



# SPEED MANAGEMENT: MAIN RESULTS OF THE OECD-ECMT WORKING GROUP

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# Speed Management Working Group

## OECD/ECMT Joint Transport Research Centre

- \* 16 countries participating
- \* A 250-page report, available in English and also in French
- \* Executive summary can be downloaded for free (in English, in French, and soon in Chinese and other languages)





## *Speeding: one of the major road safety problem*

Road safety is a global problem – More than **1 million fatalities annually**

Speed is an aggravating factor in *all* collisions

Overall, speeding is the **number 1 road safety problem** in most OECD/ECMT countries

Reducing speed by a few km/h can greatly reduce accident risks: **5%**  
decrease in average speed ->

\* **10%** reduction in injury accidents

\* **20%** reduction in fatal accidents

N.B.: These figures are average values, and depend on the type of road



## *Impacts of speed on the quality of life and the environment*

### **Quality of life (for neighbourhoods)**

- Traffic noise
- Pedestrian and cyclist access

### **Environmental impact**

- Local pollution affects public health
- Greenhouse gas emissions, global warming
- Consumption of non-renewable energy

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# *Impacts of speed on travel times, traffic, transport costs and urban sprawl*

Concerns are often expressed about speed reduction impacts on wider economic grounds:

## → Travel times:

- perceived losses significant; but actual time losses in urban areas minor
- decreases in travel times is also facilitating "just in time" good delivery and greater personal choice

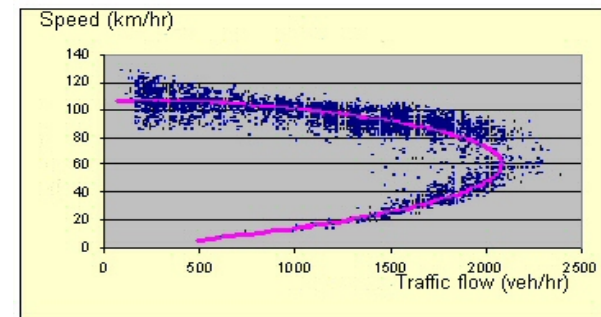
## → Traffic flows:

- in urban areas, depend primarily on intersection capacity, not speed
- on motorways, maximum throughput at about 60km/h ▶

## → Economic impacts - lower speeds reduce fuel

costs

## → Urban sprawl – facilitated by high speed roads, but further research is needed



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## *Managing speed within a safe transport system approach*

**New philosophies favour more forgiving road systems (“self-explaining roads”)**

**Package of measures:**

- ➔ There is no “one best measure”
- ➔ Best outcome obtained with a package of measures, including:
  - **Road design**
  - **Speed limits**
  - **Signing** (incl. for variable speed limits) and **signalling**
  - **Public awareness** (education and training)
  - **Enforcement**
  - **Vehicle technologies** (incl. ISA and other new technologies)

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# Road design: role of infrastructure

## Infrastructure:

- Insure that design characteristics meet function needs of the roadway type
- Achieve self explaining roads
- Built-up / non built-up / transition areas
- Speed humps and other traffic calming approaches



# Speed limits and signing



## Some recommendations:

- Determine appropriate speed for all types of roads
- Review existing speed limits
- Consider harmonised speed limits across regions (e.g. Europe) to increase credibility and acceptance
- Develop the application of **variable** speed limits (depending on traffic, weather conditions, etc.), which can contribute to optimise both safety and public acceptance

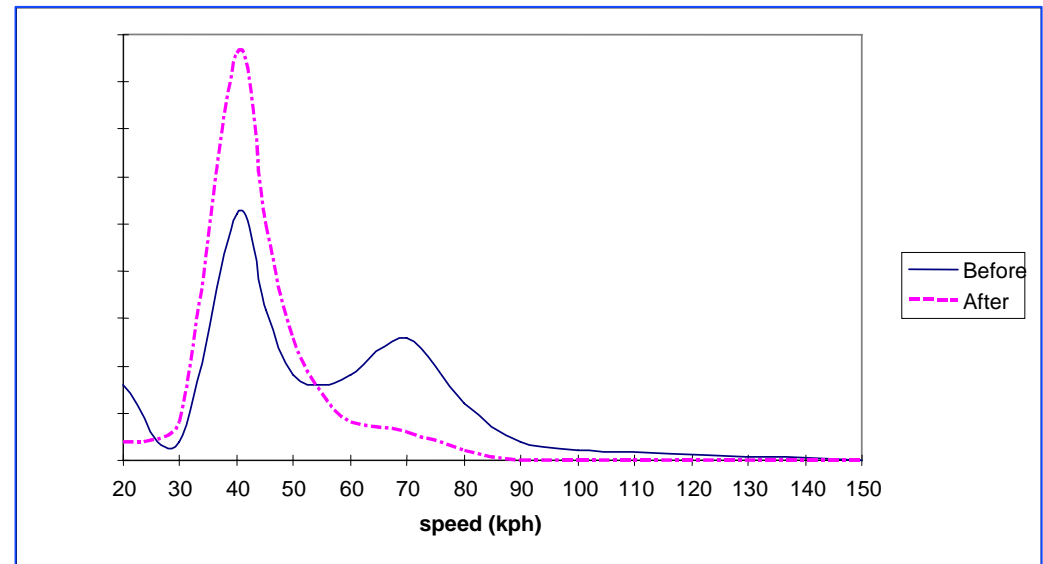
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# Signalling

\* “Moderating green waves” could have a positive influence

\* Great attention should be paid to several uses of traffic lights



*Education and information  
to the public and policy makers*

- \* Prerequisite to the success of speed management
- \* Continuous activity



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## *Enforcement (1/2)*

- Establish bi- or multi- lateral agreement to strengthen speed enforcement for foreign drivers
- Ensure an appropriate level of traditional police enforcement and automatic speed control, which targets all road users, incl. trucks, motorcycles, etc.
- In the case of automatic enforcement, provide a system that makes the vehicles' owners legally responsible for the violation when the driver cannot be identified
- Encourage further experience with section control
- Effective penalties

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## Enforcement (2/2)

- Set tolerance levels at a minimum (*e.g.* 5%)
- Accompany enforcement programmes with a system of public communication at national and local level
- Set up a transparent system for the allocation of revenues generated by fines and reinvest these revenues in road safety activities



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Not only related  
to the power or the  
power/weight  
ratio!



## *Role of new technologies to manage speed*

**“Traditional”** measures remain effective!

**Innovative** measures and role of technologies can allow further reduction in speeding related fatalities:

- Adaptive Cruise Control (ACC)
- Electronic Stability Control (ESC/ESP)
- **Intelligent Speed Adaptation (ISA)**
- Advanced Event Data Recorders (EDR)
- Other (Electronic vehicle Identification -EVI-, etc.)
- Technologies of the future: co-operative systems - vehicle / infrastructure, and vehicle / vehicle, etc.

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*And in the developing countries?*



- \* Specific problems
- \* Global view needed
- \* Approaches tailored by country





## *Conclusions*

- \* Speed has many consequences (not only on safety)
- \* Speeding need to be reduced quickly, taking into account the number of fatalities
- \* Develop a comprehensive package, tailored by country
- \* New technologies, notably ISA, can bring significant improvement

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*Comments or questions?*

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U.S. Department of Transportation  
Federal Highway Administration

23e Congrès mondial de la Route - **Paris 2007**

