

Summary:

Evaluation of a Vision-Zero Project in Lillehammer, Norway Report 4: Process evaluation

Background

The Vision Zeron, that is a vision of no killed and no severely injured people in road traffic, was developed in Sweden in the 1990's. In Norway a similar vision is incorporated in the National Transport Plan for 2006 – 2015. The Norwegian Public Roads Administration has carried out a demonstration project called "Road Safety Lillehammer - Towards Vision Zero". This project started in 2003 and was concluded in 2006. The objectives of the project was

1. To solve a local road accident problem.
2. To demonstrate how to influence the accident situation in a larger geographical region applying coordinated accident countermeasures.
3. To be an inspiration for other parts of Norway.

In this project accident countermeasures have been implemented, targeting roads, vehicles and road users. A detailed description of the project can be found at www.vegvesen.no.

This project has been evaluated by SINTEF and TØI. The evaluation of the road safety measures is described in separate reports. This report describes the process evaluation of the project.

Method

The process evaluation has been carried out as a qualitative analysis of documents and interviews with people well acquainted with the project. Newspaper articles and internet sites concerning the project have also been analysed, and results of an opinion poll has also been used.

Objectives of the project

The main objectives of the project are shown above. The objectives were, however, expressed differently in different documents and at different times. Simpler expression and structure of the objectives are likely to have made working within the project easier. Some of the expressed targets are in conflict

with each other, such as solving an accident problem, testing new countermeasures and showing what is achievable with limited resources.

The second objective “To demonstrate how to influence the accident situation in a larger geographical region, applying coordinated accident countermeasures” is imprecisely worded, and consequently, assessing the achievement of this objective is difficult.

The main objectives of the project are well in accordance with the main objectives of the Norwegian Public Roads Administration. The interviewees were satisfied with the objectives to a varying degree, but they were all satisfied with the accordance between the objectives and the countermeasures chosen.

Achievement of objectives

Solving the local accident problem

The period after the implementation of the countermeasures has been too short to state firmly whether the reduction achieved in severe accidents on the test section of the road will be permanent. No severe accident from 2005 through June 2007 is nevertheless a clear indication that the local accident problem is solved to a large degree. Results shown in safety indicators such as speed support this indication.

Regional effect

The accident countermeasures installed on the roads seem to have a good effect both on the major highway, the county road and within the town. The effects are, of course, limited to the sections where the measures are installed. The vehicle measures chosen, mainly ITS features in four demonstration vehicles are assessed as having no direct effect on accidents in the region. The evaluation of the measures directed at the road users gives no clear conclusion as to the effects on accidents.

If the regional effect objective should be understood as showing an influence on accidents in a larger region, the objective is achieved to a most limited degree. If, however, this objective should be understood as showing which countermeasures can be used to influence accidents in a larger region, the objective is achieved to a reasonable degree.

Inspiration for other parts of Norway

The analysis of newspaper articles and internet sites, the interviews and the report concerning the evaluation of the road user measures indicated that this objective is achieved to a reasonable degree. This assessment is based upon the number of articles in papers outside the Lillehammer region and many examples of continued application in other contexts of the countermeasures demonstrated.

Selection of countermeasures

The road measures are strongly connected to the local accident objective and to the inspiration objectives, but their connection to the regional effect objective depends on the understanding of this objective. The vehicle measures selected are connected to the inspiration objective to a medium degree, but weakly to the two other objectives. The road user measures are well connected to the inspiration objective, but weakly to the other two objectives. This is shown in table S.1 below:

Table S.1: Connection between objectives and measures

Objectives \ Measures	Road measures	Vehicle measures	Road user measures
Accident problem	Strong	Weak	Weak
Regional effect	?*	?*	?*
Inspiration	Strong	Medium	Strong

*Regional effect of road measures depends on the understanding of the objective
 TØI report 894/2007

In total it seems that the accordance between objective and measures could have been better. This lack of accordance may be due to the large number of objectives, targets, mandates and terms described in different documents and possibly to conflicting objectives.

The implementation of measures

The road measures had 50 per cent of the total amount of 100 million NOK (approximately €12.5 million) allocated to the project, whereas the vehicle measures had 10 per cent, road user measures 15 per cent and communications had another 15 per cent. The road measures were mainly well implemented, but the Vision Zero loop became shorter than planned, and the free-text signboards did not work as intended. The vehicle measures were implemented somewhat less than planned. Among the road user measures the police measures were implemented to a small degree, and sectional speed cameras* were only tested technically. Education of children and young people as well as adjusted driver training were implemented to a large extent. The technical testing of sectional speed cameras should nevertheless be assessed as successful in terms of being a necessary stage in the further consideration of this measure. A full practical trial of sectional speed cameras could have given even more useful knowledge for the full-scale implementation process of sectional speed cameras. Protection of personal privacy was the main barrier for a practical trial. Thus, the important question remains what will be required to establish such a trial.

* Speed cameras used to monitor average speed on a road section rather than in a certain spot of the road.

Framework

The financial resources of 100 million NOK (€12.5 million) have apparently been sufficient to achieve the objectives. People, offices and equipment have also been working well, apparently. The project period was extended for one year. Nevertheless, time seems to have been a barrier in the achievement of the objectives. Especially the public requirements as to the acquisition of land and equipment seem to have caused unexpected delays.

Organisation

The project was apparently too heavily organised from the start, and the mandate was diffuse. The organisation was tightened a year later. The people working in the project seemed appropriate, and external co-operation has apparently worked well. However, the health sector could have been included in the project, and the two municipalities outside the town of Lillehammer could have been more tightly connected to the project.

Conclusion

The diverse description of the objectives may have made the connection between objectives and measures weaker than could have been desired. Nevertheless, the project is mainly assessed as successful, considering the fact that two of the three main objectives were achieved to a reasonable degree. The degree of achievement of the regional effect objective depends on the understanding of this objective.

The road measures have apparently been the most effective of the three kinds of measures in their contribution to objective achievement. This fact is reasonable considering the amount of money spent for the three kinds of measures. Even if some planned measures were incompletely implemented or contributed to a small degree to objective achievement, the inclusion these measures in the project cannot be considered as a total failure. Indeed, the purpose of a demonstration project is to test new elements, a fact implying a risk of failure. Facing problems and learning from them in a demonstration project is considerably better than doing so in full-scale implementation.

The experience from the project is three-fold. Firstly, thorough and realistic planning is necessary. Secondly, a simpler and clearer expression of objectives and purposes will simplify the selection of measures that can contribute to the achievement of the objectives. Thirdly, a simple organisation and better information to the participants would be likely to make the project work run more efficiently.

Fourthly and most importantly, demonstration projects are useful in gaining experience with new countermeasures, in demonstrating how such measures can be applied in a local or regional setting and in providing inspiration for the people working within the field. In addition, a local accident problem can be solved.