

**Vehicle Safety  
Policy - Swedish  
Transport  
Administration**

**Anders Lie  
Specialist,  
Traffic Safety Division**



**TRAFIKVERKET**



1 April 2010 The Swedish Transport Agency started and contains the operations of the previous administration



## Vehicle safety - A key factor in road traffic safety

Anders Lie  
The Swedish National Road Administration

The cover of a report titled "Vehicle Safety Policy - Swedish Transport Administration". It features a red vertical bar on the left with the title and author information. The author is Anders Lie, Specialist, Traffic Safety Division. The main title "TRAFIKVERKET" is prominently displayed in the center, accompanied by its logo. At the bottom, there are logos for PRAISE, ETSC (European Transport Safety Council), and the European Union flag.

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TRAFIKVERKET

PRAISE  
Road Administration Centre

ETSC  
European Transport Safety Council

# As a Governmental body we are leading in safety demands on our own transport

- Guided by Governmental Decree (2009:1) Environmental and Road safety
- Travel policy pushing further demands on vehicles
  - Lease vehicles
  - Short term rental vehicles
  - Private vehicles used on duty
- Demands on alcohol starter interlock on suppliers of transport and road maintenance services
- Active in the development of ISO 39001 (Management System Standard for Traffic Safety)



# Travel Policy with Vehicle Environmental and Safety Demands

- First development in 2002. Demands on safety level and fuel efficiency
- Second generation 2005
- Third generation 2010 (Just decided)



# Travel Policy with Vehicle Environmental and Safety Demands (2005)

## **Cars rented for less than 6 months must meet the following requirements:**

- Be awarded 5 stars for occupant protection by Euro NCAP (pre 2009)
- Be equipped with an anti skid 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.
- Mass between 1000-1500kg for normal car, 1000-1700kg for large car.

# Travel Policy with Vehicle Environmental and Safety Demands (2005)

**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)

**Energy efficiency (all cars):**

- Normal car maximum 6,7 litre petrol or 6,0 litre diesel/100 km.
- Larger car (3–5 people) maximum 8,0 litre petrol or 7,2 litre diesel/100 km.
- Big car (More than 5 people) maximum 9,2 litre petrol or 8,2 litre diesel/100 km.

# Travel Policy with Vehicle Environmental and Safety Demands (2010)

## **Cars rented for less than 6 months must meet the following requirements:**

- Be awarded 5 stars for occupant protection by Euro NCAP (pre 2009)
- Be awarded 31,5 points for occupant protection by Euro NCAP (2009)
- Be awarded 14 points for pedestrian protection by Euro NCAP (2009)
- Be equipped with an anti skid system (Electronic Stability Control, ESC)
- Be equipped with a seatbelt reminder on the driver and passenger seats that meets Euro NCAP requirements
- Protection against whiplash at least 2 points Euro NCAP
- Mass between 1000-1600kg for normal car, 1000-1900kg for large car.

# Travel Policy with Vehicle Environmental and Safety Demands (2010)

**Cars rented for more than 6 months must also meet the following requirements:**

- Be equipped with a seatbelt reminder on the driver, passenger and rear seats that meets Euro NCAP requirements (3 points)
- 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)

# All Vehicles Controlled by the Government

**Decree (2009:1) Environmental and Road safety** Purchasing demands on governments (state agencies, administrations) vehicles and travels

Started as only environmental decree, evolved with safety demands in 2009

- **Environmental and safety demands on cars bought, leased and used by governmental bodies**
- **Alternative fuels, low CO2 emissions, low in particulates**
- **Alcolock (at least 75% of the fleet)**
- **Crash safety occupant protection (32,5 points Euro NCAP/5 stars)**
- **Crash safety pedestrians (9,5 points Euro NCAP/1 star)**
- **Antiskid system (ESC)**
- **Seat belt reminder (de facto in Euro NCAP 32,5 points)**

**(Euro NCAP tested cars or certificate from manufacturer, Swedish Transport Agency has the responsibility to check and support)**

# All Vehicles Controlled by the Government

## **Decree (2009:1) Environmental and Road safety**

**(Developments because of new Euro NCAP system 2009 / minimum intervention)**

**–31,5 points Occupant protection Euro NCAP 2009+**

**–2 points whiplash protection**

**–Seat belt reminder front seats**

–Alternative fuels, low CO2 emissions, low in particulates

–Alcolock (at least 75% of the fleet)

–Crash safety pedestrians (9,5 points Euro NCAP/1 star)

–Stability Control System (ESC)

**–Euro NCAP is and should be a moving target**

# New technologies with high potential

- Impaired driving (alcohol / fatigue)
- Seat belt reminders (~50% unbelted in fatal accidents)
- Speed limit recognition and driver support (Speed Alert /ISA)
- Autonomous emergency braking
- Lane departure warning/assistance



# Alcolocks – 10 years of systematic work with two parallel areas

As..

an alternative to driving licence  
revocation

a quality assurance of transports

Results 2008:

23 % of municipalities and 18 % of county councils have stipulating the need for alcolocks when purchasing new vehicles

50.000+ alcolocks installed

*Sweden; municipalities 290. County councils /Regions 20*



# Trends in business life

- Brand name more and more important
- Prepared to take responsibility (Corporate Social Responsibility)
- Want to act transparent and open to public



# Road safety trends in business

- Travel policies
- Purchasing demands on products and services
- Labelling systems
- Systematic work: ISO 39001



# The road transport system is an open and complex system...



- Infrastructure
- Vehicles
- Road
- Transportation of goods and passengers
- Road users during the execution of their duties
- Corporations and organizations
  
- Regulatory framework
- Monitoring
- Etc..



...This is where ISO 39001 comes in!

# The vision behind ISO 39001



**GLOBAL STATUS REPORT  
ON ROAD SAFETY**  
TIME FOR ACTION



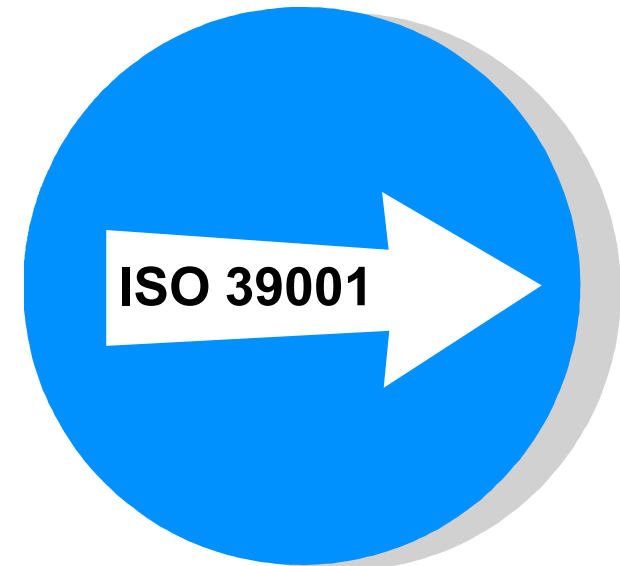
- Elimination of death and serious injury in the road transport system is the overarching goal.
- A voluntary and complementary tool to legislation, addressing all organizations interfering with road traffic and driven by the needs of interested parties, including market forces.
- An approach to utilize and disseminate "best practice".
- Knowledge transfer from Traffic safety experts to the intended user community of the standard.

# On the road to ISO 39001



## - Road Traffic Safety (RTS) management systems

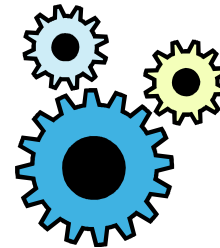
- Work item approved by ISO ballot among ISO member countries January 2008.
- ISO Project Committee, ISO/PC 241, established by ISO Technical management board February 2008
- Secretariat allocated to Swedish Standards Institute.
- ISO 39001 to be published at the end of 2011.
- Chairman of ISO/PC 241 Claes Tingvall, Director Road Safety, SRA – Swedish Road Administration.



# An ISO management system standard ...



- is a voluntary tool for organizations to work systematically with specific issues (Environment, Quality, Food safety, Road Traffic Safety etc.).
- is often based on the concept of *continual improvement* – PDCA cycle and *process approach*.
- does not specify any specific technical solution or minimum requirements and is flexible and adaptable to the needs and resources of each specific organization



# Members of ISO/PC 241



## Participating members

- Argentina
- Armenia
- Australia
- Canada
- China
- Colombia
- Finland
- Germany
- Italy
- Japan
- Jordan
- Korea
- Malaysia
- New Zealand
- Nigeria
- Philippines
- South Africa
- Sweden
- Switzerland
- Thailand
- United Kingdom

## Observing members

- Bulgaria
- Cyprus
- Czech Republic
- France
- Israel
- Netherlands
- Singapore

## Liaison organizations

- ISO/TC 22, Road Vehicles
- ISO/TC 211, Geographic information/Geomatics
- Global Road Safety Forum (GRSF)
- Global Road Safety Partnership (GRSP)
- World Health Organization (WHO)
- World Bank (WB)
- The International Transport Forum (ITF/OECD)
- International Association of Oil & Gas producers (OGP)
- UN Economic Commission for Europe (UNECE)
- European Transport Safety Council (ETSC)
- The International Road Federation (IRF)

# The “architecture” of ISO 39001 draft standard



- The overall structure and content aligned with ISO management systems
- Clause 4. Top management responsibilities and commitment
  - concept adopted from ISO 9000 and ISO 31000
- Clause 5.2. Organizational context related to RTS
  - adopted from ISO/TMB/JTCG “Joint vision” and ISO 31000
- Clause 5.4.1.1 RTS performance factors
  - reflects common experience and knowledge in the field of road traffic safety
- Clause 5.6.3.1. Incident investigation
  - partly adopted from OHSAS 18001

**- the “marriage” between ISO world  
and Traffic Safety expertise**

# Top management responsibilities and commitments



- Focus on health and prevention of loss of life
- Focus on results
- Leadership
- Partnership and collaboration
- Process approach
- Continual improvement
- Transparent and inclusive process
- Tailored implementation
- Part of decision making
- Emergency response
- Responsibility
- Capacity
- Compliance with statutory and regulatory requirements

# RTS performance factors



- a) Risk exposure factors
  - Traffic volume and traffic mileage by vehicle and road user type
  - Product/service volume provided by the organization
- b) Final safety outcome factors
  - Deaths and serious injuries
- c) Intermediate safety outcome factors

# RTS performance factors

## (c) Intermediate safety outcome factors



- 1. The safe planning, design, operation and use of the road network
  - Road design and safe speed
  - Use of appropriate roads
  - Use of personal safety equipment
  - Safe driving speed
  - Fitness of drivers especially considering fatigue, alcohol and drugs
  - Safe journey planning including consideration of the need to travel, the amount and mode of travel and choice of route
- 2. The safe entry and exit of vehicles and road users to the road network
- 3. The recovery and rehabilitation of crash victims from the road network

# Conclusion / Key findings

A shared vision => **new ideas and solutions, shared responsibility**

Targets, monitoring => **systematic follow up, realism**

Collaboration => **less conflicts / confrontations**

Road safety in enterprises = **crucial to create effects**

Automobile industry/Road administration = **important**

# What Can a Country/Organisation/Company do to Promote Safer Vehicles

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

# Thank You!



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