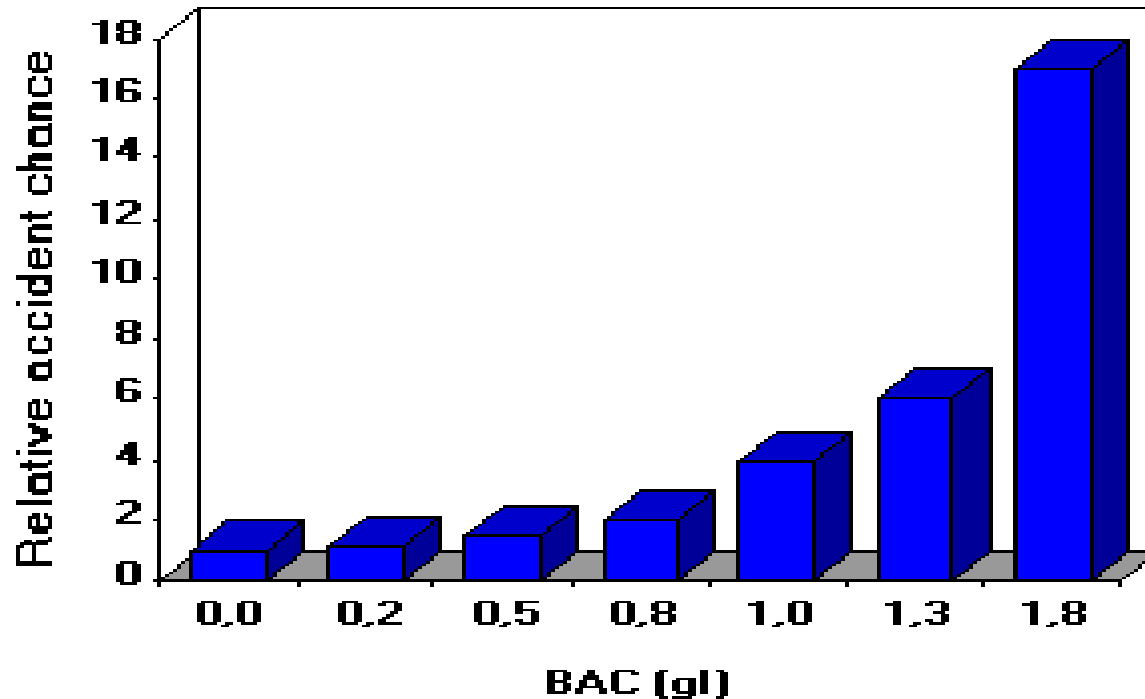


Drinking and driving

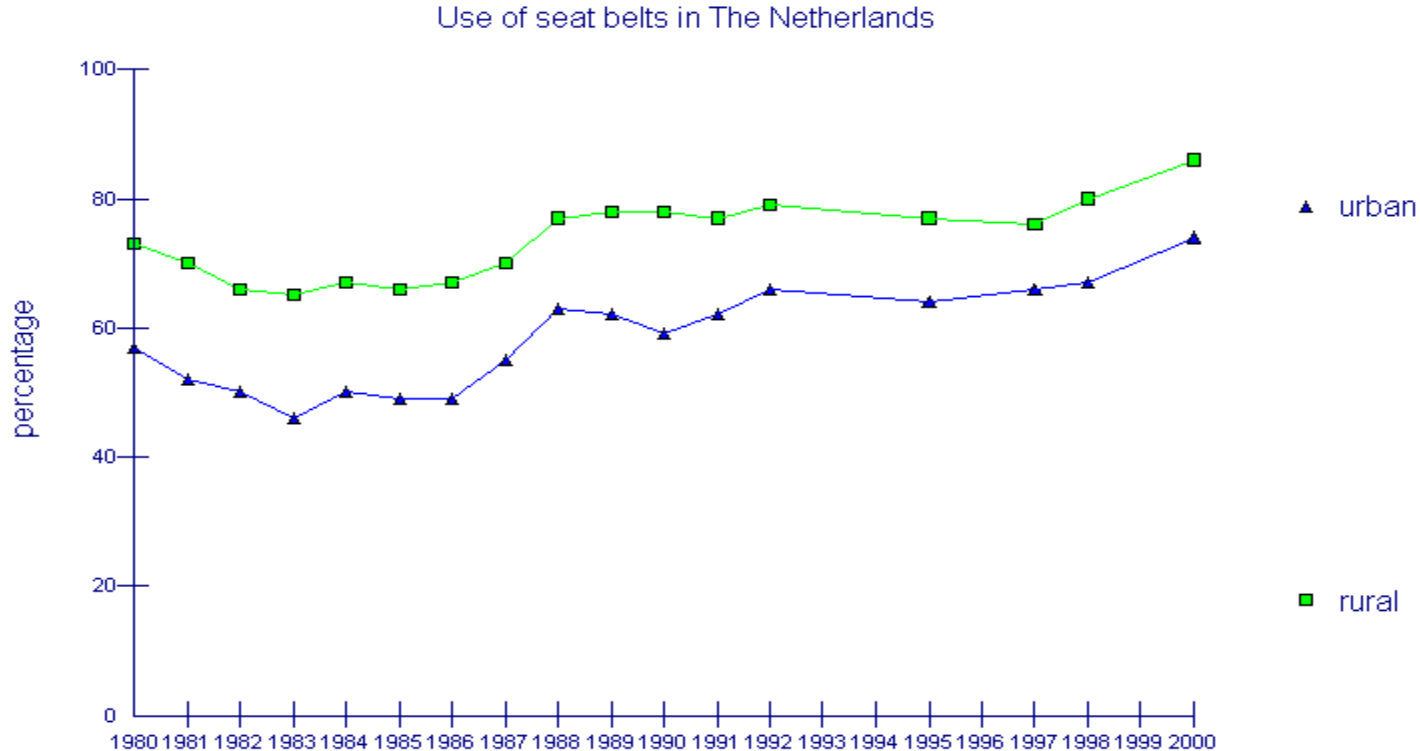
Source: BIS-V: SWOV / AVV - Rij- en drinkgewoonten

ACTIVE ROAD SAFETY POLICIES OVER THE YEARS

Blood-alcohol-content and accident chance



ACTIVE ROAD SAFETY POLICIES OVER THE YEARS



Source: BIS-V: SWOV / AVV - Beveiligingsmiddelen

SUSTAINABLE SAFETY

Sustainable Safety

- Sustainable development' (UN Brundtland Commission), adapted to road traffic:
- We do not wish to hand over the next generation a road traffic system in which - inevitably - a road accident toll as today has to be expected.

Aim of sustainable safety

- Drastically reduce the probability of accidents in advance by means of infrastructure design
- Where accidents still occur: influence the accident process to exclude virtually serious injury

Sustainable safe traffic system has

- Proper road design adapted to limitations of human capacity
- Vehicles which simplify driving tasks and protect the vulnerable human being
- Road users who are adequately educated, informed and, if necessary, controlled

SWOV research programme

- Road users; the relationship between behaviour, surroundings and accident
- Preconditions for safe behaviour
- Strategies for a safe road infrastructure
- Road design and road safety
- Vehicle safety
- Telematics and road safety
- Road safety analysis
- Decision-making and its administration

CONCLUSIONS

- Road safety is all over the world still a major problem, but improvements are possible
- Four major items: raising awareness, organisation, funding and knowledge
- Develop and implement effective and efficient road safety policies
- Customise international knowledge and expertise