

# PPP Experiences from Germany and Europe - What Municipalities must know

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## 1. INTRODUCTION

The expression PPP (Public Private Partnership) - a joint undertaking between public and private partners - can no longer be ignored in the discussion of the future development of community infrastructure. The contradiction between the following is all too obvious.

- The liquidity bottlenecks and obstacles in the implementation of innovative forms of finance in local governments.
- The ready availability of private capital which is searching for reasonable long term investments that are proving difficult to find.
- The urgent necessity to make investments in maintaining and improving the infrastructure systems if they are not to be surrendered to permanent collapse.
- The obvious economic damage which already exceeds the costs of these investments by several factors (for example, traffic jams).

Therefore it is all too understandable when private companies in the construction and waste management sectors point out the great potential of the PPP models.

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However, the vested interests in public administration are hardly enthusiastic when delegating tasks to private industry which costs them the potentially lucrative posts and considerable political influence with all the associated personal advantages. Such motives are obvious, although they are disguised to the outside using expressions like "superordinate public interest", "sovereign duties", and so on.

Naturally there are also a number of justified fears that the necessary quality assurance could be lost when marketable infrastructure services are liberalised without taking the specific requirements of a natural monopoly in the traffic, supply or waste networks into account. Nevertheless, bureaucracy and the desire for power and personal advantage are present in private companies as well as in public institutions.

It therefore is sensible to concentrate on a segment of the community infrastructure and to demonstrate how the difficult parts can be approached using the PPP model. The field of water supply and waste water disposal are especially interesting here.

## **2. DEVELOPMENT OF PPP MODELS FOR WATER/WASTE WATER IN GERMANY**

How did it all actually begin? In the old days in Germany there was a saying in the water supply business that costs were not a limiting factor. In the years after German reunification this was often justified. The most expensive water supply, the most expensive waste water disposal is the one that does not work. Therefore it is right that in that phase of creation they said: "We want to build the treatment plant! We want to get it done! We want to fix the water supply!" The question of cost optimisation only came after the necessity of building something.

Systems were thus built that from the current perspective seem very opulent (**Slide 1**). The discussion arose as to why local waste water treatment systems had to be so expensive, especially in Lower Saxony, since Lower Saxony has always been a poor state. Then the idea was created, "let's pack the whole thing into an integrated competition", the so-called operator model. That means that the operator is a private company which offers the complete service. The planning, financing the construction, and operation are no longer separated, but all are packed together into one competition for the most favourable price per cubic meter. The first operator models did indeed supply a minor "technical revolution".

A classic example of this is Wagenfeld (**Slide 2**). Today one would call it a perfectly normal waste water treatment plant. But back then, the industrial construction for the round containers, the sludge silos of the same size, and the activation tank for sludge return were a minor revolution.

Indeed, the operator model did provide gigantic savings in planning for the simple reason that previously the planning had not been oriented around cost optimisation, but around the consensus of a committee. There was a government office that wanted the best for the environment with technical standards. There was a government office which worked out the concept and a planner who was not exactly punished if the system turned out to be a Euro or two more expensive than planned. There was also certainly someone in the community who said, "if I have a comfortable system, it is also better for me if I have one where the costs are squeezed down to the last screw".

This competition had a permanent influence on the structure. The waste water treatment plant in Altenburg is a well known example as the construction costs were reduced from DM 106 million down to an investment sum of DM 45 million (**Slide 3**). (After expiry of the contract, the city confirmed the model and put the job up for bids again in spite of a change in the political majorities).

This was only possible using the operator model where the private company helped bear the risk of this sort of building and for the special way such a waste water treatment plant was designed.

This method of construction was not in principle any different than conventional systems. Altenburg was then the topic of discussion. A point of dispute was whether worm pumps were needed or slow moving centrifugal pumps would be a viable alternative. Today that is not a topic of discussion. Back then it was a revolution which was only possible using the operator mode.

There were also minor innovations which were only accepted in the German and Austrian markets via the operator model (**Slide 4**). In Walkenried a gill separator was used. This was only possible in the framework of an operator model. If the community had had to bear the cost risk of operation, then it would hardly have chosen the advanced gill separator system for activation. It would therefore also not have increased the dry solid matter and reduced the volumes. That would have been too risky.

The technologies advanced via the operator model are increasingly being used elsewhere. Gill separators were installed for the first time in Kötschach-Mauthen in Austria (**Slide 5**). Here the message in relation to the privatisation was that the operator model saved investment costs which could be used in a later phase of development by the community's own plants. Naturally a gill separator is used today in the Wupper Association or in other communities. But the real pioneering and ice-breaking function came from the operator model.

The models are all oriented around the two basic concepts: the classic operator model in which the waste water disposal is awarded in a competition as a complete service, ideally at a fixed price. The operator is responsible for all operative decisions. The local community politics remain in the community.

In a later development which came after the operator model, which is known as the PPP model today, the community and private operator jointly found a company. This concept is suitable for those cases where everything cannot be calculated in advance. These are complicated networks. If one can really define the equipment and performance so that everything can be contracted at a fixed price, then the co-operation model is suitable (**Slide 6**).

This development came after the political change in Lower Saxony since the then-minister Birgit Breuel pushed the operator model through the legislature with corresponding changes in the laws. This happened in other states as well regardless of the party in power.

One of the most attractive results of the co-operation models is that the systems are built more quickly. Often they look just like conventional systems. Technically there are no differences to be found. But the purchase, intermediate financing, decision making in a corporation where the politician who sits on the supervisory board cannot go directly to the press afterwards to "report" represent the difference. The politician on the board is bound to the interests of the company.

Everything works quite different from a company or plant operated by the community. (However, it must be said that there are also community operations that are run like companies. But we are speaking here of institutions and forms of organisation and not about the special performance of those responsible for the community who do good work in spite of operating the community's own plants.)

This recognition from privatisation has also flowed into the community forms. For example, there is the treatment plant in Zierenberg (**Slide 7**). An SBR system was installed there. The decision only came this way because there were also additional offers with fixed prices. The community then decided only to agree to a turnkey contract. But they were only able to decide to use this advanced technology because they saw that the supplier was willing to offer it at a fixed price.

The pioneering function did not stop before it reached the other forms of organisation. The announcement effect and the talk of privatisation have forced a number of community operations to become up to date so that the economic effect of these models cannot be overestimated.

Today in Germany there is a whole series of models. Only a few of them are sketched out in this plan. Seen historically, the first operator model in Lower Saxony was in Algermissen. Back then I was asked by the ministry to provide an expert opinion. Then came Wedemark. This was the first complete waste water model including the Sittensen sewer. It was the first co-operation model in Lower Saxony and was created back then in co-operation with the regional supplier. We had the opportunity to moderate until the contract had finally been signed.

The first somewhat more difficult model was in Schwerte, which then was called a partially publicly vested model. Today one would call it a plant operation model, or in German a Betriebsüberlassungsmodell. Rostock is also worth mentioning as a concession for water and waste water with elements of the operator model. There are also other models like Leidersbach in which leasing plays a role (**Slide 8**).

### **3. THE SITUATION IN 2003**

How many partial privatisation models there are in Germany is consistently underestimated in the public discussion, also in the statistics of the ATV. Fully privatised with full transfer is not possible for legal reasons. Certainly for practical reasons as well. These are only the ones where we have had the opportunity to work as planners or to provide expert opinions. As you can see here, there is a large range of sizes starting with several hundred residents on up to a very big arrow. Berlin is also entered here with its 3.6 million residents (**Slide 9**).

The years of the project completions are another very interesting point. Slide 9 does not show the entire country of Germany, but only the projects taken care of by Team Rudolph. After the fall of the Berlin Wall, there was a peak. From 2002 to 2003 the planned completions decline because the projects get bigger and more important and take much more time. The awarding process has become much more complicated. The Municipal Fees Law is much more disputed with regards to its provisions for execution than it used to be. But there is an increasing number of conversions, especially with the city operations.

The forms of organisation are very important. There are so many mixed forms of the operator model and PPP or co-operation model and so many own operations which could result from an expert report or a call for bids. When one honestly and constructively discusses privatisation in a city, then the result is always better. Even if nothing came of the discussions. The motivation and the search for optimisation has always been beneficial.

Nevertheless, it is clear, as is confirmed by the figures of the BDE, that the community forms of organisation dominate due to the legal and historical situation. In waste water disposal, we have about 15 percent as measured by the number of residents whose waste water is dealt with by private forms of organisation. In drinking water supply it is somewhat less: 75 are purely public. For the supply of drinking water this certainly also has something to do with how it is treated for VAT purposes (**Slide 10**).

This historic division of drinking water and waste water, which is currently prevalent in Germany due to various reasons, certainly has a number of disadvantages as well. For this reason it is increasingly being called into question at both the state and national levels.

After the fall of the Berlin Wall, the structure of the water and waste water systems in the East was actually better than ours. But that mostly fell apart back then. In the West there are an increasing number of cases where people are trying to bring these two back together.

#### 4. PPP MOTIVATION

When thoughts are expressed on the participation of private companies in waste water disposal, there are typically three core motives (**Slide 11**):

The first is called the classic goal triangle. One can discuss what the real motivation is and what are only arguments that are put forward. On one hand it is a question of rationalisation. This is always listed as one of the official reasons. There is an attempt to keep the waste water treatment fees low and to say that when a private company does the work it is a bit more efficient and more economical. It is also not subject to political influence.

The second is the local budget. Certain models attempt to achieve a favourable sales price. This was a primary reason for large cities like Berlin, Bremen and (currently) Dresden. Finally, last but not least, the political question of the location is important: maintaining jobs or maintaining and developing the local community. The last currently plays a major role. Many heads of larger community operations know that if they do not restructure, if they do not provide services competitive to those on the market, they will go under in the long term. There will be more and more service providers which pick up part of the waste water disposal business, whether it be sludge disposal or some sort of facility management settlement.

This is especially politically sensitive in the large cities. My personal perception is that the citizens themselves care very little. They say the citizens do not want to sell their community service providers or perhaps privatise the waste water systems. It is neither scientifically nor statistically proven that the secondary interests are carried into the populace. If one conducts a neutral survey, the people often do not even know what form the organisation takes.

There is currently no major city that is not thinking about privatisation. The city council members sometimes do not even know what form of organisation the city service providers have and that private companies have long been involved. They say: these are our municipal service providers. They develop a certain feeling for home. The citizens, on the other hand do not really care. They just want disposal to take place as inexpensively as possible. Protests and referenda only arise as a result of professional organisation from the outside (**Slide 12**).

FORSA shows a survey from 2001 which was published by the magazine of the BDE - Bundesverband der deutschen Entsorgungswirtschaft (Federal Association of the German Disposal Companies) - ENTSORGA. When they went through the counties, those surveyed said: we would like to see liberalisation. Most probably do not really know what exactly liberalisation in this context means. Generally people say that it is a good thing. Telephoning has become cheaper and better. Why not water and waste water? Then most people say that it must be cheaper when competition takes place. And most people think that the service will also get better. The majority of the populace does not see privatisation as the major controversy which it is regarded as inside the industry.

## **5. PUBLIC LAW SUPPLIERS**

Community owned companies can operate very efficiently. They can be a clear improvement over the community operating the system itself. However, for various reasons, they cannot be a replacement for competition.

Many managing directors in municipal service providers are pleased to have private co-owners because they form a sort of protective shield against political desires in daily operations. One can certainly assume that the mixed forms are reasonable.

One must also be very careful with the budget. The company owned by the community grants a loan to the community, buys the waste water system. As soon as the community is in a poor financial position and the local supervisory authority examines the matter more closely, then they say that the loan by a company that is owned 100 percent by the community is not a real loan. This is handled differently by the community supervisory authorities. But when it comes to activating assets, then one must, to put it carefully, be sure that the activation of the assets really is such. It could be that the community-owned company may not be good enough (**Slide 13**).

The so-called own companies and associations as public law service providers must also be mentioned at this point. The fact that large city or public operations see themselves as companies and naturally therefore act in their own interest when developing the company results in some strange constellations. However, one fact is important, according to a recent ruling, only "real" companies that are subject to bankruptcy can participate in fair contract awards. Those which want to work for profits, must also accept risks. Whoever claims to work for the good of the community, is vested with

public authority, and receives tax privileges (like the community owned operations and associations), must be excluded. It is understandable that large community operations which actually ought to be organised as private companies try to get around this principle in order to fulfil their duties to the fullest (**Slide 14**).

Similar to the finance sector with the Bremen State Bank, there are dramatic examples in the water/waste water field (and even more in the waste disposal field) of how investments and purchases of companies that were originally seen as highly profitable have turned out to be major loss makers.

The ability of communities and community plants to be active on the stock markets in the acquisition of private companies and thus risk tax money and pension funds is highly questionable. That the market is made ineffective via so-called "inter-community agreements" takes place in the end effect at the cost of the fees and tax payers.

Other inter-community models foresee technical co-operation and are often seen as alternatives to real PPP models - usually with considerable echoes in the press. However, if one looks at the individual contracts of such Public-Public-Partnerships, then one can see that it is only the extension of the transfer of costs based on cost prices, but without any binding prices or even any guarantee of success. Public-Public-Partnership models make sense to handle community waste water treatment systems or similar, or even the bundling of functions, which cannot be easily supplied in competition.

The argument from some business consultants that "private companies must pay taxes and are therefore more expensive" is only correct from an economic standpoint as long as private waste water service providers are discriminated against by the tax system (obligation to pay Value added tax for waste water treatment companies, but no similar situation for community owned operations). This is questionable for obvious economic reasons.

## **6. LIBERALISATION VERSUS PRIVATISATION**

It makes a considerable difference whether one is speaking of the liberalisation of sectors and says that the monopolies are going to fall in same sectors or to say that we are talking about privatisation where only a portion of the duties are delegated using whatever model is being applied. Most trade associations say that liberalisation in the water/waste wafer field is very difficult or hardly possible. However, the delegation of performance in a competition in the form of privatisation for example PPP, is different.

It must be mentioned, however, that there have been enormous difficulties in many cases of privatisation. In **Slide 15** you can see a list of the major items which have lead to problems later on. One of these problems - this has affected community and private companies equally, regardless of their organisation, is the dramatic decline in use of water, especially in the new German states in the East (**Slide 16**). It is perfectly logical that when consumption declines that the costs in DM or Euro per cubic meter rise accordingly. It is often said that the people are saving because it has got so expensive. For the West at least, I do not believe this to be the case. Machines and faucets have simply got better. If it were only a question of money, then the consumption of mineral water would not have risen at the same time. In fact, the expense for water as a whole has gone up, especially due to the voluntary consumption of mineral water.

## **7. PERSPECTIVES**

What will the discussion in the next months or years be? A topic that has been under discussion for a long time is the equal tax treatment. The ability of the communities and their decision making competencies is also a very important point. What they really want to have, with or without privatisation, is especially limited because waste water is freed from value added tax as long as it is in the form of a community-owned and run operation. As soon as these operations are treated the same as the corporations, value added tax becomes due. This is a gigantic brake on development. This means that drinking water and waste water are separated and that private and public law companies are run quite differently. Thus it would be important to create an equal tax situation to increase the ability to reform the systems.

What will characterise the development in the coming decades? The so-called alternative systems in which rainwater disposal is dealt with in the household and storage tanks are built will increase greatly (**Slide 17**). In addition, the autonomous industrial supply will increase because the manufacturers will develop technologies for special cases.

The following **Slide 18** does not show a German PPP model. You can see from this picture that no central supply or disposal can exist. Technologies which were developed for such things will become increasingly inexpensive and will cause problems for some communities and associations.

If one speaks in jest that at same time in the future a home power plant for electricity/water/heat will exist, then one must consider whether a system where investments were made for 50 or 80 years can remain technically competitive in the future. Otherwise the major industrial consumers will "vote with the faucet". We may have planned on their presence and designed the water plants accordingly, but they may not be there.

The final **Slide 19** puts out somewhat broader perspectives. The strongly growing water markets are not the old EU states. The EU access countries are the ones with a high volume of investments necessary, co-financed by EU cohesion funds. Anyhow, the greatest needs are in other regions of the world, where water is scarce and even the basic needs of supply are not met. We should never forget, whenever high water and wastewater fees became a political problem: **THE MOST EXPENSIVE WATER & SANITATION IS THE IMPROPER WATER & SANITATION.**

**In summary:**

- The purely public models in many sections of the community infrastructure have no long term future and will not survive the pressures from competition and globalisation.
- On the contrary: it will be unavoidable that the community activities and the activities of the government are limited to truly sovereign functions.
- That such purely sovereign function of supervision and control as well as the guaranty obligation collide with the activities that are actually commercial/marketable, has become clear, at least in the water/waste water sector. We must wait and see what the German courts have to say about the cases that have come up before them and what the European Court of Justice will have to say on the matter.
- On the other hand, private companies must also recognise that the public infrastructure field is not marketable in the classic sense. The natural monopolies of the networks in the various infrastructure fields differ greatly in regulation and competitive structures (individually for the various fields, telecommunications is different from electricity which is different from gas which in turn is different from water and waste water).

In spite of all the practical problems and difficulties, the PPP model (co-operation model) represents a central perspective for the future if it is competently structured, prepared and implemented.