

What does NTF think?

Policy

NTF's policy 2006-2007

2006-07-18



Why a policy?

NTF's member organisations represent wide-ranging interest groups that work for the common goal: safe and secure traffic. The goal is going to be reached, thanks to the independent, objective forming of public opinion and to education of people.

This policy comprises the entire NTF organisation's common analysis of different road safety questions and will form the basis of NTF's work on road safety. Success in forming public opinion and in educating the public is dependent on mutual agreement in fundamental questions, even if individual members can have differing opinions.

The document is flexible and will be developed to keep pace with the new information generated by experience and research.

NTF's policy has developed from a process in which the whole organisation has taken part. Congress adopted this policy in april 2005.

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President

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NTF is a pure road safety organisation

The Organisation NTF

NTF consists of more than 70 member organisations as well as 23 regional NTF organisations.

NTF's Concept

- NTF's goal is to achieve a safe road traffic that does not tolerate deaths or serious injuries.
- NTF shall encourage people to insist on, and contribute to, lasting improvements.
- NTF shall help people to understand the importance of road safety in relation to public health.

The Vision Zero

The Vision Zero – Parliament's long-term road-traffic plan – is the ultimate goal for NTF's work. This involves concentrating on changing the traffic system so that, when accidents occur, there will be no deaths or serious injuries.

The starting-point must be the needs of the most vulnerable road-users – children and young people, the elderly and disabled, pedestrians and cyclists. People's physical and psychological requirements must be seen to be criteria.

Shared Responsibilities

One condition for the Zero Vision is that responsibility in traffic shall be divided between road-users and the road transport system planners (politicians, authorities, car manufacturers etc). This means that we, the road-users, must comply with the regulations and laws that exist. At the same time, those who design the system must ensure that roads, vehicles, streets etc are made sufficiently safe for mistakes not to lead to death or serious injury.

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Road Safety means Public Health

Sweden to retain it's leading position

Sweden's work on road safety was very successful from 1967 with the change to right-hand traffic up to the beginning of the 1980s, with Sweden becoming the safest country in the world from the traffic aspect. Subsequently, the improvement has slowed down and many other countries are catching up with Sweden.

Deaths and serious injuries in road traffic are still one of our greatest public health problems. Around 500 people die each year, losing on average 30 years of their remaining life. Additionally, about 3000 incur permanent injuries. The human suffering resulting from road accidents is considerable, and the people who are affected, either directly or as relatives, do not get enough support from society.

One prerequisite of the Vision Zero is that people's lives and health are seen as criteria in the continuing development of the road transport system. There should be mutual responsibility, so that people who obey the rules are not killed or seriously injured if they make a mistake. When this outlook is generally accepted and when road safety is given priority at all levels in society, Sweden will then be able to develop her position as a leader in this field.

Road safety is one of six different goals the Swedish Parliament has formulated for the policy of transport. The Swedish people consider road safety to be the most important goal.

To take the first step towards the Vision Zero the Parliament has decided there should not be more than 270 people killed the year 2007. To reach this target the government has called for a national rallying including all important actors on the road traffic scene.

NTF thinks that:

The Vision Zero is the guiding-star.

The Zero Vision and the division of responsibility between those who plan and manage the system and the road-users are together the ultimate goal of the road safety work.

People's lives and health shall be seen as criteria when planning the road transport system.

There should be better co-operation between the road safety and public health fields.

Road safety should always be taken into consideration when making decisions involving the road transport system.

- Quantitative goals regarding deaths and serious injuries should apply in relation to the work on road safety.
- The objective of the Parliament's road safety policy, to halve the number of deaths and serious injuries during the period 1996-2007, must be given a greater impact when prioritising different transport measures.

Cost/effectiveness analyses should be the basis when prioritising road safety measures.

The problem of shared responsibility has to be solved.

- There should be legislation to define the system planners and managers and to regulate their responsibility.
- The legislation should be based on Vision Zero and the shared responsibility.
- The Road Traffic Inspectorate should be transformed into an independent authority.

There should be more investment in the work on road safety.

- The national and regional rallying for improving road safety should, by all means, be promoted.

- Creation of public opinion for increased road safety should be strengthened.
- Road safety education in public schools and driving schools should be improved.
- To guarantee its independence NTF should be financed by funds free from the responsible authority: “The National Road Administration”.
- The enforcement of road traffic should be strengthened.
- Victims of traffic accidents and their relatives should be offered better rehabilitation help.
- Improved information systems (injury statistics etc.) should be developed and used.

Sweden should encourage road safety work within the EU.

Facts

Research shows that if all road-users obeyed all the rules, we would still have half the number of deaths. This shows that a safe system can only be achieved by a shared responsibility.

Research also shows that the use of quantified goals leads more quickly to improved road safety and EU recommends the use of quantified goals.

Many cost-effective road safety measures are not taken partly because of lack of information and insight.

People consider the road safety objective to be most important of the six different objectives for road transports formed by the parliament. 84 percent (87 percent of females and 79 percent of males) consider the road safety objective is “very important” and less than 50 percent consider any of the other objectives concerning mobility and cost as “very important”.

Equal opportunities between men and women.

Female values and safe behaviours should form future norms.

2001 the Swedish parliament adopted a sixth objective for the road transport policy: “ A transport system with equal opportunities for women and men”. This objective implies that differences between sexes concerning transportation needs should be observed, possibilities to influence development of the transportation system should be equal and female values should be considered as much as male values.

Women put a higher value on road safety compared to men. Women are also prepared to reduce their speeds more and to pay more for an improved road safety. Women drive slower, use their safety belts more and are much more seldom drunk when they drive compared to men.

If men would pay the same attention to road safety as women and if men behaved like women in traffic we should be much closer to the Vision Zero than we are today.

Women move more in the local community and use public transport more than men.

NTF thinks that:

Women’s values and their special requirements should be as important as the values and requirements of men.

- The development of laws, rules and enforcement should consider the wishes of woman.
- The National Road Administration and the local authorities should pay more attention to the wishes of women when improving roads and streets.

Women’s demand for public transports and safe transports in the local community should have a greater impact.

The car industry should pay more attention to the desires of women when developing new models.

The number of women should increase on all levels within the transport sector.

- The number of women should increase in political committees and other organisations who decide on transports.
- The number of female driving instructors, driving examiners, traffic planners, traffic engineers etc. should increase.

Facts

Several surveys of attitudes show that women put a higher value to road safety than men and are more interested in road safety measures. For example a majority of the women accept lower speed limits to improve safety in contrast to a minority of men. Furthermore a majority of men and a minority of women say it is more important to follow the traffic flow than to keep to the speed limit.

The number of fatalities per distant driven is double for male car drivers compared to female drivers. The main part of this difference is explained by the facts that female drivers drive more sober, use their seat belts more and follow the speed limits better than male drivers.

Female drivers also invest more in driver education compared to men.

Speed

Well balanced speed limits, and respect for them, are absolutely vital for the Vision Zero.

Cars have radically increased people's opportunities for transport and travel – their mobility - which is an important aspect in modern society. Speed – travelling time – is one of the most important properties of this mobility.

Speed is often conclusive in an accident, and has a significant effect on the driver's chances of avoiding it. This is the core of road safety work. It could be said that almost all work on road safety concentrates on making speed less dangerous.

For the optimal avoidance of accidents, the traffic environment should be made as predictable as possible. Both the traffic environment and the vehicles are made to be “forgiving”, meaning that damage to the human body is limited in crashes. Deformable structures in the vehicles, seat belts, air bags, helmets, crash barriers and the removal of hard objects at the roadside all help to reduce the consequences of an accident.

Speed, in other words, is both a need as well as a property to be protected. There must be balance between vehicle design, road design and speed if the consequences of a crash are not going to result in death or serious injury. Correctly adjusted speed limits, and respect for them, are completely conclusive for the success of the Zero Vision.

The speed limit of a road or street should be the highest safe speed during normal conditions. Present speed limits are often too high in relation to the safety conditions of the roads and streets. In spite of this fact the obedience to present speed limits is poor.

NTF thinks that:

A new system for the speed limits should be developed and introduced.

- The aim is to considerably reduce the number of fatalities and severe injuries through a better adjustment of the speed limits to the safety qualities of the infrastructure.
- The National Road Administration should increase the use of local speed limits on rural roads in connection with houses and pedestrians and cyclists.

Society's forgiving attitude to speeding must be changed.

- The speed limit is the **highest tolerable speed** which only could be accepted during perfect conditions. This must be emphasised in all society.
- Exceeding speed limits involves an obvious risk for other road-users. All means must be used to make this clear for drivers.
- Buyers of transport, transportation companies and drivers should take their responsibility for legal speeds of commercial transport.
- Car manufacturers should offer technical support systems that make it easier for drivers not to exceed speed limits.
- The risk of being detected and charged for speeding should be more marked. The police has to make monitoring a priority and make it more effective and the courts have to give priority to traffic offences.
- The fines for exceeding speed limits should be higher.
- Police tolerance with regard to speed control should only cover the risk of technical measurement errors.
- Driving licence should be withdrawn when the speed limit is exceeded by more than 20 km/hour.
- The speed limiters on heavy vehicles should be controlled.
- Drivers' education should give a clear insight of the risks that are combined with high speed.

Facts

The risk of death is determined by the speed in the collision. Three speed limits are normative. 30 km/hour in collision between car and pedestrian/cyclist, 50 km/hour in side collision and 70 km/hour in frontal collision between two similar vehicles or a sudden stop against a hard obstacle. At those speeds most of the involved road users survive if the available protection systems are used. If the collision speeds are raised by 20 km/h above those normative speeds most of the involved road users will get killed.

More than half of all car drivers exceed the speed limits and about 20 per cent exceed the limits by more than 10 km/hour.

Violations of speed limits are our main road safety problem, costing the lives of 150-200 people annually.

If the average speed on a road is changed by x per cent, the number of accidents changes by 2 times x per cent, the number of injured by 3 times x per cent and the number of people killed by 4 times x per cent. This rule of thumb is valid for changes of average speed of ± 10 per cent.

Alcohol and Drugs

The present development must be stopped

Sweden has been and is well advanced in the area of road temperance. But even if the number of people driving under the influence of alcohol and drugs is relatively low, the risks in each individual case are so significant that drastic efforts are motivated.

About 140 people die in Sweden each year in accidents where at least one drunken driver is involved. Half of them are the drunken drivers themselves and the other half is a passenger or another road user. There is a trend that the number of alcohol related accident are increasing especially for young male drivers.

The access to alcohol and lower prices seem to cause an increase in drink-driving. A marked connection has also been shown between drink-driving and addiction and/or crime. The present development within the related political area, together with an increase in drug use, threatens the situation that until now has been favourable in comparison to other countries.

The Swedish people have a critical attitude to drink-driving which means there is very little opposition to countermeasures. All around the world, a variety of methods for tackling drink-driving are being tried out – alcolocks, rehabilitation programs for alcoholics, stricter blood/alcohol limits and raising the age limit for the purchase of alcohol are some examples.

NTF thinks that:

The drink-driving has to be reduced.

- Drink-driving among young people must be highly focused on and strictly enforced.
- The age limit to be served alcohol in restaurants should be changed from 18 to 20 years old.
- Drivers' education should give a clear insight of the risks that are combined with alcohol and drugs.

There should be a zero limit for alcohol and illegal drugs in traffic.

“Alcolocks”.

- Vehicles used in commercial transport should be equipped with alcolocks.
- The car manufacturers should provide alcolocks as an option.
- Alcolocks should be introduced in all new cars, lorries, buses, motorcycles and snowmobiles as soon as possible.

Police monitoring should be made more effective.

- The number of controlled drivers should be increased to at least two million per year.
- The police should be given possibilities to confiscate the motor vehicle after repeated drink-driving offences. To get back the vehicle the offender should have to go through rehabilitation and equip his or her vehicle with an alcolock.
- The custom staff should be given possibilities to check the soberness of drivers who are checked at the border.

The courts should have increased responsibility.

- Prison sentences, electronic tagging and alcolocks should be combined with rehabilitation.
- Personal investigations should be carried out and followed up.
- People who have been sentenced for drink-driving can be permitted to drive if their car is equipped with an alcolock.
- When convicting serious drink-driving offences the upper part of the scale of punishment should be used more frequent.

Doctors and pharmacies should take more responsibility for medical road safety effects.

- If it is not appropriate for a person to drive, doctors should inform the driving licence authority.
- Persons who lost their licenses through medical doctors reports should be given possibilities to continue driving if they go through rehabilitation and equip their vehicle with an alcolock.

Research and development should be strengthened.

- The knowledge regarding the connection between drink-driving and addiction should be enlarged.
- Methods to detect the influence of drugs should be developed.

Facts

Research shows that drink-driving is an indication of alcohol problems. There is a close connection even when relatively low blood/alcohol levels are involved. Of all killed car drivers about 25 percent are drunk and of drivers killed in single accidents about 50 percent are drunk.

About 19 000 drivers under the influence of alcohol or drugs are taken by the police annually in traffic. About as many are under the influence while driving daily in traffic.

About 25 per cent of those sentenced are young men between 18-24 years.

The alcohol consumption has increased from 8,0 to 9,8 litres per person and year between 1996 and 2002 and the increase continues. Previous research shows that consumption and drink-driving are connected. Indications in increasing drink-driving in death accidents has been observed during the last few years.

Fatigue

A neglected problem

Fatigue is a big and for the most part forgotten road safety problem. In the police reports from accidents fatigue is mentioned as a cause in only 1-3 percent of the accidents. The drop out rate is however big and many researchers believe fatigue cause as many accidents as drink-driving.

More research is needed to determine the magnitude and characteristics of the fatigue problem and, above all, to find effective countermeasures.

From present knowledge it is even now possible to recommend some effective measures. Among other things very positive effects from rumble strips have been reported and the effects of a short sleep and/or some cups of coffee to remedy acute fatigue are also fairly well documented.

NTF thinks that:

The knowledge and awareness of the fatigue problem must increase.

- Special in depth studies of accidents should include analyses of fatigue as a cause of accidents.
- Reporting of fatigue as a cause of accidents must be improved.
- Research should be strengthened concerning fatigue as an accident producing factor, how fatigue is prevented and what the driver can do if he is put in an acute fatigue situation.

Measures to prevent fatigue should be carried out.

- The number of lay-byes should be increased.
- Rumble strips at the road edge and in the middle of the road should be used more frequently.
- Buyers of transport and transportation companies should take an increased responsibility to reduce the accidents related to fatigue.
- The car industry should develop technical systems in the cars which detect tiredness and warn the driver.
- Information and education concerning fatigue as a cause of accidents and how to prevent it should be strengthened.

Facts

Even if present results are uncertain many researchers working with the fatigue problem think that 15-30 percent of the road accidents have a connection to fatigue. The "fatigue-accidents" are also much more serious compared to other accidents.

Improved Safety for Children (0-12 years old)

Adults have total responsibility for children's road safety

The accidents and health risks that children are exposed to in traffic are considerable – when they are playing, walking, cycling and as car passengers. Traffic restricts children's freedom of movement. Children are also more sensitive to exhaust fumes and noise.

Traffic accident statistics follow the pattern of children's lives. Pre-school children are exposed to considerable risks when they travel in cars without child restraints or seat belts. Studies show that many child seats are not used correctly. The risks of children being run over by cars are also significant. Junior and intermediate schoolchildren are killed and injured as passengers in cars and as unprotected road-users. Children start to cycle at an increasingly early age and many incur serious injuries in cycle accidents.

During the past decades, the number of traffic accidents involving children has decreased, but this has partly been at the cost of freedom of movement. Stress and concern about traffic cause parents to give their children more lifts to nursery school, school and recreational activities. This increases traffic intensity and increases the risks in the local environment. Less physical exercise means also that children's health is affected negatively.

NTF thinks that:

Children are entitled to a safe, healthy, stimulating outdoor environment.

Adults have the responsibility for children's road safety.

- Children should be able to play and move freely in their local environment without running the risk of being killed or injured in traffic.

The municipalities and the Road Administration should shoulder their responsibility for children's traffic environment.

- Children's needs and maturity should be criteria in making the local environment and the routes to school safe.
- The risks involved on the way to school – not only the distance – should determine the right to school transport.
- The safety of school transport and, where relevant, public transport should be quality-assured.
- The boarding and alighting of school buses and the routes to and from bus stops should be made safe.
- Road safety activities in pre-school and school should be characterised by continuity and should give children the chance to influence their safety and prepare the children to take their own responsibility.

Parents' insistence on improvements in the children's traffic environment should be heeded.

Facts

Every year, almost one child per age group of the ages 0-3 years is killed in traffic, and 1-2 children per age group of the ages 4-12 years. Most children die in their parent's cars and more than 60 percent are boys. For many years, researchers have agreed that adults have total responsibility for children's road safety. The safest way of protecting children is to segregate them from road traffic.

The UN's Children's Convention states that children's welfare shall always be given priority when considering measures concerning children. Children have the right of survival and of development to the best possible state of health as well as the right to play, rest and recreation. Children have the

right to be protected against violence and to be given the chance to express their thoughts in all matters concerning children. Parents and their children should also have information and education how they should act to prevent accidents. According to the UN's Children's Convention, a person is a child up to the age of 18.

... for Young People (13-17 years old)

Participation and better road-user education

As teenagers, children move freely in traffic – first as cyclists, then on mopeds, motorbikes, as passengers in cars and finally as drivers. The increased exposure to risk is also reflected in the statistics of the number of young people who are killed or seriously injured.

As teenagers, many young people stop using cycle helmets. Even if it is relatively easy from a technical point of view for young people to learn to control vehicles such as mopeds and motorbikes, it is difficult for them to use these safely in traffic. The same applies to cars, and this is reflected in the accident statistics.

Up until now, research has been concentrated on young children and young car drivers. There is no detailed information on how one can reduce traffic risks for the age group 13-17.

NTF thinks that:

Young people should have more influence on decisions involving road safety.

Children and young people should have more chance to influence the traffic system and to be responsible for their own and other people's safety.

Adults should encourage young people to demand safe traffic conditions.

The traffic system (including public transport) should be designed so that young people's conditions, requirements and way of life are taken into consideration.

Road safety education in schools should be improved.

- There should be a "main thread" running through road safety education from pre-school until senior school.
- Road safety education should be an integral part of ordinary teaching and should give pupils a good foundation for their role as adult citizens and road-users.

Research should be developed.

- Research on young people in the age groups 13-17 should be improved, to give a basis for concrete measures for increasing their safety.

Facts

Traffic accidents are the main cause of death among young people.

Every year, 3-4 young people per age group of the ages 13-14 years are killed in traffic, about 7 at the age of 15 (of whom half in moped accidents), 5 young people per age group of the ages 16-17 years and 11-12 per age group of the ages 18-19 years. Almost 70 percents of the youngsters are boys.

... for Young Drivers (18-24 years old)

Something has to be done!

Young drivers constitute a very serious road safety problem. It has always been like this and the problem exist more or less in all countries. The problem consists of two parts. The first is a lack of maturity and the second is lack of experience. There are signs that the problem of young drivers has increased during the latest years, despite of the fact that the evaluation of the introduced increased possibilities to practice driving from the age of 16 has showed positive results.

Analyses of young driver's fatal accidents show that male drivers strongly predominate and almost all accidents are bound to illegal high speeds, use of alcohol and/or drugs and non-use of safety belts often in combination. Research also shows that different groups of young drivers are more or less risky and it is important to focus safety education on risk-disposed male drivers.

An absolute condition to put the Vision Zero into practice is to dramatically improve young driver's safety.

NTF thinks that:

- A thorough reform of the driver education should be carried through. The goal is that all new drivers should be aware of and respect the three fundamental rules in traffic: "Be sober, use your safety belt and never drive faster than the speed limit".
- Special countermeasures focused on young drivers should be analysed - for example lower speed limits, prohibition of night driving, prohibition to drive with young passengers, technical support like alcohollocks and ISA1.
- Special further education and tailor-made measures to influence young drivers belonging to different risk groups should be offered and insurance companies should reward participants.
- Safe driving behaviour should be rewarded by the insurance companies.
- Research concerning young drivers and effective measures to improve their safety should be strengthened.

Facts:

The fatal risk per distance driven is 5 times as high for a 18-19 years old driver compared to an older driver. During the first year as a driver the accident risk is on average reduced by 50 percent.

85 percent of the young drivers (18-24 years old) involved in fatal accidents are men, 45 percent drove faster than 30 km/h above the speed limit, 40 percent did not use their safety belts and 27 percent were influenced by alcohol and/or drugs. In 73 percent of the fatal accidents some or several of the factors: very high speeds, non-use of safety belts, alcohol and/or drugs have contributed to the occurrence and/or outcome of the accident.

In fatal accidents with young drivers more other people (passengers, people in other cars, pedestrian etc.) are killed compared to the young drivers themselves.

Single accidents, accidents during dark hours and accidents during week-end nights are much more common for young drivers compared to older drivers.

1 ISA means Intelligent Speed Adaption and is generic term of technical systems in the car which help the driver to keep to the speed limits.

... for Older Road-Users

The traffic system shall be adapted to the conditions and needs of older people

Older people comprise a large and growing vulnerable group in traffic - as car drivers, cyclists and pedestrians. Their need of mobility is vital for their quality of life. Older people are more fragile and they run a much greater risk of being killed or seriously injured in a traffic accident, and rehabilitation takes longer.

The Vision Zero means that those people who are most easily injured at a certain force shall form the criteria for the system design.

Natural ageing involves a reduction in agility and deterioration in eyesight, hearing and reactions. Pedestrian and cycle paths, intersections, pedestrian crossings and public transport must therefore be designed with the elderly in mind.

Statistics and studies show that most older people drive safely. Physical infirmity is compensated by adaptation of speed and by safer margins. Older people often avoid the dark, icy roads and rush hour traffic. Accidents occur in complex traffic situations in which there is an acute need for fast, correct decisions (e.g. at intersections and left-turns). Older people's road safety problems are often related to illness, e.g. senile dementia.

NTF thinks that:

The traffic system should be designed with older people's conditions and needs in mind.

- All road-users must reach a better understanding of older people's conditions and needs in traffic.
- A better adaptation of the speed in the whole road traffic system is necessary to decrease the numbers of deaths and severe injuries among older people.
- Older people's sober driving, good speed adaptation and high use of safety belts should be exhibited as a model for safe driving.
- As far as possible, complicated intersections should be avoided.
- Better maintenance and simple improvements in the traffic environment could prevent many accidents involving falls and slipping.
- Pedestrian signals should be adapted to older people's rate of walking.
- More separated footpaths and cyclepaths should be built.
- The enforcement of cycling on pavements should be strengthened.

Advanced age in itself is not an obstacle to car driving. Certain illnesses are the problem.

- Older road-users should be offered further education by e.g. NTF's member organisations.
- The car industry should offer cars adapted to the special needs of older car users.

The driving licence authority should develop a more flexible system.

- The system could be designed to allow more flexible solutions such as, for example, driving only in daylight or within a certain area.

Doctors should have more responsibility for medical effects related to road safety.

- Doctors and pharmacy staff should provide information about the road safety effects of certain illnesses and medicines.
- Doctors should be given a better education in traffic safety and traffic medicine.
- Doctors should also inform the driving licence authority when it is not appropriate for a patient to drive on account of illness.

Facts

At present, one in six Swedes is over 64, and there are more than one million elderly holders of driving licences.

In 20 years, one in four will be over 64 and there will be almost two million elderly licence holders.

Almost 100 elderly car drivers, 10-20 elderly cyclists and 30-40 elderly pedestrians are killed annually on the roads. Two thirds of the killed are men. Almost half of all pedestrians and cyclists who are killed are 65 or over.

There is a marked increase in the accident risk at the age of about 75. This seems to depend on dementia-related illnesses and acute illness following cardiovascular problems.

Finland has tested a system involving mandatory medical examinations for older drivers. The evaluation of results shows no positive effects on road safety.

... for Disabled Road-users

Disability should not hinder accessibility and safety

More than 1.2 million people have one or more physical impairment and many of them have great problems in traffic. These mainly involve access, but also road safety.

Apart from the motor-handicapped, people who are partially sighted hearing-impaired or mentally impaired also have problems on the roads. 1.5 million people are 65 or over and the proportion will increase sharply in the coming years. The older people get, the greater the disabilities in form of deterioration in eyesight, hearing and ability of movement.

The most vulnerable road-users shall, according to the Vision Zero principles, be criteria in the design of the traffic system. People with physical disability are often among the most vulnerable. However, not enough is known about road safety in relation to the disabled.

According to Government proposition 1999/2000:79: "From patient to citizen – a national plan of action for handicap politics" concentration should be:

- to ensure that the handicap perspective filters through all sectors of society and
- to create accessibility within the community.

NTF thinks that:

Road safety in relation to the physically disabled shall be taken into consideration in all contexts connected to the road transport system.

- Government and local authorities should have responsibility for safety and accessibility for the disabled. The traffic planners have to improve their knowledge and develop the dialog with the disabled.
- The road and street environment as well as public transport should be adapted to suit the special needs of the disabled.
- When purchasing state-funded transport for the disabled, the same safety demands shall be made as for people who are not disabled.
- In the planning of safe transport for the disabled, a perspective covering the entire journey shall be used.

Safer vehicles

- Car manufacturers should develop better systems to secure transport of disabled people.
- When cars are adapted for disabled persons, traffic safety should be considered and exemption should only be given in exceptional cases.

A study on road safety for the physically disabled should be carried out.

Facts

Physical disability is the limitation in the person's physical ability that results from injury or illness.

Handicap is the loss or limitation that the injury and disability involves for a person in his or her daily life. A handicap is, in other words, not a human quality but a characteristic that occurs in the encounter between disabled and the environment (WHO's definition).

Every 7th person has a permanent physical disability.

More than 200 000 people with disabilities need help/facilities in order to transport themselves.

Approx. 90 000 people are bound to wheelchairs.

Between 2 000 and 3 000 private cars are adapted for disabled persons annually, so that people with physical disabilities may drive.

... for New Swedes

Increased participation in road safety activities

Sweden has a good road safety record and is one of the safest countries in the world. The main explanation for that is a more safe road user behaviour in Sweden compared to other countries. Less than one percent of the drivers are drunk, 85-90 percent use safety belts and more than 90 percent of the children use car safety-seats. Even if only 40-50 percent follow the speed limits, the situation in many other countries is worse.

More than 10 percent of the population in Sweden are born in other countries. Many of them were grown up when they came to Sweden and brought with them a less conscious road safety mind compared to the situation in Sweden. As a part of the integration it is very important to involve the new Swedes in road safety activities. In this respect Sweden has failed. For example it is not common to find new Swedes in NTF's member organisations and network.

NTF thinks that:

New Swede's road safety is a mutual responsibility

- The Swedish National Road Administration has a comprehensive responsibility for road safety and should look after that information is available in different languages and is spread in an effective way.
- The Migration Board should have the responsibility to give all newly arrived immigrants an introduction in road safety.
- Local Authorities should have the responsibility to include road safety in the language education in Swedish (SFI) which is given to all immigrants.
- The Swedish National Agency for Education and the local authorities should have the responsibility to include road safety education in schools, which is especially important in multi-cultural areas.
- NTF has the responsibility for influencing public opinion and consumer guidance and should encourage immigrant associations to become members of NTF.
- Immigrant Associations should take an increased responsibility for their member's safety.
- The Swedish Integration Board should take the responsibility to support different actors to make road safety a part of the integration.
- More research concerning safety of different immigration groups is needed.

Facts

Analyses of accessible data-bases show that immigrants drivers from some countries have accident risks which are 2-3 times higher compared to average drivers.

Experience from NTF projects show lower user rates of safety belts, child seats and cycle helmets in housing areas where many immigrants live.

... for Pedestrians

Priority to pedestrian safety and security

The expansion in motor traffic has resulted in significant changes in our metropolitan environment. In many places, the town's role as a social contact point, market place and place for spontaneous encounters has declined. Traffic routes separate sectors of a town and people from each other, and it is often motor traffic that dictates the conditions on which pedestrians may be in town. Environments that were stimulating for children to grow up in have changed into areas involving considerable traffic risks.

An increase in road safety and security for pedestrians is crucial for restoring the town's role as a centre for social contacts.

Unprotected road-users run a much greater risk than car drivers do. The fatality risk per distance of movement is around five times greater. 10-15 per cent of those killed on the roads are pedestrians.

Pedestrians road safety problems exist also in national roads. About 40% of killed pedestrians are killed outside urban areas. This means that the fatality risk is much higher in rural roads compared to urban streets.

The road environment's design and the speed of the traffic both play a crucial part in the safety of unprotected road-users.

NTF thinks that:

Pedestrians are entitled to a safe road environment.

Towns and other built-up areas should be made safe and accessible for pedestrians.

- Safety for children, the elderly and disabled should be given priority.
- 30 km/hour should be the maximum speed limit in areas where pedestrians run the risk of colliding with cars.
- All pedestrian crossings should be speed-controlled.
- Traffic light intervals should be adapted for the elderly and disabled.
- Maintenance of pavements and walkways should be given priority.

The Swedish National Road Administration, should in higher extent consider pedestrian safety in national roads.

Car drivers must show more respect for unprotected road-users.

- The proportion of vehicle drivers stopping for pedestrians at pedestrian crossings should be increased.

Pedestrians themselves must comply with rules, interact with other road-users and use reflectors in the dark.

Facts

10-15 per cent of the fatalities in road traffic are pedestrians. 60 percent of these are men. Half of the fatalities are 65 years or older.

Many studies show that the probability of an unprotected road-user being killed or injured in traffic is determined by the speed of the colliding car. A person who is run down at 50 km/hour runs a very great risk of being killed. However, a person who is run down at 30 km/hour has a very good chance of survival.

... for Cyclists

Better cycle paths and legislation on cycle helmets

The Swedish people enjoy cycling and cycle a lot. About 2.5 million adults over the age of 15 and about one million children cycle regularly. Studies show that many people would like to cycle more than they do at present. Cyclists, however, have no wish to have to force their way in the midst of car traffic.

Cycling is healthy, keeps you fit and favour the environment. The fatality risk per distance travelled is about five times greater for cycling compared to going by car. About 30 000 cyclists are injured annually, usually in single vehicle accidents. Around forty are killed and about 4 000-5 000 need hospital treatment. Two thirds of killed cyclists are killed in urban areas and one third are killed outside those areas. Skull injuries are the most serious and mainly affect those cyclists who do not use a helmet. Helmet halves the risk of being killed or severely injured. A necessary condition for a safe cycling is therefore that helmet is used.

The use of cycle helmets increased up until 1998 and since then has remained at about 15-20 per cent. Usage is more common among children under 10 and among those who cycle to and from work and it varies from one region to another.

The first of January 2005 a helmet law for children younger than 15 years was introduced.

Safe cycling implies safe cycle paths. Also the vehicle – the bicycle – is important for safety.

NTF thinks that:

Municipalities and the National Road Administration should develop the cycle path network in order to encourage more cycling and to make it safer.

- Cycle traffic should, as far as possible, be segregated from car traffic. Where this is not possible, the maximum speed should be 30 km/hour in urban areas.
- Cyclists and pedestrians should also, where possible, be segregated from each other.
- Maintenance of cycle paths should be a priority.

The Swedish National Road Administration should in higher extent consider cyclist safety in national roads.

There should be legislation for all ages requiring the use of cycle helmets.

Increased responsibility should be given to the bicycle industry.

- Manufacturers and retailers should take responsibility for marketing the use of cycle helmets and for bicycles' safety (lights, reflectors, brakes etc).

Adults should be better-informed about children's conditions and needs as cyclists.

- Children under the age of 11-13 are not mature enough to cycle in traffic.
- Children under the age of seven should have infant helmets.²

² The infant helmet is a cycle helmet with a special green buckle. Since the buckle releases at a certain strain, the risk of the child suffocating if the helmet catches during play is reduced.

Facts

5-10 per cent of the fatalities in traffic are cyclists and about 75 per cent are men.

Almost half of the fatalities are 65 years or older and also 75 percent of the old folks are men.

70-80 per cent of all car journeys in urban areas are shorter than 3-4 kilometres and many of these could be made by bicycle.

When a law on cycle helmets was introduced in the State of Victoria in Australia, helmet usage increased to 73 per cent and skull injuries decreased by 41 per cent.

... for Motorcyclists

Improved education and safer vehicles

People on motorbikes are extremely vulnerable. These vehicles give poor protection in an accident. The risk of death or injury is, as for the rest of unprotected road-users, much higher than for people in cars.

An active work on the part of the motorbike organisations has contributed to a decreasing number of killed motorcyclists despite increasing number of motorbikes. However during the last two years this positive trend has turned into an increasing number of killed motorcyclists probably due to an faster growth of the number of motorcyclists. Special high fatality risks have been observed for drivers of extreme powerful motorbikes which more can be considered as racers. These super motorbikes are increasing in numbers and more and more so called 1/1-motorbikes (one horsepower per kilogram) are put into market.

In collisions between cars and motorbikes it is common that the car driver did not observed the motorbike. The visibility of motorcyclists therefore have to be improved and drivers of cars, lorries and busses must be informed that motorbikes are hard to detect and motorcyclists are unprotected and extremely vulnerable. At the same time the motorcyclists have to develop their defensive driving skill.

NTF thinks that

- As far as possible, roads' forgiving properties should be adapted to motorbikes.
- The visibility of motorbikes should be improved.
- Manufacturers and retailers of motorbikes should offer technical supporting systems to avoid speeding and drunken driving.
- Countermeasures have to be taken to stop the injury development of the extreme powerful motorbikes - the racers.
- Drivers of motorbikes should be offered further instruction with NTF's or other specialist organisations.
- Manufacturers and retailers should be responsible for providing safety information on the vehicles and for the sale of safety equipment.

Facts

During the years 1997-2003 an average of 39 motorcyclists were killed annually and more than 90 percent of the fatalities are men. Half of the motorcyclists who were killed died in single vehicle accidents and half in collisions with a car or bus. Many collisions occur because the car driver has not seen the motorcyclist.

A MC-OLA3 has been carried out from 158 fatal MC-accidents during 2000-2003. The study showed among other things the following:

- *Almost half of the accidents were single accidents, one third were collisions in intersections and 20 percent were collisions with motor-vehicles in opposite direction or accidents when passing.*
- *More than half of the killed motorcyclists drove racers and this number is increasing.*
- *About 40 percent of the killed drivers were estimated to have been driving more than 30 km/h above the speed limit and 90 percent of those drove racers.*
- *Older drivers who are allowed to drive MC out from their car driving licence were clearly underrepresented in the accidents.*

3 OLA is a special working method to get the partners concerned engaged in efficient safety activities. The methods starts with in-depths-analyses of fatal accidents. It continues with statement of safety problems from the findings of the analyses and it ends with written declarations of intentions to solve or reduce the problems from the partners concerned.

... for Riders of Mopeds

More stringent rules and improved education

People on mopeds are, as for the rest of unprotected road-users, extremely vulnerable and the fatality risk per driven km is as high as for motor-cyclists. The mopeds are increasing in numbers and are becoming a serious road safety problem.

The “Class I moped” has a constructive maximum speed of 45 km/h, it should have a number plate and may be driven from the age of 15 if a test for a driver’s certificate is completed. The “Class II moped” has a constructive maximum speed of 25 km/h, it does not have a number plate and it may be driven from the age of 15 without any driver’s certificate. In real life it is difficult to separate the two types of mopeds, many of them are tuned up and the police have much trouble to control the certificates and the tuning up of the engines. Furthermore the quality of the education and the test for certificate is questioned and a certificate can not be withdrawn.

A new directive for driving licences will soon be agreed upon in the EU. The main rule concerning mopeds in this directive is that they should demand a driver licence and an age of 16 even if it will be possible for individual members states to have less demanding regulations if the mopeds just are driven in this member state. An age of 16 and a demand for driver licence are considered to be very efficient to stop the increase of the moped accidents.

In many fatal moped accidents the driver has not used a helmet or the helmet has been loose. The difficulty for car drivers to detect the moped is also a common problem.

NTF thinks that

- All mopeds should be registered, have a plate and controlled so that no tuning up of the engines has been made.
- The parent’s responsibility for using of helmets and preventing tuning up of engines should be focused.
- The information and enforcement on helmets should be strengthened.
- The visibility of mopeds should be improved.
- A driver’s certificate should be introduced also for “Class II mopeds” and the education should - as well theoretic as practical - focus more on road safety and risk perception.
- An age limit of 18 years should be introduced for driving with passenger.
- All drivers of mopeds should be offered road safety education and by NTF’s or other specialist organisations.
- Manufacturers and retailers should be responsible for providing safety information on the vehicles, for the sale of safety equipment and counteract tuning up engines for higher speed.
- The same rules for retrieving should be applied for driver’s certificate as for driver’s license.

Facts

During the years 1997-2003, an average of 11 moped riders were killed annually and 90 percent of them were men. Half of the moped riders who were killed died in collisions with a car or bus and one third of the killed moped riders was younger than 16 years.

An in depth study of 54 fatal accidents with mopeds during 1997-2002 has been carried out by the National Road Administration. Important findings are:

- *More than half of the accidents took place in intersections and 60 percent outside built up areas.*
- *Half of the killed moped-riders were 15 years old.*
- *Tuned up engines were common.*
- *If all of the killed moped-riders had used helmets in a correct way it is estimated that 30 percent have survived.*

... for Riders of Snowmobiles

Better education and enforcement of drink driving

A snowmobile may be driven at a maximum speed of 70 km/hour but can be driven much faster.

The driver does not need a driving licence, a driver's certificate is sufficient and driving is permitted from 16 years old. The test for certificate is just theoretical and there is no demand to show the ability to drive a snowmobile.

Almost all accidents take place in the country side and not on roads. 10-20 riders of snowmobiles are annually killed and most of them were drunk.

If the driver of a snowmobile is taken by the police driving under the influence of alcohol, he is sentenced for drink-driving. If he has a driving licence this is withdrawn but he retains his certificate and can continue to drive his snowmobile.

NTF thinks that

- The snowmobile education for the driver's certificate should focus more on road safety.
- The importance of sobriety and adaptation to a safe speed should be focused in driver's education.
- To practice driving of before taken a driver's certificate should be made possible from an age of 16 years old.
- There should be better monitoring of drink driving of drivers of snowmobiles and in the long term, alcolock should be mandatory.
- There should be a law on the use of helmets when using snowmobiles.
- Manufacturers and retailers in the business should be responsible for safety information on the vehicles and for the sale of safety equipment.
- The same rules for retrieving should be applied for driver's certificate as for driver's license.

Facts

During the years 1997-2003, 10-20 snowmobile drivers/passengers were killed annually.

Almost all of the drivers/passengers of snow-mobiles were killed in single vehicle accidents, more than 70 per cent were under the influence of alcohol (average level of intoxication=120 mg alcohol per 100 ml blood) and nearly 40 per cent died by drowning.

Safer Roads and Streets

Existing roads shall be improved and new roads shall be built using the “Vision Zero Standard”.

The Vision Zero involves the road and street environment being designed so that nobody will be killed or seriously injured if a mistake is made.

Roads as well as the passive safety of cars should be developed and integrated so that overall safety is optimal and as cost-effective as possible.

Fatal accidents often occur in collisions between vehicles or by drivers driving off the road and colliding with hard objects at the side of the road. Two out of three fatal accidents occur on country roads.

The road environment can be made safer by the building of new roads or by improving existing ones. It is usually most cost-effective to improve existing roads.

The following improvements have proved to be effective in decreasing the number deaths and serious injuries:

- build central crash barrier to prevent collisions with oncoming vehicles
- remove hard objects from side of road – alternatively build road side crash barriers to prevent driving off the road
- use posts that break off or crumple when hit
- replace ordinary intersections with roundabouts
- build more separated roads for pedestrians and cyclists
- local speed limits

NTF thinks that:

People’s lives and health shall be seen as criteria in road and street development.

- New roads should be built according to the “Vision Zero Standard”.
- The road systems in urban areas should be altered by the principals of the publication: “Calm Streets”.
- Oncoming traffic, where the speed limit is higher than 70-80 km/h, shall be separated by e.g. a central crash barrier.
- The surroundings beside roads should be made more “friendly” in case vehicles leave the roads, or road side crash barriers should be erected.
- If possible, four-legged intersections should be replaced by grade separations or roundabouts.
- The give way rule on rural roads should be replaced by the stop rule.
- Equipment in intersections that sets speed limits to 50 km/hour when several vehicles are approaching the intersection should be developed.
- New, effective measures to prevent accidents involving wild animals should be developed and practised.
- Prior to measures to improve the road environment being put into practice, the consequences should be illustrated from the points of view of all groups of road user.
- Safety at road works should be improved.
- Local speed limits should be used more frequently.

Facts

Almost 70 per cent of the fatalities and about 60 per cent of the serious injuries are car drivers or passengers. Of those who are killed in cars 70 per cent are drivers. 85 percent of the killed drivers and 51 per cent of the passengers are males.

The cost effectiveness of different measures to produce safe roads varies a lot. For example for a given amount it is possible to save ten times as many lives if central barriers are built on existing roads instead of building new motorways.

Safer Motor-vehicles

Research and development for safer cars, lorries and buses

Development of vehicle safety in order to prevent accidents and reduce their consequences (respectively active and passive safety) is one of the fundamental conditions for the Vision Zero.

Previous studies have not succeeded showing that the development of active safety features in cars has resulted in less accidents. This is probably because new cars, as well as having better brakes and road holding properties, also run more quietly, have better performance and higher maximum speeds. However present studies of new technical systems aimed to prevent the driver of losing control of the vehicle (ESP)⁴, shows that these systems are of great importance at low friction. Tyres also contribute to active safety. Many studies show that good tyres mean fewer accidents. This applies particularly in winter, when studded tyres are safest.

Cars' passive safety has been greatly improved in recent years. The chances of surviving an accident in a modern car are much greater than in an older one, even if the differences between various types of new car are significant. The consumers test: "EuroNCAP"⁵ is very important for the fast development of passive safety. However whiplash injuries are on the increase, and finding effective protection against them is one of the great challenges facing the car industry.

On account of differences in weight, rigidity and structure, lorries, buses and the increasingly popular SUVs (Sport Utility Vehicles) constitute a considerable hazard for people travelling in other vehicles. Especially for the lorries and buses the importance of good tyres and reliable brakes must also be stressed.

NTF thinks that:

The car industry should be instructed to give car buyers information based on facts about the different safety levels in different car models.

Industry and authorities should have more responsibility for improving safety.

- When purchasing vehicles or transport services authorities and companies should demand high vehicle safety.
- Equipment that gives a proven improvement of active safety should give points in the EuroNCAP tests. In the first place ESP-systems should be included.
- Car manufacturers should offer technical support systems that make it easier for drivers not to exceed speed limits and not to drive under influence of alcohol.
- Devices that register speed prior to accidents should be standard in new vehicles.
- Three-point seat belts, seat belt tensioners, seat belt reminders and head restraints should be installed at all places in cars.
- Air bags, that increases the safety, should be installed in appropriate places.
- New car models must be less aggressive towards pedestrians and other unprotected road users.
- The braking capacity of heavy vehicles should be improved and followed up.
- Frontal deformation structures should be introduced on heavy vehicles without influencing their loading capacity.
- Winter tyres should be mandatory also for heavy vehicles.
- The tyre industry should take more responsibility for improving safety – both by product development and better information.

⁴ ESP means Electronic Stability Program

⁵ EuroNCAP (New Car Assessment Program) is a consumer's crash test program which put higher standards on the crash properties of cars compared to legal standards. Depending upon how a car fulfils the standards it is given points which are summarised in a number of "stars". The highest possible number of stars is five.

There should be more concentration on the prevention of whiplash injuries.

- Effective protection systems should give points in EuroNCAP.
- The car manufactures should provide technical supporting systems to prevent too short distances in traffic.

Economic means to promote safer cars should be introduced.**Facts**

Almost 70 per cent of the fatalities and about 60 per cent of the serious injuries are car drivers or passengers. Of those who are killed in cars 70 per cent are drivers. 85 percent of the killed drivers and 51 per cent of the passengers are males.

Car development during the 1990s has reduced the car driver's risk of being injured in a collision by 20 per cent.

The risk of injury in the worst cars is 70 per cent higher than in the average car.

The risk of injury in the best cars is 50 per cent lower than in the average car.

Heavy vehicles have less grip on icy or snowy roads compared to cars.

Seat Belts and Car Safety for Children

Extended use and new technical solutions

Seat belts and child restraints are the most important safety devices in the car. Many studies show that correctly used seat belts halve the risk of being killed.

A substantial part of the drivers and passengers in cars do not bother to use seat belts. This applies mainly in urban areas, at low speeds, when travelling short distances, in the rear seat. Professional drivers use their seat belts to a less extent compared to private drivers.

In spite of Sweden being a world leader regarding children's car safety, a significant part of the safety equipment is used incorrectly or not at all. The combination of an air bag and a rear-facing child seat in the front passenger seat is extremely dangerous. At the same time, the front passenger seat, offers possibility for a child to sit rear-facing until the age 4-5 years, which is very important for the child safety.

The car industry ought to take overall responsibility for all the passengers in the car, meaning that each individual manufacturer must develop it's own child safety program in the same way as with air bags, seat belt tensioners etc.

NTF thinks that

Legislation on seat belts should be extended.

- More people than there are seat belts shouldn't be able to be transported in cars, lorries and busses.
- The fines for not using seat belts should be increased.

The police should intensify their monitoring of seat belt legislation.

- Monitoring should increase, specially in urban areas.

The car industry should take more responsibility for in-car safety.

- Three-point seat belts, seat belt tensioners and seat belt reminders in cars, lorries and coaches should be mandatory in all seats.
- Child safety should be a natural part of the car manufacturers' development of passive safety, in the same way as for other people in the car.
- It must be possible to use a rearward facing child seat in the front seat without any risk for the air bag to be released.
- Parents are entitled to correct, factual information on how best to protect children in cars, for example via maternity and child clinics.
- EU and EuroNCAP should be influenced to make it a standard to use rearward facing child seats for up to 3-4 years old children.
- Taxi industry should be responsible for all the passengers using belts in the car and should, in the case of advance bookings, provide child restraints.
- Bus industry should be responsible for drivers and passengers using existent belts.

Facts

Seat belts halve the risk of being killed in a crash and are especially effective in urban traffic.

5-10 per cent of car users on highways and about 10-20 per cent in urban areas do not use seat belts.

40 per cent of car users killed (44 per cent of male and 24 percent of the female car users) did not use their seat belts.

About 10 per cent of female and 20 per cent of male car users do not use their seat belts in urban areas.

Rear-facing child seats reduce the risk of being killed in a crash by 90-95 per cent, while front-facing seats reduce the risk by 50-60 per cent.

Approximately 5 children under the age of 7 are killed in cars every year. Almost all of them would have survived if they had used a rearward facing child seat.

Drivers' education

Basis for improvement of road safety

Drivers' education is generally seen only to be the traditional training for driving cars. No obvious safety effects of traditional driving instruction or rule-learning have been proved. Traditional instruction does not include enough practice, and there is too little basic theoretic information and too few practical exercises that give insight into traffic risks.

To realise the Vision Zero a reform of road safety education in the whole society is needed. It has to start in the pre-school, continue through the different levels of school and end up in driver education for those who want it. This reform should focus the principles of the Vision Zero and the most important behaviours to become a safe driver e.g. no alcohol and drugs, use of seats belts and never driving faster than the speed limit.

Professional drivers have a very important role to play to get a safe traffic. Their education has to be improved. Also this education should be focused on the fundamentals of safe driving (alcohol/drugs, seat belts and speeds) but also on other issues in a more heavy and demanding road traffic.

The concept "drivers' education" should also cover a much greater area – training for mopeds, motorcycles, cars, taxis and heavy vehicles, as well as driving instructor education.

NTF thinks that:

Drivers' education has to be reformed

- Drivers' education should be seen to be part of road user safety education all through pre-school and school.
- The foundations should be laid at pre-school, primary and junior school, to culminate at senior school in a driving licence training that gives a responsible insight into the right to safety for all road users.
- The most important goal for a reformed driver education is that the novice drivers should respect the fundamental rules about speeding, alcohol/drugs and use of seat belts.
- Individual, step-by-step driver's training should be implemented.

The education for different categories of vehicle drivers should be improved.

- Professional drivers play a significant part in the work on road safety. Their training should, therefore, be adapted to the demands of an increasingly tough traffic environment.
- Road safety education in the vehicle program in high-school should be strengthened.

Training for driving instructors should be at college level.

- Driving instructor training should be equated to all other teacher training and take place at college/university.

Facts

Research shows that a greater amount of practice has a very positive effect on road safety.

Pure proficiency training (e.g. skid practice) can have negative effects on road safety, probably because the students become over-confident.

Safe Transport

Consumers' right to demand safe driver behaviour, safe transport means, safe vehicles and safety equipment

Commercial traffic, business travel and travel to and from work constitute about half of the total road traffic (from now on designated "commercial traffic"). By raising the safety level of commercial traffic, road safety as a whole can be improved. Commercial traffic ought to set the standards for other road users.

Making specific safety demands on commercial traffic is a new and relatively untested method that can result in significant, rapid improvements in total road safety. Demands can be made when purchasing transport. Professional drivers' union organisations can make demands based on the members' need for a safe working environment. In the same way, employers and employees can agree on how business travel and travel to and from work shall best be carried out.

More and more companies realise the profit benefit of quality-assuring their transport from both the road safety and the environmental points of view, especially since the vehicle operating cost is reduced as a result. To contribute to this positive trend, NTF will support consumers, purchasers and companies.

NTF thinks that:

Demands for road safety shall be given the same priority as environmental demands

- Safe transport should cover the choice of the means of transport, vehicle, safety equipment and the drivers' rights and obligations to obey valid legislation and rules.
- The requirements of sober driving, to obey speed limits and to use safety equipment (seat belts) should be emphasised.
- Vehicles used in commercial passenger transport should be equipped with alcolocks.
- Technical equipment for speed adaptation (ISA) and effective seat belt reminders should be introduced in the transport safety quality systems.

Road safety in commercial traffic is a responsibility for management and transport buyers

- Transport companies and transport buyers should introduce transport safety quality systems.
- Minimum demands in a transport safety quality system are a sober driver, who always follow the speed limits and use his seat belt. The essence of the quality system is the control of the demands.
- Transport companies and transport buyers that introduce genuine systems for safe transport should be highlighted as good examples.
- Legislation and wage-conditions that encourage illegal high speeds and violations of regulations of driving-time and resting-time should be changed.
- The Work Environmental Act should be applied even when it comes to safe transports.
- Permits for commercial traffic should be connected to the companies traffic safety work.
- In the case of travel to and from work, employers should encourage the use of, for example, cycle helmets and reflectors even if there is no relevant legislation.

Facts

Almost 150 people a year are killed in crashes in which heavy vehicles are involved. About 20 of those killed were travelling in the heavy vehicles.

Most of the professional drivers who are killed do not wear belts and are crushed to death after falling out and landing under the vehicle.

Public Transport

For improved road safety

Improved public transport is yet another condition for the Vision Zero. The safest way to travel is by public transport.

For people to choose public transport, it has to be accessible, reliable, comfortable, safe and fast – both in the country and in urban areas.

When planning public transport, municipalities must insist on safety both inside the vehicles and on the way to and from bus and train stops.

NTF thinks that:

Public transport is important for the Vision Zero.

- A public transport system that is safe, accessible, reliable and comfortable should be developed.
- Public transport should be more integrated with car and bicycle traffic.
- Public transport that can substitute particularly dangerous journeys by car, e.g. young people in the night, should when possible be offered.

Those responsible for road and streets should be responsible for safety at bus and train stops and on the way to and from stops.

- Safety should be adapted to the conditions and needs of children, young people, the elderly and the disabled.
- It shouldn't be allowed to drive by a school transport when children are getting on or off it.

Purchasers of public transport are responsible for road users' safety.

- Demands for the quality assurance of road safety and environment shall be made when purchasing school transport, transport service for the disabled and other public transport.
- Public transport companies should be responsible for the behaviour of their drivers and for the use of seat belts of the passengers. Their drivers should be sober, rested, follow the speed limits and use seat belt.
- Standing passengers should not be permitted in buses outside urban areas.

Facts

Travel by public transport is relatively safe and environmentally friendly.

As long as the passengers are inside the vehicle, the safety level is relatively high. The faults lie with the location and design of the bus stops and the risks on the way to and from the bus stops.

Many schoolchildren have been injured or killed when they have had to cross busy roads to reach the school bus.

Information Technology

Development offers excellent opportunities for reducing the number of deaths and serious injuries

Development within the field of information technology is very rapid and prices are going down all the time. More and more information technology is being introduced into our cars, partly separated from the transport aspect, e.g. mobile phones, and partly as an aid to transport, e.g. cruise control. Information technology as an aid to transport is known as “road informatics”.

Road informatics is mainly:

- Information in the vehicle (road traffic radio, telephone, e-mail etc)
- Roadside information (variable speed limits, information on traffic congestion etc).
- Communication between the vehicles and the roads/streets (direction systems, speed adaptation systems, paying systems etc).
- Communication between the vehicles (attendance recorders, distance alerts etc).

Information technology provides good opportunities for reducing the number of deaths and injuries but there are also risks involved if the new technology is used incorrectly.

NTF thinks that:

Road informatics should be utilised and developed

- The authorities and the car manufacturers should take advantage of the opportunities provided by information technology for reducing the number of deaths and serious injuries.
- Information technology that distracts drivers should be avoided.
- Car manufacturers should equip new vehicles with systems that help drivers not to exceed the speed limits and drive with too short distance to the vehicle in front.
- Cruise control should work at speeds below 50 km/hour and it should automatically disconnect when the driver loses control of the vehicle.
- Variable speed limits should be developed to reduce the total number of fatalities and injuries.
- The drivers should be informed about the high risk connected to use of mobile phones while driving.
- Improved knowledge is needed about the possible negative effects of too overwhelming information flow to the driver.

Facts

Theoretical calculations show that road informatics can reduce accidents by 60-80 per cent. Two important prerequisites are that road informatics is introduced on the basis of society's road safety goals and that speed adaptation systems will be included. If the market is allowed to control development, the road safety effects are estimated to be much less.

Research results show that use of mobile phones while driving substantially increase the risk irrespective of if the phone is handheld or not.

Legislation, Enforcement and Penalties

Increased traffic enforcement is needed

A legislation focused on safety, enforcement and sanctions are effective in improving road safety behaviour and in reducing the number of deaths and injuries.

The Vision Zero focuses on the force to which people are exposed in accidents. Present penalties for traffic offences are not based on this, which is wrong.

Research shows that road users are not particularly sensitive to moderate changes in fines, but that driving licence withdrawal has a powerful preventive effect. The system of endorsement in relation to traffic offences, where a certain number of endorsements within a certain time results in the withdrawal of the driving licence, has been introduced in many countries and has proved to be effective.

Electronic drivers' licences should give big opportunities to efficiently prevent unlawful driving, which is of important for increasing road safety.

The number of traffic policemen has decreased in recent years. The significant potential that local and regular police have for better traffic monitoring has not been exploited. This has meant that traffic monitoring in Sweden, seen in an international perspective, is very limited.

Automatic monitoring of speed is applied in many countries with excellent results and present studies in Sweden also shows good results. For automatic monitoring to be effective, the vehicle owner should have a duty to say who was using the vehicle at the time it was photographed.

The police often use tolerance intervals of at least +10 km/hour when monitoring speed. Most drivers know this and exploit the margins, which results in a greater number of deaths and injuries.

NTF thinks that:

Legislation needs to be changed

- The penalty system relating to traffic crime should be reviewed in order to reach better consensus with the Vision Zero, which among other things means more severe punishments for speeding and not using safety belt. The review should also cover an endorsement system and driving licence withdrawal.
- Legislation for electronic drivers' licence should be introduced.
- Legislation should be enacted requiring vehicle owners to state who was using the vehicle at the time it was photographed by an automatic speed camera.
- The police should be given the right to confiscate the car of a drunken driver who has committed repeatedly offences. The driver will get back his car after rehabilitation.

Police should make traffic safety controls more efficient and strengthened

- There should be more automatic monitoring by camera.
- Traffic police should have increased funds and their work should be co-ordinated all over the country.
- Other police should increase the level of monitoring. It is especially important to control speed and alcohol limits as well as the use of seat belts.
- To take measures against other adverse driver behaviours control by patrol cars is necessary.
- The number of traffic controls of commercial traffic should be increased concerning speeding, alcohol, belt use, weight loads and driving/resting times.
- Tachograph control should also include speed control.
- In the case of speed monitoring, the police should only use such tolerance as is motivated by the accuracy of the testing device.

Facts

A review of the international research within the field of police monitoring shows that police control is cost-effective from the point of view of the national economy, if it is carried out in the right way.

Different control measures, however, give different results:

- *automatic and stationary speed checks are very cost-effective.*
- *seat belt and alcohol checks are cost-effective.*
- *mobile controls with patrol cars are cost-effective if it is carried out during evenings, nights and weekends.*

Evaluation of automatic speed control by cameras in Sweden shows that the average speed was reduced by 5-7 km/h. The injury accidents were reduced by 20 percent and the fatalities by 60 percent.

Criminality

Criminal drivers - a growing road safety problem.

It is often stated that criminal drivers are responsible for many accidents. According to the police it is more and more common to reveal other criminality when drivers are stopped for traffic offences. The car is also a regular tool of crime.

Research also shows a very strong statistical relationship between accident involvement and criminal records.

The better we succeed in influencing ordinary people to improve their traffic behaviour the larger part of the resting problem of behaviour related fatalities and injuries in traffic will be caused by criminal persons.

NTF thinks that:

- Road safety education should be introduced as a part of the rehabilitation of criminal persons.
- Unlawful driving and car thefts should be prevented by means of safe car locks and electronic driving licences.
- The insurance companies should put a premium on safe car locks.
- The police should have better possibilities to confiscate cars when there is an obvious risk for accidents at a resumed use.
- The police, the customs authorities, the county administrative boards and others should be given increased possibilities to link and match computer files to identify persons and companies that jeopardise road safety by their criminal behaviour.

Facts:

There are very strong statistical relationships between criminality and accident involvement. Twice as many accident drivers have earlier on committed crimes compared to "similar" (same sex, age, citizenship, driver licensee's age and housing area) non-accident drivers.

Even stronger relationship exist for motorcycle drivers compared to car drivers. But no relationship is found for lorry or bus drivers.

The strongest relationship between accident involvement and criminality exist for drivers driving without licence and for drunken drivers.

Traffic and the Environment

Road safety and a good environment often go hand in hand

Many of the environmental problems in urban areas, such as congestion, exhaust fumes, emissions and noise, are traffic-related. Emission of the greenhouse gas carbon dioxide from road traffic is also high.

In order to protect the environment as well as improve the quality of transport, intensive development work is going on throughout the whole of society. Many different players are co-operating in this development – vehicle manufacturers and developers of the infrastructure, those who provide transport services and those who order them.

The car industry produces an increasing number of vehicles that are fuelled by gas or electricity and, in the petroleum industry, environmentally adapted fuel is being developed. To keep up with the increased demand for environmentally adapted transport services, a new set of government rules for environmental and tax questions is being drawn up.

The working environment for professional drivers influence the safety and the environmental impact of the transport. A good working environment means in most cases also a safe and environmentally friendly transport.

NTF thinks that:

Road safety and environmental goals often go hand in hand regarding the development of safe, sustainable traffic in the long term.

- Road safety work should be co-ordinated more with environmental work.
- Road safety should have priority over the environment if conflict should arise.

Both passenger and freight transport should be co-ordinated and quality assured with regard to road safety as well as environmental effects.

- Competitive public transport as well as a larger number of improved cycle and pedestrian tracks are important steps in developing a better environment. A large proportion of car journeys in urban areas could thereby be replaced by the use of public transport or by cycling.
- By using co-ordinated distribution systems, the total traffic work is reduced, contributing to safer, more environmentally friendly traffic.

Facts

Approximately 60 per cent of our environmental problems are related to our way of life – e.g. how one gets to work and transports oneself locally, as well as how one chooses and buys goods.

Agenda 21 is an appeal from the UN's Rio conference, that the whole world should work for sustainable development. It is directed at governments, decision-makers and private individuals.

According to many researchers, car exhaust fumes claim as many human lives as traffic accidents, even if the deaths occur later in life.

1.2 million people in Sweden are exposed daily to traffic noise that exceeds the recommended level.

Alternatives to Car Traffic

Reduce the demand for road traffic

A continues rapid growth of road transport makes it difficult or even impossible to reach the political targets for safety and environment. At the same time we know that economical growth and road transport have followed each other. The understanding of the necessity to brake this relationship to achieve a sustainable development is growing among politicians and experts.

The high level meeting of EU in Gothenburg 2001 stated the necessity of new measures to let the causal connection between GNP and road transport lose. Especially a change-over from road to rail or sea concerning conveyance of goods is desirable. It is also important to shift transport of people from cars to public transport. A transfer of goods from lorries to trains or ships is altogether good for safety. An increased use of public transport is also good if a safe transport to and from the bus or train can be managed.

An important concept to reduce the future need of road transport is “Mobility management”, which means a widened approach to reduce the demand of especially unsafe and environmentally harmful transports. Important targets to reach are:

- increased use of safe and environmentally friendly means of transport
- improved accessibility
- increased efficiency in transport and land use
- reduced demand of motorised transport

NTF thinks that:

- Increased efforts are needed to shift conveyance of goods from road to rail or sea.
- Increased efforts are needed to make the transfer to and from public transport more safe.
- Increased efforts are needed to shift transport of people from cars to public transportation means.
- Increased consideration should be taken to the effect on transportation needs of community planning, laws and regulation and organisation.
- Economic means of control should be used more frequently to stimulate alternatives to road transports.
- More comprehensive research is needed to develop safe and environmentally friendly means of future transports.

Facts

An EU research program has examined which measures give the best effects to reduce road transports without risking the economical growth. Those are:

- *Mobility management*
- *Car pools*
- *Parking zones*
- *Charging of traffic jam*
- *Fuel cells*
- *High speed trains*
- *Charging of road goods transport*

The weight of heavy lorries and buses results in many fatalities when lighter vehicles collide with the heavy ones. Every year about 150 persons are killed in accidents where heavy vehicles are involved. About 20 of those are sitting in the heavy vehicles.

Research, Development and Evaluation

Research is the basis of improved road safety

The application of research results and the systematic evaluation of practical experience are the mainstay of successful road safety work.

NTF is an organisation comprising both knowledge and learning. The work on road safety can be developed if research is initiated and followed and if the results are made accessible and understandable. NTF also works on the development of better systems so that we can learn from our own operations. This is a question of, for instance, increased management by objectives, better follow-up and improved distribution of information within the organisation.

NTF is actively trying to influence research within the field of road safety so that it is directed into important areas where information is lacking at present and where one can expect substantial road safety benefits.

NTF thinks that:

Research should be intensified within the following areas:

- **Futurological studies**
Safe and environmentally sustainable transports is the political goal. Increased research how to realise that is needed.
- **Application of research results.**
Many research results are never applied. Research is needed to study the reasons for this, so-called implementation research.
- **Fatigue.**
How big is the problem, which are the characteristics of the problem and what can be done to reduce it?
- **Vehicles' comprehensive safety properties.**
How is driver behaviour affected by engine power, acceleration properties, sound absorption, temperature regulation, speed regulators, mobile phones and other IT and what is the influence on safety?
- **The individual speed offender.**
A lot is known about the significance of overall speed with regard to accidents, injuries and deaths. More research into the individual speeding offender is needed. Who is it who drives too fast, and how dangerous is that person?
- **Road safety education.**
How should an effective road safety education be designed and how should driver education be reformed to produce safe drivers?
- **Road safety information and public opinion.**
How should road safety information and forming of public opinion be designed and combined with other measures to be effective?

- **Young people's road safety problems.**
More information is needed, especially regarding the ages 13-17 and regarding measures to increase road safety for this age group.
- **Young driver's road safety problems.**
A better knowledge is needed about the safety characteristics of different groups of young drivers and countermeasures to improve their safety.
- **Immigrant people's road safety.**
More information is needed about immigrants road safety and how it could be improved.
- **Drugs.**
A better knowledge is needed about the effect on road safety of different drugs.