

USING PPPs FOR THE RENOVATION OF THE PALAIS DES NATIONS – STATEMENT WITH REFERENCES TO THE GERMAN PPP MARKET EXPERIENCES

The following statement was created as response on a request from the UNECE (4th of July 2014) concerning the realization of the renovation of the Palais des Nations in Geneva using a PPP model. It gives an overview over the German experience of PPP renovation of public buildings and the potential benefits of PPP.

The project

The building ‘Palais des Nations’ (PnD) of the United Nations in Geneva is in poor maintenance conditions. Furthermore, there is a lack of proper accommodation of disabled people inside the building and the energy use is inefficient. Therefore, an extensive renovation and modernization of the PnD is needed. The costs for this project are estimated at about CHF 618 million.¹ It is expected that the realization and completion of construction will take 8 years (phased in several building sections).

The following table gives a rough overview of the challenges to be met:²

Health and safety challenges	<ul style="list-style-type: none"> • Current health, safety and fire standards are not met • Outdated electrical installations are a fire hazard • Asbestos presence impedes fire protection upgrades and refurbishments
Maintenance Challenges	<ul style="list-style-type: none"> • Deteriorating Piping Systems resulting in water leakage • Deteriorating structures and corrosion rendering buildings structurally unsound
Operational Challenges	<ul style="list-style-type: none"> • Inefficient Office Space Utilization • Limited accessibility to ‘Persons with Disabilities’ • Premises built when persons with disabilities’ rights were not recognized • Aging Conference Rooms with outdated equipment
Energy Efficiency Challenges	<ul style="list-style-type: none"> • 1600 windows dating from 1937 need replacement • Roofs and skylights need repairs and replacement • External and internal lighting needs upgrading with LED and automatic sensors • Additional solar panels need to be installed • E-Building façade needs comprehensive repairs • Results to be obtained with resources: <ul style="list-style-type: none"> ▪ 490 MWh/year less electricity ▪ 8 000m³/year less water ▪ 34%/year less CO₂ emissions

Due to the economic situation, many member states are reluctant to provide funding. The aim is to choose the procurement model which offers the best „Value for Money“. PPP is considered as an

¹ Strategic Heritage Plan of the United Nations Office at Geneva. Report of the Secretary-General. Sixty-sixth session. Item 143 of the provisional agenda. Proposed programme budget for the biennium 2012-2013. Distr.: 8 August 2011.

² Adams, Clemens: The Strategic Heritage Plan (SHP), Renovation of the Palais des Nations, Briefing for UNECE Private-Public Partnerships (PPP) Fifth Session, Presentation, 5th February 2013.

adequate method because it offers the possibility to use private sector capacity, know-how and resources. It is expected that the lifecycle-approach of PPP will lead to a reduction of the overall costs over the lifetime of the asset and an optimization of design and quality in order to minimize maintenance and lifecycle investment costs.

The report, prepared by the secretariat under the auspices of the Bureau of the UNECE Team of Specialists on PPPs (TOS PPP) and its co-Chairpersons, identifies the ‘Design, Build, Finance, Maintain’ (DBFM) model as the most suitable model for the PdN. Payments to the private partner will be based on the availability of the facilities. In addition, it was proposed that alongside the DBFM, a separate real estate project will be realized that will make use of the PdN real property to raise revenues for the renovation (e.g. using the prime real estate inside the PdN for example as an hotel and accommodation for UN staff and delegations). It is expected that this so called ‘hybrid’ PPP scheme helps meeting the renovation costs or at least a substantial percentage of them.

The object of the present document is to evaluate the suitability of the PPP-model for the PdN-project, taking into account the German PPP-market experiences, and to give an outlook on the next steps of project realization.

PPP in Germany

Since 2003, over 200 PPP-projects with a total investment of over 5 billion euros have already been realized in the building construction sector in Germany. The savings achieved of 12.9 percent due to implementation as PPP correspond to more than 740 million euros. The major part of the projects is realized in the areas of health, education and administrative buildings.

The report prepared by the UNECE Secretariat has not listed best-practice examples from Germany yet. Therefore, the following table lists a selection of German PPP-projects in the area of administrative buildings. The complete list can be found in the annex of this paper.³

#	Project	Public Contractor	Scope of work	Contract Period	Invest [Mio. EUR]	Project Volume [Mio. EUR]	Efficiency
1.	City hall	County Unna	DBFMO	25 years	24,00	90,00	8,00%
2.	Court building (City of Chemnitz)	Land of Saxony	DBFMO	20 years	25,00	74,00	14,30%
3.	Financial center	Land of Hesse	DBFMO	30 years	37,40	110,00	12,00%
4.	Court building	City of Wiesbaden, Land of Hesse	DBFMO	30 years	128,00	not specified	14,00%
5.	Administrative building (City of Heidelberg)	Land of Baden-Württemberg	DBFMO	15 years	40,00	130,00	12,50%
6.	City Hall	City of Moers	DBFMO	23 years	72,00	142,00	not specified

³ The complete list of PPP projects in Germany can be found under <http://www.oepplattform.de/projektdatenbank/>

7.	State Parliament (City of Potsdam)	Land of Brandenburg	DBFMO	30 years	120,00	320,00	not specified
8.	District office	County Sächsische Schweiz, Pirna	DBFMO	25 years	45,00	not specified	not specified
9.	Administrative building Heppenheim	Land of Hesse	DBFMO	30 years	24,50	45,50	17,00%
10.	Ministry (City of Potsdam)	Land of Brandenburg	DBFMO	25 years	57,00	not specified	not specified

The PPP projects in Moers (No. 6) and in Pirna (No. 8) are renovation projects and were (partially) classified as historical monuments, meaning that renovation work had to be realized under strict conditions.

The average contract period is 25 years. The efficiency advantages compared to the conventional procurement procedure are around 12 percent.

The report prepared by the UNECE names the high level of cost security and schedule reliability as main arguments for a PPP realization of the PnD project. A PPP model would avoid the problem of cost overruns. Payments are aligned to the delivery of project objectives whereas failures are aligned to penalties. A study of German PPP projects confirms this assumption: 56 public contractors were interviewed about their PPP projects. 93 percent of the respondents state that the projects were realized within the contractually agreed budget. In addition, 80 percent of the respondents confirm that the realization took place within the agreed delays. In 18 percent of all cases the construction was even finished before the agreed completion date.⁴

Evaluation of the PPP project PdN with references to the German experiences

Legal aspects

As already mentioned in the report prepared by the UNECE, the legal parameters of the project realization have to be clarified. In particular a verification of the applicable public procurement rules for the project PnD is needed. The applicable regulations have to be clearly defined. This also relates to the applicable construction standards (e.g. requirements regarding fire protection).

Concerning the procurement procedure there are different standards for PPP projects in Europe: Whereas in France the 'Competitive Dialogue' is used as standard procedure for PPP, in Germany this procedure has hardly been used because of the higher costs for bidders and the public sector. In Germany the major part of the projects was realized in a negotiated procedure (Verhandlungsverfahren) with prior pre-qualification competition.

Other important questions, as the applicable law, arbitration or mediation clauses and guarantees and security interests are already mentioned in the report. The collateral structure has a significant influence on the financing structure and the financial costs of the project.

⁴ The study can be downloaded under:
http://www.bauindustrie.de/media/uploads/publikationen/oepp-praxistest_kurzumfrage_final.pdf

Technical aspects

The PnD is in urgently needs of renovation, including a floor plans optimization. As the list of German PPP projects shows the integration of the private partner can contribute to an efficient project realization.

The service life of the technical building equipment and installations should be taken into consideration when determining the contract period. In Germany contracts are usually concluded for a period of 25 or 30 years, depending on the technical life cycle of the building components.

The scope of work should be defined with references to the requirements to be met by the building. As the German experience shows, the integration of some operational services, e.g. cleaning, winter road cleaning into the PPP project can be economically.

In some projects the private partner gave a guarantee for energy consumption which means that he guarantees a maximum for energy consumption for the building. He carries the risk for an overrun of the agreed quantities. Therefore, he is willing to optimize the buildings energy efficiency during the contract period.

Due to the high investment volume it could be economically interesting to create different lots (e.g. three buildings in one lot). A smaller investment volume makes the project more attractive to several companies, which makes the number of potential bidders for the project higher. An intense competition should be sought for a successful tendering procedure. A good example for procurement per lot is the PPP school project of Kreis Offenbach where two 2 lots à 50 schools were assigned and realized. In addition, learning effects from the first lot could be integrated in the following lots.

Market aspects

The German market participants have sufficient market experience to realize the PPP project PnD. PPP projects are usually realized by a consortium built by a construction company, a design office, an operating company and one or more financing institutions.

A realization per lots would reduce the project volume and make it attractive for PME, as a result competition will intensify. This would also simplify the calculation of the investment costs and the financing procedure. A binding fixed price offer over 8 years (implementation period) would lead to a higher risk spread.

Risk allocation

The risk allocation is a key factor for efficiency. The risk cannot be transferred free of charge to private companies. But for certain risks, such as construction risks or maintenance risks, private companies may be able to handle these risks at lower costs than the public partner.

In Germany the private sectors is responsible for planning risks, construction risks, maintenance risks and operational risks (e.g. cleaning). Financial risks are covered by financial instruments such as swaps. The transfer of the demand risk to the private partner will be calculated by the latter with an adequate risk prime.

The risk matrix given in the report reflects the German market standard. In order to minimize the risk primes and the lifecycle costs of the project it is indispensable to prepare a detailed technical study (inventory).

Conclusion and next steps

In summary, it can be concluded that, pending the outstanding issues mentioned above, PPP is a suitable procurement procedure for the project 'Renovation of the Palais des Nations'.

As the German examples show, administrative buildings are highly suitable for a PPP realization. The average efficiency advantage of the realized projects was about 12 percent compared to a conventional procurement procedure.

The separation of the PPP project and the Real Estate Development project is assessed positively because of the different risk and financing structure of the two projects. For the Real Estate Project, the development project, a detailed market survey is recommended.

For the PPP project we recommend a detailed feasibility test and the preparation of an economic feasibility study including the calculation of the Public Sector Comparator (PSC), based on international standards. The value for money expected by a PPP realization should be compared to the lifecycle costs of a renovation under a traditional procurement. This study should also include a detailed risk analysis for the different procurement methods. The study can be completed by cost-utility-analysis which also takes qualitative factors such as organizational and time based advantages into consideration.

In the context of the feasibility study it should be evaluated if a separation in lots is economically and technically appropriate.

Another important step is to establish a project team in order to support and control the PPP project for the PnD. An interdisciplinary team could initiate and support the economic and technical feasibility studies. The latter would even be necessary in a traditional procurement procedure. The quality of the project preparation has a significant impact on the life cycle costs of the project.

#	Project	Public Contractor	Scope of work	Contract Period	Invest [Mio. EUR]	Project Volume [Mio. EUR]	Efficiency
1.	City hall	County Unna	DBFMO	25 years	24,00	90,00	8,00%
2.	City hall	City of Gladbeck	DBFMO	25 years	16,00	44,00	13,50%
3.	District office	Bodensee-kreis	DBFMO	20 years	11,50	34,00	20,00%
4.	City hall	City of Brandenburg	DBFM	20 years	7,10	not specified	9,70%
5.	Court building	Land of Saxony	DBFMO	20 years	25,00	74,00	14,30%
6.	Financial center	Land of Hesse	DBFMO	30 years	37,40	110,00	12,00%
7.	Foundation building	Heinrich-Böll-Foundation	DBFMO	15 years	12,40	13,90	8,00%
8.	Administrative building	County Esslingen	DBFMO	30 years	23,00	44,00	15,00%
9.	City hall	City of Freudenberg	DBFM	25 years	4,60	not specified	not specified
10.	Court building	City of Wiesbaden, Land of Hesse	DBFMO	30 years	128,00	not specified	14,00%
11.	Administrative building (City of Heidelberg)	Land of Baden-Württemberg	DBFMO	15 years	40,00	130,00	12,50%
12.	Administrative building (City of Limburg)	Land of Hesse	DBFMO	30 years	12,00	44,70	12,00%
13.	Administrative building (City of Korbach)	Land Hessen	DBFMO	30 years	6,00	22,60	13,00%
14.	Administrative building (City of Büdingen)	Land of Hesse	DBFMO	30 years	12,00	45,50	10,00%
15.	Police building (City of Buchen)	Land of Baden-Württemberg	DBMO		3,50	not specified	not specified
16.	Ministry of Finance (City of Potsdam)	Land of Brandenburg	DBFMO	30 years	15,00	25,00	2,00%
17.	Administrative building	City of Marktheidenfeld	DBFMO	30 years	13,50	not specified	not specified
18.	Police station (City of Eislingen)	Land of Baden-	DBFM	20 years	3,20	3,27	not specified

		Württemberg					
19.	Police station (City of Radolfzell)	Land of Baden-Württemberg	DBFM	20 years	3,88	6,02	10,00%
20.	City Hall	City of Moers	DBFMO	23 years	72,00	142,00	not specified
21.	City Hall	City of Dietzenbach	DBFMO	25 years	16,34	not specified	13,00%
22.	State Parliament (City of Potsdam)	Land of Brandenburg	DBFMO	30 years	120,00	320,00	not specified
23.	District office	County Sächsische Schweiz, Pirna	DBFMO	25 years	45,00	not specified	not specified
24.	Town Hall	Municipality Neuenhagen	DBFMO	20 years	12,75	not specified	not specified
25.	Administrative building	Stadtwerke (public utility) Ulm / Neu-Ulm GmbH	DBFMO	20 years + Option	25,00	not specified	not specified
26.	Administrative building Heppenheim	Land of Hesse	DBFMO	30 years	24,50	45,50	17,00%
27.	Center for agriculture	City of Hamburg	DBFMO	25 years	11	23,00	not specified
28.	Permanent Representation of the Land of Hesse (Brussels)	Land of Hesse	DBFMO	30 years	28	not specified	not specified
29.	Administrative building (City of Soltau)	Heidekreis	DBFMO	25 years	10	not specified	not specified
30.	Veterinary Office (City of Sigmaringen)	Land of Baden-Württemberg	DBFMO	20 years	11	not specified	not specified
31.	Ministry (City of Potsdam)	Land of Brandenburg	DBFMO	25 years	57,00	not specified	not specified
32.	Court building (City of Hannover)	Land of Lower Saxony	DBFM	30 years	31	not specified	not specified