

**PUBLIC PRIVATE PARTNERSHIP (PPP) ON THE MOVE OR  
GOING SOUTH? EMPIRICAL INDICATIONS FOR SUCCESSFUL PPP DECISIONS FROM GERMAN MUNICIPALITIES**

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**ABSTRACT**

Public Private Partnership (PPP) is an alternative instrument of public procurement that has been implemented on trial in Germany since the end of the 20<sup>th</sup> century. It describes forms of co-operation between the public authority and private corporations in order to finance, build, renovate and/or run public infrastructure or provide public services. Discussions about PPP are often highly ideological. Consequently, evaluations of PPP often lack objective analyses and reliable empirical evidence. Therefore, the paper aims at the identification of key success factors for PPP projects and wants to name their main disadvantages. In our study, we investigate all municipal PPP projects currently operating in the federal state of Baden-Württemberg in Germany (10.8 Mio. inhabitants) – realised by in-depth interviews with PPP project managers of the local government. The results are very ambivalent and range from enthusiasm to “never-again” valuations. When it comes to future development PPP is considered rather sceptically.

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## 1. PREFACE

Since the end of the 20<sup>th</sup> century, Public Private Partnership (PPP)<sup>1</sup> has been dominating discussions about alternative forms of public procurement in Germany. Besides, PPP cases have been continuously growing since 2003. In 2009, for instance, the investment volume of all 130 German projects reached 5.45 billion € (Christen, 2009, p. 9). Moreover, one can state increasing scientific publications as well as PPP documents launched by political institutions. Especially the latter have reached enormous quantity<sup>2</sup> and obviously aim at the dissemination of the PPP idea with the help of several PPP Task Forces recently implemented. These publications have the character of proceeding recommendations. They mainly include political argumentative support and proclaim PPP as “universal remedy” for core problems such as public budget deficits and mostly ignore any critical aspects (Krumm/Mause, 2009, p. 124).

PPP is not merely accompanied by euphoria though. “Failure of Cooperation between City and Private Enterprise” (Eberhardt, 2009, p. 6) is an exemplary headline of 2009 when the contract of an early municipal PPP<sup>3</sup> in the federal state of Baden-Württemberg was cancelled. The town council of Leimen decided to manage the public baths under its own control again. After the decision one councilman says: “We have got over PPP. I cannot imagine that one single person in this group would agree to such a project again” (Eberhardt, 2009, p. 6). After four years of PPP both the private and the public partner are discontented or even frustrated because the former suffered tremendous losses and the latter had a lot of trouble with entrance fees and construction deficits. Such descriptions of negative PPP examples are supported by more profound publications where PPP is assessed highly critical from an ideological point of view (Rügemer, 2008 and the literature mentioned there). Moreover, a “cooling down” of the PPP market is even stated in a recent study carried out on behalf of the Federal Ministry of Transport, Building and Urban Development (German Institute of Urban Affairs, 2009, 48).

To sum up, PPP discussions seem to be dominated by two currents: one group completely argues in favour of such projects and the other one shows entire hostility. On both sides, the evaluation of PPP is often highly ideological. What is more, a lack of *objective* empirical data supporting the pros and cons of PPP makes it very difficult to carry out a realistic assessment (Beckers/Klatt, 2009, pp. 333). In order to give the PPP debate more profundity, relevance and added value, the authors develop an explorative study with the help of in-depth interviews with PPP project managers in German municipalities. The research design is of *qualitative* nature as the sample size could not exceed nine (for more information see chapter 6). The independent empirical data created in this process illuminates the field

of PPP research and can clear the way for a reliable *quantitative* design.

The paper is structured as follows: After the introduction demonstrates the relevance of the topic, chapter 2 shows the historical development of PPP in Europe and Germany. It classifies PPP as an option of public procurement and provides a definition of the complex term PPP. Chapter 3 outlines Germany's political structure and the legal framework relevant for PPP as to understand the circumstances of *municipal* PPP projects – the level of the paper's empirical study. In part 4 framework conditions, namely ideological changes, budget constraints and superior private management, are identified which are supposed to work as PPP enablers. Section 5 sketches out core assumptions of transaction cost theory and principal agent theory with the intention of deriving success factors for PPP. The method used is expounded in chapter 6, followed by a presentation of the empirical results in chapter 7. It describes framework conditions and success factors most of the interview partners identified as relevant. In section 8, the authors sum up the major results of the study and give hints to further fields of research.

## **2. PPP – A CONCEPTUAL APPROACH**

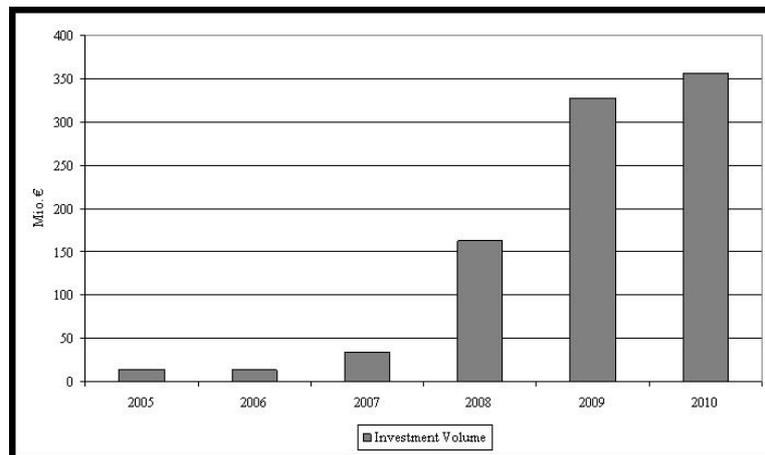
### **2.1 HISTORICAL DEVELOPMENT**

Collaboration between the public and the private sector has been occurred for decades.<sup>4</sup> This “classical” co-operation between the state and private corporations is called PPP of the first generation and has its origin in the 1970ies (Budäus, 2005, p. 26). In the early 1990ies a new mode of public service delivery was established where the roles of public and private actors were redefined (OECD, 2008, p. 11). Australia, Ireland and especially Great Britain are called trend setters in the field of PPP (Greiling, 2009, p. 108, Zitron, 2006, p. 54). After exceeding privatization during the Thatcher area, New Labour implements PPP as a “light” version of the former activities (Rügemer, 2008). Several legal and institutional initiatives have been taken place in that country for almost 20 years to simplify PPP dissemination (Spackman, 2002). The British Private Finance Initiative (PFI) “is used as a reference model around the world ... to take forward PPP projects” (HM Treasury, 2008, p. 8). In the last few years, Germany has also implemented instruments following the British example (cf. the description of political desirability of PPP in chapter 4.1).

In Great Britain, hundreds of PPPs have already been realized (see, for instance, Zheng et al., 2008). In the meantime, they make up ten per cent of total public investment (Conor, 2005, p. 44). A famous PPP is the Treasury Building in London (Harriehausen, 2004). Ger-

many is considered to be a laggard with respect to PPP (Greiling, 2009, p. 108). In 2002 the first PPP was launched.<sup>5</sup> Not before 2004, the first PPP contract with significant volume was signed. It comprises the renovation, maintenance and operation of 88 schools in Offenbach, situated in the federal state of Hesse (Harriehausen, 2004). Approximately 130 PPP projects are in progress by the end of 2009 (PPP Task Force, 2010, p. 4). In the federal state of Baden-Württemberg the first PPP contract was signed in 2005 with an invest volume of 13.5 Mio. € The project is situated in Friedrichshafen and involves the construction and 20 year operation of a district administration building (PPP Task Force, 2010, p. 6). Up to now, the total investment volume of PPP projects in Baden-Württemberg exceeds 350 Mio. € Figure 1 visualises the development of municipal PPP investment volume in the federal state of Baden-Württemberg:

Figure 1: Development of PPP Investment Volume<sup>6</sup>



## 2.2 CHARACTERISATION OF PPP

PPP is a new form of public procurement and can be distinguished from conventional public service delivery where the public authority is solely responsible for the implementation of public tasks. Thus PPP is no hierarchical way of procurement but makes use of the market. As the responsibility for originally public tasks and/or property is to a certain extent transferred to private actors PPP can be described as a type of privatisation. However, privatisation must be considered on a continuum that ranges from formal privatisation to functional privatisation and material privatisation. PPP is part of functional privatisation, because the task transfer takes place only for a limited period of time (Fischer, 2008, pp. 25). Table 1 sums up the variety of attributes privatisation can acquire and classifies PPP in accordance to relevant privatisation criteria.

Table 1: PPP as a form of Privatisation

criteria	privatisation			
	formal privatisation	functional privatisation		material privatisation
		outsourcing of subtasks	Outsourcing of value chain	
operator	public authorities	public authorities	public authorities	Public and/or private
risk transfer	-----	some risks	lots of risks	all risks
time period	limited or durable	limited	limited	long run
range of tasks	some or all	some	all	some/all
public role	agent	principal	principal	regulator
privat role	none	agent	agent	agent
			PPP	

Source: Adapted from Fischer, 2008, p. 42.

No universally acknowledged and convincing definition of PPP exists. One cause lies in the complexity, multi-dimensionality<sup>7</sup> and changeability of the concept (Ziekow/Windoffer, 2008, p. 25). Accordingly, various definitions are very global and embrace all forms of co-operation between public and private actors. Two examples illustrate this problem. For Skelcher (2005) “PPPs combine the resources of governments with those of private agents (business or not-for-profit bodies) in order to deliver societal goals.” Another defini-

tion considers PPP as a “[c]ooperation of some sort of durability between private and public actors in which they jointly develop products and services and share risks, costs, and resources which are connected with these products” (Van Ham/Koppenjahn, 2001). A second reason for the lack of a uniformed definition is the source it comes from. If one takes to consideration that many definitions evolve by PPP affine agents they suffer from too euphemistic constituents. A case in point is English (2007) who sees PPP-intrinsic time and cost advantages: “Public-private Partnerships are *time and cost efficient* arrangements between the state and a private consortium for infrastructure-based service provision...”

As a result, the authors do not aim at a single “handy” definition of PPP but deliver a catalogue of PPP immanent characteristics. (1) First of all, PPP means an interactive relationship between public and private agents on a co-operational basis. So, PPP acts as an intermediary between the two sectors *public* and *private* (Ziekow/Windoffer, 2008, pp. 39). 2) Secondly, the collaboration focuses on durability<sup>8</sup> and process orientation. A central aspect of PPP is its life cycle approach. PPP aims at an embracing integration of all steps in the value chain. This includes planning, finance, building, operation and utilization (Fischer, 2008, pp. 20).<sup>9</sup> If a private enterprise is in charge of construction *and* operation, the corporation can include the follow-up costs for the infrastructure from the very beginning. It is assumed that the enterprise develops a concept for (public) infrastructure that directs at overall cost-effectiveness in the long run (PPP Task Force, 2010, p. 1). The inclusion of construction or renovation and maintenance respectively operation is a decisive factor because running costs have a medium share of 70 per cent in the whole life cycle of an infrastructure (PPP Task Force, 2010, p. 1).<sup>10</sup> Not solemnly, PPP contracts can last up to 40 years and thereby mainly exceed the working lifespan of an individual. Consequently, the level of complexity in public service delivery rises (Callender, 2010a, p. 591). (3) Thirdly, the private agent has to carry out a substantial part in the task fulfilment so that the basic idea of task sharing is realised. (4) Similar to the last point, a share of responsibility between the public and private actor and the development of a community of responsibility describes a PPP project (Ziekow/Windoffer, 2008, p. 47-49). (5) Although the public authority and its private partner are structurally coined by different interests (cf. chapter 5.1), they follow compatible goals within a PPP. Both *partners*, as the term already implies, want the PPP project to be successful. Therefore, they build a “target community” (Budäus, 2005, p. 19). (6) Finally, the specifications for tenders are output-oriented whereas the conventional descriptions have an input orientation (Ziekow/Windoffer, 2008, p. 56-58). This means that the public authority only determines *what* the result should be instead of regulating *how* the performance is realised.

Currently, PPPs of a so-called “third generation” are developing in scientific discussions (Budäus, 2005, p. 25). As the basic idea of PPP lies in the mobilisation of (private) resources for an improvement of public infrastructure of a region, this new generation should include the concept of Corporate Social Responsibility (CRS). While the public sector withdraws from former service delivery private enterprises are supposed to take up positions of the state and assume more responsibility for society (Budäus, 2005, p. 25-26).

### **3 PPP ON THE MUNICIPAL LEVEL – THE POLITICAL STRUCTURE OF GERMANY**

As this paper examines PPP on the *municipal* level, it is necessary to become familiar with the main tasks and functions of German municipalities. Therefore, this section briefly outlines Germany’s political structures and the legal framework relevant for PPP. Germany is organized as a democratic and social *federal* state (Basic Law for the Federal Republic of Germany (GG) Article 20, 1). This means that power and sovereignty are constitutionally divided between a central federal governing authority (parliament; government) and a number of constituent political units with delimited but self-governing authority. These units are not subordinates of the federal level, but politically independent and self-responsible (Laufer/Münch, 1998, p. 14). According to GG Article 79, no future parliament is allowed to change the organizational principles as determined in GG Article 20, 1. It is the so-called “eternity” clause of this constitution. As a result, federalism is the dominant institutional structure in Germany.

Consequently, federalism guarantees an infeasible vertical separation of power and thereby establishes a strong and reliable system of checks and balances (Schultze, 2007, p. 147). Besides, federal systems outreach more central forms of democracy with regard to participation quantity and quality as elections take place more often and they sometimes deal with topics “closer” to the people (Laufer & Münch, 1998, pp. 28). Additionally, a federal system enables the integration of heterogeneous societies since cultural differences and traditional habits can be kept up within politically independent units (Friedrich, 1968). At the same time, however, the federal state represents the whole German nation in respect to general economic policy, foreign affairs, military forces and nationwide security (Schmidt, 1992, pp. 95). In sum, the federal principle aims at “variety in unity”.

Germany has one central government (level one) and is subdivided into 16 federal states (level two), each of the latter having an autonomous government (Schmidt, 2005, p. 94). Local authorities<sup>11</sup> – the one this study is focused on – build the third level. The central government as well as the constituent federal states and regional ad-

ministrative bodies are in charge of a clearly defined number of functions and activities. So as to realize this decision-making authority, every political unit needs to possess certain financial independence. This prerequisite implies the discrete right to levy taxes and the right for tax administration and spending (Graf, 2005, p. 307). Each level has its own (tax) revenues by which the central government, federal states and municipalities have to assure the financing of all assigned tasks through discrete budget organization (Rudzio, 2006, p. 320). Further, every level must “take due account of the requirements of the overall economic equilibrium” (GG, 2009, Article 109, 2). Several principles for budget management are mentioned in BHO Article 7 which are relevant for PPP: (1) the primacy of economic efficiency and thriftiness is established; (2) an ex ante investigation of cost-effectiveness and risk distribution must be carried out; (3) the implementation of cost and activity accounting is to be introduced in suitable areas; (4) private providers should be given the opportunity to demonstrate their performance – if the private sector seems to be more appropriate (e. g. cost-efficient) to execute certain assignments, actual public tasks can be ceded to private actors. This means that PPP must always be considered a possible way of public procurement.

Table 2 describes the main discrete tasks of municipalities and includes a list of real estate responsibilities of the municipal level. This is important since all PPP projects in Baden-Württemberg are rendered in the field of structural engineering.

Table 2: Municipal Authority within the Federal System of Germany

Main discrete tasks	Real estate responsibility
All relevant services for citizens Waste disposal Water and energy supply Fire protection Sewerage Benefit payment Registration (people, cars)	Administration buildings Town halls Kindergartens Schools Museums Public baths Libraries Sports halls Hospitals Business premises Dwelling houses

Source: Adapted from Laufer/Münc, 1998, pp. 199; Fischer, 2008, p. 15.

## 4 FRAMEWORK CONDITIONS AS PPP ENABLERS

As the number of PPP projects in Germany is verifiably increasing, three reasons are named that are supposed to cause this expansion. Their relevance is tested in chapter 7. Additionally, the identification of significant framework conditions helps to provide reliable prediction for PPP development in the medium term.

### 4.1 IDEOLOGICAL CHANGES

The first framework condition selected to function as PPP enabler is an ideological change in society as well as in politics. In the 1980ies free market liberal thinking becomes predominant in Western Societies. “Private before state” happen to be a popular slogan that aims at a withdrawal of the state (Gerstlberger/Siegl, 2009, p. 6). Private actors began to fulfil originally public services on a contractual basis (a so-called “contracting out”). Simultaneously, the role of the nation state changed. Statehood shifts from *providing* to *enabling*. In the new comprehension the state merely functions as a “regulatory watchdog” (Schuppert, 1997, pp. 541).

On the contrary, the current economic crisis seems to stop the dissemination of free market liberalism and works as a counterpart towards this development. Increasing scepticism towards the private sector can be observed, accompanied by the “renaissance of the state” (Creutzburg, 2008). Citizens’ material sorrows combined with the image of avaricious managers and irresponsible CEOs lead to a new ideological direction called neo etatism (Plickert, 2008). As deregulation and open markets is said to cause the crisis, a “strong state” seemed to be the better alternative. To what extent this development spread to decisions-makers in local public authorities will be shown in the paper’s empirical part.

As far as politics is concerned, PPP has been explicitly backed by the central government for years. It is not only the coalition agreement of the present government where support for PPP projects is declared. It was already in 2003 when the Federal Ministry of Transport, Building and Urban Affairs founded a PPP task force.<sup>12</sup> This consulting corporation assists PPP projects of the central state and helps to improve the (legal) framework for such co-operations (DStGB, 2009). In 2005, the central government passed a law that aims at an acceleration of PPP implementation and an improvement of the legal framework for PPP projects (Federal Law Gazette, 2005, p. 2676).<sup>13</sup> Up to now, a PPP network of competence has been developed. For instance PPP Task Forces exist in almost every federal state. In Baden-Württemberg, PPP is especially supported by the Ministry of Economic Affairs. Numerous workshops, exhibitions and lectures

provide information for the municipal level. A case in point is the failed PPP in Leimen (cf. chapter 1) where members of the town council recognised political pressure from more powerful authorities. According to them the Baden-Württemberg Ministry of Economic Affairs “urgently recommended” the PPP model and the regional administrative authority portrayed PPP as the only feasible alternative for the public baths renovation (Eberhardt 2009, p. 6).<sup>14</sup>

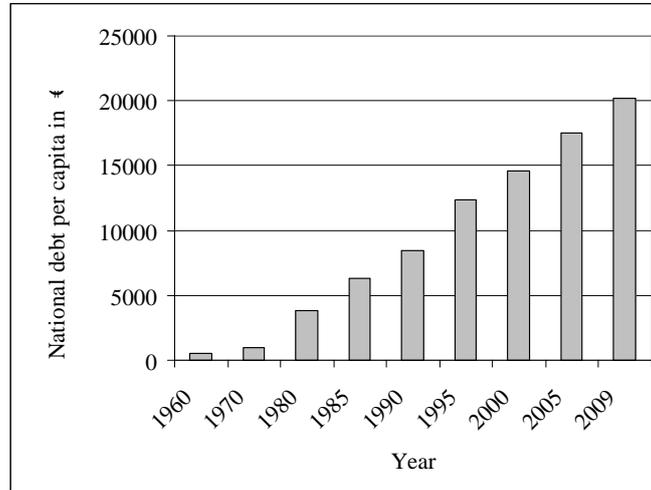
Furthermore, pro-PPP institutions ensure a high level of literature output (e. g. Christen, 2009; Suhlrie, 2009; Baumgärtner et al., 2009; Pauly, 2006). These publications do not follow the purpose of objective PPP analyses. They try to influence public decision-makers (in municipalities) by the provision of best practices and statistics (e. g. German Building Industry, 2009; Baden-Württemberg Ministry of Economic Affairs, 2009). The annotation about ideological change as a PPP enabler results in the formulation of a first hypothesis:

*(1) A climate of ideological support and political desirability leads to more PPP projects in Baden-Württemberg.*

## **4.2 BUDGET CONSTRAINTS**

A second reason for the upward in PPP projects can be seen in budget constraints. During the last decades public authorities face rising budget deficits on every level of the federal state. Especially the national debt grows extremely and this development will be certainly accelerated in the next two years as a result to the current financial and economic crises (cf. figure 2).

Figure 2: Development of National Debt per Capita



Source: Numbers adapted from Tax Payers Association, 2010.

The federal states also suffer from increasing per capita indebtedness. Baden-Württemberg, the state of our empirical analyses, is the third best of all 16 states with a credit market debt per capita of 3,878 € in 2008. However, its debt rose by 146 per cent within the last 20 years (Baden-Württemberg Statistical Office, 2010). On average, Germany's municipalities have a debt rate that is growing rather slowly compared to the second and first level of the Federal Republic. Table 3 shows that in Baden-Württemberg, they even slightly reduced their debt rates in the years 1998 to 2008 (Baden-Württemberg Statistical Office, 2010). From 2009 onwards, however, a deteriorating budget situation is expected as a consequence to ongoing crisis management.

Table 3: Level of Indebtedness per capita of Baden-Württemberg municipalities (in €)<sup>15</sup>

Year	Core budget	Publicly owned enterprises	Total
1998	572	367	939
1999	558	356	914
2000	530	363	893
2001	559	364	923
2002	498	369	867
2003	504	473	877
2004	489	496	885
2005	478	436	913
2006	474	448	922
2007	438	460	897
2008	403	461	964

Source: Baden-Württemberg Statistical Office, 2010.

While the public debt is commonly increasing, the amount of necessary investment in public infrastructure is growing, however. According to Reidenbach (2008), German municipalities envisage estimated investment hold-ups of 704 billion € in the years 2006 to 2020. For Baden-Württemberg's municipalities, calculations expect an annual need of investment of six billion € for the next 15 years. Yet, in the past the yearly investment rate was only 2.5 billion € (PPP Task Force, 2010, p. 2). To conclude, public authorities face increasing pressure in the fulfilment of their essential (infrastructural) services. As they generally have to consider the primacy of economic efficiency and thriftiness (cf. chapter 3), this policy becomes of special importance in times of financial constraints. Moreover, the main proclaimed advantage of PPP is more efficient public procurement. As a consequence, public authorities are expected to make greater use of this alternative in order to guarantee a satisfying level of public services. The expositions of chapter 4.2 lead to the second hypothesis we want to look into:

*(2) The deteriorating financial situation of public budgets results in increasing attractiveness of PPP for public authorities.*

### 4.3 SUPERIOR PRIVATE MANAGEMENT

The (proclaimed) superiority of private management is the third framework condition to be investigated. In recent years, the goal of “economic efficiency” dominates discussions on procurement, including the public sector (Callender, 2010, p. 17). Commonly, the public sector is accused of being less efficient than the private sector (Sykes/Callender, 2009, p. 1505). Structural reasons that lead to monitoring and incentive deficits as well as missing competitive environments and insufficient professionalism of public administrations are mentioned with regard to this “hypothesis of inefficiency” (Budäus/Grüb, 2007, p. 249; Ndandiko, 2009, 1411). Subsequently, PPP is considered to be an instrument where private management concepts are used for a more efficient realization of public tasks (Budäus 2005, p. 13). While a producing state is said to act less efficiently, the state should concentrate on the generation of suitable regulatory frameworks. In doing so, a state is supposed to work efficiently because it possesses enough expertise in this area (cf. chapter 4.1). Moreover, it is administrative sciences literature that predominantly recommends task transfer to private partners for a modern and efficient public administration (e. g. Schuppert, 1997, p. 540; Jann, 1994). This argumentation corresponds to the so-called “hypothesis of acceleration”. Here, the focus is not on the superior cost-effectiveness of private management but on advantages in time relations. The organizational principle of private enterprises is regarded to produce more output in a shorter space of time. Especially for time critical construction projects<sup>16</sup>, this can be a crucial plus for PPP. Summing up these explanation a third hypothesis can be deduced:

*(3) As management of the private sector is perceived to be superior to public management, public authorities increasingly engage private partners for the execution of public tasks.*

## 5 KEY FACTORS FOR SUCCESSFUL PPP DECISIONS

The ideological climate, budget constraints and superior private management can only form *necessary* conditions for PPP and focus more on a general increase in number of PPP. More interesting, however, are the attributes of *successful* PPPs. Therefore, PPP specific factors that are relevant for successful PPP decisions have to be analysed. These factors are *sufficient* conditions for PPP to become a sustainable and relevant alternative of public procurement in the future.

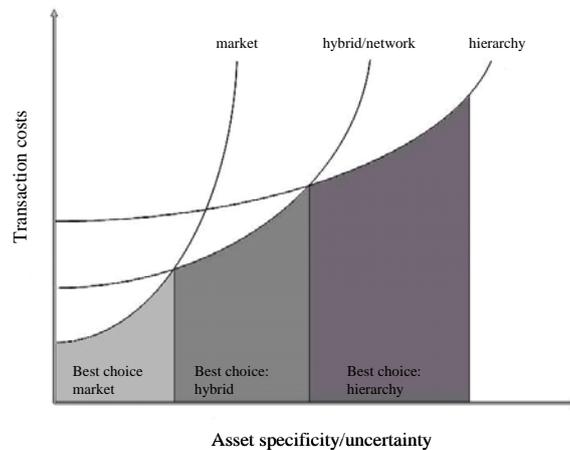
## 5.1 THEORETICAL BACKGROUND: TRANSACTION COST THEORY AND PRINCIPAL AGENT THEORY

A theoretical framework ensures a structured approach for the identification of relevant success factors. Transaction cost theory<sup>17</sup> and principal agent theory provide such a frame because PPP projects are characterised by a high level of interaction between (mainly) two actors whereby various transaction costs evolve (Fischer/Alfen, 2009, p. 9). This can be contrasted with horizontal collaborative procurement where reduced transaction costs are mentioned to be a chief advantage (Walker/Bakker, 2009, p. 760).

The significant justification for the implementation of PPP as an alternative for public procurement would be an advantage in cost-effectiveness (cf. chapter 4.1 and 4.3). This prerequisite is fulfilled when the sum of production costs *and* transaction costs outweigh other possibilities of public service delivery. Transaction cost theory analyses institutional arrangements and subdivides them into three main categories: competitive markets, corporations (hierarchies) and hybrids/network constructions like PPP. Of main interest is the search for an arrangement where transactions cause least overall costs. At the same time, however, the basic assumptions of bounded rationality and opportunism must be met (Greiling, 2009, p. 119). Transaction costs depend first of all on asset specificity. Is there a high amount of capital that applies to a specific transaction then transaction costs are very high because these capital cannot be adequately used for alternative investments (“lock in effect”) (Mühlenkamp, 2005, p. 45). PPP projects are comparatively specific, meaning that business partners must invest a high amount of specific capital – only to create a “tailor made” solution for a public user. As a consequence, the danger of “holdup” and opportunistic behaviour leads to considerable transaction costs in PPP networks.<sup>18</sup> Additionally, uncertainty is a second factor that determines the level of transaction costs. PPP contracts are long-lasting and complex and thus inevitably incomplete. Thus, it is not possible to put all future eventualities into a contract because one has to deal with a highly uncertain environment. Therefore, post-negotiations and adopting costs are an important part of PPP (Mühlenkamp 2005, p. 34).

As figure 3 visualises market arrangements are to be preferred for unspecified transactions with a high level of certainty. Transaction should take place in a corporation when specificity and uncertainty are very high. Network arrangements lie in between (on PPP as a hybrid form between market and hierarchy see pp. Essig/Batran 2005, pp. 223).

Figure 3: Asset Specificity as a Determinant for Institutional Arrangements



Source: Adapted from Williamson, 1991, pp. 284.

Transaction costs occur ex ante and ex post. The former embrace costs of drafting, negotiating and safeguarding whereas the latter contains of maladaptation costs, haggling costs, set-up and running costs, and bonding costs in order to ensure the partner's loyalty (Williamson, 1985, p. 20). Moreover, transaction costs can be distinguished in "search and information costs, negotiating and decision-making costs, monitoring and contract enforcement costs and investment in social capital" (Greiling, 2009, p. 119).

In compliance with principal agent theory the two contract parties in PPP are named principal (the public authority) and agent (the private enterprise). Both actors are intrinsically motivated by self-interest based on rationality (for this section Greiling, 2009, p. 117). The theory is mainly interested in how the agent can be forced to act in accordance with the principal. A so-called agency problem evolves that is not only derived from the actors' egoism but from information asymmetries in favour of the agent. Before the PPP contract is signed, the agent can mislead its public partner about its professional skills (*hidden characteristics*) (e. g. Dudkin/Välilä, 2005). *Hidden intention* refers to the agent's ability and intention to act in an iniquitous manner after the contract is signed. In PPP the agent is quite often a huge private consortium. This consortium possesses *hidden knowledge* especially compared to small (municipal) public partners. As a result, the agent knows how to realise a contractual goal with less resources than the public authority believes. Hence, the private partner generates disproportionately high profits (a kind of monopolistic rent). *Hidden intention* is the fourth attribute of information asymmetries:

the principal is never able to see through all the actions an agent executes.

Principal agent theory also broaches the issue of risk-bearing. This is a central topic for PPP because the share of risks is supposed to be one main advantage of the PPP concept for growing efficiency in public service delivery. With the purpose of project value maximising all risks should be transferred to the partner that can handle them most cost-efficiently (Greiling, 2009, p. 118).

## 5.2 IDENTIFICATION OF SUCCESS FACTORS

Chapter 5.1 outlines the basic assumptions of two theories that are most suitable for the analysis of PPP (Krumm/Mause, 2009, p. 119). So as to create successful PPPs one has to (1) reduce transaction costs and (2) take into consideration the agency problem.

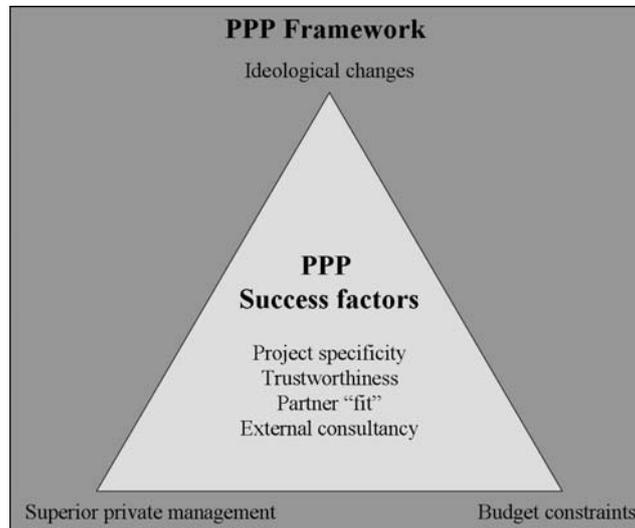
The elucidations on transaction cost theory lead to the assumption that *less specific PPP projects* are “cheaper” with regard to transaction costs. A project with a low level of specificity would be the construction and operation of a standard public sports hall, as it can be found in almost every town. Up to now, dozens of such PPP projects have been realised. Consequently, a standardisation process evolved and economies of scale can be generated because draft versions of tender documents and contracts already exist. Monitoring costs make up a considerable volume of overall transaction costs in PPP projects. The public partner has to supervise the implementation of terms of agreement and eventually execute sanctions such as filing a lawsuit (Krumm/Mause, 2009, p. 119). These costs can be reduced if the project partners cultivate a relationship based on open communication and *trustworthiness*.

In accordance to principal agent theory PPPs can be considered successful when there is a general “*fit*” in the partnership. Information asymmetries are especially existent when the partnership lacks balance in expertise. This is the case when small towns co-operate with huge and experienced private enterprises (cf. chapter 5.1). If the project partners work together at eye level, a real partnership evolves. In reality, however, it is predominantly a highly professional and experienced general contractor the municipal decision-maker has to deal with. Consequently, *external consultants* play a decisive role in the PPP process. With their knowledge they can support the public sector with regard to contractual risk and profit allocation. Additionally, they know how to include an effective system of incentives for the private corporation to act in accordance with public interests.

To sum up, two areas are relevant for the analysis of PPP in Germany: (1) framework conditions enabling PPP and (2) success factors

for “good” PPPs. Figure 4 visualises the analytical framework of this paper.

Figure 4: Analytical Framework for PPP



## 6 METHODOLOGY

As already expressed above, *empirical* studies about PPP in Germany are extremely rare<sup>19</sup>. Besides, the variables we are interested in (cf. 5.1 and 5.2) have been investigated marginally at the utmost (cf. German Institute of Urban Affairs, 2009). Moreover, surveys that focus explicitly on *municipal* PPP projects, especially in the case of Baden-Württemberg, could not have been identified by the authors. Consequently, an *explorative* design is the most suitable in this comparatively new field of study. As only a small amount of sound knowledge exists with regard to PPP, the centre of attention lies in the generation of basic empirical data (Diekmann 2008, pp. 33). Thus, the application of open and less standardised inquiry methods is recommended (Kromrey, 2000, p. 67).

Hence, the *sample* of our study consists of all municipal PPP projects that are currently in progress in Baden-Württemberg. Since PPP is a comparatively new public procurement method, the number of such projects is still manageable. As there are *nine* local PPPs in Baden-Württemberg, this number determines the size of our sample. Fortunately, public PPP managers of every project agreed to deliver information to this paper. Although the number of research objects is quite small, we nevertheless created a full sample survey that allows a basic understanding of the core difficulties and advantages in this largely unexplored field of PPP. The data for this paper was generated by in-depth interviews with the person(s) in charge of the PPP

project among the public authorities.<sup>20</sup> The majority of the interviews were conducted in a face-to-face situation; in three cases a telephone interview was preferred. The interrogation was held along a questioning guide and lasted 75 minutes on average.

Baden-Württemberg is a federal state in southwestern Germany and comprises 10.7 Mio. inhabitants – approximately one eighth of the country's total population. It consists of 1,101 municipalities, 35 districts and nine city districts (Baden-Württemberg Regional Portal, 2010). A district is an administrative region that closely co-operates with the municipalities. Firstly, districts provide support for small towns with not enough (material and immaterial) resources. Secondly, they are a connective link between the second and the third level (German District Association, 2010).<sup>21</sup> As we investigate *municipal* PPPs, this includes all projects that lie in the responsibility of the third level of the federal republic (cf. chapter 3). In our sample, four projects are managed by districts and five by municipalities.

## 7 EMPIRICAL RESULTS

### 7.1 RELEVANT FRAMEWORK CONDITIONS

Before looking into relevant PPP enablers, table 4 firstly presents the municipalities where the projects are situated and gives an overview of the number of inhabitants. Besides the framework condition identified in chapter 4.1, structural variables like size of a public authority can also facilitate the evolvement of PPP. In our sample, the population of a *district* does not play a role for the signing of PPP contracts because two projects are situated in a district with more inhabitants than average and two PPPs take place in districts smaller than average. As far as *municipality* size is concerned, the PPP target group is the medium-sized town. The biggest cities of Baden-Württemberg have not yet implemented PPP. The reason for that is only speculation. Smaller municipalities often do not have the necessity for projects of a certain volume of investment, e. g. cannot afford it. Since PPP is usually adopted for projects exceeding 5 Mio. €<sup>22</sup> PPP is out of question for a larger group of small municipalities. Eppelheim, with just 14,683 inhabitants, does not fit the type of a middle-size town. This exception can be justified, however, by the financial situation of the town (cf. figure 5 and the explanation for hypothesis 2).

Table 4: Number of Inhabitants of PPP Municipalities and Districts

District	Inhabitants	Municipality	Inhabitants
Esslingen <sup>23</sup>	514,439	Ulm	122,009
Reutlingen	281,252	Pforzheim	119,813
Bodensee	209,068	Ludwigsburg	87,376
		Baden-Baden	54,734
		Eppelheim	14,683
<i>District Average</i>	307,128		

Source: Data provided by Baden-Württemberg Statistical Office homepage.

In chapter 4 we identified three framework conditions that are supposed to facilitate the emergence of PPP in Germany. In what follows, each aspect is tested for its relevance according to our Baden-Württemberg sample.

*(1) A climate of ideological support and political desirability leads to more PPP projects in Baden-Württemberg.*

Referring to the first hypothesis, only the second part was verified by the interviewees. Almost every public PPP manager confirms the political willingness of the central and federal state government. Some PPP managers explicitly worked together with the federal Task Force and gained (financial) support. The activities of the Baden-Württemberg Ministry of Economic Affairs including its secretary of state (Mr. Ernst Pfister), were recognised in particular. However, critical voices were heard, too. Some decision-makers find fault with the composition of the federal Task Force. For them the Task Force is too one-sided, “academic” and chooses the wrong speech when “normal” council members or mayors are addressed. As the Leimen example in the introduction already indicates, the PPP desirability from higher political levels was in one case felt to be too much pressure.

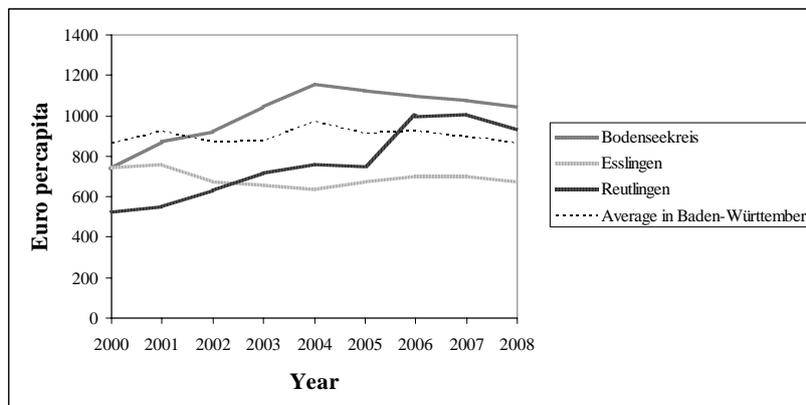
The first part of the theses, a climate of ideological support, was not at all confirmed. On the contrary, the financial and economic crisis dominates the perception. For those questioned “Bringing the state back in” is more on the fore in society than free market liberal thoughts favouring increasing inclusion of the private sector. To conclude, the first part of the theses has to be neglected, mainly due to the current economic situation. It will be interesting to see if a shift towards more free market liberal attitudes can be observed once more in times of higher prosperity. Nevertheless, political support and

assistance has not been changing since the financial crises and is commonly regarded as a PPP enabler in Baden-Württemberg.

(2) *The deteriorating financial situation of public budgets results in increasing attractiveness of PPP for public authorities.*

The second hypothesis was largely negated by public PPP managers. Surprisingly, their argument was the opposite. A majority of PPP decision-makers stated that a deteriorating financial situation, as they currently envisage due to present recession, rather inhibits PPP projects. Their argumentation goes as follows: When public budget deficits are increasing, the local authority supervision would not allow investment projects. Moreover, if the financial situation of a town is very bad, PPP cannot be realised because the concept does not function as a financing instrument. In this context, PPP managers argue in line with pro-PPP groups who defend PPP against the accusation of being a cunning and expensive ways of making debts (Baden-Württemberg Ministry of Economic Affairs, 2009, p. 105). Figure 5 and 6 visualises the financial situation of PPP municipalities compared to average. As far as the districts are concerned, the numbers do not lead to clear results with regard to hypothesis two. The debt per capita rate differs a lot from average numbers (cf. figure 5). Thus, we do not go into further detail.

Figure 5: Financial Situation of PPP Districts Compared to Average

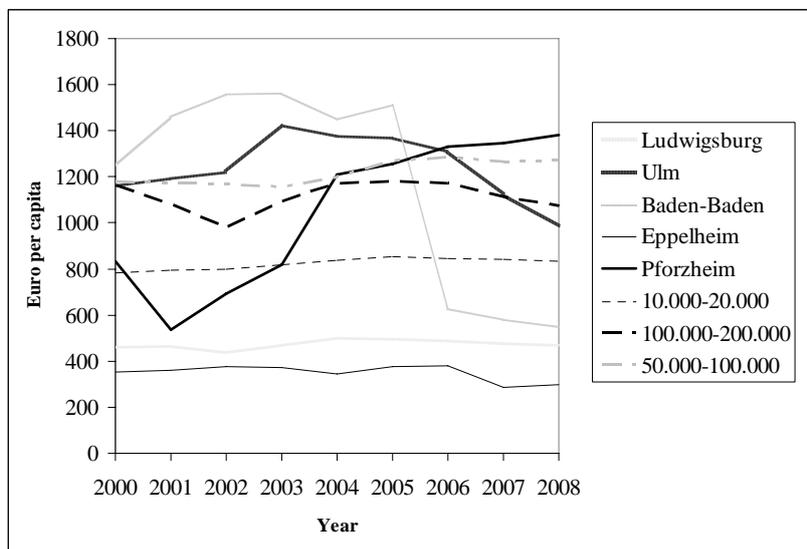


Source: Calculations are based on data provided by Baden-Württemberg Statistical Office homepage.

The budget situation of PPP municipalities (cf. figure 6) do not support the second hypotheses either. Nevertheless, the figures can be interpreted in accordance with the results from the interviewees. Compared to average debt per capita<sup>24</sup> PPP municipalities' budget is in rather good condition at the time the PPP contract was signed. The figure also explains the Eppelheim case. Although it is a very small

town, its budget deficit is very low. Consequently, it can afford high investment for a PPP project. To sum up, with reference to our sample the proclaimed hypothesis must be rejected and put the other way round. It is more a solid financial situation that enables towns to plan investments of a considerable volume. For our sample the decision between conventional realisation and PPP was only a second step. Almost every project was planned independently, without having PPP in mind at first glance. Superior cost-effectiveness of PPP resulting from operating efficiency prognosis is a decisive factor in favour of PPP implementation *after* the municipality's decision to launch an investment.

Figure 6: Financial Situation of PPP Municipalities Compared to Average



Source: Calculations are based on data provided by Baden-Württemberg Statistical Office homepage.

*(3) As management of the private sector is perceived to be superior to public management, public authorities increasingly engage private partners for the execution of public tasks.*

Public PPP managers in Baden-Württemberg especially support the “hypothesis of acceleration”. In their opinion, a private enterprise is able to build or renovate buildings in a shorter period of time due to structural advantages.<sup>25</sup> Construction e. g. renovation time complied with the contract and lead to a high level of satisfaction among public decision-makers. In two cases, the time span for construction was very short due to immutable external circumstances. Both PPP managers stated that it would have been impossible for the public authority to comply to the strict timetable with conventional procurement

instruments. Besides, public management is not considered to be of overall superiority. Although almost every interviewee commended the professionalism of their private partner, some of them criticised the narrow focusing on efficiency. In their opinion, aesthetic, architectural and social aspects are very often neglected. Consequently, the thesis can be regarded right for municipal PPPs in Baden-Württemberg because public PPP managers for the most part have the impression of superior management on the private side, especially in respect to time management.

However, one has to state that the hypothesis focuses on the interviewees' *perception* and does not necessarily meet empirical examination. For instance, a study from Williamson (1999) compared efficiency of public and private bureaucracies from a transaction cost perspective. He puts the "hypothesis of inefficiency" into perspective and states that public administrations have advantages in certain areas. He concludes that "inefficiency is judged not in absolute but in remediableness terms" (Williamson, 1999, p. 340). Other empirical studies (Mühlenkamp 1999, pp. 120; Villalonga, 2000) also state that production costs of the public sector are *not per se* on a higher level. To conclude, a final evaluation of private management compared to public management cannot be drawn yet. At least it might be a question of decision of an incentive system which can stimulate the different actors to more efficiency.

## 7.2 RELEVANT SUCCESS FACTORS

*Project specificity* does not play too important a role for our interviewees because every project is considered "special" due to e. g. foundation soil, noise protection, or financial prerequisites. Nevertheless, two PPP managers state that they benefited from projects that have already been realised elsewhere: "The other project helped us to avoid doing the same mistakes. But we did a lot of new ones!" When co-operating with the same general contractor, economies of scale are especially existent when it comes to *ex ante* transaction costs.

*Trustworthiness* is considered to be the core factor for successful PPP and the one commonly underestimated. Although a good contract is very important, it does not substitute fair communication and trusting co-operation. PPP projects take a very long time, even the time before the contract is signed can last months or even years. During that time, our interviewees consider it extremely helpful when a considerable degree of trust develops among the business partners. A real *partnership*, based on trust, decreases transaction costs because "problems occur more rarely" and "things are just going faster, smoother due to a positive culture of communication".

In our sample, nearly every PPP project is executed with private PPP specialists. In that case, some public PPP decision-makers developed “feelings of inferiority” and almost felt afraid “confronted with this huge amount of (private) human capital in contract meetings”. In one PPP project, both the public and the private partner are “greenhorns” with regard to PPP. Our interviewee confirmed that he felt comfortable about this circumstance because he did not gain the feeling of hidden intention or information. To conclude, the relevance of *partner “fit”* could not be clearly estimated in our *municipal* sample because small and inexperienced private partners were hardly found in the PPP scene. Nevertheless, public PPP decision-makers partly confirm to the supposed uneasiness caused by unbalanced business relations.

Deduced from the fact that it is mostly professional private enterprises public authorities have to deal with in our sample, *external consultancy* are essential to implement a successful PPP with regard to the public actor. All persons questioned confirm the importance of external consultants and are largely satisfied with their work. Sometimes, however, fee negotiations are considered annoying. In one case, the public principal valued her consultant rather sceptically because “From time to time, I was not sure anymore whether our consultants worked for us or for the private partner.” Without such external help, according to our Baden-Württemberg sample, the implementation of PPP projects would be impossible for on the municipal level.

Besides the factors identified in 5.2, the interviews bring to light the importance of *enough lead time*. According to our sample, time pressure before contract signing results in premature decisions that do not achieve the necessary level of details. Thus, *ex post* transaction costs rise disproportionately because of irritating by-negotiations. Moreover, the modification of false decisions from the original contract leads to new (and more expensive) contract conditions. The aim of reliable and transparent costs is not achieved then.

Finally, two general aspects should be mentioned that are rather unexpected. Surprisingly, only one interviewee considered the know-how and specific expertise of the private partner as a main advantage of PPP although this is part of the original idea of the instrument. This aspect is illustrated by the following definitions where PPP is characterized as “a cooperative venture...built on the expertise of each partner“ (Canadian Council, 2009). Moreover, Skelcher (2005) states that “PPPs combine the resources of government with those of private agents”. With regard to transaction costs, in the view of several public PPP managers, coordination and communication costs are much lower than in conventional public delivery because they have to deal with only one general contractor. As the private partner is

responsible for the coordination of all subcontractors, public authorities see a main advantage of PPP in this aspect.

The sample also estimated the future relevance of PPP and their personal attitude towards the instrument. The results are outlined in chapter 8, where the main findings are summarised and an outlook is given.

## 8 CONCLUSION AND OUTLOOK

This paper investigates framework conditions enabling PPP evolution and relevant success factors for municipal PPP projects in the federal state of Baden-Württemberg. An explorative study was executed with in-depth interviews held with each public PPP manager. Taking the number of investigated PPP projects into account (nine), this study does not claim to be representative for PPP in general. However, it has significance for *local* projects in *Germany* and the results' validity should not be neglected compared to the overall number of PPP in Germany.

For our interviewees, political desirability of higher public authorities and superior (time) management of the private sector are major circumstances that facilitate the creation of PPP. As far as budget deficits are concerned, a sound financial basis is required in order to implement (high volume) PPPs. Factors that chiefly influence the project's success are business relationships based on trust, the presence of enough time for tender and contract preparation and external consultants with sensible fee agreements and reliable business conduct. The level of specificity is not considered that important as every PPP project is somehow "special".

Interestingly, those questioned draw ambivalent conclusions. Although a vast majority is contented or highly contented with the project's results, just one person would like to do another PPP the same way. One reason is financial restrictions: "After this huge investment, I am pretty sure that our town cannot realise a similar project in the midterm future". Several interviewees prefer PPP cherry-picking: In sharp contrast to the life cycle approach of this concept, public decision-makers would like to leave out at least one step of the value chain when they were in charge of a new PPP. Financing, planning and operating were among those mentioned.

To conclude from our empirical results, PPP is regarded as an acceptable alternative public procurement instrument. However, the authors did not gain the impression that PPP will become a dominant concept for public service delivery in the medium term. Although PPP is highly recommended and propagated by politicians from central and federal state authorities, municipal PPP managers do not

share their enthusiasm for the future. Currently, increasing PPP relevance must be rather characterised as “wishful thinking” (Greiling, 2009, p. 108) of construction conglomerates or political decision-makers. Even in Great Britain, hardly any project has finished its running time yet. Consequently, final evaluations of PPP’s cost-effectiveness have not taken place (Beckers/Klatt, 2009, p. 334). Additionally, empirical data about an overall level of contentment are non-existent. Therefore, it will take some more years or even decades to give a precise estimation of PPP as an alternative instrument of public service delivery in Germany.

Keeping the sample size in mind, this study, however, can merely be a starting point for further research. The results should be tested among public PPP managers on different political levels in the whole country of Germany to receive a comprehensive and more representative picture. Moreover, relevant success factors such as trust relationships could be investigated in more detail and by including both sides of the partnership: public and private agents. Finally, it would be interesting to ask PPP adverse public authorities about their core impediments – not forgetting political sensitivities of decision-makers.

## NOTES

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<sup>1</sup> For a general understanding, PPP is roughly refined as co-operation between public authorities and private corporations with the aim of financing, building, renovating and/or running public infrastructure or providing public services.

<sup>2</sup> For examples see chapter 4.1.

<sup>3</sup> The contract includes the renovation and rebuilding of the town’s public baths and 30 years of operation (Eberhardt, 2009, p. 6).

<sup>4</sup> Examples are collaborations in urban development between private building enterprises and municipal authorities or in vocational training (Budäus/Grüb, 2007, p. 245).

<sup>5</sup> There have been some earlier projects that are commonly characterized as PPP. As chapter 2 specifies, we have a rather strict understanding of PPP which several so-called PPPs do not match.

<sup>6</sup> Numbers refer to PPP investment volume in sum. They do not mean new volume generated in each year. Reference point is the year of contract signing. All figures are derived from information given in the interviews with PPP project managers and are supplemented by Baden-Württemberg Ministry of Economic Affairs (2010).

<sup>7</sup> PPP can be differentiated into diverse categories such as project or contract models as opposed to organisation PPPs. However, it would go beyond the scope of this article to deliver explanations for each PPP type; see e. g. Fischer (2008, pp. 46), Budäus (2005, pp. 17) and Schede/Pohlmann (2006, pp. 102) for further information.

<sup>8</sup> A concrete amount of years cannot be included here because the former stated multi-dimensionality of PPP leads to different running time recommendation. In our sample, duration lasts from 20 to 30 years.

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<sup>9</sup> Coincidentally, our PPP sample consists only of real estate projects. Hence, the life cycle approach is exemplified by public real estate infrastructure.

<sup>10</sup> This number could have been verified by our interviewees.

<sup>11</sup> In chapter 6 we go into more details about the composition of the municipal level when the sample of the study is presented.

<sup>12</sup> In 2009, this task force was replaced by a PPP centre of competence called *ÖPP Deutschland AG* and is a PPP itself.

<sup>13</sup> Sack (2009) provides a detailed analysis of the creation process of this law with a special focus on the actors involved.

<sup>14</sup> One also has to pose the question about the democratic legitimacy of PPP as a new political instrument (Krumm/Mause, 2009, pp. 110). A discussion of this aspect, however, would go beyond the scope of this paper and is a starting point for further research.

<sup>15</sup> On December 31, 2008 the total level of indebtedness of all municipalities in Baden-Württemberg was 9.3 billion € (Baden-Württemberg Statistical Office, 2010).

<sup>16</sup> Section 6.1 demonstrates the importance of this aspect. Some PPP buildings have to be constructed within a certain time span because their application was indispensable for a determined activity.

<sup>17</sup> Starting point of transaction cost theory was an article by Coase (1937). Williamson (1985; 1991) further developed this approach.

<sup>18</sup> Commonly, transaction costs tend to be underestimated (Mühlenkamp, 2005, p. 41), as their quantification is problematic, data hardly exists. The authors are familiar with one study that analyses transaction costs of external procurement on the municipal level. Following their results, transaction costs can add up to 30 per cent of total investment costs (Scholl/Thöne, 1998). This emphasises the importance of transactions costs in the overall valuation of (highly specific) PPPs.

<sup>19</sup> Chapter 1 already raised the issue of lacking objectiveness in PPP studies.

<sup>20</sup> Mainly in dependence of the municipality's size the interviewees hold different positions such as mayor, city treasurer or building department officer.

<sup>21</sup> (City) Districts and municipalities together form the third – local – level. As the English language does not have satisfying equivalents, the authors use “municipal” and “municipality” as synonyms for the local level. This includes both (city) districts and municipalities if not stated otherwise.

<sup>22</sup> Reason for this circumstance is the high share of transaction costs, cf. chapter 5.1.

<sup>23</sup> In the district of Esslingen, two projects are in progress.

<sup>24</sup> Since the average debt per capita rate differs depending on size and the tasks connected with it, PPP municipalities are classified along their number of inhabitants. Eppelheim falls into the group 10,000 – 20,000; Ludwigsburg and Baden-Baden form the category 50,000 – 100,000; Pforzheim and Ulm build the group 100,000 – 200,000.

<sup>25</sup> Predominantly, those are – according to our sample – (European) public procurement law, and long-lasting decision-making processes in political committees.

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