INTRODUCTION

In 1993 and 1997, the government adopted resolutions on improving road safety. In the resolution of 1997, it set a target for 2005 to constantly improve road safety so that the number of fatalities and the most serious injuries will decrease as rapidly as in the 1990s and that Finland will approach the safety level of Sweden and Norway. By 2005, the annual number of traffic fatalities would be lower than 250.

From 1990 until 1996 road safety improved more rapidly than expected. This was a result of a systematic traffic safety work and economic recession that brought traffic growth to a standstill, after which it did not continue as rapidly as forecast. In 1997, traffic fatalities amounted to 438, the following year to 400 and in 1999 the number was 431. On the basis of preliminary data, 2000 appears to be a better year in that respect than 1999. However, the favourable trend has stopped and the target set for last decade to halve the number of fatalities will not be achieved (Ministry of Transport and Communications 2001).

On international standards, the safety level in the Nordic countries is high. In comparison between the Nordic countries, Finland is on a lower level than Sweden and Norway but somewhat higher than Denmark. If the target of less than 250 annual traffic fatalities by 2005 was achieved, Finland would reach a safety level that Sweden and Norway have not yet obtained (Ministry of Transport and Communications 2001).

In order to reach the target of less than 250 fatalities in 2005, the Ministry of Transport and Communications set up four working groups. The task of these working groups was to identify the new safety measures to be undertaken in 2001-2005 in order to reach the fatality target. Each working group should identify the measures especially in their own domain. The domains are apparent from the names of the working groups:

Policy
Human
Infrastructure
Technology

The paper describes the process towards the safety programme concentrating on the work of the Technology working group chaired by the author. The paper also presents the contents of the whole programme.
The Technology working group decided to work in a problem-oriented manner. This is illustrated in Figure 1. The different phases of the work is described in the later chapters of the paper.

**Figure 1. The working process of the Technology Working Group.**

**IDENTIFICATION OF CURRENT AND FUTURE SAFETY PROBLEMS**

The working group started its work by identifying the current safety problems. This was done by analysing the accident statistics, utilising the input from the Safety Programme preparation co-ordinators and on the basis of the experience of the working group members.
The members represented the following domains: transport authority, vehicle authority, research, academia, insurance and technology agency.

The following safety problems were identified for today’s situation:

What part of the transport system?
- highways outside urban areas, the most severe consequences
- urban areas, highest risks
- junctions and other crossing locations
- elsewhere than on motorways

What situations?
- single accidents, runs off the road
- meeting accidents
  - the two afore-mentioned make up about half of traffic fatalities
- crossing accidents
- encounters with vulnerable road users
- light vehicles – heavy vehicles

Which road users?
- vulnerable road users (difference in protection, mass and speed; separation)
- heavy vehicles (mass difference, wind)
- motor cycles, ski-do’s
- elderly (fragility, slowness, as vulnerable road users, also as driver/passenger)
- young, 15-24 (car, moped, motor cycle)
- alcohol and drug abusers

Which conditions?
- wintry road conditions, slippery
- darkness, night time

Risk factors in behaviour?
- speeds
- overpowered cars
- following too closely
- driver status (alcohol, tiredness, illnesses, excitedness)
- insufficient skills, lack of situation awareness or expectance
- non-use of safety devices

Risk factors in vehicles?
- overpowered cars
- insufficient speed feedback (“driving as in a video game”)
- old and heterogeneous vehicle population
- lack of safety devices
- vehicle status, especially tyres

Risk factors in traffic environment?
- urban, especially crossing facilities for vulnerable road users
- road network condition, especially low road categories
- road geometry
- optical guidance, signing

Problems in education and enforcement?
- driver training does not teach responsibility of lives of others
- feedback is too negative
Next, the working group discussed the possible safety developments due to emerging trends in the future. The developments were discussed according to the three basic dimensions of road safety (fatalities): exposure – accident risk – accident severity. The following developments were listed:

**Continuing economical growth**

**Increased exposure**
- more goods transports
- more passenger transports, especially leisure trips
- more long-distance car traffic

**Decreased accident risk**
- faster renewal of car population
- more resources into safety measures

**Increased accident risk**
- more hectic pace also in traffic

**Decreased accident severity**
- can owners can afford improved passive safety

**Centralised regional development**

**Increased exposure**
- more and longer leisure trips
- changing profile of commuting

**Decreased accident risk**
- improved prerequisites for public transport in centers

**Increased accident severity**
- segmentation of cars into long-distance and short-distance use cars
- increased size of heavy vehicles

**Decreased accident severity**
- increasing proportion of urban traffic

**Fragmentation of communities**

**Increased exposure**
- more car trips
- increased car ownership (almost all adult members of household)
- improved dedicated networks for vulnerable road users

**Increased accident risk**
- decreased prerequisites for and use of public transport

**Changing national economy and production structure**

**Increased exposure**
- more goods transports (JOT, specialisation)
- levelling off of demand peaks due to distance working
- more leisure transport (special services)

**Increased accident risk**
- short-term jobs, changing transport needs
- more subcontracting in commercial transport
Aging population

Increased exposure
- the elderly continue to drive car
- traffic in sparsely populated areas

Increased accident risk
- poorer skills
- crossing accidents

Decreased accident risk
- traffic “atmosphere” softens
- less driving in risky conditions (darkness, slippery roads)
- fewer single accidents

Increased accident severity
- increased fragility

Decreased accident severity
- elderly more frequently protected in vehicles

Increased emphasis on environment

Increased exposure
- more environmental tourism
- more pedestrian and bicycle trips

Decreased exposure
- less car transport due to environment-related demand management actions

Decreased accident risk
- increased speed control
- more economic, anticipatory driving
- traffic environment

Increased accident severity
- lighter weight and smaller size of vehicles (single accidents)

Decreased accident severity
- lighter weight and smaller size of vehicles (collisions)

Developing technology

Increased exposure
- more attractive car travel

Decreased exposure
- more efficient commercial transport

Increased accident risk
- behaviour overcompensation of more frequent active safety systems
- more traffic in risky conditions due to driver assistance systems (e.g. vision enhancement)

Decreased accident risk
- active safety systems
- improved detection and management of driving conditions
- warning systems
increased attractiveness, level of service, punctuality and regularity of public transport
condition-related dynamic traffic control
more efficient enforcement

Decreased accident severity
improved passive safety systems

Increasing individualism

Increased exposure
more single households
more car transport and leisure traffic

Increased accident risk
more heterogeneous behaviour and vehicles
increased resistance to control and enforcement

Decreased accident risk
more individual public transport – improved level of service

International co-operation and globalisation

Increased exposure
more goods transports
more tourist traffic

Decreased exposure
“away from the winter”

Increased accident risk
more heterogeneous driver population
knowledge on traffic rules

Decreased accident risk
improved access to information and innovations make development faster
stricter safety requirements
faster renewal of car population because of harmonised car taxes
improved driving culture

In this phase, a common workshop was arranged by the Ministry of Transport and Communications involving the members of all working groups as well as representatives from major organisations involved in traffic safety-related activities. Each working group presented their results so far, and received feedback to their work. The approach of the Technology Working Group was regarded as a useful one, and the other working groups also adopted this approach in their own manner. The Technology Working Group could proceed on to the next phase.

IDENTIFICATION OF SAFETY MEASURES WITH MOST SAFETY POTENTIAL

The next phase started by each of the members receiving as his/her task to list possible new safety measures, which have the potential of reducing the number of fatalities in 2001-2005. The measures should be such that they would the potential to target the current and future safety problems. Each member presented his/her proposals for measures in the next Working Group meeting. In this meeting the measures were combined in a “long list”, and the members assessed and discussed together the potential of each measure to reduce the
fatalities in terms of the three safety dimensions of exposure, accident risk and accident severity. The results of this assessment for the long list of measures are shown in Table 1.

It was decided already in the beginning of the work to propose only a few effective measures as we could expect every working group to propose different measures, and the Safety Programme was supposed to be a compact yet an effective one. The short list of the Technology Working Group was supposed originally to include about five measures.

After the assessment, the working group voted to find the most effective measures. All six members present at that meeting voted for the five priority measures that he would have liked to include among the Safety Programme 2001-2005. The number of priority votes is also shown in Table 1.
Table 1. All safety measures proposed by the Technology Working Group members, and their effects on exposure, accident risk and accident severity as assessed by the members as well as the number of priority votes given to each measure.

<table>
<thead>
<tr>
<th>IMPACTS *</th>
<th>EXPOSESURE</th>
<th>ACCIDENT RISK</th>
<th>ACCIDENT SEVERITY</th>
<th>PRIORITY VOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>MORE EFFICIENT ENFORCEMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• tyre condition</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• windshield condition</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• harmonised use of running lights</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• driving behaviour, digital tachographs for cars</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• extension of automated enforcement, ticketing vehicle owner?</td>
<td>++</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• vehicle reconstruction and repair incl. safety devices</td>
<td>+</td>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>DRIVER MONITORING AND ASSISTANCE SYSTEMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• theft protection</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
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<tr>
<td>• alco-lock</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• driver status monitoring</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• road environment monitoring (vehicles, obstacles, signs, VRUs, animals)</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• intelligent speed adaptation (VMS and in-vehicle systems)</td>
<td>++</td>
<td>+</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>REGULATIONS, AUTHORITY ACTIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• easier renewal of car population</td>
<td>-</td>
<td>+</td>
<td>++</td>
<td>5</td>
</tr>
<tr>
<td>• HMI requirements for ITS device use in vehicles incl. hands-free</td>
<td>+</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>• visibility in vehicles (steam removal −18, dark rear windows, idle run)</td>
<td>+</td>
<td></td>
<td></td>
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<tr>
<td>VEHICLE TECHNOLOGY</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>• increased use of safety devices</td>
<td>++</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• faster implementation of seat belts in buses</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• elimination of EMC problems</td>
<td>(+)</td>
<td></td>
<td></td>
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<tr>
<td>• increased collision compatibility of heavy veh. – light vehicles - VRUs</td>
<td>++</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• limitation of maximum speed</td>
<td>+</td>
<td>(+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• restriction of use of ultra light vehicles</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRAFFIC MANAGEMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• development and wider use of signal control</td>
<td>+</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>• monitoring of hazardous goods transport</td>
<td>(+)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• incident management</td>
<td>+,-</td>
<td>+</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>• emergency notification</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• weather-related information</td>
<td>++</td>
<td>+</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>• enhanced winter maintenance</td>
<td>+</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

* " " not much impact, "+" slight positive impact, "++" considerable positive impact, "-" slight negative impact on safety "()” majority but not consensus on impact estimate
ASSESSMENT OF THE IMPACTS OF SAFETY MEASURES

The list was compared to the measures proposed by the other working groups in a common workshop. Intelligent speed adaptation, increased use of safety devices, HMI requirements and automated enforcement were also among the measures proposed by the other working groups. Despite overlaps, it was agreed that each working group next produce an estimate of the number of fatalities saved by each of the measures proposed in 2005. For this purpose, an assessment framework adopted from the Guidelines for Evaluation of ITS Projects (Kulmala et al 1999) was used by each of the working groups. The measures were the "projects" assessed with the framework. The framework is shown in Figure 2.

**Figure 2. The evaluation framework for ITS projects (Kulmala et al 1999).**

The impact analysis concentrated especially in the safety impacts, and especially in the impact on the number of fatalities in 2005. The number of fatalities saved by the measure can be found in Table 2. Full four-page evaluation reports based on the assessment framework were completer for each measure.
Table 2. The estimated number of fatalities saved by each measure in 2005.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Fatalities saved in 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligent speed adaptation</td>
<td>0.5</td>
</tr>
<tr>
<td>Increased collision compatibility; side and rear protection of lorries</td>
<td>10</td>
</tr>
<tr>
<td>Measures to increase use of safety devices</td>
<td>10</td>
</tr>
<tr>
<td>Faster renewal of car population</td>
<td>8</td>
</tr>
<tr>
<td>Weather-related traffic information and incident management</td>
<td>1</td>
</tr>
<tr>
<td>Automated enforcement</td>
<td>3</td>
</tr>
<tr>
<td>Control of car reconstruction</td>
<td>0</td>
</tr>
<tr>
<td>Intelligent signal control</td>
<td>1.5</td>
</tr>
<tr>
<td>HMI requirements for in-vehicle telematics (incl. Hands free obligation)</td>
<td>9</td>
</tr>
</tbody>
</table>

THE FINNISH SAFETY PROGRAM 2001-2005

The vision for road safety in Finland states according to the National Traffic Safety Programme approved in 2001: “The road transport system must be designed so that nobody should die or be seriously injured on the roads. The aim of this plan is to create the right conditions for a continuous improvement of the transport system, with the target of no more than 100 traffic fatalities per year by about 2025. The vision is to be achieved via a series of intermediate targets.” (Ministry of transport and Communications 2000)

The Finnish Traffic Safety Council received the description of the measures and estimates of their impacts from all working groups. A forecast prepared by the Technical Research Centre of Finland VTT (Raitio 2000) showed that the target is most likely to be achieved if the estimated overall impact of the specific measures proposed for 2001-2005 is a reduction of 150 fatalities. Achievement of the target also requires the continuation of normal road safety work.

Implementation of the entire programme was estimated to produce a reduction of only 120 traffic fatalities and about 1300 personal injury accidents, with the late 1990s as the base. Because the estimate fell somewhat short of the required target of 150 fatalities reduced, none of the effective measures were eliminated from the programme. In the end, the programme included a total of about 50 measures.

In January, the Finnish Government passed a resolution on improving road safety in Finland describing how to implement the National Safety Program. The resolution is included as Appendix 1 of this paper.

The main headings of the resolution and the programme are:

- Curbing traffic growth
- Utilising technology effectively
- Appreciation of road safety issues
- Improving road safety in built-up areas
- Influencing drivers
- Reducing running off the road accidents and head-on collisions and minimizing their consequences
- Regional and local road safety work
- Implementing the safety measures, requirements for implementation and monitoring
CONCLUSIONS

The National Safety Programme was built via nominating four separate working groups, each concentrating on its own domain. As such, the approach was successful. The programme was set up, most of national safety experts were involved in the process, and the process produced estimates of the impact of the programme.

The approach was not, however, without problems. Firstly, the groups worked in a heterogeneous manner, and the harmonisation of the results required considerable efforts from the co-ordinator of the programme. Secondly, the impact estimates produced by different persons without taking into account the simultaneous effects of other measures were of quite heterogeneous quality. Some produced very conservative estimates whereas some produced quite overoptimistic estimates. Thirdly, there were many overlaps in the measure proposals from the working groups. Again, this required additional efforts from the co-ordinator to harmonise the level of impact estimates.

When the program was publicised, the media immediately christened the program as the “Discipline package” because of the most controverial of the measures i.e. speed control and automated enforcement. These measures received, not surprisingly, much opposition in the media. The most widely accepted of the single measures was the hands-free requirement of mobile phones and other in-vehicle telematics systems. This is quite interesting as it was included in the program because of the one priority vote that it received in the Technology Working Group.

ACKNOWLEDGEMENTS

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REFERENCES


GOVERNMENT RESOLUTION ON IMPROVING ROAD SAFETY 18
JANUARY 2001

In 1993 and 1997, the government adopted resolutions on improving road safety. In the resolution of 1997, it set a target for 2005 to constantly improve road safety so that the number of fatalities and the most serious injuries will decrease as rapidly as in the 1990s and that Finland will approach the safety level of Sweden and Norway. By 2005, the annual number of traffic fatalities would be lower than 250.

From 1990 until 1996 road safety improved more rapidly than expected. This was a result of a systematic traffic safety work and economic recession that brought traffic growth to a standstill, after which it did not continue as rapidly as forecast. In 1997, traffic fatalities amounted to 438, the following year to 400 and in 1999 the number was 431. On the basis of preliminary data, 2000 appears to be a better year in that respect than 1999. However, the favourable trend has stopped and the target set for last decade to halve the number of fatalities will not be achieved.

On international standards, the safety level in the Nordic countries is high. In comparison between the Nordic countries, Finland is on a lower level than Sweden and Norway but somewhat higher than Denmark. If the target of less than 250 annual traffic fatalities by 2005 was achieved, Finland would reach a safety level that Sweden and Norway have not yet obtained.

Due to the stagnant safety trend of recent years, the action plan of the Road Safety Programme for 2001-2005 should be able to reduce, numerically, the number of traffic fatalities by 150 in order to ensure that the target set for 2005 can be reached. Even the total effect of the final plan, which will, numerically, reduce the number of traffic fatalities by 120, will require a considerable additional input to road safety work.

The government will re-estimate its road safety target set in 1997 so that in 2010 the number of traffic fatalities must be below 250. This new target would mean that in 2005, Finland would be on the same safety level that Sweden and Norway were at the end of the 1990s.

In the long term, the government will adopt a road safety vision for Finland, according to which the road transport system must be designed so that nobody should die or be seriously injured on roads. The aim of the Road Safety Programme is to create the right conditions for a continuous improvement of the transport system, with the target of no more than 100 traffic fatalities per year by around 2025.

After a preliminary reading in the Cabinet Finance Committee, the government has adopted a resolution, which requires that the following measures be prepared and taken in 2001-2005 in order to achieve the objectives set for road safety:

**Curbing traffic growth**

1. In order to curb the traffic growth, land-use planning and vacant land policies will favour integrated construction and urban structures adapted to public transport, walking and cycling. Competitiveness of public transport will be improved particularly in areas where it is a genuine alternative for a private car. Walking and cycling will be promoted with a special view to their safety. Road safety aspects will be considered in provincial, master and city plans. New instructions will be prepared on how to consider these aspects.

2. The selection of investment projects will focus more closely on funding for projects that promote public transport, walking and cycling, as such schemes usually rely on government
funding. In impact evaluation of the projects, more attention will be paid to examining the targets of transport policy.

**Utilising technology effectively**

3. It will be ensured that new technical systems and equipment do not increase the risk of traffic accidents and that the safety requirements are met in all respects before they are taken into general use. This calls for research input as well as development of legislation and other legislative measures and standards.

**Appreciation of road safety issues**

4. The long-term road safety vision requires that road safety will be the primary goal of road transport policy. The authorities will commit themselves to common goals and prepare their action plans accordingly. Systematic training of the decision-makers, designers and persons carrying out and being involved in the safety work will ensure that ideas about safety will be put into practice. More resources will be reserved for traffic safety work in both state and municipal administrations.

5. Transport operators and other actors in business life will be provided with means to incorporate road safety into quality systems. Public administration will be a pioneer demanding safety from passenger and freight transport.

6. The role of traffic safety work will be strengthened by incorporating it into design and quality systems in land-use and transport and by training designers to specialise in different fields. Road safety audit will be introduced on various levels of planning and in implementation in both planning and road and transport design.

7. Coverage and representativeness of traffic accident statistics and their availability for the needs of the road traffic safety will be improved.

8. Lifelong traffic safety education for everyone will ensure that road users have sufficient information and ability to travel safely. The status of road safety education will be ensured at schools.

9. Contribution of the police to traffic control will be gradually increased so that it will be on the same level as in the beginning of the 1990s. Speed control will be enhanced so that minor speeding will be dealt with as well.

**Improving road safety in built-up areas**

10. Children and especially elderly people, who get around as much on foot and by bicycle or moped as by car, will be given primary consideration in design of the traffic environment. A traffic environment designed on the basis of knowledge and abilities of the most vulnerable road users will enable safe travel by everyone.

11. In order to improve safety for non-motorized traffic in built-up areas, more progressive speed restrictions will be taken into use. In order to support the limits, they will be accompanied by road design modifications, which will first be introduced at crossing locations popular with children and the elderly. On existing and planned roads with a speed limit of 50 or 60 km/h, places where non-motorized and motorized traffic routes cross will be built safe. More routes for non-motorized traffic in built-up areas will be constructed. At the same time, the number of crossing points with motorized traffic as well as dangerous situations within the non-motorized traffic will be minimised. Non-motorized traffic will be made safer by reducing the speed limit on public roads, if there are villages or roadside settlements.
12. Regulations on the use of reflectors will be amended to also include built-up areas and illuminated streets.

13. Opportunities to introduce municipal speed surveillance to complement the surveillance carried out by the police will be looked into.

**Influencing drivers**

14. In order to reduce the use of intoxicating substances by all drivers, the possibility to reduce the drunken driving limit from 0.5 to 0.2 will be investigated. Possibilities to introduce a zero limit for drugs will also be considered.

15. The use of safety equipment will be increased through educational and surveillance methods. The compulsory use of safety equipment will be extended to cover all vehicle types and taxi drivers. A regulation, which will be formulated as a recommendation, will be prepared on the use of a cycle helmet.

16. Opportunities will be improved for society to intervene in cases where a car driver endangers his or her own safety or that of other road users. Health checks will be made more effective by creating a system for monitoring health and driving ability. An opportunity to improve the flow of information from general practitioners to driving licence authorities regarding diseases that affect driving ability will be explored. A system in which general practitioners specialise in driving-related matters will be developed for the problematic cases of assessing driving ability.

17. An approval procedure for telematics systems, equipment and services installed and used in vehicles will be created. Legislation that bans drivers from using mobile phones without a hands-free facility will be prepared and the use of other telematic equipment while driving will also be regulated.

18. The system of dealing with high-risk drivers will be further improved. Legislation on driving bans will be amended: the point when a driving ban is discussed will be reconsidered, driving bans will be sufficiently prolonged and they will apply to professional drivers in the same way as other drivers.

19. Elderly drivers will be provided with tailor-made information and training. It will be ensured that those elderly people who are no longer able or willing to drive will have a choice of other mobility opportunities.

20. A comprehensive target-oriented programme aimed at lowering the accident risk of young drivers will be prepared. It will involve driver training for the driving test, driver examination, subsequent driver training, and the use of any guiding and restrictive measures concerning the granting of a new driving licence.

21. A health care system for professional drivers to monitor their health and driving ability will be created. Opportunities to prepare legislation under which repeated disconnection of tachographs and speed limiters could carry a punishment for both the driver and the registered vehicle user and result in cancellation of the transport licence will be considered.

**Reducing running off the road accidents and head-on collisions and minimizing their consequences**

22. The system of speed limits will be reviewed in accordance with road safety considerations. The need to extend road-specific speed limits to cover roads outside the main road network will be examined. On the basis of that examination a decision will be made on general speed limits. At the same time, the regulatory framework for speed limits on public roads will be reviewed. As safety at wintertime has not adequately improved,
extension of winter speed limits will be considered. Opportunities to introduce adjusted speed limits on busy main roads will be looked into in order to decrease driving speeds so that they meet the road conditions.

23. Safety on main roads will be significantly improved. Efforts will be made to regulate land uses, which cause safety problems along main roads, through cooperation between municipalities and provinces. Emphasis will be given to improving safety on single-carriageway main roads by structural means. New solutions such as roads with median barriers will be experimented.

24. Automatic speed surveillance will be expanded to cover at least 800 kilometres of main roads. In order to make the surveillance more effective and comprehensive, opportunities to amend the current legislation so that penalties for minor speeding were imposed on registered vehicle users will be explored.

Regional and local road safety work

25. Adequate resources will be allocated to regional and local road safety work in order to support the municipal road safety work and to respond to cooperation needs. Opportunities to include road safety work in the legislative duties of state provincial offices will be considered.

26. State provincial offices will review their road safety plans and intensify their implementation on the basis of this resolution considering particularly those measures that may be applied to regional and local work. An important duty is to motivate and support the work in municipalities. State provincial offices will monitor the implementation of the resolution within their province and report on it to the Ministry of Transport and Communications.

27. Measures proposed for regional and local levels call for appreciation for road safety among municipal decision-makers and planners. Road safety must be a primary aim in transport planning and should be incorporated into municipal quality and planning systems. The municipalities will set a target to prepare an up-to-date traffic safety plan and implement it in cooperation with various sectors. Citizens will be encouraged to take part in traffic safety work and municipalities will enhance cooperation with civic organisations and residents.

Implementing the safety measures, requirements for implementation and monitoring

28. The enclosed Road Safety Programme for 2001-2005 presents the measures recommended by the Consultative Committee on Road Safety, and the total costs and impacts of the programme. The government considers it important that the authorities, organisations and municipalities will implement the Programme as extensively as possible taking into account the considerations of this resolution and that they will, for their part, organise the monitoring of safety measures.

29. The government considers it important to devote resources within the administrative sector to measures set forth in this resolution. Furthermore, it considers it important that all contributors to road safety work will appreciate the work more.

30. The Consultative Committee on Road Safety subject to the Ministry of Transport and Communications will coordinate the implementation of the Road Safety Programme. The Ministry will report to the government, when necessary, on the proceedings of the programme and achievement of road safety objectives.