Vehicle safety - A key factor in road traffic safety

Anders Lie
The Swedish National Road Administration
The road transport system is an open and complex system

- Infrastructure
- Vehicles
- Road users
- Transports of goods ad passengers
- Road users on duty
- Companies and organisations

- Rules and regulations
- Enforcement
- Etc.
Our vision is to design cars that should not crash and by 2020 no one will be killed or injured in a Volvo.
The Holistic View of Safety

State of the driver

State of the situation

Driver unable to avoid

Car still able to control

Driver and car unable to avoid

Reduce severity

Prepare to crash

Preventative  Dynamic  Avoidance  Mitigation  Impact

• Non-conflict  • Conflict  • Imminent-crash  • Crash  • Post-crash

Time

ITS Conference Beijing 2007
Anders Eugensson
Date: 2007-10-13, page 4
We need to be problem oriented

Technology → The possible → Problem

Problem → The important → Technology
The Vehicles

The roads and streets

The road use
Safe conditions (km/h)

- **70**
  - Front to front
  - Modern cars, belted users
  - Rapidly developing

- **30**
  - Unprotected Road Users

- **50**
  - Side to front
Vision Zero forms a basis

Vision Zero not only Zero fatalities
Vision Zero, 5 dimensions

1. vision for many stakeholders
2. ethical platform (right to survive)
3. shared responsibility
4. safety philosophy (failing human)
5. driving forces for change
THE TYLÖSAND DECLARATION

Articles

1. Everyone has the right to use roads and streets without threats to life or health

2. Everyone has the right to safe and sustainable mobility: safety and sustainability in road transport should complement each other

3. Everyone has the right to use the road transport system without unintentionally imposing any threats to life or health on others
**THE TYLÖSAND DECLARATION**

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<th>Articles</th>
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<td>4. Everyone has the right to information about safety problems and the level of safety of any component, product, action or service within the road transport system</td>
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<td>5. Everyone has the right to expect systematic and continuous improvement in safety: any stakeholder within the road transport system has the obligation to undertake corrective actions following the detection of any safety hazard that can be reduced or removed.</td>
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Management systems help organisations deliver by systematic work and management

- ISO 9001 (Quality)
- ISO 14001 (Environment)

A management system for road traffic safety can help organisations to be better

- Proposed ISO 39001 (Road-traffic Safety management systems)
Road traffic safety (RTS) management systems — Requirements with guidance for use

Warning

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TRAVEL POLICY IN COMPANIES

Everyone company has a responsibility to assure safety
SRA short or long term rental

Cars rented for less than 6 months must also meet the following requirements:
Be awarded 5 stars for occupant protection by Euro NCAP
Be equipped with an antiskid system (Electronic Stability Control, ESC)
Be equipped with a seatbelt reminder on the driver seat that meets Euro NCAP requirements
Protection against whiplash injury shall be assessed as at least a “yellow” on the SRA system or as “acceptable” in a Thatcham dynamic test.

Cars rented for more than 6 months must also meet the following requirements:
Be awarded at least 2 stars for pedestrian protection by Euro NCAP
Be equipped with an alcohol ignition interlock
Be equipped with an informative or supportive Intelligent Speed Assistance system (telling the local speed limit and/or issuing a warning if this is exceeded)
What Can a Country do to Promote Safer Vehicles

Include vehicle safety in the traffic safety work
Support Euro NCAP and actively use the results
Support every organisation that want to use vehicles safety
Look at management systems (ISO 39000)
Use travel policies
Be the market (All governmental bodies must only buy..)
Get occupational health and safety on-board
Follow up new technologies (to give advice)
Contacts

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