



# Management by objectives for road safety work

*Stakeholder collaboration towards new interim targets 2020*

## **SUMMARY**

Stakeholder collaboration  
towards new interim targets 2020

**T**his is a summary of the proposal for new interim targets for road safety in Sweden which the Swedish Road Administration has delivered to the Ministry of Enterprise on the 1st of April 2008.

## Background

The Swedish Road Administration (SRA) was commissioned by the government (in June 2006) to propose new interim targets for road safety developments as well as to draw up basic data for continuing road safety work in accordance with Vision Zero. This assignment also included allowing an independent body to assess how work aimed at achieving Vision Zero and its interim targets has been developed and implemented.

The interim target for 2007 was set at a maximum of 270 fatalities. Road safety work that has been undertaken since the parliamentary decision to adopt Vision Zero in 1997 has been evaluated and this evaluation suggests a combination of reasons why the interim target was not achieved. This was primarily due to the implementation of too few effective measures.

According to the evaluation, the target of 270 fatalities in 2007 lacked a firm foundation. The target was set without consultation with or commitments from parties. The goal for the number of fatalities also failed to provide sufficient guidance to stakeholders in activity planning.

The results from annual follow-ups of road safety conditions were not sufficiently highlighted, which meant initial efforts to achieve the interim target were weak and a concentrated effort came too late, when it finally started.

## System for developing objectives in road safety work

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

### THE PROPOSAL IS INDEPENDENT UPON ORGANISATION

The Road Traffic Inspectorate investigation and the Swedish Institute for Transport and Communications Analysis (SIKA) commission to review transport policy objectives can result in changes to both the organisation and responsibilities for the organisation and distribution of responsibility within traffic safety efforts. This has meant that we have taken pains to ensure that the proposal is independent with regard to organisation. The proposal that is presented stems however from the current organisational structure.

The responsibility of maintaining the totality in the system for developing objectives in road safety work should be vested in a state authority. The SRA currently has sectoral responsibility and is therefore the natural coordinator. Parts of the system and above all the responsibility for measuring and implementing measures should rest with several parties.

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### COOPERATION IN DRAWING UP INTERIM TARGETS – INTERIM TARGETS OLA

One lesson learnt from evaluations of the interim target is that when societal targets are established then this process should include some form of collaboration. In this work we have made use of the OLA methodology [OLA – Objective data, List of solutions/actions, Addressed action plans] as a

cooperation method. The OLA methodology is employed for accident analysis. The basis of an OLA analysis is the participation of all involved parties. OLA methodology comprises three stages: analysis of objective facts relating to the problem, investigation into what can be done to solve the problem, and finally what stakeholders intend to contribute to solve the problem.

In this case the problem has encompassed both future interim targets and management systems to ensure these are delivered. Consequently, stage three includes views from participating parties on the interim objectives and management systems, and the measures they are planning in order to achieve the objectives. In order to make it clear that this is not a normal OLA, we have adopted the name Interim Targets OLA, for this collaborative process.

The following stakeholders, in addition to the SRA, have taken part in Interim Targets OLA:

- Swedish Association of Local Authorities and Regions [SKL]
- The National Society for Road Safety
- The National Police Board
- The Swedish Work Environment Authority
- Folksam [Insurance company]
- Toyota Sweden AB
- Ministry of Enterprise, Energy and Communications
- The Swedish Association of Road Haulage Companies
- The Swedish Bus & Coach Federation
- Swedish Taxi Association

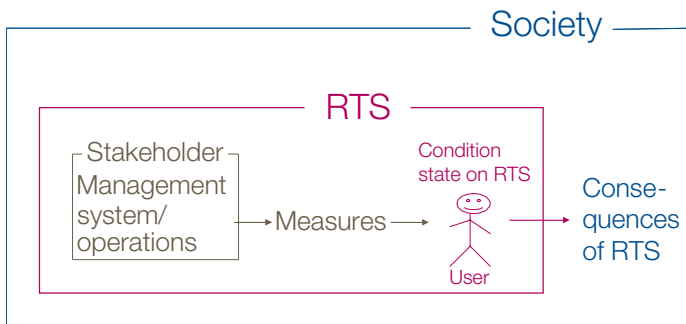
In addition to the support for the proposal that has taken place among participants in Interim Targets OLA, the proposal has been established and information supplied in many other contexts, both within the sector/society as well as internally at the SRA. External events included the National Coalition and various regional coalitions that were organised

in 2007. The Tylösand Seminar and SKL's Traffic Conference are two other examples.

### MORE MEASURE-RELATED INTERIM TARGETS

One lesson learnt from evaluations was also that the interim target for the number of fatalities did not provide sufficient guidance to stakeholders for activity planning. More action-related interim targets are needed. This is understood to mean indicators that help stakeholders to identify measures that can contribute towards changes in condition states on the road transport system that are necessary to achieve targets for the number of fatalities and seriously injured. A condition state is comparable with the concept of an indicator that SIKA employs in the commission to propose new transport policy objectives.

Value chain – a sorting basis



RTS = Road Transport System

In this assignment we have employed the model above in order to sort and prioritise proposals for new, more measure-related interim targets. According to the model, the previous interim target was defined in terms of consequences for the road transport system, i.e. the number of fatalities. Our

proposal for new interim targets also includes objectives that are closer to measures, i.e. targets for key road safety-related condition states on the road transport system, such as vehicle travel speed, driver sobriety and seat belt use.

The following represents a summary of the most measure-related condition states that we propose to prioritise in future road safety efforts.:

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

The choice of these particular condition states is based on established science, both national and international.

#### ANNUAL RESULT CONFERENCES

It also emerged from these investigations that the results from annual follow-ups of the road safety situation were not sufficiently highlighted, which meant initial efforts to achieve the interim targets were weak and a concentrated effort came too late, when it finally started.

Our proposal for a system for developing indicators in road safety work includes a focus on the annual result follow-ups.

The proposal is based on the fact that measured results are implemented and that these results are also made public through annual result conferences.

*The proposal is based on the fact that measured results are implemented.*

Participants at these conferences are only parties who can implement powerful road safety measures, such as the SRA, the police, the automotive industry and municipalities. In addition, players who strongly influence traffic should take part, such as representatives from the taxi, bus, goods vehicles, and insurance sectors. This also ensures a professional handling of strategic decisions in the field of road safety.

In order to ensure that the result also has an effect on activity planning by stakeholders we propose that parties are represented at the highest management level.

The Government should commission the SRA to conduct annual result conferences and ensure that these become the management tools required by the Government. The SRA should also be required to produce written reports for the Government on results from these conferences and possible proposals for target adjustments that emerge at these conferences. In addition, an independent group of experts should be appointed to analyse results and propose necessary adjustments. The degree of target achievement together with vehicle kilometrage developments and other factors, such as changes in traffic composition, will be crucial to any target revisions.

## **REGIONAL ROAD SAFETY EFFORTS**

The proposed interim targets and stakeholder performance indicators are formulated at a national level. Operative work among affected parties must in most cases be adapted to regional and local levels. If this working approach in accordance with the proposal for a new management model in the assignment for an interim target is to commence (with stakeholder-related indicators, measurements and annual follow-ups), parties need to be given support in their working methods, in the formulation of targets and performance indicators, as well as in measurements.



Arranging regional result conferences for following up national interim targets requires that the result is reported at a piecemeal level with local/regional data. This is possible in most cases. One should be aware that it may be costly to report all data at a piecemeal level. However, it may be possible to use national results at regional conferences in cases where costs are unjustifiably high for regional data, even if it does not offer an equally clear picture of regional conditions.

#### **FROM NATIONAL/REGIONAL COALITION TO NATIONAL/REGIONAL RESULT CONFERENCE**

It is proposed that previous work conducted within National and Regional coalitions should be changed over the next few years to work with new interim road safety targets. Ongoing work is linked to the proposal that is to be submitted in the interim target work, i.e. that a number of players should assume greater responsibility for their own road safety efforts by undertaking commitments.

For national stakeholders, it is proposed that the first result conference is to be arranged in November 2008. For regional stakeholders, the result conferences will probably start one year later.

## New interim targets

### CHOICE OF TARGET YEAR

We propose 2020 as the target year for annual revisions as well as more far-reaching reviews in 2012 and 2016.

The assessments we have carried out of possible target levels have been based on the EU road safety targets of a 50 per cent reduction in the number of fatalities within ten years. In order to synchronise with new anticipated target years within the EU, we propose 2020 as target year.

By proposing 2020 as target year we are also adjusting to other political objectives. This applies in particular to climate targets and also economic policy objectives. The EU has decided that greenhouse gas emissions are to be reduced by 30 per cent by 2020. The EU is also to continue to be a driving force for all industrial countries to undertake reductions in their greenhouse gas emissions by 30 per cent by 2020. Where economic policy is concerned, it can be noted that our proposal for target year corresponds with Volvo's target that no one is to be killed or injured in a new Volvo by 2020. Swedish technology exports are highly important for improving international road safety. Collaboration between public sector efforts and those of industry should be coordinated wherever possible.

*We propose 2020 as target year.*

### TARGETS AND TARGET LEVELS FOR CONDITION STATES

We propose that the following targets and target levels are to be achieved by no later than 2020:

1. 80 per cent of vehicle kilometrage on state roads is to take place within current speed limits.
2. Speed limit compliance on municipal streets is to have increased by 86 per cent.
3. 99.90 per cent of vehicle kilometrage is to be driven by sober vehicle drivers (BAC below 0,02 per cent).

4. A maximum 5 per cent of drivers are to state that they have fallen asleep or nearly fallen asleep while driving during the previous 12 months.
5. 99 per cent of drivers and passengers in passenger cars are to use seat belts.
6. 70 per cent of cyclists are to wear helmets.
7. 100 per cent of new cars are to have the highest safety class according to Euro NCAP (including new technology where active and passive safety is integrated).
8. 100 per cent of new heavy vehicles are to have emergency braking systems.
9. 75 per cent of vehicle kilometrage on roads with speed limits above 80 km/h is to take place on traffic-flow separated roads.
10. Percentage of safe GCM passages on the primary network<sup>1</sup>.
11. Percentage of safe junctions on the primary network<sup>2</sup>.
12. Time from injury to adequate medical care<sup>3</sup>.
13. Increase on the index for answers to attitude questions about road safety.

The proposed target levels for each condition state are based on what is deemed necessary and possible in order for the proposed target for a maximum number of fatalities to be achievable.

The assessment is that the quantified interim targets in these areas can be achieved and that an introduction of our proposal for the system for developing indicators increases oppor-

<sup>1</sup> Quantified interim targets for safe municipal streets are yet to be defined

<sup>2</sup> Quantified interim targets for safe municipal streets are yet to be defined

<sup>3</sup> Quantified interim targets for time from injury to adequate medical care are yet to be defined.

tunities for this. In this way we obtain more measure-related interim targets that all parties can relate to in their operative planning. Overall, our proposed interim targets also involve a clear direction for future Swedish road safety work.

### **INTERIM TARGETS FOR FATALITIES AND SERIOUS INJURIES**

In terms of the numbers of fatalities the proposed measure-related interim targets are expected to lead to 250 fewer fatalities by 2020. During the period 2005-2007, an estimated 460 people on average were killed in road traffic per year. If the interim targets are achieved, the number of fatalities is expected to fall to about 210 by 2020. We propose that the target for the number of fatalities is set to a maximum 220 for 2020, which is a 50 per cent decrease over 12 years. One starting point for our work on the interim targets has been the EU's ambition level of a 50 per cent reduction in the number of fatalities over ten years. Sweden is a leading country in the field of road safety and expectations are therefore significant with regard to our way of conducting this work.

We further propose a target for the reduction in the number of seriously injured by 25 per cent by 2020. Seriously injured is understood to mean an injury resulting in some form of medical disability.

### **DECISION REGARDING INTERIM TARGETS FOR CONDITION STATES**

In order to be able to change the mix of condition states and target levels for these in a flexible manner, we propose that the Government and Parliament commission the SRA, following consultation with interested stakeholders, to decide upon suitable levels for these in order that the targets for fatalities and serious injuries are achieved. This offers an opportunity for continual reassessment and change in the mix of condition states and target levels.

## TARGET PICTURE 2020

The proposed interim targets for important conditions in road traffic can be summarised in the following target picture of the road transport system:

Road safety is highly important to citizens and decision-makers. There is significant demand for, and variety in, effective measures and safe cars/products. Road safety is, like environmental adaptation, a self-evident quality requirement for transport purchasing and operation in commercial and public organisations.

Speed limits are adapted to safety standards on roads and streets and are seen as logical and reasonable by road-users. Drivers on major roads with speed limits above 80 km/h should not have to risk colliding with oncoming traffic. In built-up areas where pedestrians and cyclists share space with motor vehicles, speed limits are never greater than 30 km/h.

All new passenger cars have the highest safety standard and all new vehicles have technical systems that support correct and safe driver behaviour, including technology for detecting and intervening when the driver is tired or about to fall asleep or, for some other reason, loses focus on driving. If anyone who drives a new car risks colliding with another vehicle or fixed object, the car's safety system is to take command and eliminate/reduce collision forces. New passenger cars can protect occupants from serious injuries from head-on collisions, even with new heavy vehicles, at speeds of up to 80 km/h, not least as heavy vehicles also having automatic emergency braking systems.

Complying with regulations in the areas of speed, sobriety and seat belt use is very high.

All who drive new cars follow these rules and all drivers and passengers in new cars use seat belts. Wearing a helmet when cycling is self-evident for the majority of cyclists.

*Target picture 2020:  
Wearing a helmet  
when cycling is  
self-evident for the  
majority of cyclists.*

## Stakeholder intentions and views

As the proposal is expected to be circulated for comment, stakeholders who have contributed towards drawing up this proposal have agreed to state their views in the forthcoming circulation for comment.

## Stakeholder performance indicators

Part of the introduction and application of the governance model is the development of stakeholder performance indicators.

Stakeholder performance indicators are understood to mean proposals from parties for how to measure and analyse their contribution to target achievement. They can set indicators that are connected to interim targets for road safety. Stakeholders are thereby offered an opportunity to show that they take responsibility as an important party in society and that road safety is an important leadership and quality issue for them. Stakeholder performance indicators are undertaken by each respective player and it is their responsibility to impose targets for performance indicators and to follow these up in a manner that is relevant for the organisation (and the surrounding world). The development of stakeholder performance indicators linked to important road safety measures, condition states or consequences may be seen as part of Corporate Social Responsibility (CSR) within the business community. This means that a business, on its own initiative, displays an active commitment to the development of society. Parties that were included in Interim Targets OLA have put forward proposals for stakeholder performance indicators for their organisation. Currently there is no requirement that stakeholder performance indicators are targeted but it is, of course, highly desirable that they are targeted in

*Road safety is an important leadership and quality issue for the stakeholders.*

connection with the establishment of new interim targets. Stakeholder objectives make it possible to achieve a clear connection between operative activity at organization level and the direction of political will.

## Critical success factors

One key critical success factor is that state authorities clearly support the proposal for objective development and the direction for future road safety efforts. In order for the management by objectives for road safety to be successful there is a need for decisions and commitment at state authority level. These decisions are crucial for both the introduction of the system as well as actions by other players. Without these decisions there is less incentive for a concentrated effort from other road safety parties.

In addition, the assessment of opportunities to achieve interim targets is based on several measures that can only be decided by state authorities. These include

- that authorities that can influence road safety receive sufficient funds to implement necessary measures
- a law governing alcohol ignition interlocks in new cars
- an alcohol ignition interlock programme for all driving licence-holders with abuse problems
- a bicycle helmet law for all
- differentiated speed limits (for heavy vehicles with or without automatic emergency braking systems)
- a review of current driver training as well as the issue of a demerit system linked to driving licence holding
- traffic liability legislation.

At an organisation level one critical success factor is that the SRA is responsible for organising national measurements of the proposed interim targets and for allocating resources for this and also that the SRA immediately initiates planning for

annual result conferences. We believe this will require substantial investments from the SRA.

The management system and collaboration between stakeholders, common targets, evaluations etc. support the implementation of measures. Decisions taken and implemented measures are, after all, what decides whether interim targets are achieved. Carrying out measures is the single most critical success factor.

The continued linking of emergency hospitals to the information system for accident and injury data (STRADA) is crucial for opportunities to follow developments in the targets for seriously injured.



## Further need for investigation

A measurement/analysis plan needs to be drawn up. Some of the interim targets need to be developed with regard to performance indicators and measurement methods. This applies to fatigue drivers, assessing road safety, and rescue, care and rehabilitation, among other things. The parameter for seriously injured also needs to be changed to performance indicators that can be used at regional and local levels. In addition there is a need for methods to be developed for an overall assessment of annual target achievement for both fatalities and seriously injured as well as for status targets. These are prioritized issues that the SRA is to start working on immediately.

There is currently no overall description of the road user roles and responsibility in traffic and how rule compliance can be reinforced among these. According to Vision Zero's safety philosophy, responsibility for safety is shared. Ultimately, however, the system designer is responsible both for the design of the system and its utilisation, i.e. that the road user complies with current traffic regulations. A majority of the new interim targets are based on increased compliance with regulations or increased responsibility in general among road users. This can take place both through monitoring and sanctions as well as through information, education and support. New systems that provide the road user with an incentive to comply with regulations are under development. These include new technical solutions in vehicles and developments in the insurance system. As part of this commission, the SRA has, in a separate memorandum to the Ministry of Industry, Employment and Communications, detailed a proposal for an overall strategy for the safe use of the road transport system.

*Several road user groups and types of vehicle are still not included in Vision Zero-based road safety efforts.*

Safe use is understood to mean compliance with regulations as well as responsibility in general for increased road safety.

Several road user groups and types of vehicle are still not included in Vision Zero-based road safety efforts. These include Class 1 mopeds and motorcycles (including quad bikes), heavy goods vehicles with and without trailers, and buses. Overall these vehicle types account for a large share of injuries resulting from traffic accidents. A strategy needs to be produced in order to close these gaps in Vision Zero. This work should be led by the SRA.





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