

# Public Participation and Dialogue in Road-Planning and Road-Design Process

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#### **Abstract**

The road-planning process in Norrtälje to produce a bypass-road has been a long and fruitful process with a group of inhabitants that have participated in the planning process all through the different stages of the process. It started in 1996 with a public dialogue in the Initial Study, a dialogue to choose where to place the road corridor. Next step was a dialogue upon the Feasibility Study on four different sketched alternatives and a dialogue upon EIA. Then the project ceased for some years due to shortage of financing. In 2005 the Swedish Road Administration resumed the bypass project in Norrtälje and also resumed the dialogue with the inhabitants upon the Design Plan and the EIA. The entire "dialogue-project" has been documented and evaluated by a researcher.

The method for dialogue has been a system of working-groups (of inhabitants) cooperating through a dialogue-group facilitated by the Swedish Road Administration and the local planning authority. The researcher has been giving feed-back continuously to improve the method. The dialogues have also included participation of schoolchildren and in the Design Plan-stage of the project an interactive VR-model (Virtual Reality-model) has been used as a dialogue-tool. Internet and e-mail has also been very useful to facilitate the communication between all participants in the dialogue.

The dialogues have resulted in considerable improvement of the planned road to reduce the inconvenience, the traffic-dangers and damage to the environment. It has also contributed to the acceptance of the project and the goodwill for the planning authorities. This is a small ordinary project carried out with extraordinary ambition and the evaluation discusses the possibility to use this "dialogue-concept" as a routine in the EIA-process.

The full paper describes the process, the methods, the results and the evaluation of the dialogues. The whole process is richly photographic documented and examples of the planning tools – maps and interactive VR-model are exemplified.



# 1. Norrtälje a background

Norrtälje is a provincial town of 16.500 inhabitants on the east coast of Sweden approximately 50 km north of Stockholm. The town centre is picturesque with small wooden houses and narrow streets. It is a popular tourist resort and has a considerable number of summer inhabitants and visitors, but the traffic situation is not satisfactory. Regional transport of timber and other heavy vehicles are passing through this small town very near the town centre. There is a need for a bypass-road. In summertime cars are lining up in huge queues all through the town. The local planning administration and the local government in Norrtälje have been discussing a bypass for decades. Certain land, a corridor, is reserved for a bypass since 50 years, a "road reserve". But nothing has happened. Now the town is growing and the situation is becoming more and more problematic. There is just one bridge in Norrtälje, which can carry heavy traffic, crossing the river.

During the years two schools have been built very near the road corridor and so have also some habitations. The awakening of the dormant road reserve was therefore not popular.

# 2. Public participation in the road-planning and EIA process

The local authorities in Norrtälje and the Swedish Road Administration (Vägverket), Region of Stockholm (VST) are cooperating in the planning process for a bypass. The road planning process is long and consists of three main parts; Initial Study, Feasibility Study and Design Plan.

Through all three stages the project leader of this project has managed to carry through public participation and evaluation and documentation of the process. It started in 1996 with a public dialogue in the Initial Study, a dialogue with the intention to choose where to place the road corridor. The next step was a dialogue upon the Feasibility Study on four different sketched alternatives and a dialogue upon EIA (Environmental Impact Assessment). Then the project ceased for some years due to shortage of financing. In 2005 the Swedish National Road Administration resumed the bypass project in Norrtälje and also resumed the dialogue with the inhabitants upon the Design Plan, the town plan for the road and the EIA.

The group of inhabitants taking an active part in the dialogues has been approximately 40 persons in the Initial Study, 60 persons in the Feasibility Study and 40 persons in the Design Plan. The representation of women in the dialogues has been 30%. When there have been big information-meetings and Open Houses with exhibition there have been approximately 100-200 people coming.

The entire planning process has been mirrored in the local newspaper and the editorial writer is frequently commenting on the missing bypass.

#### 2.1 Initial Study

In the spring 1996, VST and the local authorities invited the inhabitants in Norrtälje to participate in a dialogue on the question of the traffic situation. What was the best solution, a new route passing through Norrtälje or a bypass placed near or far away from the town?



It started with a big information-meeting and everyone was invited to participate in working groups early in May. Five working groups were established and they received planning material as maps and plans on an initial dialogue meeting. The working groups presented their opinions on two final big dialogue-meetings in the midst of June. The general opinion amongst the participants was against the main suggestion from the municipality and VST; to build a bypass not so far from the town centre in the road reserve. The participants preferred an upgraded thoroughfare. Most of the participants expressed a wish to have a possibility to continuously follow the road planning process.

# 2.2 Feasibility Study and EIA

The Feasibility Study started late in the autumn 1996 and ended in April 1997. This stage of the planning process started in late November with a big meeting and Open House with an exhibition mirroring the result of the Initial Study. The visitors were invited to participate in the coming Feasibility Study. Approximately 60 persons volunteered, some of them had already participated in the Initial Study. The dialogue started in December with a big meeting and eight working groups were formed. The working groups received drawings, maps and other planning material and were requested to plan their own meetings at times that were suitable for each group. Each working group was asked to elect two persons to represent the group in monthly dialogue-meetings with VST and the project group of consultants and the community's town-planner.

The working groups were very ambitious and discussed all the proposed alternatives thoughtfully. At each dialogue-meeting they could ask questions and give feed-back to the planning professionals. The actual planning-process was running parallel to the dialogue, so at each dialogue-meeting the participants were receiving new planning material. The dialogue concerned the different road alternatives and also the substance of the EIA. At this stage the groups had different opinions on which alternative to recommend. Some of the groups were accepting the main alternative with a bypass, some groups were still against a bypass and recommended an upgraded thoroughfare and one group proposed a long tunnel passing the town centre. The project leader ordered a minor economical and technical report on the possibility to build a tunnel. The tunnel alternative proved to be very expensive and technically a tunnel would not permit heavy vehicles due to ground quality, and the project leader could therefore reject that alternative. The group that proposed a tunnel was not satisfied with this answer and thus the dialogue, but all the other groups were fairly positive to the dialogue. The participants were quite suspicious to the local authorities but rather satisfied with the open attitude from the Swedish Road Administration, VST. The regional road superintendent finally decided that the bypass alternative in the road reserve was the best alternative.

After that the project was not prioritised in the Swedish Road Administration budget and nothing happened for a number of years.

#### 2.3 Design Plan, town plan for the road and EIA

The next step in the planning dialogue started seven years later. Before that, a minor change in the plan was executed without public participation in 2002. The local authorities made some pressure to resume the planning process offering to finance the planning costs in advance because the traffic situation had become even more precarious than before. In November 2004 the inhabitants of Norrtälje were invited to participate in a new dialogue concerning Design Plan, town plan for the road and EIA. The first meeting in November was an Open House with an exhibition summing up the planning so far with maps, planning documents, EIA documents and a big model over the entire area. In a big meeting the planning process was presented and all the participants were invited to the planning dialogue in the coming springtime. The dialogue then started in March 2005 with a big meeting with 40 inhabitants that formed eight working groups.



The working groups were asked as in the previous stage to arrange their own meetings and to elect two dialogue representatives to a dialogue group. In April and May the dialogue group had meetings were the working groups presented their standpoints and questions and the planners presented their plans and proposals step by step. The dialogue was ended in May and the consultants worked with the plans during the autumn 2005. In January 2006 the proposals for the town plan for the road, the Design Plan and the EIA were completed and two stakeholders meetings and a big public meeting with Open House were executed. At the same time the pupils in the two local schools were offered an information day. After that the three planning documents; the town plan for the road, the Design Plan and the EIA were revised and sent out for remittance and exhibition successively during 2006 and 2007. The last information-meeting about the final results of the planning process, is still to come.

The opinions of the participants have changed a bit since they realized that the proposal was to use the long time ago assigned corridor. The participants had to put up with that decision and try to make the best of it. Some of the participants still protested at every meeting, but the majority came up with constructive proposals for improvement of the plans. In the end there was an acceptance for the planned proposals.

One of the methods used to support the dialogue was 3D CAD modelling, an interactive VR-model (Virtual Reality-model), that was demonstrated at three of the meetings, so the participants had the opportunity to follow how the digital model of the road plan was developing during the plan process. At the meetings in January 2006 the VR-model was complete and both participants and planners could evaluate the future road. As a consequence the planned bridge was changed, the cycleway was taken away (it appeared to seem too dangerous) and a separate cycleway is now planned on a small bridge besides.

#### 3. Methods used

In this very long planning process a number of methods have been practised. Through all the stages the participants have been asked to, and accepted to, cooperate in working groups. The aim from the project leader has been to involve schoolchildren in the planning process. The project leader has also consequently arranged so the dialogues have been documented and evaluated.

#### 3.1 Dialogue group with parallel working groups

The dialogue has been carried through with working groups. In the two later stages each working group have been represented by two persons in the dialogue group, as mentioned above. In this way a big number of people have been able to participate in a long and fruitful dialogue with the planning professionals from the town and from VST. The more numerous the participants of a meeting are, the more difficult it is to attain a sensible dialogue. This type of dialogue divided in smaller working units and served by an effective e-mail and Internet was successful.

The working groups have received planning material gradually as it has been produced and they have been giving feed back on the proposals continuously.

This has been a very good way to manage a big dialogue. VST was the driving force in this dialogue and the town politicians have not been active until the very last year of this process. The dialogue should have been even a greater success if the town politicians would have engaged earlier.



#### 3.2 Interactive VR-model

In the Design Plan stage an interactive VR-model was created parallel to the dialogue. The participants were shown the model at an early stage when it only consisted of the environment in Norrtälje. The next time it was demonstrated, a rough sketch of the road was inserted. At both occasions when the model was demonstrated the participants had the opportunity to see the digital model from any angle they wished. When the dialogue was ending the final version of the VR-model was presented at stakeholders meetings and at big meeting with Open House. Then the model was presented and the stakeholders were offered printed copies of their own property. The complete VR-model was also demonstrated to the schoolchildren. It was appreciated by everyone, but one experience of this frequent using of a VR-model was that it has a time limit. Both the expert demonstrating the model and the participants watching and discussing became exhausted after 20-30 minutes.

## 3.3 Open-house, big meeting and exhibition

Every stage in this planning process has started and ended in public with Open House, exhibition and a big meeting presenting the progressing plans, inviting the whole town. The Open House with exhibition and several experts on duty offering personal dialogue with anyone, has been arranged for one afternoon and the big meeting has followed in the evening the same day.

This is an effective way of spreading information and offering personal dialogue, but perhaps one afternoon is a too short time for the Open House. The economic frame in this small project did not permit an extended Open House. But at every occasion a big number of people came and joined the debate.

#### 3.4 Information via Internet and e-mail

In the last stage of the planning process VST and the town have been offering plenty of information about the planning process on the Internet. All the planning documents have been and still are accessible. Minutes from the dialogue group meetings has also been distributed on Internet. On Internet you can also watch a number of animations made from the VR-model, riding the planned road southwards and northwards and crossing the bridges and so on. These animations were available at the final Open House and stakeholders meetings as well.

E-mail has been used frequently in the dialogue process. All participants have easily been informed whenever anything happened. These electronic aids have really improved the information system in a democratic way. One of the working groups launched an own protest site, but it was never very active.

#### 3.5 Project-group feed-back continuously

The researchers' documentation and evaluation of the process has also contributed to the projects quality. The project-group has received feed-back continuously after every dialogue meeting. At every meeting the participants were asked to fill in a brief questionnaire evaluating that proper meeting. The project leader and the project group have therefore had the opportunity to adjust their presentations and behaviour.

At two occasions in the Design Plan-stage the project-group has practised evaluation and feed-back meetings to improve the dialogue. This proved to be very fruitful. The consultants and the experts were given an opportunity to discuss their expectations and the outcome of the process from their point of view.



## 3.6 Schoolchildren's participation

The aim in this project was to engage schoolchildren in the planning process. They participated, but not in dialogue with the adults. In the Feasibility Study a few classes in the school visited the town's planning office and discussed the plan. This happened after an information meeting for the teachers arranged in the school. The teachers were also provided with planning material and maps. The schoolchildren made drawings and short essays merely protesting against the road. This was quite understandable since one of the schools is situated very near the planned road.

In the Design Plan the schoolchildren on the secondary level were supposed to participate in the working groups together with the adults according to an agreement between the project leader and the headmaster. But the schoolchildren never appeared. In a discussion with the headmaster a new agreement was made to arrange an information-day for all schoolchildren in the two affected schools. During the information day the classes visited four stations with information and experts presenting the plans and offering opportunities for the pupils to ask questions and give opinions. One of the stations was the VR-model, another station was the big physical model. The plan documents were also presented to them and the history of the planning. The information day ended with questionnaire, where they could evaluate the information and also express their opinion of the plan.

#### 4. The results

The results of these dialogues are so far theoretic since the planning process is still in progress. But all the same the participants have had a considerable impact on the planned road. According to the recent regional transport plan the construction work will start 2013. One reason to carry through this kind of participation project is to minimize the risk of people appealing against the plan. Since the plan is not yet confirmed finally, we don't know if anyone in the antagonistic group will appeal.

The dialogue result, from the planner's point of view, is a success. The participants have contributed to the substance of the plan in several ways, and increased the quality of the plan. Below is a commented list of the main issues that the participants have influenced.

- Modification of the road line to reduce inhabitants inconvenience has been done on the whole distance. The participants have pointed out all the risk zones.
- Change of design for the southern approach of Norrtälje. The participants have been protesting against the design proposals for the southern approach and in the end of the planning process the politicians finally responded to the protests and the town plan was changed.
- A planned short tunnel near the school was presented already in the Feasibility Study to compensate the schoolchildren's environment. On the tunnel there would be planted grass and bushes for the children to be able to play there.
- Change of design for a cycleway crossing the river was actualized when the VR-model exposed the consequences of a cycleway on the bridge beside the cars.
- Arrangements to reduce the noise were planned after discussions with the participants about which habitations that would be disturbed.
- A roundabout near the hospital was lively discussed and the majority of the participants were against it. The local authorities were very firm in their decision about that alternative. The roundabout has finally been moved slightly northwards to avoid disturbing the nearby habitations.



## 5. Conclusion

This actually rather small road project has been carried through with high ambitions on dialogue and evaluation. Being an ordinary project and still scrupulously documented and evaluated it is very interesting as source of knowledge for numbers of project leaders. The conclusions are universal applicable and very useful.

All the three stages of this road planning process have been evaluated by researchers. The method, with parallel working groups participating in a big dialogue, has been successful. The dialogues have been going on, parallel to the professional planning process.

Sustainability in road planning is a question of having the right factors investigated in the EIA, which has been the goal of this dialogue process. The participants have contributed substantially.

Sustainability is also a question of activating the young generation in the planning process, which has also been an important issue in Norrtälje. If the young generation gets comprehension in the planning process and the democratic system the society has invested in sustainability. But to engage the schools in the planning process is always difficult and you have to adjust the procedure to the school agenda.

The Swedish Road Administration has demonstrated an open attitude towards the inhabitants, and the participants in the dialogues have appreciated that attitude.

The use of new media; as an interactive VR-model, information on Internet and e-mail; have been an improvement as technical aids in the dialogue technique. Still, the direct contact and personal meeting is very valuable and it can not be replaced by computers.

The long time perspective in road planning can cause indifference amongst the inhabitants, but if the planning issue really concerns people they will show up. In Norrtälje a fairly big group accorded to participate with great patience.



Initial Open House in November 2004 with participating school-children.



Exhibition at Open House, dialogue between a participant and an expert.



Working group member presenting a proposal. (above)

VR-model presented at the first dialogue meeting. (left)

Group discussion at the first dialogue meeting. (right)









Dialogue participants at the second dialogue meeting (left)

Discussion in the pause.(right)





The working groups received planning material to use in the dialogue. (left)

The town architect presents the town plan for the road to schoolchildren at the information day in January 2006. (right)





The VR-model is presented to schoolchildren at the information day in January 2006 (both pictures)



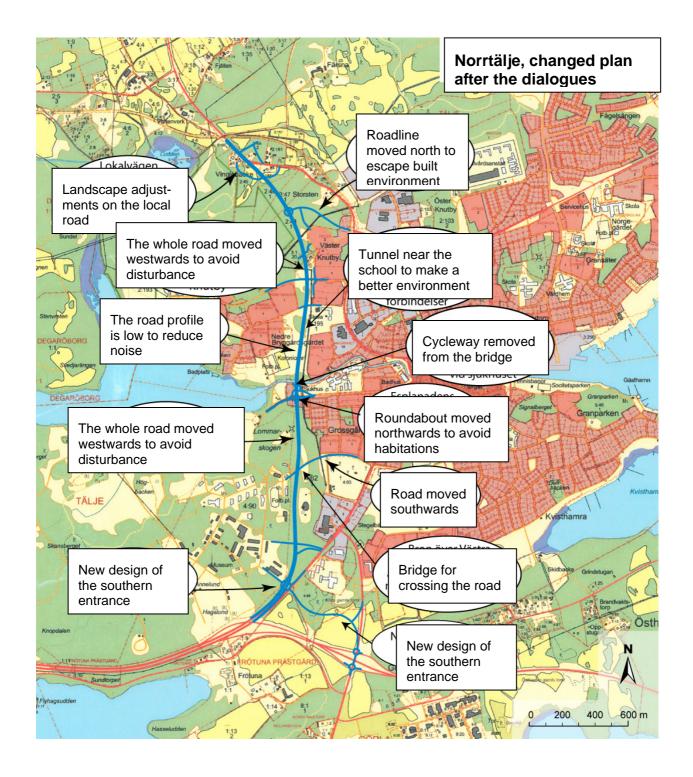


The plan illustrating the road passing the school in a short tunnel. (left)

One pupil's drawing illustrating his mental picture of how the road will effect the school environment.(right)

Both pictures are from the Feasibility Study 1997.





Norrtälje plan for a bypass-road.

This map is showing the road and all the major changes in the plan are pointed out. The commented map is in Swedish and translation to English is simply attached on the original map.