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## Speed management – best practices

Presentation to:  
**3rd UN Road Safety Collaboration Meeting**  
 London, 14-15 November 2005



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## Speed management in OECD/ECMT



- On policy side, ECMT Ministers Resolution on speeding in 1996 included proposals for general speed limits:
  - 50 km/h in urban areas; 120 km/h on motorways
- On research side, the JTRC Working Group on Speed Management has a draft of its report, which currently being peer reviewed in US, Europe, Australia
  - Chair: Jacques Nouvier, CERTU (France)
  - 17 countries participating, including USA, Canada
- Speed - a key focus of our safety policy and research activities



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## Speed: the major road safety problem

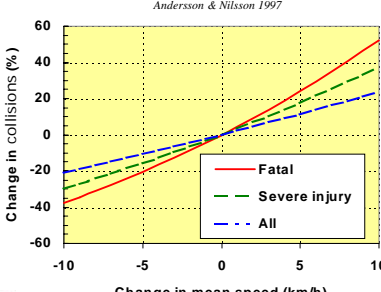
- Speed is the **Number 1 road safety problem**
- confirmed in recent responses from 35 OECD/ECMT countries
- Speed is a causal factor in up to 40 % of all fatal collisions.
- Excessive speed (above the speed limit) and also inappropriate speed (for the prevailing conditions) are the major concerns.
- High speeds increase crash risks and in any crashes, increase collision forces and injury consequences; young drivers, vulnerable road users are most at risk.



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## Effect of speed on collisions/fatalities

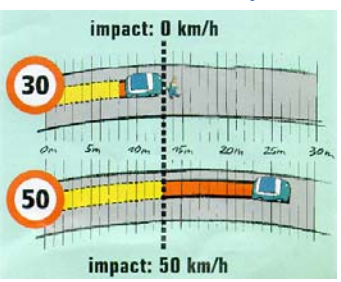
*Andersson & Nilsson 1997*



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## Speed and stopping distances: a crucial road safety issue



At 30 km/hr, a driver can stop in 13 metres:  
 Pedestrian injury = 0



At 50 km/hr, the stopping distance is doubled:  
 Pedestrian injury = severe



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## Other impacts of higher speeds



- Increased environmental impacts
  - Local pollution rises (which affects public health)
  - Greenhouse gas emissions(CO<sub>2</sub>)→ global warming
  - Consumption of non-renewable energy increases
- Adverse impact on communities, quality of life
  - Increased traffic noise impacts-neighbouring areas
  - Activities, pedestrians, cyclists also impacted
- These wider impacts are important to gaining political support for reducing vehicle speeds



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## Key factors in speed management


- Self explaining and forgiving roads
  - Road design consistent with road function
  - Road marking and signing also clear
- Safe and credible speed limits
  - Speed limits set with regard to safety eg 30 km/hr in pedestrian areas; 50 km/hr generally in urban areas
  - Consistent speed limits across road networks
- Speed enforcement
  - Visible police presence important
  - Active speed enforcement efforts
- New vehicle technologies (eg ISA) will help in future



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## Speed enforcement is critical

- Effective enforcement is essential, needing
  - highly visible manual enforcement
  - backed up by automatic enforcement
- Positive outcomes can be achieved, eg:
  - new automated enforcement, combined with increased police visibility (France)
  - lowering of the speed limit exceedence tolerance in Victoria, Australia
- Possible to reduce speeding and fatalities relatively quickly







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## Public information and support



- Effective speed management requires public support
- Drivers often don't perceive full risks of speeding
- Public information campaigns are important in explaining / showing them the risks
- Reasons for enforcement also need explaining
  - public scepticism about revenue raising
  - also new generations of drivers involved
- Consistent penalties are important for acceptance



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## Meeting objections to speed management

- Concerns about adverse impacts of lower speeds often not very well informed eg:
  - **Travel times.** While time losses are *perceived* as significant; *actual* time losses in urban areas are generally minor
  - **Traffic flows.** In urban areas, traffic flows depend primarily on intersection capacity, not travel speed between them
  - **Economic impacts.** Any economic losses of lower speeds offset by fuel savings/reduced fuel costs at lower speeds e.g. reducing from 70 to 60 kph means 20 % less fuel

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## Conclusions

- Speed management will reduce road fatalities/injuries
  - as well as other adverse vehicle impacts (eg environmental)
- Political support exists for reducing vehicle speeds
  - eg ECMT Ministers resolution 1996; recent (November 2005) UN General Assembly resolution
- Package of measures to be adapted to each country
  - key factors include: self explaining roads; safe and credible speed limits; visible manual and automated enforcement; vehicle technology
- Implementation issues have to be addressed:
  - Drivers often do not perceive full risks of speeding. Public information and public support is therefore required

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