

# Road safety solutions in Sweden

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## About Sweden

Sweden is a far away country situated in northern Europe almost a quarter of a lap around the globe away from here.

We are about 9 million inhabitants and we have about 4.5 millions motor vehicles (cars, buses and trucks/lorries) of which about 50 000 are heavy heavy trucks. With heavy heavy do I mean trucks with a total weight above 18 tons. Two of the world leading manufacturers of heavy trucks, Volvo and SCANIA, are also Swedish. The country's area is almost twice as big as Burkina Faso. We have altogether about 400 000 km roads of which about 130 000 km are public roads. But as good as the whole amount of roads are accessible for each and everyone

## “Road Safety Solutions in Sweden”

Why is that?

One reason is of course is that traffic safety is a very important issue, not least for the goods transportation on roads which often are carried out with heavy vehicles.

Every year more than 1.17 million people are killed in road accidents around the world. Millions of people are badly hurt. That makes road traffic one of largest causes of human suffering. Freight vehicles, not least heavy freight vehicles, are frequently involved in serious accidents. When a heavy vehicle is involved in an accident, there is a lot of crash violence involved and the consequences are often fatal. In Sweden heavy vehicles are involved in about 20 % of the fatal traffic accident, but they represent less than 10% of the traffic (that is number of kilometres by vehicle type). The reason is not necessarily that the truck causes the

accident but the consequences are serious depending on the crash violence.

Sweden is among the leading countries in the world, if not the leading country, in respect of traffic safety. The Swedish Road Administration has been commissioned with the overall responsibility for road safety within the Swedish road transport system and shall monitor and actively promote developments within this area. This also means an obligation to endeavour to improve the transport system as a whole as required by road safety considerations.

It is my hope that I can give a little bit of the experience from our work with traffic safety.

What is then the level of traffic safety and how is evaluation reflected in the traffic safety figures

This slide shows the figures for some countries for the year 2003. I am sorry that I didn't find figures for Africa or African countries.

The measure are number of people killed per 100 000 inhabitants or per 100 000 vehicles in the country in question. As you can see, Sweden has the lowest figures. But as a matter of fact, UK is a EU country that is very close.

How have then the development been in Sweden during the decades?

During the decades, starting from 1953, the figures are going down all the time.

What are then the measures to increase traffic safety and to reduce the number of people that are killed or badly injured in road traffic?

Important measures during the years have been and still are

## **Speed limits**

Before mid 1960 there was free speed outside urban areas. And there is an incontrovertible connection between speed and consequences of traffic accidents.

## **Regular roadworthiness test**

Was introduced in Sweden in the beginning of 1960<sup>th</sup> and increased the average level of safety standard for vehicles considerably.

## **Alcohol restrictions**

A driver that is not sober behind the steering wheel is deadly dangerous. There is also a incontrovertible connection between alcohol and traffic accidents. 24% of the drivers that are killed in traffic accident in Sweden have alcohol in their blood. And that is in spite of our very restrictive legal upper percentage limit, maximum two parts of a thousand.

## **Seat belts**

They are mandatory in cars since many years and, for a couple of years back, also mandatory in trucks. Using seatbelt can be the difference between being killed or not injured at all.

## **Road safety policy**

As I said before, the Swedish National Road Administration has been commissioned with the overall responsibility for road safety and we have adopted the following Road Safety Policy:

*The road transport system is to be designed so that no one is killed or seriously injured in traffic. It will therefore gradually be designed to reflect human ability and the level of external violence that the human body can withstand. The road safety policy adopted by the Swedish Road Administration (Vägverket) emphasises that our work in this field is based on protecting human life and well-being.*

That doesn't mean that we are the only responsible, but our responsibility is also to influence all parts involved to move in the right direction.

We have adopted a vision in the Swedish road safety work, **Vision Zero**

**"Vision Zero"** is the basis for the work being conducted on road safety in Sweden. It is an image of a desirable future society in which no one would be killed or seriously injured in road traffic.

Previously, most of the responsibility for a traffic accident was placed on the individual road user. However, according to "Vision Zero", all those who have an effect on, or participate in road traffic share this responsibility.

And who can those be?

### ***Finally, something about current undertakings***

#### **CABLE GUARDRAILS**

As opposed to the conventional types of guardrail that deflect cars back out into traffic, steel cable guardrails catch hold of the car.

#### **CENTRE GUARD RAILS**

A centre guardrail prevents head-on collisions, thereby making a rural road of standard width considerably safer.

#### **SAFE ROADSIDE AREAS**

Trees, boulders, rigid posts, etc can be fatal for anyone who should happen to drive off the road. Such fixed obstacles along roads should be removed.

#### **ROADSIDE GUARDRAILS**

Guardrails are being increasingly set up along the side of the road in places where circumstances render it impossible to make the roadside area safe.

#### **RIGHT SPEED**

Speed limits on national roads are currently being reviewed. The aim is to adjust the speed limit to the safety standard of the road.

## **SPEED SURVEILLANCE**

Speeding is the most common cause of traffic fatalities. Permanent speed surveillance cameras that motorists know about have a traffic calming effect.

## **SAFE TRANSPORTS**

More and more companies and organisations that procure transport services are demanding that the transportation of goods and people be carried out in a safe way. This means, for example, following the speed limit, using a seat belt and that the vehicle is in good condition. The element of safety is in the process of becoming a competitive factor within the

### ***In-depth studies***

The Swedish Road Administration (SRA) carries out in-depth studies of all fatal accidents on Swedish roads and streets. An in-depth study is a systematic approach to discover the cause of a tragedy like a fatal accident. The accident is not simply forgotten. It does not only become another figure in road statistic.

The in-depth studies are analysed on an aggregated level, for example studies of fatal accident where heavy trucks have been involved, to identify possible pattern why a certain kind of accident happens and what can be done to prevent it from happening again or reduce the consequences if an accident happens.

### ***OLA***

The method to do this is called OLA in Swedish or OSI in English, O stands for Objective analyses, S stands for solutions and I stands for Intentions. The different stakeholders are participating in the OSI-processes: Authorities, Vehicle manufacturers, Hauler organisation, labour organisation etc.

### ***Moving towards vision zero***