

Next Generation of Safety Systems – Societal perspective”

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30 years of development

- Ten times more likely to be killed in a 30 y old car in a crash with a new car
- Vehicle safety is a major contributor to safety overall and political targets for safety
- Development of vehicle safety is faster than ever – net effect approximately 40-50%

”Safety does not sell” is no longer true

- ESC increase from 15 to 85% in 30 months
- SBR increase from 0 to 80% in 40 months
- 50+% of new car sales are Euro NCAP 5 stars

”Industry does not deliver until they are forced by regulation” is no longer true, at least not generally

- Most new systems are not regulated
- Most manufacturers have internal targets beyond regulated level
- Automotive industry has research and development capacity beyond society
- Some aspects, like pedestrian protection, not so fast

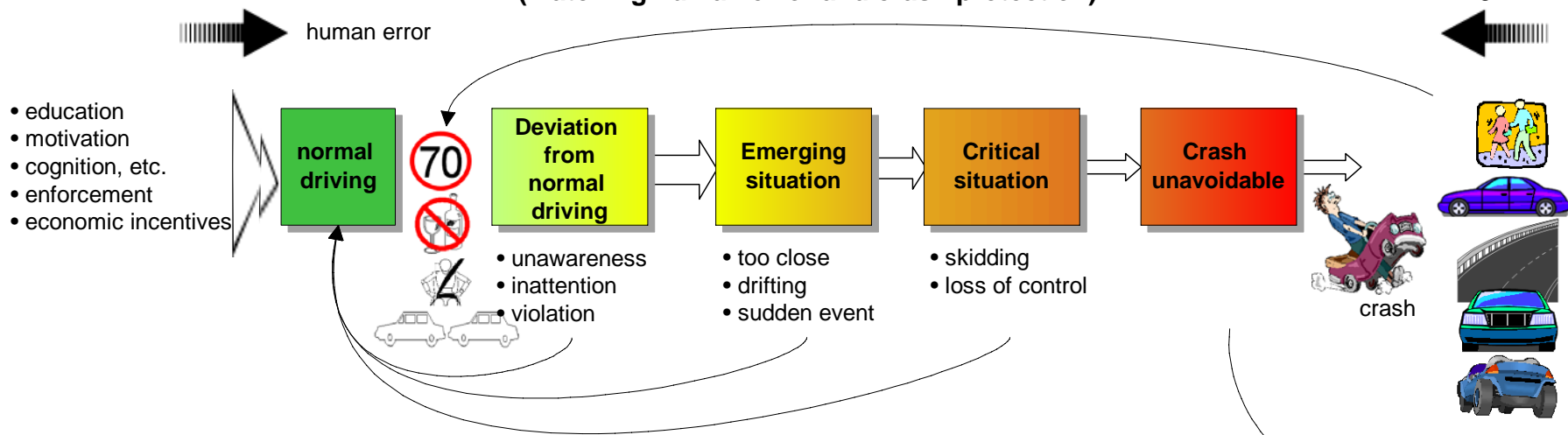
Competition and customer satisfaction are drivers for development – regulation is there for;

- Maintaining and increasing minimum level
- Cover areas with limited market forces
- Standardize and define aspects of safety

Which tools can the society use to enhance competition and demand?

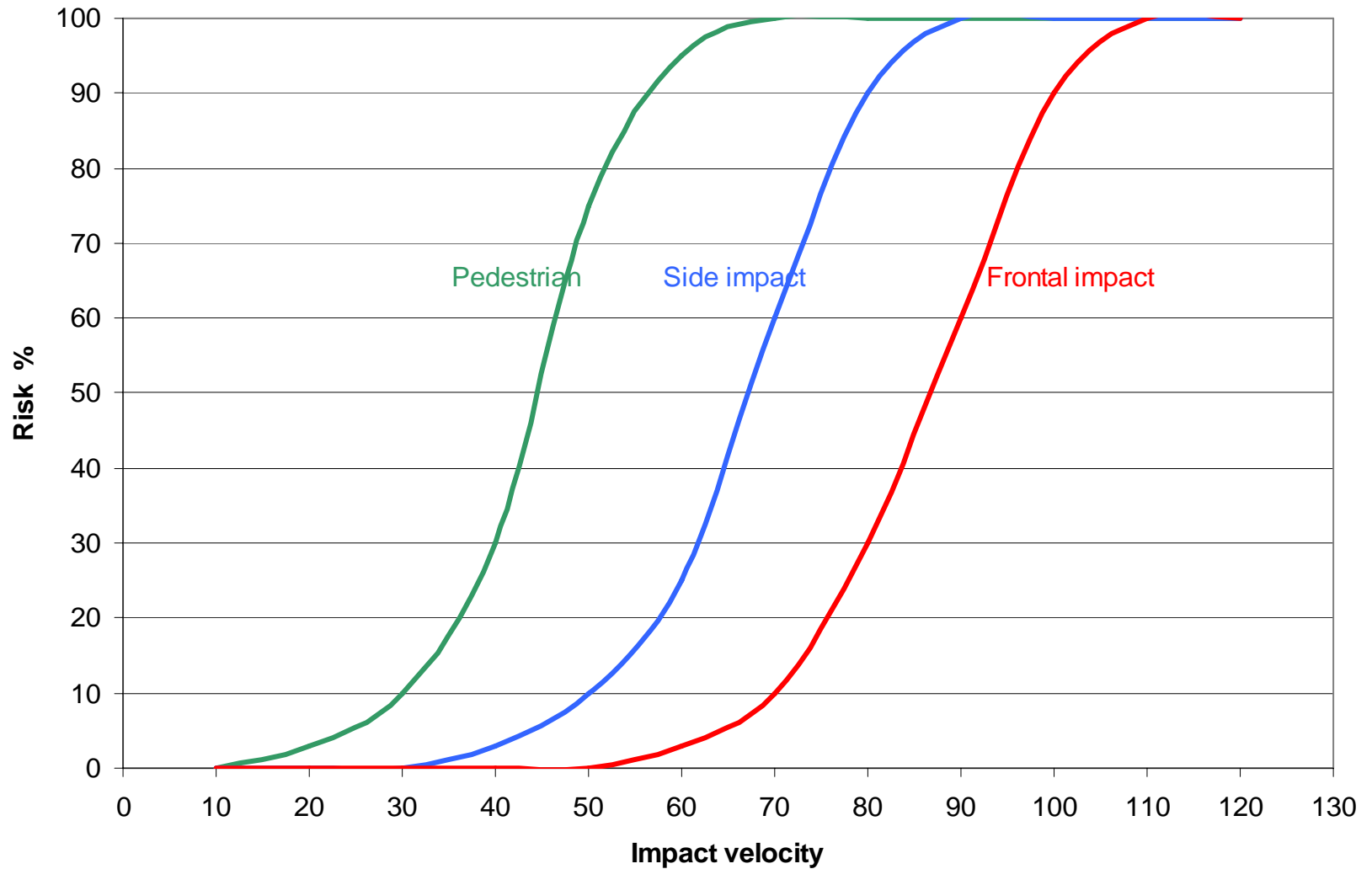
- First of all, understand who is the customer of new cars (more CEO's than private)
- NCAP
- Act as customer and stimulate other fleet buyers, contractors, taxi and rental car companies
- Follow up new innovations and progress
- OHS regulations used for vehicle use
- Stimulate and fund research

The crash sequence: (matching human error and crash protection)



	• access to road transport system	• comfort • economy • social conformity	• warning system • supporting system	• intervention in driving	• immediate correction	• preparation for crash	crash protection
Vehicle	promote normal driving	(ISA, SBR, alcohol interlock)	(AICC, LDW)	(ESC, LDA, AICC2)	(pre-safe, emergency braking)	(seat belts, airbag, whiplash protection, pedestrian protection)	
Infrastructure	promote normal driving	(speed warning, tactile warning, humps)	tactile edge lines	high friction surface		barrier design, roundabouts	
Others	promote normal driving	• enforcement • insurance • contracts				• emergency service	

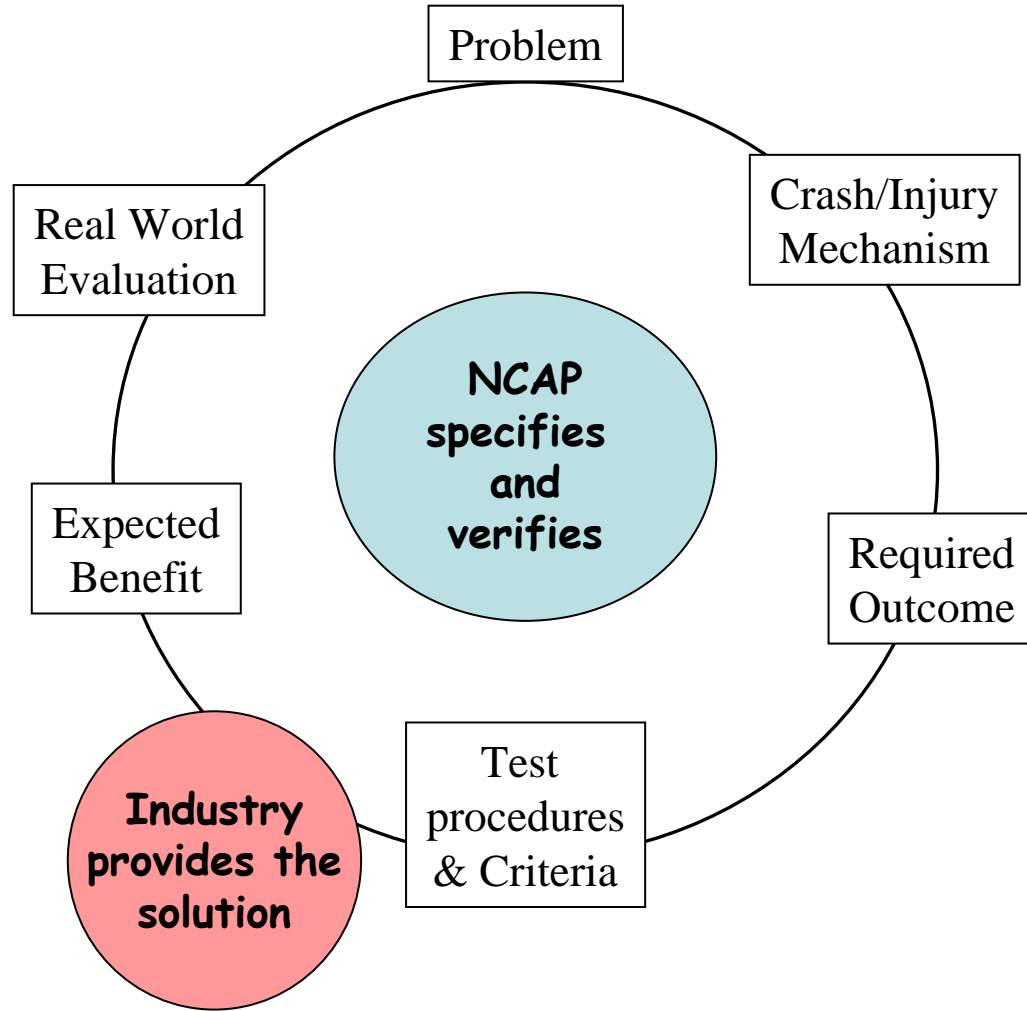
Risk of fatal injury related to impact velocity



Selected systems with high potential

- Speed limit recognition and driver support
- Systems to detect driver under influence
- ESC (already implemented)
- Emergency braking

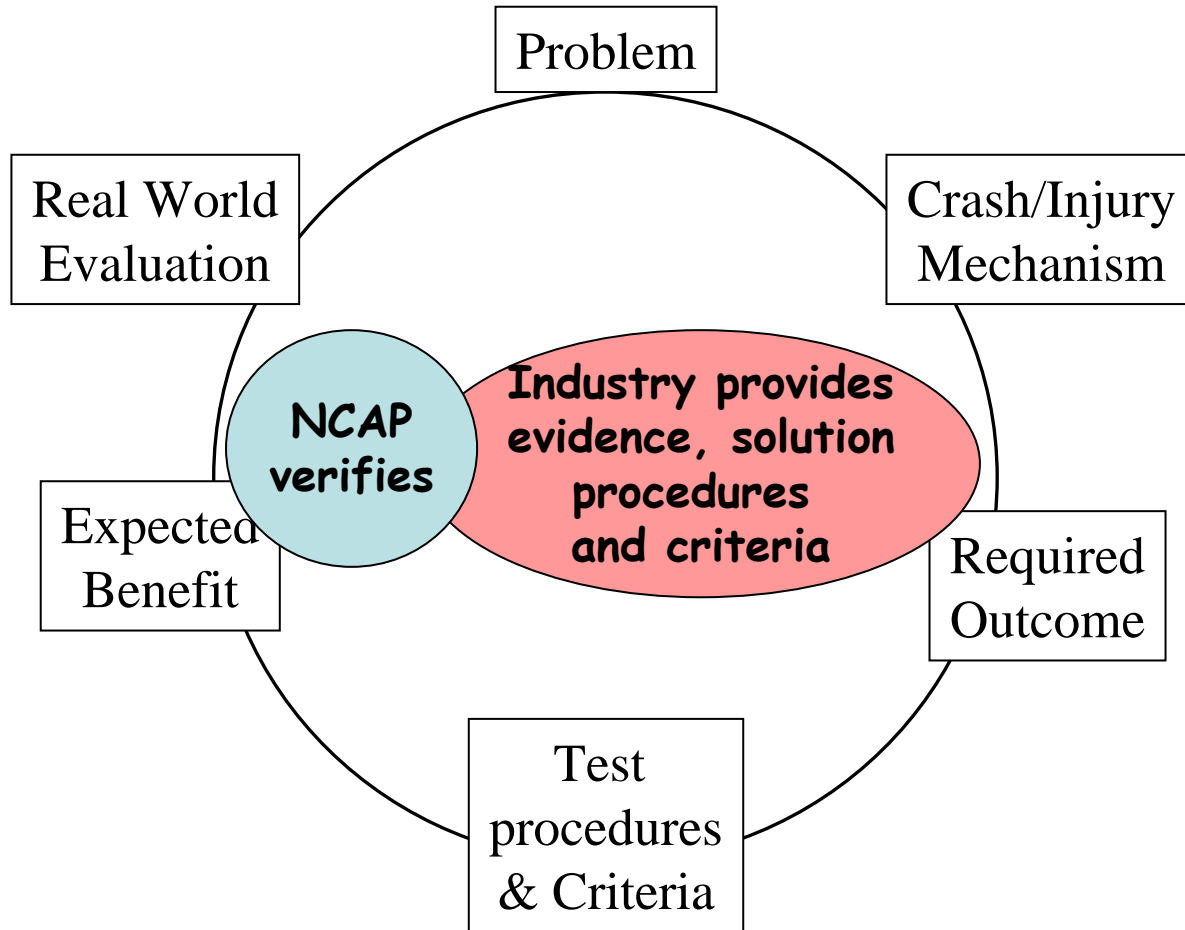
Today's NCAP



The NCAP process is effective, but is it too slow today?

- Does NCAP potentially slow down development and focus only on aspects giving credit?
- Are innovations so complex and integrated that they cannot be treated as stand-alone systems?

Beyond NCAP



Summary

- Competition and customer satisfaction are the strong motivators for safety – apart from regulation
- Society must develop more effective ways to drive development, and be clear about what is effective
- NCAP has been effective but must be developed further to stimulate innovation
- Industry should be stimulated to demonstrate by scientific methods the impact of innovations
- Speed, alcohol, ESC and emergency braking are most promising today