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# Public Private Partnership

**Guideline based on the experiences of  
the Austrian municipalities**



AUSTRIAN  
DEVELOPMENT  
COOPERATION



Österreichischer  
Städtebund



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## Editorial

This Guideline on Public-Private Partnership (PPP) gives an overview of the PPP models based on the experiences of the Austrian municipalities. It is the result of the mentoring support that the KDZ Center for Public Administration Research provided to the Capital City of Podgorica, Montenegro in the period June-November 2015. The support included two study visits to the KDZ, with visits to the best practices of the City of Vienna and other Austrian local governments. The purpose of the mentoring was to support diversification of PPP practices in Podgorica and Montenegro, at the same time giving inputs for necessary improvements of legal framework.

The mentoring visit and elaboration of this Guideline were implemented with support of the Austrian Development Agency within the BACID programme (Building Administrative Capacity in the Danube Region) managed by the Austrian Association of Cities and Towns (AACT) and KDZ Center for Public Administration Research. The purpose of the Programme is to support administrative capacity building of the countries: Albania, Bosnia and Herzegovina, Macedonia, Montenegro, Serbia, Kosovo and Moldova, with focus on legal and regional governments.

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# I Introduction to Public-Private Partnership

A community-wide definition for the term Public-Private Partnerships ("PPP") does not exist. The term generally refers to forms of cooperation between public sector agencies and private businesses with the aim of financing, construction, renovation, operation or maintenance of an infrastructure or providing a service (European Commission Green Paper, KOM(2004) 327)

PPP models follow the following **fundamental principles**:

## ❑ **Life cycle approach**

A PPP is understood to mean a contractually regulated cooperation, in return for payment, between a public sector client and a private sector partner for the duration of the life cycle of the infrastructure. The life cycle of a PPP object includes, among other things, the value generating steps of planning, construction, financing, maintenance and operation and is therefore considered from the side of economics and effective usability. The technical life cycle of a building can also be substantially longer.

## ❑ **Optimum risk distribution**

The risks associated with the construction and operation of the infrastructure should be transferred to the contractual partner that is better able to bear and handle them. An optimum distribution of roles, with the aim of the greatest possible benefits in terms of efficiency, should thus be achieved.

## ❑ **Cost security and consistent performance standards**

The goal pursued with the life cycle approach is that of optimizing the use of public and private resources in the context of the infrastructural measure while simultaneously ensuring cost security for the project sponsor and consistent performance standards for the user.

## ❑ **Financial implementation**

PPP is not a patent recipe for fixing public budgets. PPP does not mean "project implementation without financial resources". Rather, PPP is an option for implementing public infrastructural projects on the basis of a sound funding concept and a long-term partnership with private businesses. The prerequisite for this, however, is sufficient creditworthiness of the public sector.

## ❑ **Alternative procurement approach**

PPP is not primarily a financing model, but rather a comprehensive, alternative organization and procurement approach for public infrastructural measures.

The **benefits (pros) of PPP models** are seen in the long-term partnership, security in terms of planning, deadlines and costs, as well as the potential synergies from bundling various functions and the possibly greater skills of the private sector institution.

Potential **drawbacks (cons)** are the higher funding costs, the transaction costs, and also the risk of insolvency with private partners. To what extent the public sector has a decision power needs to be contractually specified and is definitely a challenge.

## II Public Private Partnership Models

### 1 Overview

In general three levels can be distinguished in public infrastructure facilities: financing, establishment/construction, and operation of facilities or systems. These roles can be fulfilled by public sector as well as private sector institutions. The following division of labor is typical of local government practice:

- ❑ Funding through state subsidies, contributions, and user fees, financial resources from credit institutions as well as the municipality's own resources;
- ❑ Construction by private sector planning and construction firms, in some circumstances with the municipality assuming the role of principal;
- ❑ Operation of the facility by the municipality or by a municipal association, and by private sector agents in certain areas of municipal activity (e.g., waste management).

In the new financing models it is not automatically assumed that private sector involvement is superior to public sector sponsorship. The core of these models lies in expanding the perspective and in deriving the benefits of the various possibilities, not only by comparing the funding alternatives themselves, but also by discerning and considering the **benefits of the "whole package"**, i.e., the unity of technical, organizational, and financial solutions.

The basic idea lies in finding, through competition with external suppliers, the **ideal solution from a technical, organizational, and financial standpoint**. The models or solution approaches thus range from the financing, development, and construction to the operation of the municipal facility or system.

On the one hand, the idea is to mobilize private capital for municipal investments by promoting private business financing and organizational instruments. On the other hand, efficient resource use with private sector construction and operations management should lower costs and relieve the budget, thereby resulting in greater financial leeway on the municipal level.

The **key feature of PPP models** is the greatest possible bundling of the planning, construction, funding, and maintenance and operation roles, viewed over the entire lifecycle, under one roof.

### 2 Operator Model

#### 2.1 Concept and features

The operator model is a financing and organizational alternative to the standard organizational forms of state-run operation, in-house operation, and/or associations.

The following **guiding principles and features** define the operator model:

- The municipality/local authority remains legally responsible, despite the engagement of third parties for trash and sewage disposal and water supply.
- It avails itself of a private sector firm for fulfilling these tasks.
- The citizen-municipality relationship is still of a public sector nature, meaning that citizens still pay municipal fees.
- The operator takes over the role of principal from the municipality.
- The operator plans, funds, constructs, and operates the system or facility, but does not necessarily have to be identical with the investor.
- For taking on this task, the operator receives a payment agreed upon in advance for the entire term of the contract.
- The operator is selected by issuing a call for bids.
- The most economical offer should be found through competition.
- The contract is awarded to the private business only if the profitability comparison shows a cost benefit for the municipality.

The fundamental idea is to achieve an **overall optimization of planning, construction, and operation** through competition. Potentials for optimization are found

- in the planning phase, in which calls for bids are issued for the project design and private tenderers compete for the ideal technical and in particular most cost effective solution,
- through planning that integrates project development and the execution of construction work, with the aim of lowering construction and operating costs;
- by merging the roles of principal and operator, thus increasing the incentive for high quality construction of the facility,
- by periodically issuing new invitations to bid for operator licenses.

Using the **wastewater disposal example**, various alternatives in terms of the scope of the model are illustrated:

- The operator model can be limited to just the new construction or renovation of the sewage treatment plant; the municipality remains in charge of operating and maintaining the sewer system.
- In addition to the treatment plant, the sewer system can also be transferred (sold) to the operator. The role of the municipality is then primarily limited to the collection of fees and supervision of the operator.
- Along with the treatment plant, new development/construction in municipal districts is also transferred to the operator; the existing part of the sewer system remains in the hands of the municipality.

The contract term is generally between 15 and 30 years.

## 2.2 Steps in the decision-making process

Following are the individual **procedural steps** leading up to the signing of the operator contract:

- The **technical pre-planning** and the drafting of a rough technical concept can be carried out by the municipality or by a technical consultant. It forms the bases for the call for bids.



- ❑ The **cost calculation** (the "heart" of the operator model) should give the costs that the municipality would incur if it were to handle, for example, wastewater disposal and/or treatment plant operation itself. The cost calculation is the benchmark against which the private tenderers/suppliers will be assessed. In actual practice, the operator model should only be chosen if this alternative (from a cost standpoint) lies below 10 to 15 percent of the municipality's cost rates. In making this decision, the costs that the municipality incurs for items such as the supervisory function and the collection of fees must be considered.
- ❑ The **contractual arrangements** are obviously just as important, if not more so. Since the contract must remain valid for a period of 15 to 30 years, special requirements must be imposed here. The contractual framework includes in particular an operator agreement, an arbitration agreement, a leasehold agreement, and a human resources provision agreement.

In the **scope of the contractual arrangements**, the consequences of a possible bankruptcy must be established in writing, along with the supervision, information, and supervision rights. In particular the municipality must secure the restitution of the property on which, for example, the treatment plant is to be built and establish the amount of the compensation. These arrangements should be such that the respective compensation is less than the construction costs (adjusted for depreciation) that the municipality would incur if it had to build the facility on its own.

### 2.3 Profitability of the operator model

Proponents of this model anticipate substantial cost savings through the overall optimization resulting from competition. Potentials for cost savings may lie in the following areas:

#### Planning

The potential strength of the operator model is that the planner, builder, and operator are one person/one entrepreneur. In other words, the operator has a direct interest in planning the facility such that the most cost-effective solution can be expected in terms of both construction and operation. Obviously it has to be borne in mind that a substantial foundation for the costs of the eventual construction and operation will be laid during the planning phase.

The concentration of the various functions in one "person" also tends to ensure the technical optimization of the infrastructural set-up as a whole. The competition pressure should constitute a strong incentive for the private "person" to seek innovative solutions, which has an overall cost-lowering effect.

#### Construction

The fact that the construction by the eventual operator tends to lead to a shorter construction time and that correspondingly lower costs can be expected is viewed as another advantage. A major reason for this is seen in the fact that investment activity is not dependent upon the funding capacity of the municipality. At this point it should be noted that every additional month of construction time raises the total costs by 1 to 2 percent.

## Operation

Lastly, the introduction of private sector management systems and instruments can contribute to greater efficiency.

Operator models can be found in many areas of municipal activity: childcare, schools, outdoor and indoor pools, cultural institutions, and also wastewater disposal, water supply, and waste management.

### 2.4 Case study of an operator model

In an EU-wide call for bids in the 2005/2006 year, an Austrian municipality selected a private sector partner that would handle wastewater disposal for the municipality for 25 years. An EU-wide invitation to tender was issued for the whole wastewater disposal process, including the planning, construction and funding of new facilities (expansion of the treatment plant from 4,000 to 9,000 resident equivalents, construction of ca. 50 km worth of new sewer lines). In the construction costs, a savings of 17% compared to the original cost estimate was achieved thanks to the competition. Furthermore, a flat rate was agreed upon for all performances, with the external partner guaranteeing to manage the system (incl. the amounts to be disposed of and the output to be provided by the network). The private sector operator will receive a bonus (established by a clause in the contract) upon achievement of the project goals.

Associated herewith are the following key questions:

- How does the chosen operator model differ from a "privatization"?***  
In the operator model, the municipality retains ownership of the existing facilities and will become the owner of all new facilities, whereas with "privatization" the facilities would be sold: In the second case, the municipality receives money one time, but has no further say after that. Since wastewater disposal is an operation that qualifies as a market activity, in principal it is classified as Maastricht neutral<sup>1</sup>. If the operator model were in the public sector, then the operator would have to assume the majority of the risks in order for this solution to be deemed Maastricht neutral.
- Why was the operator model chosen?***  
The municipality is using the services of a specialist company, which is responsible for the entire project process and operation. The necessary services and performances can be rendered in more efficiently and more economically by the joint awarding.
- For which services is the private partner responsible?***  
The following are handed over to the private partner: expansion of the sewer system, renovation of the existing sewers, upgrading and modernization of the treatment plant, management of the sewer system and the treatment plant.
- Who determines the fee?***  
The amount of the fee is determined by the municipality. As before, every homeowner will be charged a fee by the municipality.

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<sup>1</sup> The Maastricht Treaty's guidelines for defines total public debt less than 60 percent of GDP and an annual budget deficit less than 3 percent of GDP. "Maastricht neutral" means that the model does not increase public debt or budget deficit whereas "Maastricht effective" increases public debt or budget deficit.

❑ **What happens if the private partner goes bankrupt?**

All facilities belong to the municipality and are only being made available to the partner. In the event of bankruptcy, management becomes the responsibility of the municipality. The state of construction in which all parts of the system must be established for this point in time.

In principle the operator is liable for the **construction risk** – it takes over the role of principal from the municipality. The municipality is liable for the **default risk** – it must then take over or reorganize the management. The **maintenance risk** lies ultimately with the operator, which is contractually obligated to ensure that the facility can be returned to the municipality in the agreed-upon condition after 25 years. In principle the municipality assumes the **utilization risk**, which in the case of a sewage system is really not an issue because there is a guarantee obligation when it comes to services of public interest. The party liable for the **demand risk** depends upon the contractual arrangements. If the operation fee is based (at least partially) on the volume of wastewater, then this risk is assumed by the external operator. In the event of a flat operation fee, the municipality assumes the demand risk because it is in charge of determining the amount of the fee.

### 3 Leasing

#### 3.1 Definition and features

With lease funding, in exchange for a lease payment ("rent") the lessee acquires the (non-cancellable) use right to lease objects purchased or built by the lessor for a contractually established period. The lessor retains the ownership right.

Strict limits are imposed on real estate funding by means of leasing. Before the actual invitation to tender for the funding, each object in question must be checked for leasability.

Examples of **possible leasing areas** are:

- ❑ Childcare
- ❑ Schools
- ❑ Firehouses
- ❑ Cultural centers and museums
- ❑ Town halls and other administration buildings
- ❑ Farms or construction yards
- ❑ Nursing homes and care facilities for seniors
- ❑ Hospitals and medical centers

It is important to note that these properties must be clearly delimited from other buildings. In other words, the building must have its own entrance, must be structurally separate (e.g., fire doors) from other buildings and must have its own route of access (driveway). Also required is a legal distinction in the form of a construction right or right to build on third party property, or by delineation of the property. Usability is a fundamental consideration in real estate leasing. It must be at least theoretically possible to transfer the rented object to an alternative user at standard

market prices. Because municipal projects frequently involve "special leasing"<sup>2</sup>, two models will be briefly described in the following:<sup>3</sup>

In **operating leasing**, for a specific period of time the public sector contractual partner is the lessee of an asset owned by the private sector partner (the lessor). The private sector lessor is the owner under civil law as well as the economic owner. It assumes the operative risks and has the economic benefits. The leasing period does not have to be established beforehand. An agreed-upon contractual period extends to a maximum of 50% of the economic useful life of the asset. At the end of the contract term, the lessee returns the asset and the private sector lessor will presumably rent this asset to another lessee or liquidate it. Although the lessee may have the opportunity to buy the asset at market value after the term of the contract has expired, the granting of a purchase option is not a necessary condition for operating leasing. In order to be "Maastricht-compliant" (see the financing example), the lease period of the operating leasing contract may only extend to at most 50% of the total economic useful life of the asset (e.g., educational institution). Like a lease, only the annual leasing rate affects the public deficit. In operating leasing, the lessor is both the owner under civil law and the economic owner of the asset for the entire term of the contract.

In **finance leasing** (= "non-Maastricht-compliant"), however, the user is the economic owner of the asset, whereas the lessor is the owner of the asset under civil law. As a result the asset is attributed to the debt level and the deficit of the user at the outset.

In order to be advantageous for the city or municipality in terms of compliance with the stability pact, the attribution of the lease object to the lessor is immanent. In contrast to in-house solutions, no gross fixed capital investment is required; only the ongoing expenditures have a budgetary effect (as "consumer expenditures"). Nor was it necessary to accept any additional outside or borrowed funds, which as a rule leaves the debt level unaffected. Only if a purchase option is exercised after the expiry of the contract would the purchase price then be accounted as an expense with a budgetary effect, and outside capital would only added to the municipal debt level if the investment cannot be covered by the charges budget. As a rule, however, the investment is less than a comprehensive in-house implementation because in this case only the residual book value (purchase amount) will have an expenditure-increasing effect.<sup>4</sup>

**Figure 1: Operate Lease vs. Finance Lease**

Operate Lease	Finance Lease
<p><b>Contract term</b> The contract term is shorter than the operative useful life (e.g., max. 20 - 25 years for schools). For contracts concluded for an indefinite period of time, there is a cancellation right analogous to the agreed-upon contract term. In this case the useful life of the object exceeds the established contract term.</p>	<p><b>Contract term</b> Long terms with non-cancellable basic lease periods. The basic lease period approaches the operative useful life of the lease object (e.g., up to 50 years for schools).</p>

<sup>2</sup> Note: This refers to objects or property items that are "custom-designed" for the client and which can only generate secondary benefits in rare cases.  
<sup>3</sup> From Grossmann, B.: Die Bedeutung der Leasingfinanzierung für Österreichs Gemeinden, ÖNB 2008, p. 54 ff.  
<sup>4</sup> Also see Gatzke, N., Public Private Partnerships und öffentliche Verschuldung, Peter Lang Verlag, 2010, S.240

<p><b>Object risk</b> is borne by the lessor. In this context, object risk means the danger of the lease object becoming obsolete, maintenance backlog, and damage.</p>	<p><b>Object risk</b> lies with the municipality. This also includes payment for any necessary repairs and the purchasing of insurance policies.</p>
<p><b>Maintenance</b> is the responsibility of the lessor.</p>	<p><b>Maintenance</b> Because the lessee is generally the reason why the rental object was purchased or built in the first place, the lessee is also responsible for value conservation measures.</p>
<p><b>End of the lease contract</b> In very rare cases the lessee acquires the object through a purchase option. Leasing is resumed after revitalization.</p>	<p><b>End of the lease contract</b> Owing to the long-term association with the building, a purchase by the lessee is highly likely.</p>
<p><b>Settlement/debt level</b> The object is listed in the lessor's balance sheet and the debts are assigned to the lessor accordingly (Maastricht neutral).</p>	<p><b>Settlement/debt level</b> The object is listed in the lessee's balance sheet (IFRS). The debt level increases, even if the owner of the object is the lessor (Maastricht effective).</p>

Source: Own presentation, KDZ, 2015.

According to the present EU regulations, lease financings are generally not listed in the Maastricht debt level of the municipality and are therefore **Maastricht neutral**. The trends in the European Union are towards increasingly stricter interpretations when it comes to calculating debt levels. Regulations from the private business sector (e.g. International Finance Regulation Standards IFRS) usually serve as templates for these more stringent provisions. For this reason lease contracts are chiefly being concluded in the operate lease form, as according to IFRS the rental object is not attributed to the lessee in the private business sector either.

### 3.2 Leasing model case study

A municipality wants to build a new public school. It bought a suitable piece of property a while back and has an approved design. In order to take the load off of the administration during the construction phase, they contemplated a leasing scheme. The leasing company that won the bid will receive a building right and as the principal, it will handle the financing, construction, and business administrative aspects of the building and of the surrounding facilities (parking lot, grounds), according to the municipality's plans. After the school building is finished, the lease rate will be determined on the basis of the investment volume, less funding received (deposits).

The **rent (Maastricht-effective compensation)** will be determined synchronously with the possible depreciation period of the building and is to be paid annually for 25 years. The average depreciation period for school buildings is 50 years, hence 50% of the investment would be paid off by the municipality at the end of the lease period. So as to be able to cover 90% of the residual value of the building after 25 years, the mayor decides to continue paying the **maximum possible deposit payments (Maastricht neutral)**.

At the end of the lease period, the municipality will thus have four available options:

- ❑ Payment of the still open investment volume (ca. 10% of the financing sum) and it becomes the owner of the building. The building right will be dissolved.
- ❑ The leasing company pays the municipality the deposits. The leasing company retains ownership of the object. The leasing company keeps the building right and continues to pay the building right interest and may sublet the object.
- ❑ The municipality extends the contract and continues being the lessee.
- ❑ The municipality renovates and upgrades the school building, uses the deposit payments as own funds, and a new rental charge with a new period will be calculated.

### 3.3 Pros and cons of leasing model

Figure 2: Pros and cons of lease funding

Pros	Cons
<p><b>Maastricht neutral (relevant for EU members)</b> The leasing obligations are not included in the public debt level and are therefore Maastricht neutral. Only the lease rates, as ongoing administrative expenses, are Maastricht effective. Note: The deposit payments are not Maastricht effective.</p>	<p><b>Higher total costs</b> Owing to the contract establishment costs, processing fees, and land acquisition costs, the funding volume is higher than for standardized credit financing, especially if there are no tax benefits.</p>
<p><b>Liquidity</b> The leasing company taking over the financing of the object gives the lessee a wider financial leeway for future decisions. The dependencies on credit institutions are also reduced.</p>	<p><b>No acquisition of ownership</b> After the lease period is up, the lease object is returned to the lessor. The lessee does not always get the chance to acquire the object for itself or to profit from sales revenue.</p>
<p><b>Individual contractual arrangements</b> By making individual contractual arrangements in terms of the duration of the contract, the amortization and payment timeline, as well the payment method, it is possible to adapt to different needs.</p>	<p><b>Cancellation risk</b> The lessor can cancel the contract without notice if the lessee is in arrears. Claims for damage compensation may also be asserted.</p>
<p><b>"Pay as you earn" concept</b> The financing expense is distributed over the duration of use and therefore also over the period in which income (transfer payments, fee income) is earned from the object. Pre-financing is thus avoided.</p>	<p><b>Cancellation waiver</b> As a rule a lease contract is for an indefinite period, with both parties waiving the cancellation right for the duration of the contract term. A mutual waiver of the cancellation right is the only way to conclude the contract in a risk- and therefore Maastricht-neutral manner.</p>

	The lease payments are still due even if the building is not used.
<b>Planning security</b> The amount of the lease rates and the contract term are established at the outset.	<b>Procurement and contract law</b> The call for bids as well as the contractual arrangements of lease funding are more complicated than with a loan contract.
<b>Know-how</b> The lessor remains the principal. This takes the load off of administration.	

Source: Own presentation, KDZ, 2015.

For objects of selected social institutions (e.g., nursing homes), the possibility of VAT exemption should be investigated.

Because the lessor is obligated to prepare the lease object for transfer of use and must therefore maintain it in a usable condition, the lessor assumes all major **construction risks**. This not only includes **liability** for timely **completion** and **usability**, but also the **maintenance and/or repair** of the lease object. The lessor thus assumes all of the same risks as a normal landlord.

Since the compensation is oriented toward the contractual agreement and not the actual use, which at times varies, the municipality assumes the **demand risk**. The leasing company on the other hand not only assumes the creditor risk but also the **utilization risk** upon return of the lease object.

Since the leasing company becomes the owner of the object, the municipality assumes the **default risk** if the company goes bankrupt. There is always the possibility of the property being sold and thus of the lessor changing. Contractually established lease agreements, however, remain unaffected thereby.

The risks are essentially shared in lease funding. The decisive factor, however, is the attribution of the property to the lessor. In this case the municipality bases its decision on the IFRS Standards (IAS 17.10), which are oriented toward private business. If the financing qualifies as an operate lease, the off-balance effect kicks in. For the private partner this means that the property will not be in the balance sheet. For the public sector this means that in certain circumstances the Maastricht-neutral debt will be shown in the closing of accounts, but will not contribute to the deficit.

## 4 Contracting

### 4.1 Definition and examples

In the contracting model, the private contractor assumes responsibility for the installation or optimization of certain of the public sector client's technical systems or parts thereof. This can not only include the technical equipment of a building but also the infrastructure such as street lights, sewer and water lines, etc. Once the building technology is installed or the infrastructural network

is set up, the latter are transferred directly to the ownership of the public sector client. The private contractor is granted a right of use to the facilities.

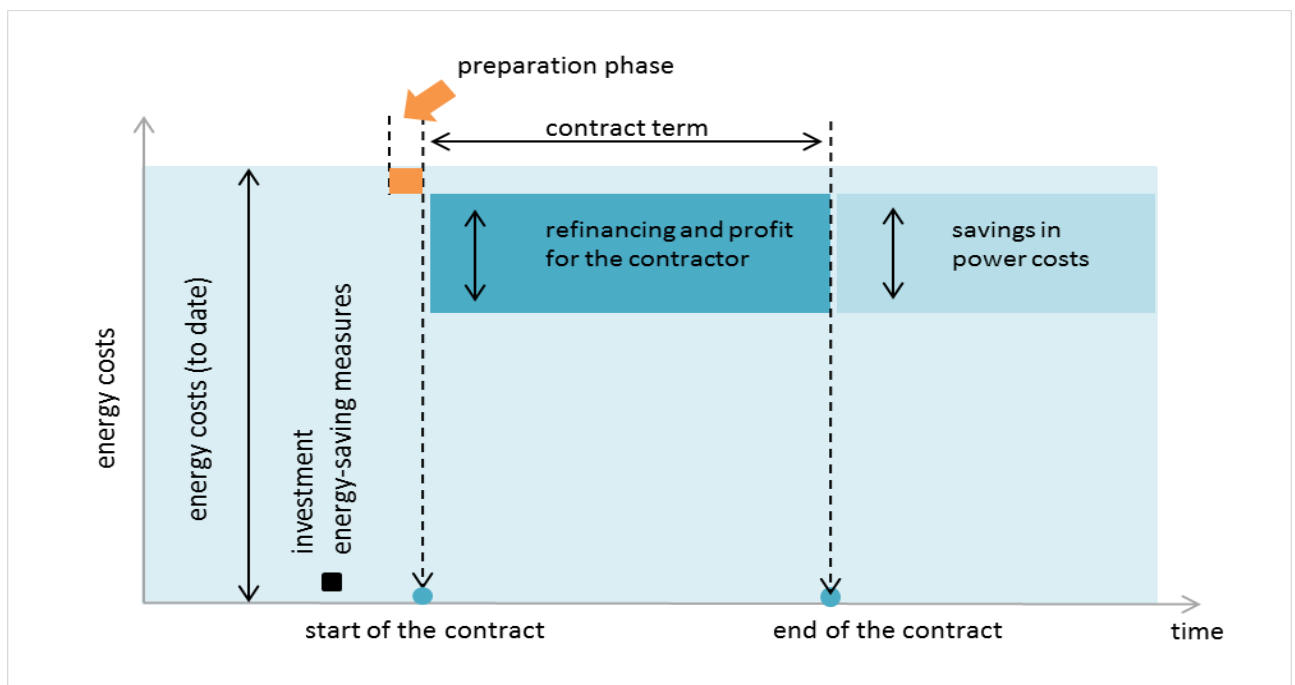
In contrast to the other models, remuneration is oriented toward the public sector client's power costs or flow volumes (water, sewage) up to this point, rather than toward the investment costs. The private contractor therefore has to cover all costs as well as risk surcharges and the profit margin. This constitutes a substantial incentive for the private contractor to lower the power costs by optimizing the systems.

There are two types of contracting:

- ❑ In "**savings contracting**", the contractor implements energy-saving measures (e.g., renovating the street lighting) that will lead to lower power costs. The savings thus achieved are used to refinance the contractor's investment costs.
- ❑ In "**facilities contracting**", the contractor designs, constructs, funds, and operates power generating facilities for the client. For instance, the contractor supplies electricity and heat at a fixed price. Contracting is gaining in importance for biomass plants.

In terms of funding aspects, **(energy) savings contracting** is often deemed an attractive model in municipal practice because the planning, the financing of the investment measures, and also the risk are assumed by the private service provider.

**Figure 3: How Energy Savings Contracting Works**



Source: OÖ Energiesparverband (Energy Agency of Upper Austria), 2009



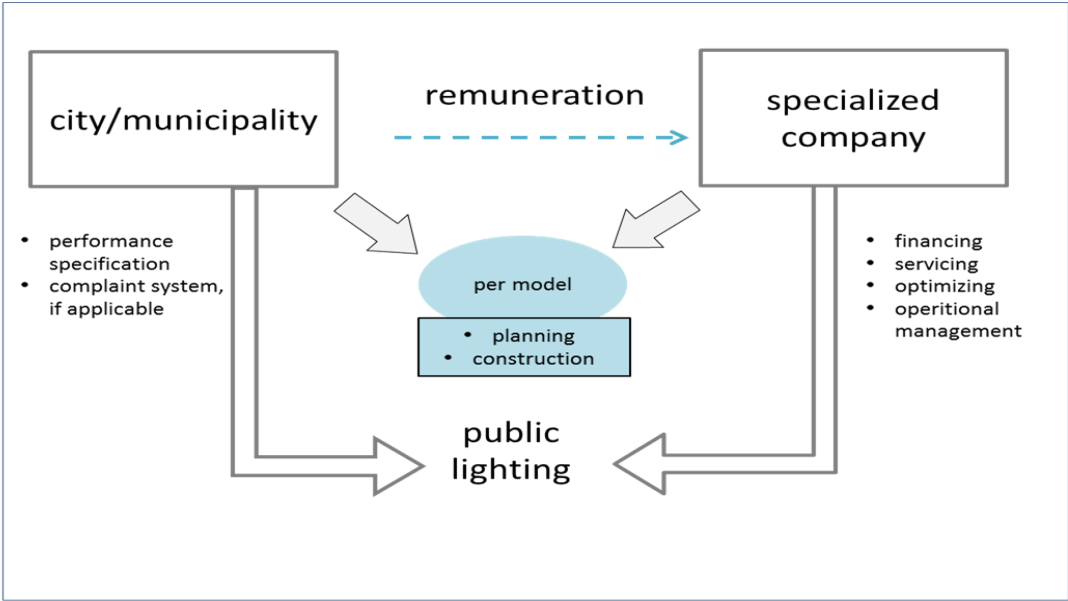
In energy savings contracting models, as a rule it is agreed that the contractor is liable for the success of the measure, i.e., the returns from the reduced energy costs are agreed upon as the success-related fee for the term of the contract.

It is therefore in the best interest of the private partner to plan the investment amount as well as the returns from the investment precisely and implement them in keeping with the contract, as failure to do so would result in less profit for the private partner. This model is frequently used in connection with renovating and overhauling energy-inefficient facilities such as recreational centers.

A slightly different form of the contracting model known as **operational management contracting** is frequently encountered in the public lighting sector.

In this model, the ongoing operation, servicing, and maintenance are handled by a private entity, whereas the public sector sets the performance specifications. Depending on the model, the planning and construction are also handled by the private sector service provider or by the municipality itself. The city retains ownership of the public lighting infrastructure.

**Figure 4: Public Lighting Contracting**



Source: Based on Raiffeisen Communal Leasing 2010 online resources, supplemented by KDZ, 2015

The advantages of such contracting models lie chiefly in the use of the technical expertise of private partners in the renovation and maintenance, and possibly also in the operation, of outdated infrastructure. While the ongoing payments do influence the fiscal balance, such models generally do not raise the debt level because the infrastructural measures are carried out under the commercial ownership of contractor.

Because the contractor can expect a reasonably certain remuneration for rendering and providing the services, the latter can also refinance under comparatively favorable terms, which thus exerts a positive influence on the efficiency of the whole project.

The success of contracting projects in local government practice shows mixed results. Whereas the City of Vienna, for example, had good experiences with energy savings contracting, already-started cooperations in the area of operational management contracting of public lighting were dissolved because the contracting model led to extra costs compared to in-house provision.

**Table 1: Contracting Case Studies**

	Energy Savings Contracting		
	Vienna – Döbling Indoor Pool	Traun Pool Project (municipal properties)	Waidhofen/Thaya Schools
<b>Runtime</b>	7.5 years	7.5 years	10 years
<b>Guaranteed energy saving</b>	87,535 euro	211,000 euro	42.4 % (= 26,350 euro)
<b>Total investment</b>	651,100 euro	1,390,000 euro	237,009 euro

Source: <http://www.contracting-portal.at>, KDZ presentation, Vienna 2015

**4.2 Pros and cons of contracting**

Contracting is advantageous for the municipality, especially from a technical standpoint. The local government can avail itself of the expertise of private companies in the environmental and energy sector in order to counteract the rising energy costs. At the same time it is possible to upgrade obsolete infrastructure and ensure the ongoing maintenance thereof. Municipalities thus gain planning security or a better handle on the expenditures.

There is another advantage for the contractor in terms of project funding. Thanks to the relatively secure income from the routine compensatory payments by the local government or community, it is possible to back credit financing with collateral under community conditions.

The municipality is only able to **supervise** the contractor to a limited extent. Rights of opposition and **quality criteria** should be negotiated and documented with utmost precision before entering into a contract. Questions such as: What minimum requirements must be respected? (e.g., street lighting must be available at certain times of the day and in sufficient quantity) Are the proposed savings measures in keeping with the environmental philosophy of the municipality? (e.g., lightbulbs versus energy saving bulbs), etc. need to be clarified.

External consultants should also be involved in these pre-negotiations. The **planning phase** can therefore turn out to be very tedious and costly. Because they are able to cover the additional costs, only projects with relatively high savings potential are suitable for contracting.

The **construction risk** in terms of both construction and maintenance of the facilities is borne by the contractor. The greatest **risk** lies in the **electricity market**, chiefly with long contract terms. The costs can only be reduced to a limited extent by the energy savings measures implemented by the contractor. The unvarying payments of the community will not cover the expenses in the event of high and continually increasing electricity prices. When energy prices remain high for long periods, the **risk of default/bankruptcy** on the contractor's part is likewise very high, but can be minimized by concluding supply contracts with the power suppliers. The **demand risk** is in turn borne by the public sector, as the typical financing objects represent part of the services to the public and must be available (e.g., street lighting for general traffic safety, heating plants for school and administration buildings).

The pros and cons of contracting models are summarized in the following.

**Table 2: Pros and Cons of Contracting**

Suitability	
<ul style="list-style-type: none"> <li><input type="checkbox"/> Energy savings contracting is well-suited for optimizing plant technology in terms of energy – performance-based savings guarantees should be arranged in the user contracts</li> <li><input type="checkbox"/> Facilities contracting is suitable for larger projects – contractual arrangements for Maastricht-neutral financing are crucial</li> <li><input type="checkbox"/> Contracting in the area of public lighting requires detailed costs/benefits analysis and comparison to the ACTUAL situation</li> </ul>	
Pros	Cons
<ul style="list-style-type: none"> <li><input type="checkbox"/> Technical know-how from the external contracting partner</li> <li><input type="checkbox"/> In savings contracting, the entire financing risk can be transferred to the private sector</li> <li><input type="checkbox"/> Depending on the contractual arrangements, it is a Maastricht-compatible form of investment financing</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Quality criteria must be established in writing during the drafting of the contract</li> <li><input type="checkbox"/> Subsequent supervising of the contractor is only possible to a limited extent in some cases</li> </ul>

Source: Own presentation, KDZ, Vienna 2015

## 5 Property Development Projects

### 5.1 Concept and features

The property or real estate development model (Ger.: *Liegenschaftsentwicklungsmodell* (LEM)) is an expression of the already existing PPP models, which is used to provide properties connected to the infrastructure. The aim of these projects is to be able to offer developed and affordable real estate for the resident population and business people in municipalities with high demographic growth and limited resources of their own.

The contract term of LEMs should be concluded for five to 15 years, depending upon supply and demand. The projects are implemented in the following six steps:

- Establishment of the scope of the project and assignment of tasks;
- Zoning and purchasing of the properties;
- Building of infrastructure;
- Selling and marketing measures;
- Project reports and market adjustments;
- Final completion (handover of remaining areas to the municipality).

The first three measures are often implemented more or less at the same time and early on, as the zoning and price negotiations for purchasing the property can be quite extensive and time consuming. The population should be informed accordingly and the first marketing measures taken no later than before the start of the building of the infrastructure. The selling and reporting on the progress of the project is done during the actual contract term.

The contractor assumes the **construction risk** during the building of the infrastructure. A private partner taking charge of managing the road system is conceivable. The **maintenance risk and liability** thus remain in the private sector. Frequently, however, the road system becomes a public commodity as soon as the construction is finished. The public sector thus takes over maintenance, cleaning, and safety. The **risk of default/bankruptcy** of the project company is essentially non-existent, as the latter is provided beforehand with sufficient capital by a financier (e.g., banks, cooperatives, construction companies, etc.) for the construction and operation during the runtime. The financing is secured either by the properties and/or by a liability of the municipality. Thus either the client or the contractor assumes the **demand risk**, depending on the contractual arrangements.

### 5.2 Property development model Case study

The municipality would like to expand its commercial zone and receives an offer from a local farmer for a 20,000 m<sup>2</sup> piece of property. Owing to other projects and the size of the land, the municipality does not have sufficient funds of its own for buying and developing the property.

After loan negotiations, the municipality opts for a cooperation with a developer as project leader and a financier.

The goal is to provide enough construction land for the population and in doing so maintain a Maastricht-neutral financing. This is possible because the cooperation partners acquire ownership of the real estate being developed and a large portion of the project risk. The financial and ongoing support takes place without the municipality's participation.

The municipality does not have to, but can assume liabilities. These are Maastricht neutral and have no influence on the underlying transaction.

The bank thus forms a company and supplies it with sufficient funds (e.g., via an account with a suitable credit line) for purchasing the properties, building the infrastructure, and covering the ongoing expenses. In addition, potential clients are approached via the network of branches. The developer drafts plans for optimum use of the land area, gives the cost proposals for building the infrastructure, and ensures proper performance during the construction phase. The municipality takes care of the necessary zoning and specifies the parameters (size of the lots, layout of the roads, etc.).

After the infrastructure is complete, the bank hands the road system over to the community for ongoing care and sells the lots via its network of branches.

When the runtime is up, there are three options:

1. The capital resources supplied by the bank through the lot sales are covered and the company is dissolved.
2. The municipality buys the remaining lots or the company and sells the lots itself.
3. Another cooperation starts and new lots are jointly purchased, developed, and sold.

### 5.3 Pros and cons of the property development model

The **pros and cons** can essentially be summarized as follows:

Public Sector	Private Partner
<p><b>Pros</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Use of the partner's know-how (especially the distribution network)</li> <li><input type="checkbox"/> Freeing up of capacities for planning, construction, development, consultation</li> <li><input type="checkbox"/> No duty to call for bids</li> <li><input type="checkbox"/> Maastricht-compliant financing of infrastructure besides the budget</li> <li><input type="checkbox"/> Obtaining a project company</li> </ul>	<p><b>Pros</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> More favorable financing if liabilities are assumed/first loss agreements<sup>5</sup> are concluded</li> <li><input type="checkbox"/> Closer contact to the local population and economy for subsequent projects</li> <li><input type="checkbox"/> Image enhancement from broader product ranges</li> <li><input type="checkbox"/> Securing property for in-house projects</li> </ul>
<p><b>Cons</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Greater effort and expense for project planning and negotiation</li> </ul>	<p><b>Cons</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Partial risk assumption in planning, zoning, and costs with package offers</li> </ul>

<sup>5</sup> First loss agreements are collateral agreements to a transaction for the case in which the object is ceded to a third party rather than to the municipality at the end of the contract term. If the payments by the third party do not cover the entire residual value, then the municipality is obligated to help bear part of the "loss" incurred.

<input type="checkbox"/> Less control over the buyer structure of the lots, prices and quality of the infrastructure <input type="checkbox"/> Close ties to the project partners <input type="checkbox"/> Assumption of risk in the event of liabilities	<input type="checkbox"/> Higher human resource expenses <input type="checkbox"/> Greater effort for coordination with project partners and developers <input type="checkbox"/> Demand risk when the economic situation is bad (avoidable if the municipality assumes the liability)
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Source: Own presentation, KDZ, 2015.

An essential prerequisite is finding a private sector partner that is willing to assume the property risk.

## 6 Summary

PPP models can in principle provide advantages in terms of planning, construction, financing, and operation, but each project should be examined individually beforehand to determine if these advantages are realizable. The 10 most common municipal investments are presented with a view toward their PPP suitability in the following:

**Figure 5: The 10 most common investment areas and their PPP suitability**

10 most common municipal investments	PPP Suitability Model	Basic requirements for the PPP model
Sewer	Yes, operator model	<ul style="list-style-type: none"> <li>• Sewage system requiring renovation and/or connecting of new settlements to the system</li> </ul>
Water supply	Yes, operator model	<ul style="list-style-type: none"> <li>• Pipe system requiring renovation and/or connecting of new settlements to the system</li> </ul>
School	Yes, leasing	<ul style="list-style-type: none"> <li>• Unencumbered property with access to the public road system</li> <li>• Structurally separate building</li> <li>• Alternative use possibilities (no special leasing)</li> </ul>
Street lighting	Yes, contracting	<ul style="list-style-type: none"> <li>• Street lighting system requiring renovation and/or connecting of new settlements to the system</li> <li>• Savings potentials</li> </ul>
Kindergarten	Yes, leasing	<ul style="list-style-type: none"> <li>• Unencumbered property with access to the public road system</li> <li>• Structurally separate building planned for this purpose</li> <li>• Alternative use possibilities (no special leasing)</li> </ul>
Business settlement area	Yes, property model	<ul style="list-style-type: none"> <li>• Available properties with appropriate zoning</li> <li>• Market prices suitable for covering the construction and operating costs</li> </ul>

Sports center	Yes, leasing or operator model	<ul style="list-style-type: none"> <li>• Unencumbered property with access to the public road system</li> <li>• Structurally separate building planned for this purpose</li> <li>• Alternative use possibilities (no special leasing)</li> </ul>
Convention center	Yes, leasing or operator model	<ul style="list-style-type: none"> <li>• Unencumbered property with access to the public road system</li> <li>• Structurally separate building planned for this purpose</li> <li>• Alternative use possibilities (no special leasing)</li> </ul>
Official building/ administrative building	Yes, leasing	<ul style="list-style-type: none"> <li>• Unencumbered property with access to the public road system</li> <li>• Structurally separate building planned for this purpose</li> <li>• Alternative use possibilities (no special leasing)</li> </ul>

Source: own listing, KDZ 2015.

The risk balance sheet summarizes the maintenance, default, and financing risks and shows the “Maastricht effect” of importance to members of the European Currency Union.

**Figure 6: Risk Balance Sheet**

Model	Building risk/ maintenance risk	Default risk/ bankruptcy risk	Demand risk/ financing risk	Right to a say/ Maastricht effect
Operator model	The operator takes over the role of principal from the local government. The operator ultimately assumes the maintenance risk and it must ensure that the facility can be returned in the agreed-upon condition at the end of the contract.	The operator's remuneration is determined in advance for the next 15-20 years. In spite of good planning, there is the risk of default by the operating company or the financier.	The operator bears the financing risk. The demand risk depends upon the contractual arrangements.	Even though third parties may be engaged for trash and wastewater disposal and water supply, the local government remains legally responsible. Only the ongoing lease payments and contributions are Maastricht effective. The PPP partner bears the cost of the investment.
Leasing	The leasing company assumes the role of principal and assumes part of the maintenance and repair risk.	The leasing company becomes the owner of the object. There is always the possibility that the property will be sold and thus of the lessor changing. Contractually-ensured lease agreements,	Because the remuneration is oriented to the contractual agreement and not to the actual use, which can vary, the demand risk lies with the public sector. The lessor bears the	The right of objection only applies to a massive intervention in the building structure. The ongoing lease payments are Maastricht prejudicial. The one-time and ongoing deposit payments as well as

		however, remain unaffected thereby.	utilization risk upon return of the object.	the total debt are Maastricht neutral.
Contracting	The contracting company bears principal's risk as well as the maintenance and repair risk.	The contractor receives a flat-rate investment allowance and a regular remuneration. Thanks to the savings potential and long-term power supply contracts that can be planned for, the likelihood of the contractor defaulting is very low.	This risk lies with the public sector. However, the typical financing objects represent part of the services for the common good and in most cases must be provided even without reciprocal financing.	The public sector client basically only has a say in the planning and handover phases. Only the ongoing payments are Maastricht effective.
Property development model	The principal's risk lies with the project company, as the latter is owned by the financier. After the infrastructure is completed, the risk (maintenance, cleaning, safety) is transferred to the public sector.	The risk of the project company defaulting/going bankrupt is practically non-existent, as the latter is furnished beforehand with sufficient capital for construction and operation during the entire runtime.	The financing is secured either through the properties and/or through the liability of the municipality. Thus either the client or the contractor bears the demand risk, depending on the contractual arrangements.	For the duration of the contract, the municipality has no say. The company has a duty to make reports. Property development projects are Maastricht neutral provided that the project company is 100% owned by the financier.

Source: Own presentation, KDZ, 2015

Each of the **following questions** should be **answered positively** for every PPP project:

- What financial benefits are linked to the PPP alternative?
- What are the qualitative advantages?
- What does the risk sharing look like with regard to construction, operating, and financing risks?

In PPP projects, banks can assume the role of negotiator between the public sector and private partners, as well as the role of financing connected therewith.



### III Alternative Financing Options

#### 1 Citizen Participation & Crowdfunding

##### 1.1 Citizens' loans/citizens' credit and crowdfunding-based citizens' credit models

###### “Standard” citizens' loans/citizens' credit

The granting of loans to local governments by citizens (citizens' loans/citizens' credit) represents a relatively new financing model, in which cities or municipalities receive funding through (quasi-) direct contributions by their citizens. A crucial element is the involvement of an intermediary (a trust bank, for example), which under the banking act is entitled to make credit transactions (“banking subject to approval”).

As a rule the basic transaction is a loan, which is granted to the city through the intermediary as soon as all deposits (declarations of consent by the citizens to grant credit in an appropriate amount) have been collected.

Repayment is either at maturity or monthly, depending on the model. The interest rate of the practical examples to date have fluctuated from 0.76 to 3.6 percent.

The following examples illustrate successfully implemented citizens' credit projects.

**Table 3: Citizens' Credit Case Examples**

	Quickborn citizens' credit	Willich – Construction of a new cafeteria for two schools
<b>Year</b>	2010	1 <sup>st</sup> installment – until Feb 2011 2 <sup>nd</sup> installment – until July 2011
<b>Description</b>	Intermediary (biw AG bank “Heimatinvest”) collects contributions and grants loans; two loan models	Intermediary (biw AG bank “Heimatinvest”) collects contributions and grants loans; two loan models
<b>Minimum contribution</b>	5,000 euro	5,000 euro, in increments of 1,000 from then on
<b>Runtime</b>	2 years/5 years (maturity)	20 years (monthly repayments of interest and principal)
<b>Interest rate</b>	1.5%/2.6% p.a.	3.6% p.a.
<b>Total volume</b>	2 mill. euro (1 mill. for each model)	1 <sup>st</sup> installment – ca. 500,000 euro 2 <sup>nd</sup> installment – ca. 1.2 mill. euro
<b>Reception</b>		
<b>Note</b>		

Source: own presentation based on Stötzer, S., Ellmer, M. 2013, KDZ 2015

## Crowdfunding-based citizens' credit models

Crowdfunding can basically be defined as “an instrument of procurement marketing in which the crowd principle, in the financial sense, is used to achieve a concrete financial goal within a specific time period for clearly delineated, predefined projects publicized via Web 2.0 instruments (esp. social media, platforms).”<sup>6</sup>

The key differences from the citizens' loans discussed in the previous chapter are as follows:

- ❑ Crowdfunding-based citizens' credit models relate to actual projects and are not granted to a city or community in a “generalized” manner;
- ❑ As a rule these are smaller, individualized, self-contained projects;
- ❑ Although a trust bank is also required for this model, usually a specialized crowdfunding platform (such as a Web 2.0 platform) is used as a second intermediary;
- ❑ Unless otherwise specified by the borrower (i.e., the city or municipality), the minimum amount is comparatively small (e.g., 100 euro in reference projects); hence it is a system for granting micro-loans;
- ❑ The interest terms under which money is lent to the city or municipality are basically up to the lender (as a rule, however, upper limits to the interest are set) – the total interest rate is calculated from the weighted mean of the interest on the credit funds.<sup>7</sup>

These models basically work the same way as citizens' loans.

**Figure 7: How crowdfunding-based citizens' loans work**

	Project initiators	Citizens (crowd)	Platform	Trust bank
<b>Goal</b>	Implementation of a nonprofit project	Implementation of a nonprofit project	Support for the project	Support for the project
<b>“reward”</b>	Political promotion through successful implementation	Interest on the financial contribution	Share of the money acquired (business goal of the company)	Share of the money acquired (business goal of the company)
<b>Role/function in the project</b>	Specification of the framework conditions and carrying out the project	Investor	Provision of the platform Specializes in arranging loans to communities and municipal companies by citizens	Ensures that the investment is used in a legal manner Accompanying the process from the inpayment by the investor to the disbursement to the community
<b>Case example Oestrich-Winkel</b>	City of Oestrich-Winkel	Citizens of the city and others	LDSG GmbH (Leihdeinerstadtgeld)	Fidor Bank AG

Source: Own presentation based on Hainzer/Stötzer/Ellmer, 2014

<sup>6</sup> Hainzer, M., Stötzer, S., Ellmer, M., Crowdfunding-basierte Bürgerkreditmodelle in Kommunen, in ZögU 37/2014, p. 55

<sup>7</sup> Also see <https://www.leihdeinerstadtgeld.de/faq> 2015

The German city of Oestrich-Winkel is a case example of crowdfunding-based citizens' credit (CfbB). The plan was to buy new radio equipment for the volunteer fire company, with investment costs of ca. 160,000 euro. The city opted for partial financing through CfbB in the amount of ca. 83,000 euro. The planning phase for the project took around one year.

The chosen platform was the company "LeihDeinerStadtGeld" ["LendYourCityMoney"], which specializes in municipal crowdfunding. They took over the implementation and public relations work of the crowdfunding and ultimately issued prorated loan claims (with the legal backing of Fidor Bank AG) against the City of Oestrich-Winkel.

The model was based on the following **conditions**: The term of the loan was six years, repayment was over a period of six years, in equal installments and at a maximum interest rate of 0.76%. A six week subscription period was set, and the target amount was reached after five weeks. In this particular case, the amount was provided by a total of 13 citizens.<sup>8</sup>

### **Opportunities and risks of citizens' credit models**

Both of these models are legitimate financing options for cities and municipalities. The key opportunities can be summarized as follows:

- Citizens' loans represent a supplementary source of financing for cities and municipalities. Citizens are tapped as a *de facto* direct investor group. Especially in times when there is an increasing withdrawal of standard investors from the community market, this is an added value not to be underestimated;
- The crowdfunding-based variant in particular has a low interest rate (ca. 0.76%), which is generally more favorable for the city or municipality than standard bank loans. Hence subsequent savings resulting from citizen participation can have positive effects on the municipal budget. In the example project, it turned out that citizens are willing to accept a somewhat lower interest rate for "their" city;
- Independence is achieved in the project implementation in that investments can be made that could not have been made without citizen participation;
- In addition citizen participation is strengthened; citizens become directly involved in the municipal government process.

On the other hand, the following points of criticism and risks have come to light:

- Lower interest rates for the lenders have sometimes been criticized by consumer protection organizations;
- Implementation sometimes involves complex legal questions (intermediary bank, platform provider);
- The effort and expense for planning and preparation must not be underestimated; the same goes for the effort and expense for the successful promotion of the measure to the public;
- Some resistance by local banks, criticism from the opposition;
- Financing is often from a very small circle of lenders (13 citizens for the financing of the radio equipment, ca. 80 citizens for the financing of the first Quickborn citizens' loan), which has a decisive influence on a municipal project.

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<sup>8</sup> Hainzer, M., Stötzer, S., Ellmer, M., Crowdfunding-basierte Bürgerkreditmodelle in Kommunen, in ZögU 37/2014, p. 61 f.

**Table 4: Pros and cons of the “citizens’ loan” financing instrument**

Suitability	
<ul style="list-style-type: none"> <li><input type="checkbox"/> “standard citizens’ loans” for higher financing volumes, even without any relation to an actual project (500,000 euro – 4 mill. euro implemented in previous projects)</li> <li><input type="checkbox"/> Crowdfunding-based models for smaller, direct project financings (ca. 80,000 euro in previous projects) – selective use for selected initiatives – but also deemed suitable for higher amounts of funding</li> <li><input type="checkbox"/> Citizens’ loans/credit as a supplement to standard financing – deficit can be financed “conservatively” by bank loans.</li> </ul>	
Pros	Cons
<ul style="list-style-type: none"> <li><input type="checkbox"/> Lower interest with CfbB than with standard loans</li> <li><input type="checkbox"/> Opening of a new refinancing channel, addressing a new and also younger public (including “small investors” of 100 euro or more) via Web 2.0</li> <li><input type="checkbox"/> Projects that otherwise would not be implemented can be carried out</li> <li><input type="checkbox"/> Citizens become project spokespersons – “word-of-mouth” propaganda</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> In some cases little participation</li> <li><input type="checkbox"/> Planning and implementation associated with corresponding effort and forward planning</li> <li><input type="checkbox"/> Intensive public relations work and promotion</li> <li><input type="checkbox"/> The greater the number of investors, the more support required from intermediaries</li> </ul>

Source: Own presentation, KDZ, Vienna 2015

## 1.2 Citizen participation models for renewable energy sources

Direct citizen participation models often include the renewable energy sector. Photovoltaic or solar systems are often constructed and operated on the roofs of municipal buildings or private buildings. On a larger scale, entire “people’s power plants” are built as well.

Such models can basically be classified in two different participation forms.

**Table 5: Variants of citizen participation structures**

Outside creditor	Participation
Loan model	Private corporation
“Sale and lease back” model	Limited partnership and its special forms
Profit-participation loan	Limited liability company (GmbH)
Bonds and participation certificates	Silent partnership
Bankbook	Registered corporation

Source: Padevetova 2013, KDZ presentation, Vienna 2015

**Loan capital models** are structured similarly to loans. The outside creditor lends an agreed amount of funds to the borrower and gets the invested money back in a specific time period, with interest or a profit surcharge. The creditors do not have participating interest in the company, nor do they accept any corresponding liability. As a rule there is no right of say, although cancellation or selling rights can usually be arranged.<sup>9</sup>

In **shareholding or participating interest models**, corporate shares, cooperative shares, or bonds are issued, which ensure the private subscribers a participating interest in the company and a share of the profits. In principle the relationships of shareholders to one another, their rights and obligations (such as the form of profit-sharing, control rights, or the type of liability as well as decision-making and representation of the company) are in principle governed by articles of association.<sup>10</sup>

**Table 6: Examples of citizen-owned solar plants in Austria**

	Vienna	Lower Austria	Upper Austria	Styria
<b>Facility</b>	Citizens' solar plant Vienna-Donaustadt	Citizens' solar plant Waldviertel	Citizens' solar plant "Mureck SEBA"	Municipal works Judenburg AG
<b>Model</b>	Sale-and-lease-back	Participating interest in the limited liability company	Bond and participation certificate	Purchasing and leasing model
<b>Cost for shares or minimum loan amount</b>	Half module 475 euro – whole module: 950 euro	200 euro participation certificate	2,000 euro	650 euro per module (max. 10 modules)
<b>Runtime</b>	Depending on the life cycle of the plant, ca. 25 years	At least 10 years	20 years	Indefinite
<b>Interest rate/profit/"reward"</b>	3.1% of the invested amount	After 10 years, 330 euro in the form of purchase coupons (ca. 5.2% interest) Up to 4% additional credit on their electric bill for shareholders	Investor gets back 80% of the contribution over the runtime plus an annual profit share (ca. 100 euro) corresponding to an interest rate of ca. 2.9%	Fixed interest of 3.125% p.a.
<b>Refinancing</b>	Shares "Solarmodules" and feed-in	Legally guaranteed feed-in rates for 13 years	Legally guaranteed feed-in rates for 13 years	

Source: various online resources<sup>11</sup>, KDZ presentation, Vienna 2015

<sup>9</sup> Also see Padevetova, K., Bürgerbeteiligungsmodelle für erneuerbare Energie, ihre Vorteile und Nachteile für die Beteiligten, in RFG,1/2013 p. 4 ff. and Padevetova, K., Bürgerbeteiligungsmodelle für erneuerbare Energie – ein Update, in RFG, 33/2013 p. 160 ff.

<sup>10</sup> Ibid.

<sup>11</sup> Also see AK Marktforschung, BürgerInnenbeteiligung bei steirischen Photovoltaikanlagen, 2013 [http://media.arbeiterkammer.at/stmk/BuergerInnenbeteiligung\\_bei\\_steirischen\\_Photovoltaikanlagen.pdf](http://media.arbeiterkammer.at/stmk/BuergerInnenbeteiligung_bei_steirischen_Photovoltaikanlagen.pdf)  
Also see Photovoltaik Austria, Sonnenstrom in Bürgerhand Spezialausgabe, 2012, [http://www.pvaustria.at/wp-content/uploads/2013/07/SOS\\_2\\_2012\\_Buergeranlagen.pdf](http://www.pvaustria.at/wp-content/uploads/2013/07/SOS_2_2012_Buergeranlagen.pdf)

**Table 7: Pros and Cons of the “Citizens’ Participation Models” Financing Instrument**

Suitability	
<input type="checkbox"/> Basically suitable as an alternative funding source, but requires precise contractual arrangements	
Pros	Cons
<input type="checkbox"/> Availability of a new source of financing <input type="checkbox"/> Implementation of projects that otherwise could not be carried out <input type="checkbox"/> As a rule positive publicity for the city or municipality	<input type="checkbox"/> The legal aspects of investment construction must be checked into beforehand, not all models are suitable <input type="checkbox"/> Danger of prospectus requirement associated with shareholdings <input type="checkbox"/> Direct loan model not in keeping with BWG [Austrian Banking Act] – city/municipality lacks a license <input type="checkbox"/> The power purchase demand risk can lead to insolvency

Source: Own presentation, KDZ, Vienna 2015

## **IV Further Information on Public Private Partnership**

Comprehensive information about PPP, including different legal frameworks, implementation models, good practices, can be found at:

- **EU Legislation and documents** related to PPP available at the EU portal:  
<http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52004DC0327>  
[http://ec.europa.eu/regional\\_policy/sources/docgener/guides/pppresourcebook.pdf](http://ec.europa.eu/regional_policy/sources/docgener/guides/pppresourcebook.pdf)  
[http://ec.europa.eu/regional\\_policy/sources/docgener/guides/ppp\\_en.pdf](http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf)
- **European Investment Bank** portal on PPP: <http://www.eib.org/epec/g2g/index.htm>
- **World Bank** portal on PPP: <https://pppknowledgelab.org/>
- **Other** useful documents:  
[http://www.eipa.eu/files/repository/20130322092835\\_MBU\\_EuropeanFiles\\_PPPinEurope.pdf](http://www.eipa.eu/files/repository/20130322092835_MBU_EuropeanFiles_PPPinEurope.pdf)  
<http://www.epsu.org/r/237>

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