

GOVERNMENT STATUS REPORT, SWEDEN

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Government Status Report from Sweden
ESV 2009

ROAD SAFETY ORGANISATION

The Ministry of Enterprise, Energy and Communications is responsible for the road traffic safety in Sweden. The ministry is limited in size and the Swedish Road Administration (SRA) handles much of the practical and operational work. From 2009 the new Swedish Transport Agency (STA) has overall responsibility for regulations within air, sea, rail road and road traffic. The Road Traffic Department formulates regulations, examines and grants permits, as well as exercising supervision within the field of road transport over e.g. road traffic, vehicles, driving licences and commercial transport. The agency also conduct analyses of road traffic and supply information about injuries and accidents within the road transport system. STA is also holding vehicle and driver licence registers.

The SRA has been commissioned by the Swedish Government with the overall sectoral responsibility for the road transport system. This involves issues relating to environmental impact, road safety, accessibility, transport quality, regional development and gender equality. Its responsibility also includes intelligent transport systems, public transport, adaptations for disabled persons, commercial traffic, applied research and development and demonstration activities in the road transport system. The main other bodies active in road traffic safety efforts are the Swedish Transport Agency, the police and the local authorities. Other important parties are the National Society for Road Safety (NTF), with its member organisations, and transport industry organisations. The Group for National Road Safety Co-operation (GNS) is a central body that co-ordinates co-operation between the SRA, STA, the local authorities the authority for occupational health and safety and the police. The NTF is an additional member of this group, as well as the private sector.

FATALITIES

The Swedish overall long-term safety objective within the road transport system was settled in 1997, when the Swedish parliament voted for the "Vision Zero". This vision states that ultimately no one should be killed or seriously injured by the road transport system. The design and function of the system should be adapted to the conditions required to meet this goal.

Sweden has a long tradition in setting quantitative road traffic safety targets. In the mid 1990-ies a 10-year target was set at a 50% reduction for 2007. This target was not met. In 2007 471 were killed on the Swedish roads. Sweden as member of the European Union is part of the union's target of a 50% reduction of fatalities between 2001 and 2010. For Sweden that target means maximum 250 fatalities year 2010.

Table 1.

Number of fatalities on Swedish roads
Accident Year

| Accident Year | Fatalities |
|---------------|------------|
| 1997 | 541 |
| 1998 | 531 |
| 1999 | 580 |
| 2000 | 591 |
| 2001 | 583 |
| 2002 | 532 |
| 2003 | 529 |
| 2004 | 480 |
| 2005 | 440 |
| 2006 | 445 |
| 2007 | 471 |
| 2008 | <420 |

With around 420 fatalities per year Sweden is still one of the safest countries when it comes to road traffic, with a level of 4,5 fatalities per 100.000 inhabitants. This is around half of the European Union risk average (7,6 fatalities per 100000inhabitants year 2006, EU15).

THE PROCESS TOWARDS A NEW TARGET

On demand from the Ministry of Enterprise, Energy and Communications, SRA have looked at how to manage a new road traffic safety target set for year 2020. This work was reported in 2008 and the government has proposed to the parliament to support a target of 50% reduction of fatalities and 25 % reduction of severe injuries to 2020.

The Swedish Road Administration (SRA) was commissioned by the government (Ministry of Enterprise, Energy and Communications, in June 2006) to propose new interim targets for road safety developments as well as to draw up basic data for continuing road safety work in accordance with Vision Zero. The previous interim target for 2007 was set without consultation with or commitments from parties.

The principal proposal is a system of management of objectives in road safety work that is based on *cooperation when drawing up interim targets, more measure-related interim targets in the form of Safety Performance Indexes (SPI:s) , and annual result conferences* where road safety developments and target achievements are evaluated. The aim is to create long-term and systematic road safety efforts.

More measure-related Interim Targets

One lesson learnt from evaluations was also that the interim target for the number of fatalities did not provide sufficient guidance to stakeholders for activity planning. More action-related interim targets are needed. This is understood to mean indicators that help stakeholders to identify measures that can contribute towards changes in condition states on the road transport system that are necessary to achieve targets for the number of fatalities and seriously injured. The following represents a summary of the most measure-related condition states (SPI:s) that we propose to prioritise in future road safety efforts:

- Speed compliance, state roads
- Speed compliance, municipal streets
- Sober drivers
- Fatigue drivers
- Seat belt use
- Bicycle helmet use
- Safe passenger cars
- Safe heavy vehicles
- Safe state roads
- Safe municipal streets
- Rescue, care and rehabilitation
- Valuation of road safety

Annual Result Conferences

Our proposal for a system for developing indicators in road safety work includes a focus on the annual result follow-ups. The proposed interim targets and stakeholder performance indicators are formulated at a national level. Arranging regional result conferences for following up national interim targets requires that the result is reported at a piecemeal level with local/regional data.

Choice of New Target Year

The assessments we have carried out of possible target levels have been based on the EU road safety targets of a 50 per cent reduction in the number of fatalities within ten years. In order to synchronise with new anticipated target years within the EU, we propose 2020 as target year. We propose that the following targets and target levels are to be achieved by no later than 2020:

- 80 per cent of vehicle kilometrage on state roads is to take place within current speed limits.
- Speed limit compliance on municipal streets is to have increased by 86 per cent.
- 99.90 per cent of vehicle kilometrage is to be driven by sober vehicle drivers (BAC below 0,02 per cent).
- A maximum 5 per cent of drivers are to state that they have fallen asleep or nearly fallen asleep while driving during the previous 12 months.
- 99 per cent of drivers and passengers in passenger cars are to use seat belts.
- 70 per cent of cyclists are to wear helmets.
- 100 per cent of new cars are to have the highest safety class according to Euro NCAP (including new technology where active and passive safety is integrated).
- 100 per cent of new heavy vehicles are to have emergency braking systems.
- 75 per cent of vehicle kilometrage on roads with speed limits above 80 km/h is to take place on traffic-flow separated roads.
- Percentage of safe pedestrian, bicycle and moped passages on the primary network.
- Percentage of safe junctions on the primary network.
- Time from injury to adequate medical care.
- Increase on the index for answers to attitude questions about road safety.

The Swedish government is now considering how progress in setting the new target and how to get political involvement

THE TYLÖSAND DECLARATION

In 2007 in Tylösand a declaration covering the rights for road users were drafted and accepted. This was done at an international road safety summit arranged by road traffic safety stake holders in Sweden. The Tylösand Declaration lays down

principal rights of citizen's road traffic safety. These rights serve to protect them from the loss of life and health caused by road traffic. They rest on the general assumption that no road user wishes to harm either himself or herself or any other fellow human being, whatever the circumstances under which they are using the roads. The declaration contains 5 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.
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.
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.

ISO-MANAGEMENT SYSTEM FOR ROAD TRAFFIC SAFETY

In the spirit of the Tylösand Declaration, Sweden has been an initiator to get a new work within International Standards Organisation (ISO). The work is aiming at developing a Road-Traffic Safety Management System standard. (ISO/TC 241 - Project Committee: Road-Traffic Safety Management System). Sweden is through the Swedish Standards Institute (SIS) holding the secretariat.

The aim is that the International Management Systems Standard will provide:

- Principles of Road-Traffic Safety. The principles will include (but are not limited to) Safe Road Transport, System, Leadership, Process approach, Factual approach and Continual Improvement (PDCA)

- Requirements for a road traffic safety management system where an organization

a) wishes to seek understanding of its role in the road transport system and thereby enable effective efforts to be made in the area of road traffic safety, and;

b) wishes to create conditions, in its role in the road transport system, for individuals to survive and avoid serious injuries in the road traffic, and;

c) aims to enhance satisfaction among relevant stakeholders in the area of road traffic safety through the effective application of the system and the assurance of conformity to stakeholder and society and applicable regulatory requirements, and;

d) wishes to demonstrate its ability to consistently perform processes where the output meets traffic safety requirements on road transports from users, other stakeholders, society and applicable regulatory requirements,

and;

e) wishes to reduce costs for transports in the road traffic system

All requirements of the International Standard are generic and are intended to be applicable to all organizations regardless of type, size, products and services provided.

The project has a timeframe up to 2011 to deliver and agree upon the proposed standard.

THE ROLE OF SAFER VEHICLES

In the years since Vision Zero was first introduced in 1995, Sweden has seen major changes both as regards views on road safety as well as in the working approach adopted. An important milestone was the parliamentary resolution adopted in 1997

when Vision Zero became the foundation for road safety operations in Sweden. The goal is a transport system without health losses. This can only be achieved through a systems approach to the road transport system.

The vehicles are of major importance when it comes to support the change of the road transport system. This is becoming more and more evident also within vehicle industry. Volvo Cars Vision 2020, stating that no one should die or get a serious injury in or by a Volvo Car in 2020, is the most clear vision in this field. SRA and Volvo Cars have together initiated a work to better understand the demands on the interface between the Zero Vision vehicle and the Zero Vision road system.

Even if the hope is high to produce cars that will not get involved in crashes, the crash protection has a very important role to play for many years to come.

ESC PENETRATION IN SWEDEN

Electronic Stability Control (ESC) has been proven to be very effective in reducing crashes related to loss of control (Erke, 2008, Ferguson, 2007).

The first studies of the effectiveness of ESC were published in the ESV conference 2003. Several studies followed in 2004 and 2005 establishing a scientific ground for declaring that ESC was effective.

The first mass market car with ESC was introduced late 1998. ESC was from then on gradually implemented on executive mid size and large cars and reached a 15 % new car sales penetration in mid 2003. Sweden has been world leading in getting a high degree of ESC penetration in new car sales. In December 2008, 98% of all new passenger cars were equipped with ESC. A special paper on this process is presented in the ESV-conference.

EURO NCAP PENETRATION / SEAT BELT REMINDERS (SBR)

Sweden has been part of Euro NCAP since the start of the organisation. Over the years since Euro NCAP started, the average scores have improved both for occupant protection as well as for pedestrian protection. In Sweden 2008 the average star rating for occupant protection in new cars sales was 4,75 stars. Almost 85% of the new car sales had a seat belt reminder according to Euro NCAP

specification for the driver. 75% had a reminder for the passenger and 30% a system to monitor seat belt use in the rear seat.

THE CONTRIBUTION OF NEW VEHICLES

With a rapid development of vehicles safety there has been of interest to calculate the yearly benefit of the exchange of the vehicle fleet. With about 270 fatalities in cars every year, the exchange of slightly under 7% of the vehicle fleet results in around 10 “saved” lives per year. Out of these about two thirds comes from the better crash protection and one third from the ESC systems.

REFERENCES

More information is available at the Swedish Road Administration home page

<http://www.vv.se>

<http://www.transportstyrelsen.se>

<http://www.vv.se/filer/47330/The%20Tylösand%20Declaration.pdf>