

Stuttgart 21 rail project plan approval procedure. An ethical considerations approach.

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Summary

Taking the plan approval procedure of the German Stuttgart 21 railway project the essay discusses how the approval of a large-scale project should be ethically conducted in order to avoid public conflicts while ensuring the governments ability to promote polemic projects. The insight that virtually always there will be disadvantaged citizens affected by a project in densely populated areas such as Germany is thereby essential. This notion generated the ethical dilemma between caring for affected individuals and the society that profits on the long term.

Approval procedures in other countries are depicted in order to have some reference of other approaches to this problem. Then the Stuttgart 21 project is laid out in more detail. The actors and their positions are explained. The discussion analyses the standpoints of the involved parties with an ethical approach. Thereafter, the ethical cycle is developed using principles of ethical reasoning and ethical theories. From the insights gained at the ethical cycle, the conclusion is drawn that the efficient approval of a large-scale project like Stuttgart 21 should allow more public participation. It is shown that some variation of the Swiss model is best to be followed.

1 Introduction

The city of Stuttgart is one of the main industrial and commercial centers in Germany. Nevertheless, with its mountainous surroundings and existing infrastructure built in the 19th century, the railway linkage of Stuttgart remains behind the current standards in Germany. After years of initial debates, in 1995, the decision in principle to build a subterranean railway station was made. A high-speed railway track to Ulm was coupled with this project.

From the beginning, this topic was the source of strong controversy in the regional and national policy discussions. During the plan approval procedure, which went on for about ten years, all legal steps for approval and project definition were completed. But even after the beginning of the construction and demolition of parts of the old train station, large-scale protests continued. Claims were raised that even though all legal steps were completed, the public did not properly have access to the project details and the updated figures for the costs were higher than the ones originally used.

When trying to dissolve a protest on September 30th, 2010 the police alleged of having been attacked by demonstrators. As a consequence they employed water cannons, pepper spray and batons. Several people were injured. This event increased pressure on the responsible authorities and construction work was stopped until after mediation.

The “Stuttgart 21” project, as it is called, shows the limited capacity of the government to push such a large-scale project through. At the same time it also is an example of how the legal framework can be manipulated when trying to carry such projects through. So the question is raised “how should a plan approval procedure be carried out, to assure the capacity of the state to develop its infrastructure while respecting public rights and its opinion”.

This question is especially relevant because the polemic around this project is a symbol for other large-scale projects within Germany, such as the expansion of the airport of Frankfurt or the new airport in Berlin currently being built. It shows that even if such large-scale projects are legally approved and in construction they can still be revoked. This notion is consequently a potential threat for other large-scale projects.

2 Society and large-scale projects in Europe

Germany, such as other European countries like The Netherlands or Great Britain, is very densely populated. Being wealthy, the inhabitants enjoy a high quality of life and have the means to resist unwanted changes imposed by third party agents such as the government.

The development of infrastructure in this setting will virtually always affect someone and is consequently a complicated and expensive undertaking. The legal frame of countries in Western Europe set a variety of rules to enforce and protect civil rights. The steps in the plan approval procedures are therefore clearly determined. Project plans have to be published, affected citizens are

directly contacted, all objections have to be addressed, citizen consultations and public rehearings have to be held. This makes the approval of a large project a complex, expensive and tedious process.

In the case of Stuttgart 21 all 11500 objections were addressed. Various discussions were held in the city council and hundreds of public rehearings took place. The railway company created a website and opened an exposition at the current train station where interested citizens could inform them selves about the projects. In addition, the project was a stressed topic of the regional elections of 2001 and 2006. One can imagine that the various constrains resulted from the discussions and raised the costs of the final project. But most importantly, this procedure took about 15 years which obviously shows how the government's capacity to act is limited in this regard.

2.1 Is it possible to enjoy wealth while developing infrastructure for the future?

The purpose of infrastructure is to ensure economic wealth and to improve the overall quality of life of the society.

One might figure, that when a certain level of wealth and life quality is achieved and space is limited the overall positive impact felt by the public are reduced. For example, if there was no train connection between Stuttgart and Ulm the railway project certainly would find more public approval then the Stuttgart 21 project which cuts the travel time between these cities by 60 minutes.

Of course the effect on the general population should be maintained at a minimal. The Stuttgart 21 project certainly tried to minimize the number of affected individuals by projecting a series of tunnels underneath the city of Stuttgart so that the city would be less exposed to noise and the old tracks could be turned into an extention of the existing park and new commercial areas.

At the same time the small, barely noted improvements in infrastructure have a positive impact in the economy. They add up and enable growth on a mid and long term basis.

So the society needs to choose between enjoying wealth now and compromising in order to ensure further wealth in the future. In order to make such an undertaking viable it is crucial to ensure the government's ability to act.

In the case of the Stuttgart 21 project the length of the plan approval procedure caused many of the crucial sources of discussion. If the plan had been approved within about three years topics like increased costs would not have been an issue. In addition, the global competition is also an aspect to be addressed. In some areas of the economy, such as aviation, western European countries are losing their influence because of saturated infrastructure. Other countries don't allow themselves so much time to decide upon a certain project.

Let's compare two models. One from an emerging country and one from an western European country.

2.2 Comparison to large-scale projects in emerging countries

As an example for a large-scale project in an emerging country we take the Belo Monte Dam, which will be built to generate electric energy at the Xingu River in Brazil. It will become the third largest hydroelectric power plant in the world and affect various indigenous tribes living and basing their existence on the Xingu River. The river is planned to be redirected away from the indigenous lands. The rainforest in the area will also be partially flooded.

This project was already planned by the military dictatorship in the 1980s. After the end of the dictatorship in 1985 the plans were dropped due to (international) public pressure and lack of funds.

In 2001 Brazil suffered from an electric energy crisis due to lack of rain. This started the development program *Avana Brasil* under which the project at the Xingu River was restarted under a new name, Belo Monte Dam. Despite protests from various non-governmental organizations and indigenous entities, the project was approved in April 2010. The non-indigenous habitants are to be resettled. The lands of the indigenous people will not be flooded but since the river will be redirected, they will lose most of their resources gained from the river.

In this plan approval procedure the government profited from the fact that the indigenous people have very limited means to influence the decision. The non-governmental organization could not gain enough attention to pressure the government away from the project. So basically the oppositionist to the project were ignored.

2.3 The Swiss model

A different approach was chosen in Switzerland to decide upon important undertaking by the government. When for example the concept of a 40km long high-speed train tunnel through the Alps was raised this became a controversial topic. It is called the Gotthard Base Tunnel and aims in easing the railway transport of people but mainly of goods from the Atlantic to Mediterranean ports.

This project involves high costs but will help in the integration of Switzerland to Europe shortening travel time from Zurich to Milan and optimizing cargo transport.

Swiss has a form of direct democracy so that the public decides through referendum. It consisted of two phases. First the public made the decision in principle where it was decided whether the project would be carried out or not. The second phase consisted of deciding on the layout of the project. Here the costs and benefits were presented to the public.

Even though the public opinion still remained divided, this form of democracy legitimized the governments undertaking so that oppositionist were rather prone to accept the decision. In contrast to the Belo Monte Dam the Swiss government proved to be capable of acting without ignoring the public opinion.

Nevertheless, the government had to invest a lot of resources to inform (and convince) the public of the advantages gained by the desired enterprise.

3 The Stuttgart 21 plan approval procedure

Before the various actors and their positions are explained, an overview of the Stuttgart 21 plan approval procedure is necessary. As already stated the decision in principle for a renewal of the train station in Stuttgart was made in 1995. Up to 60 different alternative concepts were examined and the subterraneous alternative was chosen as the best by the politicians. Those contrary to the project claim that a cheaper and more conservative above ground concept denoted as Kopfbahnhof 21 would be more reasonable.

Basically the Kopfbahnhof 21 concept, promoted by those opposing the S21 project, maintains the current above ground railhead type station making some improvements on the connection to the existing railway network. The current train station would be renewed.

However, the decision to build the new subterraneous train station was made. Often denominated as S21 (Stuttgart 21) this concept then underwent the plan approval procedure as determined by German legislation. The citizen consultations and discussions about topics like space planning, noise, vibrations, air and climate, soil and ground water, rail operations and cultural issues took place. Over ten thousand affected citizens were directly contacted. According to the government all project plans were published and the objections were addressed.

During the procedure, the opposing parties claimed that they weren't given enough participation. They tried to sue the responsible entities but the claims were denied at various tribunal levels. Some claimed that the opposing parties were being blocked off by unfair means. In 2007 their pursuit of a referendum was blocked by the government in power after 61000 signatures had been collected (instead of the 20000 needed).

4 The actors and their positions

Being such a controversial topic all the responsible agents have a position on the project. Traditionally the Christian Democratic Party (CDU) is the strongest party in power. Since 1972 they have been the strongest party in the government coalition. From the beginning they have been strongly in favor of the project. Currently the CDU governs in a coalition with the liberal FDP, both on a regional and a federal level. They too are in favor of the project. Thus, not only the parties but also the Government of the state of Baden-Wuerttemberg and the Federal Government promote the project. Another agent which will strongly profit from the execution of the subterraneous railway project is the railway company Deutsche Bahn A.G..

The citizens of Germany and especially of the state of Baden-Wuerttemberg also play a central role. Despite their initial favorable support for the project,

it lost strength however, throughout the approval procedure.

In the last decade a coalition between the CDU and the social-democratic party (SPD) governed the state of Baden-Wuerttemberg. At the time the SPD was in favor of the project but as things evolved throughout the year of 2010 they are now favorable for a referendum, dropping the current construction approval. The traditional opponent of the project in the political sphere is the Green party. They have been against the undertaking from the very beginning just as non-governmental groups like League for the Environment and Nature Conservation (BUND) or the “Life in Stuttgart Initiative”. The traditional opponents of the project have organized themselves in the “Union of S21 Opponents”.

4.1 Against

The “Union of S21 Opponents” lists a series of arguments against the project on their website [3]. They state that costs are poorly calculated and the overall project conception makes it too expensive. They claim that much higher costs can be expected since the efficiency audit for the high-speed track to Ulm is currently not yet available. With many states in Germany facing a large public debt, it would be unreasonable to take unneeded financial burdens like this project.

The opponents criticize the construction period of 15 years (2010-2025) as too long and fear that it will be prolonged. The burden on the city’s inhabitants is claimed to be too extensive for that long period of time. Because of the interdependency of the different project components the train station would not be able to work if the construction period is prolonged.

It is also stated that other important railway projects will be left behind to concentrate on S21. An example is the expansion of the tracks feeding the Gotthart Base Tunnel, which is currently under construction.

Another argument often put forth by the opposing parties is that the plans and cost calculations are based on old numbers resulting in low quality of the project.

They also predict that the train tickets will be more expensive while more delays could be expected.

A very controversial point is the felling of 282 trees in the park next to the station. Some of the trees are over hundred years old and their felling leads to heavy resistance from the environmental activists.

Strong criticism also goes to the approval procedure. Those opposing claim that the public will was ignored and that if consulted most citizens of Stuttgart would vote against the proposed project. Reference goes to the elections of 2009 where opposing parties were elected to lead the city council of Stuttgart.

4.2 In favor

To promote the positive aspects of the Stuttgart 21 project the institutions in favor opens an exhibition at the current train station in Stuttgart they also promote their arguments on their website [2] and in various promotional videos.

They say that the current train station has reached its maximum capacity due to the ineffective link to the railway system in the region. The train station is in a outdated condition, the tracks are ramshackle, tunnels and bridges are reaching the end of their projected utility time. So the infrastructure needs to be renewed *urgently*.

Those in favor of the project claim that new train station, being subterraneous, would free 100ha of space used by the old track system and would thus make the city greener. They refer to the cutting of the 282 trees as a necessary action and compare it to the amount of 800 trees, which are cut each year throughout the city. They also state that over 5000 trees will be newly planted.

The new train station is claimed to be more comfortable for passengers. It will be a symbol for the city and reduce the noise caused by trains.

The high-speed connection to Ulm will also improve the connections on the route from Strasbourg to Munich and play an important role in the German railway infrastructure.

When addressing the costs, the German railway company would carry the largest single portion of railway *station* costs.

After the reconciliation talks in late 2010 a new argument arose in favor of the project stating that, since construction had already begun and contracts had been signed, a withdrawal of the construction permits would be too costly.

5 Discussion

5.1 Analysis of the argumentation of the actors

The Stuttgart 21 project surged from the German transport authorities, politicians and favoring engineers who devised this infrastructural project. It can be seen that the idea was developed with an intellectual, factual and normative approach. Nevertheless, the opinions and views of the average citizens were put in the background and not sufficiently addressed. It is then no wonder that the final project was passed without finding positive resonance in the general population. This project of huge proportions and a construction time ranging over 15 years to complete, will have a huge impact on the every day life of the citizens of Stuttgart.

To the average citizen who has to bare the costs and to the parties opposing the project the extension of this project, seems much too expensive and inconvenient. They would perhaps wish to solve the current problem without having to revamp the entire transport net, as it is foreseen in Stuttgart 21. Not having in mind the overall national benefit for Germany, this train of thought could be deemed a fallacy of *wishful thinking*.

Claiming that project cost is too high, there is no reference given for one to place it into some context. For instance, when comparing the train station costs of about 4 billion Euros to the federal research budget of 12 billion Euros for 2010 it is indeed a high amount. But in comparison to the 22 billion Euros given to bailout Greece in 2010 4 billion Euros for an infrastructure project spread

over 15 years it is not so much. At the same time the parties against the project are also those who favor higher social spending regardless of the public debt. Therefore this argumentation seems *inconsistent*.

The claim of the opposing parties stating that the plans are based on old numbers also seems contradictory since their opposition is exactly what stalled a faster realization of the project plans.

Furthermore, the statement that other important projects would not be promoted because all resources would have been employed in the Stuttgart 21 construction is not totally correct. The exemplified Gotthard Base Tunnel feeder route through the Rheine valley is being delayed because of citizen protests against that project and not because of the lack of resources.

The parties favoring the project seem more concerned about the formal soundness of their argumentation. By explaining how the current tracks, tunnels and bridges are ramshackle they don't mention that maintenance work is being conducted continuously to maintain safe operations. Since the current track system will be in use for at least another 15 year during the construction these measures cannot be denoted as *urgent*.

The argumentation of those proposing the project envisions the greater good of the citizens not only of Stuttgart but also of Europe and especially Germany. The projects Stuttgart 21 will cut air and noise pollution and grant travelers more comfort. According to the *argumentation in utilitarianism* the Stuttgart 21 project would then be morally acceptable, since society in general will greatly benefit from this enterprise.

5.2 Ethical Cycle and independent analysis

To systematically approach an ethical problem the *ethical cycle* is a useful tool. The first step consists of the *formulation of the moral problem*. In the case of the Stuttgart 21 project, in introduction developed the question of how a plan approval procedure should be carried out to assure the capacity of the state to develop its infrastructure while respecting public rights and opinions.

The second step consists of the *analysis of the problem*. By having a closer insight in the argumentation of the relevant agents in section 5.1 it became clear that the parties involved have strong and very stagnated positions. Since the conception of the project public opinion and those opposing the venture were not properly involved into its planning. This probably led to very polarized positions, which is undesired for both parties. Maybe this top to bottom decision-making philosophy started because CDU had a stable majority in Baden-Wuerttemberg since 1972. What was not foreseen is that in the era of easy information access, the public would be aware of project details and the opposition would be strengthened leading to strong resistance even after the project was signed-off.

Third, it is necessary to *generate possible options for actions*. Here the *strategy of cooperation* can be of help. One should consult the stakeholders about their resolutions to the conflict. In the case of Stuttgart 21 the opposition would

claim that more influence on their side is due. They believe that a referendum would help them in this matter.

Those favoring the project, on the other hand, are against a referendum fearing to lose. They claim to have done everything prescribed by the legislation thus not giving a novel alternative. So the options are to stick to the current legal plan approval procedure, increase public participation through some sort of referendum or to give opposing individuals more influence.

The fourth step in the ethical cycle is the *ethical evaluation*. To start with the *formal frameworks*, would it be morally acceptable to continue to stick to the current legislation in future projects having had such a turbulent outcome with Stuttgart 21? According to *consequentialism* it is not, since the outcome employing the legislations to Stuttgart 21 did not lead to acceptable consequences. In *duty ethics*, following the legislation in power would be the thing to do, because they are the applicable norms. If a virtuous person were unbiased and experienced (as part of the *characteristic-judgment argumentation*) probably that person would seek an alternative in order to improve approval procedures in future projects. So *virtue ethics* would strive to at least change the current procedure.

Would it be correct to increase public participation by a referendum then? The expected outcome is certainly that, at least, all parties would respect the decision. Therefore, this would contribute to stability regarding large-scale projects which are a positive outcome even though the decision by the public might not be the ideal solution for problem in the long run. By consequentialism this would improve the overall procedure and thus be acceptable. This would not be in accordance to the current norm in Germany so that it is not approved by duty ethics. Since it was stated that a wise person would at least try to change the procedure the referendum alternative could be accepted by virtue ethics.

The choice to give opposing individuals more influence should lead to a longer duration of the plan approval procedure since it would take longer to change a given project until everybody is somehow satisfied with it. Therefore, the consequence should not be better than the above leading to a disapproval of this alternative in consequentialism. Again, since the current norms differ from this option, duty ethics would also disapprove of this alternative. Finally, a virtuous agent would probably also disapprove of this alternative since a longer plan approval procedure would weaken even more the ability of a state to act regarding large scale projects. This would certainly not be an improvement regardless of the outcome thus not a positive alternative in virtue ethics.

From the ethical evaluation of the formal framework above the alternative of increasing public participation by a referendum seems to be the most promising option. Intuition and common sense do confirm this outcome since it seems that something has to be changed in the plan approval procedures in Germany to make it more efficient and find public support and approval.

The fifth and last step of the ethical cycle consists of a reflection on the outcome of the previous step. As stated in the last paragraph the best alternative resulting from this ethical cycle consists of the increase of public participation

in the approval procedure of large-scale projects. Arguing about the concrete situation in Stuttgart at the *second level*, it becomes clear that the government should have focused on public participation early in the project's conception in order to avoid the polarization of the parties seen today. Now, having signed contracts and started the construction work, instability is very costly and not in the common interest of anyone involved.

6 Conclusion & Recommendations

In conclusion, one can say that the plan approval procedure as it was done in Stuttgart for the construction of the new train station was not successful. In order to speed up the process the governmental agencies tried to minimize public participation leading to a strong polarization of the sides in favor and against the proposed and finally approved project. This example shows that even after the approval of such a large scale project public support remains of major importance. But most importantly it also shows that the public opinion needs to be addressed from the very beginning of a projects' conception.

The analysis of the argumentation of those opposing and those promoting the subterraneous train station conception showed that both sides had fallacies in their argumentation. Nevertheless, it could be observed that the parties in favor argued with more concern about the validity of their arguments.

The ethical cycle helped to determine how to improve a plan approval procedures in the future. In the age of information where the public has easy access to specific information, public participation becomes more and more important. Here the Swiss model presented in section 2.3 is an example to be followed. As shown the participation in form of referendum legitimates controversial projects and can help making the overall procedures shorter. Thus the ability of the state to renew large-scale projects can be insured provided that before a given referendum proper information policy is promoted.

It is also clear that those affected by the implementation of a given project need to be somehow indemnified. Since society will profit from that given piece of infrastructure the price paid is justified. Nevertheless, following the line of thought of the fallacy of pricing, not everything can be compensated financially, so society needs to be aware that certain changes or even burdens are necessary for the common well being on the long term.

The current Stuttgart 21 situation gives a difficult picture. In March 2011 regional elections will probably change the political direction of the government in Baden-Wuerttemberg by the election of the Green party. Since the state is already legally committed to continue the project it is hard to tell what will happen. Currently the majority of the citizens of Stuttgart are against the project while the majority of Germans are in favor.

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