



# PUBLIC-PRIVATE PARTNERSHIP IN LATIN AMERICA: A GUIDE FOR REGIONAL AND LOCAL GOVERNMENTS

Title: Public-Private Partnership in Latin America: A Guide for Regional and Local Governments

Legal deposit: DC2018001317

ISBN: 978-980-422-096-8

Publisher: CAF

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Graphic design: IESE Bussines School – January 2018

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# PPP

## PUBLIC-PRIVATE PARTNERSHIP IN LATIN AMERICA: A GUIDE FOR REGIONAL AND LOCAL GOVERNMENTS

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## OVERVIEW

The rapid growth of Latin American cities over the last decade is demanding more infrastructure and public services that ensure an acceptable living standard in urban areas. Regardless of city size—small, medium and big cities alike—the planning and definition of strategic investments have become a challenge for public sectors to meet the new demands from citizens.

However, it is not always possible to undertake the construction and management of all the necessary public services—roads, public spaces, mass transit systems, government administrative centers, water networks, schools, landfills, medical care centers, sports centers, lighting, among others—with just public-sector budgets, and in some cases, it is necessary to use other models that incorporate private sector financing.

Given this scenario, Public-Private Partnerships (PPP) can represent a tool to maintain the rate of investment in infrastructure and development projects, which are essential for improving the quality of life of millions of Latin Americans. PPPs are instruments that incorporate private sector participation in the provision of public goods and services with the idea that the private sector can contribute to achieve greater efficiency and quality in the allocation of public resources, through a suitable distribution of risks.

The advantages of PPPs are clear: they incorporate technical and managerial knowledge from the private sector, contributing added value and greater technical efficiency by integrating all the phases of a project (design, construction, financing, maintenance and operation). At the same time, they can contribute additional funds to governments for the development of socially necessary infrastructure that the public sector cannot carry out on its own due to budgetary restrictions.

However, this model has a series of requirements that can add certain complexity to its implementation: a great number of actors are involved; its structuring is medium to long-term; and the definition of contracts and their management is more complex given the different frameworks (institutional, legal, technical, financial) that must be aligned. The public sector must have the proper skills to put this model into operation.

In spite of these demands, governments, with the support of competent public authorities, have overcome greater challenges than those initially proposed. In addition, it can be said that the controversy surrounding the application of the PPP model is related to insufficient information about them, the difficulties involved in PPP contract structuring and management, and the actual benefits the model provides (which don't always coincide with the expected ones).

With the aim of improving the technical capacities of regional and local governments, which generally have less resources than national governments, CAF—Development Bank of Latin America—drafted this technical guide with the objective of proposing some basic concepts for a better understanding about what a PPP is and what it is not, like how to evaluate the use of the PPP model with respect to other possible formulas and how to tackle the structuring process of a typical contract. This analysis was carried out with urban projects in mind, generally with a high social component, where the economic return without public funds is not always viable.





# **INTRODUCTION: A GUIDE TO IMPROVING CITIZEN SERVICES**

# A GUIDE TO IMPROVING CITIZEN SERVICES

The World Bank in its most recent publication about Public-Private Partnerships (PPP) states: “Economic and social infrastructure are fundamental for economic development, reduction of poverty and inequality, job creation and environmental sustainability.”<sup>1</sup> In this regard, infrastructure generates high social returns and improves well-being, whereas inadequate infrastructure represents a barrier to growth and improved quality of life, especially in developing countries.

Therefore, the objective of infrastructure promoted by the public sector must be to **improve citizen services** and, as a result, people’s quality of life. This must be the horizon of any public project, and ensuring that this objective is met is the responsibility of all participants.

Give this context, infrastructure investment raises important challenges for governments. Considerable amounts of financial resources are required for these long-term projects that involve a large number of economic agents. The fact that investment requires large sums of money can mean that government investment is insufficient or funding is delayed given that public funds are usually subject to strong budgetary restrictions and long administrative processes. On the other hand, important problems in terms of coordination between the agents involved in the project in their different phases and a lack of incentives can demand complex adjustments of governance. In addition, infrastructure projects are susceptible to corruption and bribery.

All of these reasons—those related to the grounds for developing infrastructure as well as those related to the complexity of execution—force governments to search for the best tools to achieve their objectives and overcome the challenges. The different mechanisms available include PPPs, which are contracts traditionally linked to the development of infrastructure and public services where the private sector usually provides funding and technical expertise related to construction and/or operation. As we shall see in the following pages, PPPs are not the only solution for the provision of infrastructure and public services, nor do they offer any guarantees, but they should be considered as a tool to be taken into account from the planning stage and, in the event that they are selected, they will be the most successful solution when compared to other options.

Nevertheless, PPPs are complex, long-duration contractual structures with higher transaction and financing costs than conventional procedures. Furthermore, governments that decide to use this type of tool must be trained properly [in their structuring, use and execution]. This need for training can be even more recurrent in regional or local governments, where sometimes, the design of the allocation of resources is insufficient for managing this type of contract and do not have sufficient guarantees to ensure that projects can be sustained.

This reality demands that PPP contracts be correctly planned, structured, tendered and managed, which is the primary goal of this guide. For that reason, the contents of this guide has been organized into six chapters.

Chapter 1 defines the concept of PPPs, establishing the present and future importance of urban settings and how these should be managed intelligently through cooperation efforts among the different actors, where PPPs emerge as one of the best types of collaboration.

Chapter 2 addresses the different elements that need to be taken into account when configuring a PPP, from why this tool should be chosen instead of others to the definition of payment methods. In addition, characteristics of a PPP contract are dealt with; what options exist for implementing it; and how the risk between the different agents should be distributed.

Chapter 3 analyzes different aspects related to the awarded contract, with a focus on the need for good governance, contract structure and the institutional context that should characterize this governance.

Chapter 4 establishes the reasons why a contract may need to be re-negotiated and how this process should be approached.

Chapter 5 explores the financial aspects of a PPP and the financial instruments available.

Finally, chapter 6 defines the conditions of success for a PPP contract, from the point of view of the context as well as the specific elements of the contract.

There are three annexes to facilitate the drafting of PPP contracts that conclude the guide . Annex 1 includes a glossary of terms compiled from the different chapters; Annex 2 describes the legal framework in effect in CAF's shareholder countries with PPP legislation; and, finally, Annex 3 includes 11 sheets as a quick reference to all the most important elements to ensure the correct development of a PPP.



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**CONTEXTUALIZATION  
OF PUBLIC-PRIVATE  
PARTNERSHIPS (PPP)**

# CONTEXTUALIZATION OF PUBLIC-PRIVATE PARTNERSHIPS (PPP)

## CONCEPTUAL ASPECTS OF PPP CONTRACTS

### WHAT IS A PPP?

Even though there are different definitions of public private partnerships (PPP), they all have in common that PPPs are **projects that combine infrastructure construction and maintenance with the operation of some public service using this infrastructure**. These projects, generally involving a long duration (up to several decades) are decided by the public sector, which hires a private operator—generally a consortium between several entities—for a set of tasks, which can run from financing to operation of the service, covering the stages of infrastructure construction and maintenance.

PPP projects are **defined by space and time**. Unlike indefinite privatizations, which can transfer to the private sector an entire system (transport or energy, for example) for an indefinite time period, PPPs transfer to the private sector certain responsibilities associated with a project bound by specific objectives, space and time.

Regardless of this general explanation, PPPs are actually defined by the laws of each country, hence the importance of having a framework that clarifies these concepts.

#### Box 1

### Different types of infrastructure

Las infraestructuras económicas duras incluyen carreteras, puentes, túneles, ferrocarriles, aeropuertos, transporte público, telecomunicaciones y energía. Las infraestructuras sociales duras abarcan hospitales, centros educativos y edificios de formación; instalaciones de almacenamiento y tratamiento de agua; vivienda; alcantarillado, alumbrado y equipamiento público; guarderías, centros de cuidado de ancianos y prisiones.

World Bank (2017), *PPP Reference Guide 3.0*.

**Examples of PPP projects** include the construction and operation of highways, tunnels, bridges and hospitals; urban transport (metros, tramways, light trains, bus rapid transit [BRT]); infrastructure related to water treatment and distribution, and sanitation services; generation and transmission of energy, or the street lighting and telecommunications networks, and other infrastructure linked to social policies like prisons, schools and public facilities.

It is worth noting that, currently, this mode can also be used for the implementation of new technologies related to public services. In these cases, both the duration of the contract and the volume of investment may be reduced. The investment in technology may be lower than the level needed for hard economic infrastructure, while a contract with a shorter duration can be explained, on one hand, by the technological progress call for shorter contracts, and, on the other, by the fact that the lower the investment, the less time required for contract amortization.

PPPs can be used for totally new projects (**greenfield**), for example, the construction of a highway, or for existing projects (**brownfield**), such as the development of a current potable water supply system, where the PPP contract covers an investment for improvements in the infrastructure network to be carried out by the operator, who will also handle water supply services.

In any case, the **bundling of tasks** is an attribute that differentiates PPP projects from traditional public procurement, which involves the procurement of several services from one concessionaire instead of contracting services separately from different contractors.

#### WHY USE PPPs?

**There are at least** four reasons that explain why this type of project has become increasingly popular in recent times. They are detailed below.

**Reason 1.** In recent decades, there has been intense debate about the **limits of the public sector and how it can be made more efficient**. There is widespread recognition that an efficient public intervention with high institutional quality is a basic ingredient of a modern economy. At the same time, there are demographic and socio-economic trends (such as the process of globalization, which promotes the freedom of movement of productive factors, what makes close oversight more difficult) that call for an **improved productivity of governments** at all levels, i.e., that invite them to make the best possible use of existing resources. Given the nature of the tasks that the public sector must carry out, it is very **difficult to introduce remuneration through monetary incentives** directly, which is why limited formulas for the hiring of private operators (whether from the commercial or non-commercial sector) offer an interesting potential to improve productivity, if the goal is to safeguard a strong and quality public intervention.

**Reason 2.** There is some **dissatisfaction with the indefinite privatization model**. In developing and developed countries alike, an initial euphoria among important sectors of public opinion—at the end of the 20th century—has morphed into a questioning that **associate privatization with putting public objectives into the hands of private interests, which are not going to consider the general public**.

In this context, intermediate formulas that try to combine the best aspects of the public and private sectors may be of interest. **The best thing about the public sector is its capacity to handle general interests and its coercive power** (legitimate inasmuch as it is exerted within a democratic system respectful of the rule of law), by which it can raise funds quickly and effectively. The best thing about the private sector is its capacity to introduce high intensity

incentives, on the one hand and, in a complementary manner, its capacity to introduce competitive pressure, something that is less frequent in the public sector. Just as the private sector cannot achieve the legitimacy of the public sector, the public sector cannot easily emulate the private sector's capacity for creating incentives and competitive pressures.

**Reason 3.** The main advantage that the governments continue to find in this formula of collaboration in projects controlled by the public sector is the involvement of companies with experience in different markets, which **makes it possible to attract talent and technology**.

**Reason 4.** Projects developed under PPP contracts tend to focus on large **infrastructure**, for which **there is an increasing global demand** due to three types of continuous growth:

- Demographic, worldwide, due to the fight against infant mortality and the improvements in the medical treatments for senior citizens.
- Economic, which is high in emerging countries, especially in Asia.
- The continuous process of urbanization, under which more and more people from rural areas are moving to live in big cities, especially in countries like China, but also in Latin America and Africa, where strong economic growth processes are underway, as well as a structural change from a rural economy to one dominated by industrial and service sectors.

#### WHERE PPP CONTRACTS STAND WITHIN THE SPACIAL FRAMEWORK BETWEEN PUBLIC PRODUCTION/SUPPLY AND INDEFINITE PRIVATIZATION

Although some projects with characteristics similar to PPPs go back to antiquity, it has been in recent decades when this formula has expanded in many economies and has been subject to a very intense academic and political debate, due to the fact that PPPs are in an intermediate situation in the spatial framework between supply and public production, at one end, and indefinite privatization, at the other.

#### Privatization vs. PPP

There are different channels available to the private sector for assuming responsibilities for infrastructure/services that have typically fallen into the hands of the public sector. In this regard, the differences between PPPs and the multiple existing forms of privatization should be established.

Box 2

### Producción vs. provisión

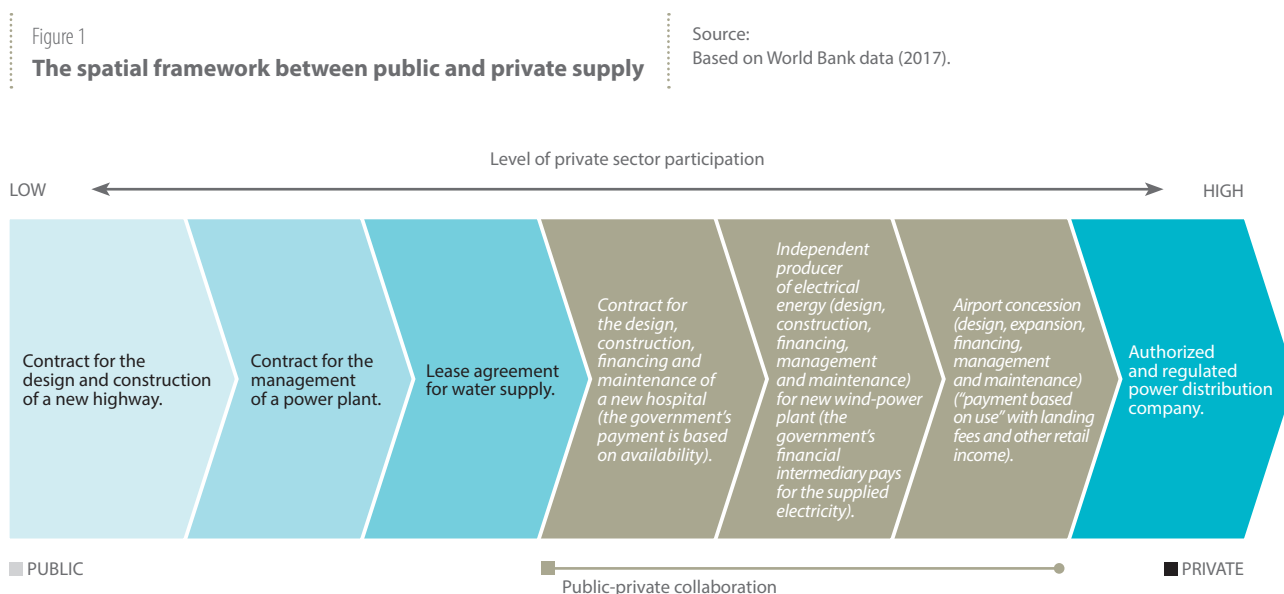
Production is the organization of means of production to provide a service or manage infrastructure.  
Supply is the guarantee that infrastructure or services will operate under the correct conditions.



In the first place, **there are two main differences between a PPP and the sale of a state-owned company**. PPPs imply that the private sector handles production but not supply, while the sale of a state-controlled company to the private sector implies that the buyer is responsible both for supply and production (see Box 2). On the other hand, the public sector usually puts restrictions on the decision-making process of the private sector, whereas a PPP or sale of a public company usually affects activity sectors where certain public intervention is necessary. In a PPP, limitations and incentives that apply to the private sector's actions are perfected under a contract, whereas, in the case of the sale of a state-owned company, they are defined by regulations (sector laws or norms).

### Outsourcing vs. PPP

The difference between a PPP and the outsourcing of services should also be highlighted. Although in both cases a contract is signed to regulate the relationship between a government entity and a private operator, in the case of a PPP the agreement usually implies the packaging of different tasks and the transfer of risk from the government entity to the private operator, whereas in the case of outsourcing of services the contract only applies to a task and, in general, does not transfer the risk involved.



As observed in Figure 1, intermediate formulas between pure public provision and full privatization include many modalities, from management and maintenance contracts applicable to certain services (for example, cleaning, cafeterias, etc.) to PPP projects, which include the construction and/or maintenance of an asset (based on whether it is a greenfield project, where something is constructed that did not exist before, or if it is a brownfield project, where an existing project is adapted, renovated or maintained), like the operation of a service using this asset. For that reason, the different existing PPP modalities are defined below.

## PPP MODALITIES

There are several PPP modalities based on the tasks that the private sector assumes in a single contract. Naturally, the private sector does not necessarily handle all of these tasks in every PPP contract. The different PPP modalities are:

- Design and build (DB),
- Design, build, finance and operate (DBFO),
- Build, operate and transfer (BOT),
- Design, build, finance and maintain (DBFM),
- Concessions.

In any case, the difference between concessions and design, finance, build and operate (DFBO) schemes is that, in the case of concessions, long-term financing comes from fees paid by the users (self-sustaining), whereas, in the case of DFBOs, financing can also come from rates paid by taxpayers (contributions from the public sector). Annex 1 includes a glossary of terms related to PPPs.

### **The nature and scope of a PPP contract varies based on the infrastructure works involved.**

In this regard, a difference between economic infrastructure and social infrastructure can be established (See Box 1). The former contains elements that are easier to assess and value in precise economic and financial terms, while the latter involves many investments in which earnings are less tangible and more difficult to assess in economic and financial terms. On the other hand, the grouping of different tasks in a single contract is more common in the case of the economic infrastructure. Finally, society tends to view social infrastructure as essential and they often pertain to merit goods, which is a reason why the private sector's participation is less intense than in the case of economic infrastructure.

The different modalities also include **different [forms of] payment made to contractors**, which include the possibility of private operator receiving remuneration in the form of payments from users or direct payments from the government (based on the service startup or on the number of users), or a combination of the two formulas. Forms of project financing can include allowing the private operator to profit from the revaluation of land or assets associated with a specific project, which can occur when public transport is extended to certain property areas, where these services were previously unavailable.

A distinctive element of PPP contracts is that the private sector's participation is often articulated through specific entities known as special purpose vehicles (SPV) (see Box 3), in which eligible industrial, financial and construction partners, and, in some cases, the public authority itself, can participate. SPVs enable private operators to limit the risks that they assume solely to the funds invested as all assets and liabilities linked to the project are segregated from the respective parent companies under this form of organization (SPV).

Box 3

### Special purpose vehicles

This term is generally used to define a *shell company formed by private investors involved in a PPP with the exclusive purpose* of building and operating the project. It is a common corporate form used when private contractors are complementary to one another, where one can be expert in design and construction, and another, in operation and maintenance.

Finally, there are **contractual PPPs and institutional PPPs**. Most references to PPPs involve the contractual type (which is the most commonly used form), but there are cases of the implementation of institutional PPPs. This is based on the formation of a mixed company in which the government and one or more private companies hold shares. In the case of an institutional PPP, both parties share risks and potential revenue derived from the provision of the service or the management of the infrastructure. Furthermore, in an institutional PPP, the relationship between the public and private parties is regulated by the statutes of the company formed, whereas in a contractual PPP, the relationship is regulated by the contract. Note, in the following sections, references to PPPs pertain to contractual PPPs.

## IMPORTANCE OF THE URBAN ENVIRONMENTS

PPP is an important instrument, although not the only one available, for the provision of public services and goods. Nevertheless, before moving onto the explanation of how to draft a good PPP contract (Chapter 2), how to govern it (Chapter 3) and how—when necessary—to renegotiate it (Chapter 4), a look at the environment where a greater necessity for public services and goods many exist, thereby requiring good PPPs, is recommended.

According to data compiled by the United Nations,<sup>ii</sup> cities are growing at the rate of 60 million inhabitants every year and, in its most recent projections,<sup>iii</sup> it estimates that the world's total urban population will increase from 54% in 2014 to more than 66% in 2050. This means that by the mid-twenty-first century, two out of every three individuals will live in a city. This reality is most acute in **Latin America and the Caribbean**, which already represents the second most urbanized region in the world and could hold **90% of the total global population living in an urban setting** in 2050, according to the Inter-American Development Bank.<sup>iv</sup> Therefore, urban settings will be essential in the development of society in the twenty-first century and, given the global challenges that we have observed, local solutions spearheaded by subnational governments will be necessary.

In this regard, IESE Business School, based on its ongoing work since 2014 on the initiative *IESE Cities in Motion Index*,<sup>v</sup> has identified 15 challenges that require special attention from society, in general, and public authorities, in particular. These challenges are grouped around the ten aspects that IESE's index indicates as key for the competitiveness and quality of life in the main urban areas worldwide.

The evolution of events at the beginning of this century has confirmed that we are advancing toward a setting of structural changes. Climate change, the digital revolution, the rise of renewable energy, the world economic crisis and forced migration are factors that are having a clear impact on society, in general, and, as a result, have a repercussion on public policies.

These challenges, although of different intensity based on the context in which they are analyzed, can be seen as pertaining to all of humanity; proof of which is that they can be associated with the different United Nations sustainable development goals (SDG),<sup>vi</sup> which apply worldwide (see Box 4).

Box 4

### United Nations Sustainable Development Goals

On September 25, 2015, leaders from around the world adopted a set of 17 global goals to eradicate poverty, protect the planet and assure prosperity as part of a new sustainable development agenda. Each goal has specific targets to be reached over the next 15 years.  
<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>



## ACHIEVING A “SMART URBAN ENVIRONMENT”

The aforementioned population projections can involve exorbitant urban growth, which can lead to the identified challenges multiplying, a deterioration of the urban environment and the loss of associated wealth, aggravating the initial problem even more. In order to avoid this situation, these urban environments must become “**smarter.**”

A “smarter urban environment” is understood as one with the capacity to solve the challenges and address the needs of its society. Technology—as it can be observed—is not included in this definition, although it is understood that it can be a key vector for the development of solutions to meet the needs of citizens.

In fact, the key to achieving that a city or region becomes smarter is **intelligent governance**, as indicated by Berrone and Ricart,<sup>viii</sup> which can be summarized in the four elements presented in Table 2.

Urban strategic planning	Collaboration
Thinking strategically about the city implies the development of a structured process that makes it possible to define the type of large city that the city wants to be.	The implementation of strategic plans requires that we recognize that cities cannot do it all alone.
Openness and transparency	New business models
One of any city's most valuable assets is the data that it generates and accumulates. As such, good data management forms part of good government management.	Economically speaking, one of the most striking phenomena in urban environments is the emergence of new business models. «New» economies (collaborative, digital and green) give rise to business formats never seen before.

Table 2

**The four elements of intelligent governance**

Source:  
Extracted from Berrone and Ricart (2016).

**Urban** strategic planning is then crucial to identify the desired future urban environment, based on a good diagnosis of the current status of the territory, followed by the definition of a future vision to later properly plan what tasks need to be performed and when they need to be carried out in order to achieve that vision. Once strategic plans are designed, collaboration between the different agents will be decisive, since urban environments are characterized by a high density of stakeholders, and the greater the urban dimension, the greater the complexity and need for resources. For a more effective implementation of intelligent governance, a capacity for **openness and transparency** is considered essential; not only in terms of processes, but in particular in terms of the information «transmitted» by the city.


Box 5

**Examples of different types of collaboration**

**Internal collaboration within a government.** The case of the New Cairo wastewater treatment plant is a success story of collaboration between different units of the same administration. The Egyptian government created a PPP unit under the Ministry of Finance, which collaborated very closely with the Ministry of Public Works, the entity responsible for the project.

**Multilevel collaboration.** The case of El Realito, San Luis Potosi (Mexico), is a good example of multilevel collaboration between different administrations. The project runs through two different Mexican states (Guanajuato and San Luis Potosi), through three hydrologic-administrative regions, which ultimately supplies potable water to the inter-municipal body Interapas.

**Collaborative network.** The C40 Association, in favor of the fight against climate change, is a collaborative network between different administrations, in this case municipalities around the world. Municipalities are the members of the association, which has an independent team.



In today's society, the digital revolution makes it possible to gather data that provide valuable information, which, if well managed, generates knowledge. This process (data → information → knowledge) improves urban planning and service provision processes. Finally, intelligent governance must take into account new business models in urban environments, where disruptive businesses with traditional activities are emerging, and these new economies must be factored in as one more element to implement a strategy that seeks to solve the challenges of citizenship. Next, these concepts are explained in greater detail.

## SMART ENVIRONMENTS DEPEND ON COLLABORATION

From the earlier definition of intelligent governance, it can be deduced that urban environments are highly complex, and have multiple agents whose interests are not always aligned. For this reason, **a vocation for global collaboration** with a variety of agents and different administrative levels (horizontal and vertical) is required for **the development of strategic plans**. This **collaboration between administrations** must be, among other things, internal or based on integration, aiming to break down the existing lack of communication between departments that have no relationship between them, i.e., working across different divisions/departments of the same administration, since some problems require multiple solutions, which might not be linked to just one specific department. But, in addition, administrative collaboration must also be multilevel, with other administrations, because the scope of action can exceed an administration's territorial limits. The last type of administrative cooperation is the collaborative network, which brings together actors of the same competence level around a topic of shared interest.

Collaboration must also be carried out with other actors, that is, **public-private collaboration**, because the private party can provide knowledge, technology, resources or management flexibility not present in the administration (as seen in the section on the reasons for using a PPP). Likewise, collaboration must also be **with citizens**, because it should not be forgotten that urban transformation processes ultimately aim to improve the quality of life for its citizens, and they not only have the right (and duty) to be well familiarized with the projects that will affect their everyday activities, they can also contribute specific knowledge about the environment where the project will be implemented.

However, collaboration between the public sector and other agents is not possible without a clear demonstration of good will from the former. This good will, in the case of governments, translates into greater **openness and transparency**, which, in practice, involves sharing information and data, making them accessible to the rest of society, so that they reuse them to their own benefit or, simply, so that citizens have more knowledge about the public administrators' activities.

The last element for smart governance is the adaptation of the administration in response to **new business models**, especially those known as "collaborative economy."<sup>viii</sup> These models, which are completely disruptive of traditional business, are rejected by other companies and, in turn,

are difficult to place under the frameworks of operation imposed by the legislation in force. For this reason, governments must have the capacity to adapt to these new business models. But 'adaptation' does not mean 'acceptance' in the way that it could generate unfair competition or outside the established rules of game, on the contrary, it involves dialogue and the search for points of convergence between new and traditional business models, where there is accommodation of both parties, because the combination of both improves citizens' quality of life.

Thus, governance will be key for achieving a smart urban environment, and to achieve said governance, a city model must be developed [that includes] a model of smart urban governance.

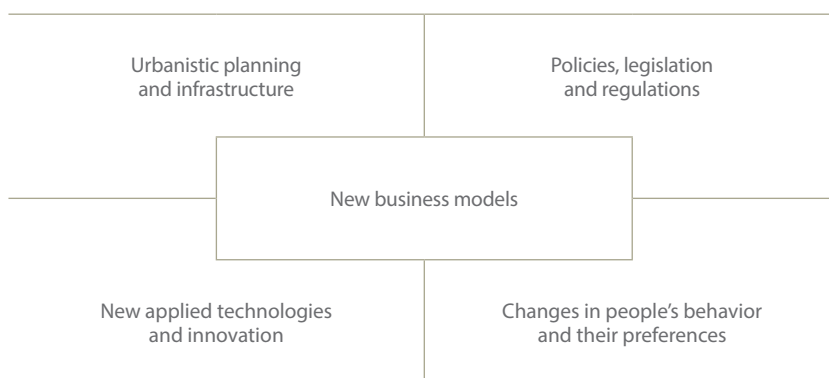


Table 3.  
**Smart urban management model**

Source:  
Ricart & Berrone (2017).<sup>ix</sup>

Table 3 presents the new smart urban management model. To achieve it, five management levers have to be created: the first is the development of hard economic infrastructure that impacts the city, since without it, the potential of technology as a basic instrument for having smart urban environments cannot be capitalized on; the second covers soft infrastructure, which includes policies, legislation and regulation, as defined by Ricart and Berrone (see reference VIII, at the end of this guide). It should be noted that, although this is important, many cities and regional governments do not have legislative competence in this subject. The third lever refers to technology and innovation as essential tools to prepare the city to take advantage of the number of opportunities linked to the use of technology that these new business models can offer; the fourth is a condition of success of the previous one, i.e., without it, it will not be possible to take advantage of the opportunities of the new economy. This fourth lever involves changing citizens' habits and behaviors towards the use of new business models; finally, the fifth is, to some extent, the culmination of the model, based on the actual creation of these new business models.

As can be seen in Table 3, the five management levers to achieve this smart urban management model all have in common the collaboration of the public sector with private agents and citizens. Therefore, public-private partnerships are key to addressing global problems facing humanity, which is the reason why these collaborations must be well defined.

## THE IMPACT OF INFRASTRUCTURE IN HIGH-DENSITY POPULATION ENVIRONMENTS

### EXTERNALITIES AND AGGLOMERATION ECONOMIES IN CITIES

A certain consensus exists among economists specialized in cities in regard to the existence of positive externalities in cities, like the quick dissemination of knowledge and the facilitation of the exchange of ideas, (Glaeser and Gottlieb, 2009)<sup>x</sup> or those derived from the construction of a metro line or a hospital that increases the values of land, nearby housing and, finally, the wealth of families—higher the greater the density in the area. This ultimately must impact municipal coffers through higher tax rates (Haughwout, 2002)<sup>xi</sup> for financing infrastructure.

Box 6

### Agglomeration economies

In urban economics, these economies refer to the profits obtained by companies just because they are located in the vicinity of others ('agglomerations'). This concept is related to the ideas of economies of scale and network effects.

Definition based on Edward L. Glaeser, and J. D. Gottlieb (2009), «The Wealth of Cities: Agglomeration Economies and Spatial Equilibrium in the United States,» *Journal of Economic Literature*, American Economic Association, vol. 47(4), pp. 983-1028.

The existence of **agglomeration economies** (clustering of economic activities; see Box6) in cities reduces transport costs thanks to the proximity between centers of production and suppliers, creates a more efficient operation of job markets (better *matching* between companies and employees) and promotes the specialization and dissemination of technical expertise, all of which facilitates increased productivity. These positive externalities will have greater effects the higher the density there is in the city. Cities, then, offer optimal characteristics for the provision of public services and goods in the most efficient way possible, and this is because the different



types of infrastructure (see Box 1) demand significant initial costs; nevertheless, the high density of the existing population in cities, whose inhabitants are the potential beneficiaries of services, makes it possible to project that the returns obtained will be sufficient to cover that initial investment. In this regard, the high population density can facilitate solutions to environmental, health and energy problems thanks to the economies of scale that can be achieved. Moreover, the high population density in cities is a valuable opportunity in terms of reducing the cost of providing basic services to citizens.

#### HOW CAN NEGATIVE EXTERNALITIES BE AVOIDED?

The high density of the existing population in cities deepens not only the positive externalities, but also the negative ones. Some of the main ones include: pollution, noise, environmental problems, traffic congestion, accidents, segregation, gentrification pushing low-income families out of urban centers, with unrest or social problems due to excessive density.

Given these situations, governments are encouraged to take measures so that the negative externalities are internalized by the originator (through regulations or incorporations to the price through Pigouvian taxes [see Box 7] by setting a value equal to the social cost of the negative externalities). By internalizing the externalities, an attempt is made to avoid the effects derived from one party's actions from having repercussions on a third party.

Box 7

#### **Pigouvian taxes**

They are a type of tax that seeks to correct negative externalities. They ensure the private marginal cost (what it costs the producer to produce) plus the tax is equal to the social marginal cost (what it costs society, including the producer, to produce). This rate does not generate a loss in the efficiency of the markets, since it internalizes the costs of the externality to producers or consumers, instead of modifying them. Examples of Pigouvian taxes are ecological rates (ecorates), related to pollution, or the tax on tobacco, related to the impact on public health. Definition based on: Knittel, C. R., and R. Sandler (February 2013). "The Welfare Impact of Indirect Pigouvian Taxation: Evidence from Transportation," NBER.



## THE NECESSITY FOR PPP

As it has been observed, the concentration of millions of people in urban areas presents an important challenge to public policymakers, and intelligent governance to lead cities into the future is needed to face this challenge. Nevertheless, the complexity of urban environments, combined with the high development cost of any type of infrastructure—whether it is a school or a bridge—in political and monetary terms alike, means that these smart cities, or, the solutions to improve citizens' quality of life, require a strong collaboration between different agents: public, private and individuals. It is mainly between the first two and, especially, in relation to the private participation in the management of public services, where many of the challenges raised earlier could lead to a solution in the short, medium or long term. For that reason, in the following chapters, different elements that should be taken into account to implement a PPP correctly so that it can be used as an instrument for the efficient production of public services and goods are approached.

2

PRE-CONTRACT

### VALUE CREATION

As signaled at the beginning of this guide, PPPs can help governments overcome some of the challenges facing today's society. The concept of **PPPs helping society** has not always been a factor in this type of partnership, but for some time now it has become generally accepted that if a PPP does not create value, it may not be suitable.

In fact, if only a project's financial profits are valued without seeking a positive impact on society, society may reject this type of project, which is happening in some societies (see Box 8).

It is important to underscore that value creation means generating value that goes beyond a financial figure. It is about creating value for society as a whole, particularly for individual users, and—indirectly—for the public sector.

The United Nations (specifically, the UNECE, United Nations Economic Commission for Europe) is committed to redefining PPP as **“People-first PPPs.”** UNECE's objective for People-first PPPs is that they clearly establish that people must be the priority and the main beneficiary. Its focus should be on improving the quality of life of communities, fighting poverty and creating local and sustainable jobs, in particular. Projects must fight against hunger and promote well-being, drive gender equality, increase access to water, energy, transport and education for all; promote social cohesion and justice; and reject all forms of discrimination based on race, ethnicity, creed and culture. In fact, UNECE establishes that “People-first PPPs” will be considered if they meet the criteria described in Table 4 below.

#### Box 8

### The phenomenon of remunicipalization

As indicated in the book *Remunicipalization: Cities without future?*, the recent economic crisis and its management has generated malaise in society (Spanish society, according to this publication, as well as society in general) toward the management of public services in previous periods, which has been a topic of intense debate as to whether public services must be managed by the public sector or the private sector.

The reasons for this debate originate in cases involving corruption arising from poor management, as well as cases of reduced quality or quantity of public services due to lack of resources (in relation to a decline in public revenue and high levels of debt from prior periods). In practice, this malaise has led some city councils to rescind concession contracts, especially those tied to water services, as well as others like pre-school education. In order to examine in greater detail when it is necessary to use a PPP, consult the corresponding section.

Source: Tamames, R., et. al. (2017), *Remunicipalización: ¿ciudades sin futuro?*, Profit Editorial, Barcelona.

- 
- Must increase people's access to essential services, especially those who are socially or economically vulnerable.
  - Must promote fairness and social justice, ensuring services are accessible without restrictions on any grounds.
  - Must increase efficiency, improve productivity of assets and generate savings that can be used by governments to eradicate poverty.
  - Must be effective, meaning they work and are implemented.
  - Must be sustainable, reduce CO2 emissions and foster sustainable growth.
  - Must be replicable, so that they can be scaled up to achieve the transformational impact sought with the 2030 Agenda (see Box 4).
- 

Table 4

**Criteria for PPPs to be considered "People-first"**

Source:

Based on the UNECE report (July 2016), «Promoting People first Public-Private Partnerships (PPPs) for the UN SDGs». [http://www.un.org/esa/ffd/wp-content/uploads/2016/01/Promoting-People-first-Public-Private-Partnerships-PPPs-for-the-UN-SDGs\\_UNECE\\_IATF-Issue-Brief.pdf](http://www.un.org/esa/ffd/wp-content/uploads/2016/01/Promoting-People-first-Public-Private-Partnerships-PPPs-for-the-UN-SDGs_UNECE_IATF-Issue-Brief.pdf)

Beyond this concept, PPPs must in general create value for the different agents involved in their development. Thus, given the right circumstances, PPPs make it possible to raise additional capital for new projects and facilitate more ambitious investment programs. Therefore, apart from considerations of efficiency, PPPs can increase effectiveness in infrastructure project development.

There are different methodologies available to determine a project's value, for example, **cost benefit analysis** (CBA) or "**value for money**." CBA is a system used to estimate the benefits and costs associated with the building of an infrastructure project, in addition to the monetary costs and benefits. Benefits include increases in the population's well-being, while costs include declines in the population's well-being. For a project to be carried out, according to this methodology, its social benefits must be greater than its social costs, where social refers to society as the sum of individuals. On the other hand, under the value for money method, a PPP offers monetary value if the positive gain for society is higher than it would have been if an alternative supply procedure had been chosen.

#### ARGUMENTS IN FAVOR OF PPPs

Beyond generating value for citizens and project participants—concepts that can be asked of any public project —PPP's are instruments that contribute greater value and should be taken into account. The **six arguments** for choosing a PPP, considering the higher value that it will generate for the stakeholders involved,<sup>xiii</sup> are described below.

**1. PPPs improve the project selection process** given that they require a positive return on investment. Basically, the private sector provides a market test for the project, specially in the case of PPPs, which require investment and transfer the commercial risk. It could be argued, therefore, that the private sector can help to filter projects that are not socially efficient.

**2. Integration or bundling of several tasks under a single contract** is another source of efficiency. The classic methods of public procurement do not offer contractors incentives to consider the effect of their actions on the other tasks being carried out. On the contrary, integration of tasks stimulates minimization of overall costs. For example, if the company in charge of project design is not responsible for its maintenance, there is less incentive to provide the best design in order to guarantee efficient maintenance. Likewise, **bundling tasks in a single contract reduces costs associated with contractor coordination.**

**3. PPPs** can help to improve accountability. Payments made by the government can be conditional to the private party's provision of products (goods or services) that meet certain standards of quality, quantity and term. If certain performance requirements are not met, payments to the private sector can be reduced. It is also possible to align private-sector incentives with the interests of the contracting authority over the course of the project life by tying the private operator's income to a set of performance indicators previously agreed upon and by demanding that the latter invest significant amounts of capital over the long term.

**4. Transfer of risk** from the government to private operators is another possible source of efficiency. For example, if a private organization supports the construction costs, measures will be taken to ensure efficiency during the construction stage; also, presumably, the public sector has more capacity to maintain said costs under control. The main benefits arise from the private sector's capacity to manage and control risks when given the right incentives.

**5. PPPs transfer technical knowledge to governments.** This is particularly relevant in developing countries, given that private companies probably have international experience and access to the latest technologies or procedures that would not otherwise be available in the country.

**6.** The introduction of PPPs in sectors where the public sector is the main producer **makes it possible to compare private and public sector results.** The presence of private initiatives in the same jurisdiction that provide similar products can serve as a point of reference for public managers. In addition, with a PPP, contractual competition can be introduced, which can have a positive effect on a project's price-quality ratio and foster innovation among the participants in the award process.

In spite of these arguments, it is also true that **PPPs** might not be the best instrument for some projects. Thus, there are also some limitations or potential problems with PPPs: the loss of political control over the project, major capital and transaction costs, the difficulty of achieving a proper distribution of risks and defining proper quality standards, the fact that contracts for long-term projects are almost always incomplete and procurement requires a long and costly procedure.

As such, a PPP is not always the best option for developing a public project. In the following section, we try to determine when a PPP is the right option and in which cases it would be better to use other instruments.

## SELECTING THE PROJECT PROVIDER: PUBLIC, PRIVATE, PPP OR OUTSOURCING?

Although there is not just one single formula for determining whether a project should be carried out using public or private procurement, considering the advantages and disadvantages of transferring the management of a public service to the private sector, there are different theories on when it is advisable for the government to delegate tasks to the private sector (Bel, Fageda and Warner, 2010)<sup>xiii</sup>. The most relevant arguments aimed at facilitating the decision to select a PPP over other models are outlined below.

### MAGNITUDE OF PROJECT INVESTMENT AND DURATION

A common characteristic of PPP contracts is the positive relationship between the magnitude of investment needed from the private operator and the duration of the project contract. **Contracts that do not involve a significant level of investment** can be made for very short periods of time, which makes it possible to organize frequent tenders with the benefit of generating competition, however, the PPP benefit of bundling different tasks would not come into play. In contrast, contracts involving high levels of investment tend to be long-term, in which case, it's not possible to generate competition in the long term through repeated tenders. Nevertheless, in these cases the proper allocation of risks and integration of tasks make it possible to obtain more benefits, which is why **an analysis of the potential use of a PPP model is recommended**.

### USING A PPP IF PRODUCT QUALITY IS GUARANTEED

The theory regarding property rights suggests that outsourcing can lead to cost savings at the risk of lower quality of service or goods. Driving this theory is the idea that in the case of a state-owned company, citizens hold the property rights and, therefore, the public developer cannot profit from reduced production costs of the goods or service to be provided. However, a reduction in quality can have negative consequences for public administrators in terms of complaints from citizens, in some cases, even electoral consequences. In the case of a private company, the property rights are held by the owner/shareholder, which is why the owner/shareholder can profit from lower costs. Whereas improved quality does not necessarily impact a private company's P&L, especially when services are provided within the context of a monopoly. Therefore, under this theory, entering a PPP is only recommended if **the state-owned company conducts strict quality supervision of the service provided**.

## CALCULATING THE COST DIFFERENCE BETWEEN THE AVAILABLE OPTIONS

The transaction costs theory (see Box 9) proposes, unlike other theories, that privatization can lead to an increase instead of a reduction of costs compared to domestic production. Therefore, domestic production implies that there are no transaction costs since these are directly associated with the contract signed with an external company. These costs will be higher for services that require a steeper investment with specific or sunk costs and the more difficult the measurement of the results obtained by the company. According to this theory, the transfer to the private sector **is only recommended when the transaction costs arising from contracts are low**. In the case of PPPs, often associated with high investment with sunk costs, significant transaction costs can be expected; these need to be **offset by potential efficiency gains**.

Box 9

### Transaction costs and sunk costs

**Transaction costs.** Costs arising from the design and oversight of a contract in a context of incomplete information and the private company's opportunistic behavior.

**Sunk costs.** Unrecoverable costs incurred by the company. In a PPP, these costs may lead to situations involving a moral hazard in the event that an agent has built non-movable physical infrastructure. In this situation, the public actor may have the opportunity to benefit from breaking the conditions of the initial contract, but it will have to assess any legal implications that this may entail.

## RISK TRANSFER AND TASK BUNDLING

PPPs offer two potential efficiency gains when it comes to the **transfer of risk** from the public sector to private companies and the **production synergies** created when different tasks are bundled under a single contract. These two arguments are relevant for contracts involving heavy investment and an extended duration over many years. While the other arguments raised above apply to PPPs and other forms of privatization, such as service outsourcing, the benefits associated with risk transfer and task bundling apply mainly to PPPs.

## THE MISTAKE OF NOT COUNTING A PPP AS A PUBLIC EXPENDITURE

In practice, one of the reasons governments use PPPs is because the resources invested in the project are not always put on the books initially as a public expenditure, if risk is transferred to the private sector. The problem is that, if the transfer of risk is simply formal and there are flaws in the project, the public sector can end up assuming an important part of the cost that does end up on the books as a public expenditure. In fact, financial savings per se (if they are



not accompanied by improvements in quality or lower costs) are not a good reason for private procurement, since any initial financing by the private sector is based on the expectation of future yields that the private operator demands (ideally) from the public sector in the contract. This commitment should be recorded under the public entity's liabilities; however, public sector accounting norms do not always require this, but this does not mean they shouldn't be taken into consideration due to intertemporal budget constraint faced by the government, as Engel et al.<sup>xiv</sup> warn. Not taking this aspect into account or hiding it from the general public as off-balance-sheet commitments is a recipe for crisis in these projects and the general public's rejection, which is not very different from the banking sector's concealment of off-balance-sheet risks that led to the most recent global financial crisis. Believing in this argument or "selling" this as a financial motive for choosing a PPP can blur obligations and ultimately make this type of contract unpopular.


#### PUBLIC BUDGETS' ACCESS TO ALTERNATIVE FINANCING SOURCES

The financial mechanism of a PPP means the public sector does not have to assume the investment cost at the start of the works, although, as seen above, it must be computed in public accounts. In any case, not having to assume investment costs implies that the government does not need to seek financing for the project. In a scenario like the current one after the economic crisis at the start of the century, this may be beneficial to regional and local governments that have been harmed by the crisis and have problems accessing financial markets. Nevertheless, the private sector is going to request payment guarantees, which local and regional governments may have some difficulty obtaining (for more information about this, refer to Chapter 5, which delves into the financial aspects of PPPs).

There are methodological instruments that help substantiate and assess potential PPP projects. As an example, the following URL is a link to the process Colombia's National Planning Department uses to determine project eligibility for development as a PPP Public Initiative. "PUBLIC-PRIVATE PARTNERSHIP GUIDELINES - CHAPTER 2 ELIGIBILITY STAGE OF A PPP PROJECT" (<https://colaboracion.dnp.gov.co/CDT/Participacin%20privada%20en%20proyectos%20de%20infraestructu/Guia%20de%20APP%20%20Capitulo%202.pdf>).

## FEATURES OF A PPP CONTRACT

The complexity and duration of a PPP contract (and the magnitude of the associated investment) depends on the number of tasks/functions assumed by the private operator. Furthermore, as has already been seen in Chapter 1, there are PPPs that involve investment in new assets (greenfield) and those that involve the management of existing assets (brownfield). The scale and complexity of a contract *is greater in* greenfield projects and based on the number of tasks that the private operator takes on. In this regard, a central feature of a PPP contract is that it tends to group together multiple phases or bundle tasks of the project. Typical tasks that can be included in a PPP (and which might be bundled in one or several contracts) are as follows:

- 
1. **Design.** A collection of all the engineering works for the drafting of the final project designs. The design can be defined by the public sector or based on proposals made by the private sector. Specifically, in the first case, they are usually preceded by a feasibility study or a pre-feasibility design, which provides a preliminary outline of the project and initially develops the idea included in a government plan (strategic or sectorial).
  2. **Financing.** Provision of capital for the project, which may include the issuance of debt or stock; verify plans to repay debt and ensure adequate returns on investment. It is important to distinguish between short and long-term financing. The first one refers to immediate investment needs and, therefore, involves obtaining funds (from either the public or private sector) for the development of the project in the short term. In the second scenario, the question is if the financing needs will be covered by fees paid by users or by the government's budget (or a combination of the two).
  3. **Build.** Implementation of the infrastructure, which includes reviewing conditions at the selected location, supplying necessary materials and personnel, defining the most appropriate construction methods, selecting equipment and, when necessary, amending the final design to address any problems found during the construction phase. This task can be delegated to a third party using an EPC (engineering, procurement and construction) contract, where the concessionaire transfers the construction risk to the third party (mirror contract). It is important to note that when PPPs are associated with existing assets, the private operator may be responsible for their reconditioning or expansion.
  4. **Maintenance.** Keeping the project / infrastructure in good condition in response to the specified standards throughout the life of the contract. The public sector should ensure the service indicators and/or quality levels defined in the contract are met, and it will need to have teams in place prepared to carry out this supervision.
  5. **Operation.** The operational responsibilities of the private party in a PPP can vary widely, depending on the nature of the underlying asset and the associated service.

## BIDDING PROCESS

The selection of the tender procedure and award criteria plays a key role in competition, cost and technical conditions under which a PPP will be carried out (Yescombe, 2007). The general framework for different government procurement procedures is set forth in a 1974 agreement (amended in 1994) managed by the World Trade Organization (WTO). The agreement provides the most common procurement options, regardless of whether each country's legal framework promotes or restricts the use of one or the other.

## OPEN PROCEDURES

Any interested economic operator may submit a bid in response to a call for tender, which must be accompanied by the qualitative selection information requested by the contracting authority. There is no pre-selection process of the potential candidates. This procedure is infrequent in complex contracts like a PPP. The award criterion may be the most advantageous economic bid or price.

## RESTRICTED PROCEDURE

In this procedure, any economic operator may submit a request to participate in response to a call for tender, providing the qualitative selection information requested by the contracting authority. Once the contracting authority completes its review of the information submitted, only those operators invited by the contracting authority may submit a bid. Therefore, contracting authorities may limit the number of suitable candidates who will be invited to participate in the procedure. The award criterion may be the most advantageous economic bid or price.

## NEGOTIATED PROCEDURE

This procedure is used for complex contracts in which the bidders can offer different solutions for the service/infrastructure, and the terms and conditions to determine the price cannot be specified beforehand, so negotiation must continue after the contracting public authority has received the bids. The contracting authority will often choose a bidder after going through a multi-stage tender process, in which the number of potential bidders is narrowed down after each stage. It should be noted that negotiations may be ongoing until the contract is signed; as such, a final bid may not be necessary. The award criterion may be the most advantageous economic bid or price. This procedure requires time (about two years on average) and a very well-prepared public-sector team. Its chief advantage is that the final outcome is a more clearly defined project with less probabilities of any changes.

## COMPETITIVE DIALOGUE

This procedure is similar to a negotiated procedure, but it aims for greater transparency. It enables an ongoing dialogue with tenderers regarding all aspects of the project and tendering process. (It also allows the tenderer to submit a lower economic bid during successive stages of the dialogue.) Once the dialogue has been finalized, final proposals will be requested based on the solutions presented during the dialogue phase. The award criterion must always be the most advantageous economic bid. Like in negotiated procedures, a well-prepared public-sector team is required.

## UNSOLICITED OR PRIVATE-INITIATIVE PROPOSALS (USP)

Public authorities can be contacted directly by private companies presenting proposals for the development of projects for which there is no open selection procedure. These proposals may be the result of the private sector's identification of an infrastructure need that could be met by a project financed with private funds or they may include innovative proposals for infrastructure management. While such proposals can promote innovation in the private sector, it is difficult to encourage them without restricting competition in the procurement process. Countries like Chile (see Box 10), Peru and Colombia have a procurement procedure in place for private initiatives.

In summary, aside from unsolicited proposals, there are bid-based procedures (open or restricted), in which tenderers basically propose a price with little or no contractual negotiation with the public authority once the tender has taken place; or procedures based on a preferred bidder (negotiated or competitive dialogue), which involve a contractual negotiation process. The offer-based approach is a relatively fast procedure and, therefore, means a potentially lower cost for tenderers. It is considered preferable in countries where there is a concern of renegotiation linked to possible corruption. On the other hand, the procedure based on the best tenderer may make it possible to better define the needs of the procuring entity and increase competition during negotiations, even though it takes much longer and the public sector needs to be well-prepared.

### Box 10

#### Private initiatives in Chile

Chilean legislation includes the development of private initiatives (PI). The Chilean government says that around half of the PIs presented are subsequently executed by a company other than the one that originally presented the PI proposal. In order to avoid PIs that are not aligned with the public planning, the government reserves the right to pay the costs related to the PI proposal and obliges the company to adapt it to the government's needs. For more information about PI regulations in Chile, see article 2 of the concessions law and articles 4 through 12 of its rules of procedure.

[http://www.concesiones.cl/quienes\\_somos/funcionamientodelsistema/Documents/Nueva%20Ley%20y%20Reglamento%202010.pdf](http://www.concesiones.cl/quienes_somos/funcionamientodelsistema/Documents/Nueva%20Ley%20y%20Reglamento%202010.pdf)

## DISTRIBUTION OF RISKS

The different risks that may need to be addressed in a PPP agreement refer to those related to design, financing, construction, demand, political context, and macroeconomic, social, and environmental variables, among others.

**For an optimal risk distribution in a PPP, two types of incentives need to be taken into account: those created by the contractual relationship and the capacity for controlling risks incurred by the different parties (Grimsey and Lewis, 2004)<sup>xv</sup>** To some extent, the risks and incentives are grouped according to the standard model of principal-agent theory. For this reason, it is essential that the risks be distributed according to the capacity of each party (principal-agent) to control uncertainty, with the ultimate goal of maximizing efficiency.

Box 11


### Guarantee systems

In developing countries, PPP contracts often structure their financing through trusts, in which the government contributes revenue as collateral (El Realito, VLT Carioca Aqueduct). This mitigates the risks assumed by the concessionaire, thereby reducing their costs.

In some cases, the Spanish government has given financiers implicit guarantees under PPP contracts through an instrument known as RPA (for its initials in Spanish), a “financial liability” of the Public Administration. In the event of early termination of the contract by the concessionaire, infrastructure will revert to the state, which must pay the total cost of the infrastructure less the cost of depreciation. The RPA is pledged as collateral in financial contracts and serves as a public guarantee for financiers. (Albalade, D., *et al.*, 2015).

Given that private companies have greater incentives for dealing with risks that can be controlled, it seems logical to transfer to them any risks they can manage and insure (via policies). By adopting this strategy, companies are given the incentive to devote their efforts to managing risks that could adversely affect their bottom line. If the company has sufficient incentives to minimize a particular uncertainty, then the optimal strategy involves transferring any risk to the private sector. If the incentives are insufficient, the public sector can provide the private sector with guarantees (see Box 11).

However, there are risks that cannot be controlled by the private sector. These include those related to the approval of environmental permits and expropriation. In these circumstances, the private stakeholders do not have the adequate instruments to handle variables that do not depend on them (i.e., their goodwill), which can result in the project’s failure. This being the case, the government must assume a role to cover these risks, whether sharing them partially with the private sector or transferring them to the public sector. As a result, the **optimal risk distribution is based on achieving the best combination of incentives and risk assurances: providing incentives in areas controlled by the private sector and with coverage in other areas.**



On the other hand, it should be taken into account that there is a trade-off between risk transfer and a loss of control, which the public authority must face based on the degree of private participation in the agreement. Generally, the greater the degree of private participation, the greater the risk transfer and the higher the incentive for the private operator to comply with the contract terms in an efficient manner. As such, the private operator needs more control over the project in order to have better control over the risks entailed. As a result, the government may lose control over many of the tasks involved in the project.

In relation to these threats, the typical risks involved in PPPs and [who], in general terms, is the best [stakeholder] to assume each risk are specified below.

There are methodological instruments that help define risk transfer based on the type of project involved. As an example of this, the following link corresponds to a document published in 2016 with the guidelines defined by the Peruvian government entitled “Guidelines for risk allocation in PPP Contracts” ([https://www.mef.gob.pe/contenidos/inv\\_privada/normas/anexo\\_RM167\\_2016\\_EF15.pdf](https://www.mef.gob.pe/contenidos/inv_privada/normas/anexo_RM167_2016_EF15.pdf)).

#### RISK OF LAND EXPROPRIATION OR LAND AVAILABILITY

The **risk of expropriation usually falls to the government** because it has the necessary legal tools to be able to acquire the land from owners who refuse to sell, using the project’s public purpose within the expropriation mechanisms as justification. However, as seen in Chapter 4, on occasions, the **risk associated with expropriation** is transferred to the private party, even though **it is recommended that the government assume this risk because it is in a position to manage it better**.

The materialization of expropriation risk can produce side effects that go beyond the availability of the land itself. In first place, the actual cost may be higher than forecasts; and, secondly, the land may be unavailable at the startup of the works, which could lead to project delays in the beginning. Both situations would lead to an increase in costs greater than the initial analyzes, demanding an economic rebalancing of the contract.

Expropriation processes must be clearly defined and outlined as far as possible in the initial project phases, and get underway during the structuring stage to facilitate the financial feasibility and bankability studies and, later, be completed at the startup of the works.

In certain circumstances, certain risks of expropriation management like the identification, property registration and drafting of files could be transferred to the private sector in search of greater efficiency, especially in cities and regions where there may be a dysfunctional public sector or problems with the property registry.

## DESIGN RISK

Transfer of design risk **to a private agent should only occur in those cases in which it has participated effectively in design-related tasks**, which is common. However, as seen in Chapter 1, there are forms of PPPs where the private agent enters directly in the construction phase, as for example in the form of BOT (build, operate and transfer).

Typically, the public sector shares with the private sector basic studies carried out for the structuring stage and defines minimum quality of service and specific technical specifications for the tender stage, leaving the final design to the private sector.

The successful bidder should comply at least with the minimum established in the terms and conditions established in the tender and will be required to execute its technical proposal (if the bid offers better terms than those outlined in the initial obligations). Once the contract is awarded, the private sector will present the final design to the public sector for its “no-objection” notice within the term established. A common mistake made by public administrations is to prepare technical proposals as if they pertained to a public works, defining the products to be delivered, not the results. As a result, the design risk is not adequately transferred to the private sector. Thus, when the public administration transfers the design risk to the private sector, it should limit itself to giving “no-objection” notice to the designs presented to them (not approval), so that the risk continues to fall to the private agent.

## CONSTRUCTION RISK

The **private operator has greater capacity to control construction risks**, especially the greater the number of tasks it assumes responsibility for. However, there are risks the private operator cannot control, e.g., delays in obtaining permits, changes in the standards required by the public authority or protests by groups opposed to the project. Among the **risks associated with the construction phase, there may be a geological risk, for example, in the construction of works such as metro systems or tunnels**. This risk must be noted in the executive project, so any associated costs can be incorporated. However, geological risk is not always easy to manage, and in situations of high uncertainty, a mitigating action often used in projects in Latin America is shared risk in the case of certain events.

In the case of archaeological risk or force majeure, the granting authority should assume the related risks given the difficulty of insuring these types of risk.

Infrastructure construction risks can be mitigated by the concessionaire by assigning the construction works to a third company that undertakes the EPC. This does not mean, however, that the concessionaire is no longer the main responsible party in charge of the project, therefore, it must allocate efforts to ensure tasks are carried out conform to those defined under the project. Construction risk materializes as higher construction costs or extensions of deadlines, with the consequent increase in financial costs, or even both. If the concessionaire receives income from the public sector for units of finished work, a delay in collection could lead to delays in the works and a subsequent impact on the economic-financial model.

## ENVIRONMENTAL AND SOCIAL RISK

Environmental risk is associated with compliance with a country's environmental regulations. This risk is not minor, given the important impact they usually have on large infrastructure projects. For that reason, their construction may require that the government to carry out prior environmental feasibility studies or, if applicable, implement corrective measures. Each project must have an environmental feasibility study presented by the granting authority, which may transfer the environmental risk to the concessionaire if it orders the awardee to implement the measures outlined in the environmental feasibility study.

Construction of big infrastructure works is also associated with an impact on large geographical areas that also results in a large number of affected people, both in urban and rural populations. In the case of the latter, they can be especially affected directly by the construction of mining or energy projects, or, indirectly, through the impacts of these on the quality of water or other natural resources. Given their high impact on populations, specific projects should be subject to special treatment by the awarding authority.

There can also be a social impact when citizens do not accept a project, for example, to pay a toll on a road that used to be free. In this case, it is key that society familiarize itself with the advantages of a project in the face of other alternatives, which will require a good communication strategy. In general, it has been observed that people tend to oppose projects when they consider that their cost is unjustified or too high. Given this, it is important to point out that not all projects are likely to be developed as a PPP. There are cases in which the characteristics of infrastructure or the existence of major problems of social acceptability make it necessary to continue opting for the conventional public provision model (Vassallo, Public-Private Partnership in Latin America. Learning from experience <http://scioteca.caf.com/handle/123456789/1088> [Public-Private Partnership in Latin America: Learning from Experience]).

## ADDITIONAL INVESTMENT RISKS

Any project modification requested by the granting authority that involve changes in the works and cost overruns (in monetary terms or derived from a longer duration of the project) will be assumed by the granting authority, which could be transferred to users if it is deemed convenient. In any case, the risk of additional investment should be transferred to the concessionaire in cases in which these additional investments arise from poor design of the works, which was the concessionaire's responsibility, or are due to shortcomings in the construction phase.

## RISK OF EARLY TERMINATION OF THE CONTRACT

The early termination of the contract may occur for reasons like a breach of the agreement by the granting authority or the concessionaire, which may disrupt service provision, as well as payments to financiers.



The elements that must be defined in the event of early termination are: cause, outstanding payments, and the state of delivered assets. Payment of compensation due the concessionaire is usually calculated based on the book value of the infrastructure (construction costs and assets acquired minus depreciation). This allows the companies financing the project to recover their investment (minus amortization), reducing incentives to evaluate the project's viability before its financing. Some authors propose as an alternative mechanism an auction of the infrastructure, which would establish the project's real value.<sup>1</sup> The greater risk assumed by the concessionaire could, eventually, prevent the construction of projects with little use, also known as "white elephants."

#### RISK OF EXPLOITATION

Like construction risk, the **private agent usually has a greater capacity to control risks during operation**, even more so if it also holds the construction risk, since it will have incentives to keep maintenance costs low. Obviously, risks linked to extraordinary situations that cannot be controlled cannot be transferred to the private sector, and it is recommended that they be clearly described in the contract, clearly specifying the party responsible for associated costs.

#### REVENUE RISK

The concessionaire's revenue risks are determined by the payment mechanisms established in the contract that will be applied during the operation of the concession. There are multiple variants of the payment mechanism used to pay the concessionaire, although, in general, they are structured based on a mix of availability and demand. This allows the co-financing in the case where demand revenues do not cover all of the costs and need to be supplemented with payments by availability. The fraction of the availability payment must be assumed by the infrastructure operator (if they are not subject to demand risk), since availability payments will depend on the quality, frequency and the level of service offered by the company that manages it.

One of the main risks for project financiers is related to the payment commitments made to the project operator by regional or local bodies, which, for political reasons, like a change of government, fail to pay. A line of credit backed by monthly contributions received in the form of federal payments has been used in some cases to mitigate this risk (Municipal Administrative Complex in Tlajomulco de Zúñiga [Mexico]). (Vassallo)

#### DEMAND RISK

Demand risk is one of the main risks in long-term projects financed with fees paid by users or shadow prices. In most infrastructure or services that can be managed by a PPP, the private operator cannot control the demand risk (Engel et al., 2010)<sup>xvi</sup>, although it may play a role in the mitigation of this risk through good demand projections and guaranteeing a good quality

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<sup>1</sup> Ganuza, J. J., and G. Llobet (January 2017), «The Simple Economics of White Elephants», CEMFI.

of service. Risk-sharing formulas can be established, but it should never be assumed entirely by the operator, since in order for a PPP to be attractive to the private sector, a minimum income must be guaranteed the operator, regardless of the evolution of demand over which it has no direct influence.

from the experience in Latin America, it can be said that it is difficult to predict demand in the long term, despite the increased sophistication that mathematical models are acquiring. One solution is to define infrastructure in a way that the concessionaire can increase its capacity. If this is not possible, it would be advisable to apply minimum or maximum income quotas, or flexible deadline mechanisms, until a present value of revenue can be ascertained. (Vassallo)<sup>xvii</sup>

#### FINANCING RISK

Financing risk refers to the assumption of all or part of the project financing by the contractor, in other words, **the concessionaire must obtain the financing to carry out the construction of the works in the** contract, the investment, or a part of it at its own risk, either using its own funds, bank financing or access to the debt market (see Chapter 5).

Generally, if the concessionaire is unable to secure financing within the period established in the contract, the contract will be terminated on the grounds of non-compliance. In order to avoid these situations, companies' financial capacity must be proven during the tender process, factoring in the project's capital requirements. This risk can be considerable in those countries with underdeveloped financial markets and weak institutional environments where finance costs can be very high (associated with a high risk) or, even, unavailable at any interest rate. Another drawback to overcome are loan terms, since they may not extend beyond twelve or fifteen years.

In order to mitigate these risks, **the public authority will often grant warranties or guarantees** to ensure the project's implementation.

#### INFLATION RISK

This risk, in long-term projects, can be considerable, especially in developing economies and, therefore, with possible monetary instability. **Neither party can control this risk, especially in cases in which governments are not competent in monetary policy.** In this regard, **this risk can be shared**, with the public sector revising payment amounts based on inflation forecasts. The difference between the actual inflation and forecasts will be part of the risk assumed by the private agent.

## INTEREST RATE RISK

Financing obtained by the concessionaire is subject to variations in interest rates, therefore, a rise in rates will increase financing costs and, as a result, project costs. Alternatively, a decline rates will lighten the project's financial load. The concessionaire must assume the risk associated with interest rate variations.

To mitigate these risks, companies can take out insurance policies, provided that they are available in the market at a reasonable price, to ensure long-term fixed interest rates. In some developing countries, the availability of these hedging instruments may be limited.

## FOREIGN EXCHANGE RISK


In cases where the private operator is a multinational, it is very likely that the local currency is not the same as the one used in its transactions. That is, the company may find that it buys materials and pays supplies or some human resources in US dollars or euros, but receives payment in a local currency.

In this case, a risk of currency devaluation, with the consequent loss of value of the future payments under the contract. It is clear that the private sector cannot control this risk, but, generally, the public sector, especially in local and regional environments, doesn't have any control over the country's exchange policy either. On the other hand, foreign exchange risk, in 100% private settings, is assumed in its entirety by multinational companies who decide to invest in a new country and, therefore, **it seems reasonable to uphold this logic in PPP contracts**. However, in some cases, **the parties involved may agree that part of this risk is assumed by the public agent, for example, guaranteeing part of the payment in local currency and another part in a strong international currency**. This is not a minor risk in Latin America given the possibility of strong currency depreciation in some countries.

In addition to the risks mentioned above, the foreign concessionaire may see dividends repatriated reduced due to the depreciation of the local currency or, even in a more extreme case, have problems exchanging a local currency for a stronger one due to the lack of liquidity. In this sense, the concessionaire may take out a foreign exchange insurance policy, if they exist and are available at a reasonable price.

## REGULATORY RISK

This risk is especially relevant in the case of PPPs promoted at the local and regional level. Different existing government areas can lead to the emergence of a new regulation driven by another government area or changes in the initial conditions under which the contract was signed. A regulatory change can imply, in turn, alterations in costs or in the duration of the works (with the consequent extra costs for the concessionaire).



Faced with this situation, in which the profitability of the concessionaire is affected by regulatory changes, a conflict resolution mechanism can be established through the reestablishment of the project's economic-financial balance.

#### RISK OF OPERATING COST OVERRUNS

One of the main reasons for adopting a PPP structure is to transfer risk to the private operator during the operation period of the infrastructure. Due to its greater experience, it must be able to foresee and better manage the operating costs; however, if the operating cost overruns are derived from changes in the construction that affected the operation, and such changes were promoted by the public administration, then all extra operating costs will be the public sector's responsibility, increasing the payment to the operating concessionaire.

#### POLITICAL RISK

Finally, the **political risks** or those that affect macroeconomic variables are less susceptible to the private operator's control and, therefore, **it is assumed by the public sector**. In fact, good international practices show that the private sector should manage all risks that it can insure.<sup>xviii</sup>

In the case of infrastructure and public services, the political risk is high because public-sector intervention is intense due to externalities, imperfect competition, imperfect information or merit goods, in addition to regulatory changes, as mentioned previously, or alternative investments that can affect the project's profitability. Faced with these realities, caused by governments, the private sector must be prepared to address the consequences of political risk (i.e., a reduction in demand or an increase in costs).

## SYSTEMS USED TO PAY CONCESSIONAIRES

A key aspect that should be addressed in the contract is the mechanism to be used to pay the private operator. The payment mechanism has a fundamental incidence on the magnitude of associated transaction costs and supervision of the fulfillment of the contract terms; incentives related to cost reduction and maintenance of service quality; and in the effective distribution of risks between the public authority and the private operator.

Just as there are different financing mechanisms based on the PPP's characteristics, the means of payment used to pay the concessionaire can also vary project to project. The first distinction is the one that makes reference to payments made by taxpayers (subsidies, shadow price) and those made by users (rates/fees). In general, in PPPs, design, financing, construction tasks are paid exclusively by taxpayers, whereas in the case of a PPP that also handles operation and maintenance tasks, the fees paid by users will also come into play (without excluding that the

private operator may receive financing in the form of subsidies or shadow prices). The focus in this report has been on PPPs that include operation and maintenance tasks due to their greater variability in the menu of available options.

Taking into account the distinction between taxpayer and user payments, it is possible to differentiate between the following mechanisms used to pay private operators (Albalade, 2014; Yescombe, 2007):<sup>xix</sup>

#### AVAILABILITY PAYMENTS

The private sector is paid to ensure the continuous availability of the service provided. These payments can consider diverse performance or quality-related aspects of the service, which is why this payment mechanism may be appropriate in case the service is considered essential. On the other hand, they do not depend on the volume of users, meaning that the public authority does not transfer any demand risk to the private operator. It should be pointed out that the incentives to reduce costs can be weak. In general, availability payments are paid by taxpayers in the form of subsidies.

#### COST-PLUS PAYMENT SYSTEMS

The private sector is paid based on incurred costs plus a predetermined rate of return. With this, the private operator recovers its costs and does not have any incentive to minimize them. On the other hand, it's a flexible mechanism because payments can be adjusted for shocks that can affect the private operator's costs. Therefore, it's a mechanism that can be appropriate in situations with a high probability of renegotiation.

#### INCENTIVE SCHEMES

The private sector is remunerated with a two-part payment, which includes a fixed sum and a variable amount. Under this scheme, the public authority assumes just part of the risk of costs, giving incentives to the private operator to improve operational and management procedures with an impact on costs. Nevertheless, existing information asymmetries makes it necessary to undertake complex processes of supervision, which increases transaction costs.

#### FIXED-PRICE SYSTEMS

The private operator receives a fixed amount for the service provision. A variation of this system is to set maximum prices. In this scenario, quality and performance indicators are defined in advance, and the private operator is given incentives to reduce costs. Nevertheless, this mechanism offers incentives to reduce quality standards. For that reason, systems using fixed prices (or maximum prices) are only recommended quality standards are not fundamental or include strict quality norms with vigilant supervision.

#### PAYMENTS TIED TO NUMBER OF USERS

Under this scheme, we can distinguish between **fees paid directly by the users** and **shadow price** paid by taxpayers. In both cases, the initial amount is usually defined in the award process. In fact, it tends to be the main selection criterion between the different private operators that submit a bid proposal in the tender. Fee updates can be based on one of the previously mentioned schemes, like the cost-plus system, incentive schemes or fixed-price systems (or a combination of several of these schemes). The criteria used for revising rates can be specified in the contract or be subject to regulation (or both).

The main advantage of this scheme is that it allows the public authority to easily transfer risks to the private operator. This is going to depend on what factors are used to calculate updated rates or fees: inflation, volume of users or variables related to costs or the private operator's performance. In any case, a distinguishing element of this scheme is that usually there is a transfer of demand risk (total or partial) from the public authority to the private operator.

#### LAND VALUE CAPTURE AND OTHER INDIRECT INCOME

Other systems as **advertising income or land value capture** on property where the infrastructure is built can be mechanisms used to pay the private operator, especially in cities with high population density. In this sense, shared bicycle services in many European capitals have been partially or completely financed with urban furniture advertising contracts and, for example, in Lisbon (Portugal), the works for the 1998 World Exposition were financed by private operators capturing the municipal taxes on the property.

These methods used to pay the private operator can be combined, depending on the type of project involved.

3

**CONTRACT  
GOVERNANCE**

# CONTRACT GOVERNANCE

This chapter covers the governance of PPP projects, i.e., the mechanisms needed to guarantee the proper management of such a prolonged contract.

In theory, it is held that a “complete” contract can be drafted, agreed to and enforced. In other words, any contingencies that might arise during the life of the contract and reactions thereto can be foreseen in the drafting stage of the contract. However, nothing could be further from reality, especially when it comes to relationships that can develop over a prolonged period of time (decades, in many cases), like in the case of PPPs. For this reason, an incomplete contract must generate incentives, making its governance and institutions essential to establishing **a shared framework for resolving all unforeseen situations in the initial contract**. In this case, the parties must be protected from any opportunistic conduct by other contractors, e.g., in case of regulatory risk faced by investors if the government fails to comply with investment payments over time; or the risk borne by the government if an operator abandons a project before its conclusion or demands a renegotiation of terms, knowing that changing operators is extremely costly for the public sector.

The traditional problems with investments in infrastructure include, precisely, bad governance, cost overruns, maintenance deficits and corruption. This has resulted, in many cases, in white elephants, i.e., large infrastructure that is costly to maintain without any justifiable demand, due to a lack of proper cost-benefit analysis prior to the project, or to the concessionaire pulling out before the life cycle of the project finishes. In any case, it is the result of poor project planning and management.

## WHY IS PPP GOVERNANCE IMPORTANT?

It is widely held by professionals and academic experts alike that **institutional quality is a key factor to economic success**, in general, and good performance in PPP projects, in particular. The proper functioning of the rule of law and respect for property rights are prerequisites for a healthy economy, but many developing societies also present opportunities for PPPs in contexts where the general institutional quality is far from perfect. In this section, we present some key ingredients of a solid institutional context for PPPs.

The quality of the institutions and organizations involved in the different stages of a PPP is important because PPP **contracts are necessarily incomplete**, i.e., **they cannot anticipate all future contingencies**, even though the utmost efforts should be made to minimize the incomplete nature of initial contracts.



## PREVENTS OPPORTUNISM AMONG AGENTS

In government and business arenas alike, there is a risk of opportunistic behavior, meaning the risk of parties taking advantage of unforeseen contingencies to request changes to the initial terms of contract. PPPs are long-term projects that, in practice, end up becoming a bilateral monopoly relationship over the life of the contract, which provides fertile ground for opportunistic behavior by the government or business. In the case of government, it is because the cost of investment is often a sunk cost. This means the asset invested in, compared to a generic investment, does not have any relevant uses outside the project, and therefore the cost of the investment turns into a loss if it isn't covered by yields from the project. Compensation for the sunk investment costs depends on, among other things, the legal and judicial framework. For instance, Spain has state liability, whereby the government must recognize unamortized investments as something for which a private agent is entitled to compensation. And in the case of potential opportunistic behavior by a company, this happens when the government has trouble ensuring proper infrastructure service without major interruptions in service. While business opportunism can be addressed in the contract, the government variety must be minimized through institutional quality and careful governance.

## ATTRACTS MORE BIDDERS

Moreover, the effects of some decisions over the life cycle of a PPP greatly depend on the quality of the institutions of governance: the choice of project, selection of operator, regulation and oversight of the contract terms or the relationship with all interested sectors depend crucially on a sufficiently robust, solid institutional setting. Good institutional quality of public sector agents in charge of a PPP will attract bidders of better quality to the extent that those who simply expect to take advantage of low institutional quality will stay away from the process or have less incentive when it comes to submitting attractive proposals a priori.

## GUARANTEES GOOD CONTRACT DESIGN, CONTROL AND EXECUTION

The institutional architecture (number and function of the administrative units, role and selection of different agents involved and the relationship between them) is crucial to ensuring good contractual options as well as the proper execution and monitoring of contracts. Adequate institutional architecture must serve to minimize transaction costs without jeopardizing project quality. The duration of a PPP project is usually long and spans governments of different ideological leanings, as well as regime changes even in unstable countries. For this reason, problems of inconsistency arise over time with sunk costs, which may be a disincentive for investments if there are no solid mechanisms—formal or informal—to reassure investors. Table 5 illustrates the prolonged nature of the different phases of the contract, including prior to project start-up, as well as the array of practices across different countries, depending on the framework and institutional provisions.

Table 5  
**Average number  
of days of phases prior  
to a PPP operation**

Source:  
adaptation of table on page 20 of the 2017  
World Bank report "Private Financing  
of Public Infrastructure through PPPs  
in Latin America and the Caribbean"

	BRAZIL	COLOMBIA	PERU	JAMAICA	CHILE	HONDURAS
Prior analysis	180	240	237	No hay datos	364	190
Approval from all relevant authorities	160	180	112	37	270	90
Preparation of draft contract	105	194	144	64	180	30
Permits and rights of way obtained	152	331	186	No data	400	75
Decision on concessionaire	180	210	345	365	225	241
Total	777	1155	1024	466	1439	626

## PREVENTS CORRUPTION

A crucial aspect of good governance practices in a PPP is to prevent and attack the corruption that has occurred in some cases with this type of contracting due to the broad margin of relations it opens up between public sector agents, who may be tempted to demand revenue, and private sector agents who are in a position to grant it. Corruption comes at enormous costs in terms of efficiency and reputation (see Box 12). However, the remedies for it are not obvious nor can they be based on simplistic recipes applicable to all countries, although they do have a common prerequisite in the acceptance of risk and the mutual, coordinated will to combat corruption. In a recent book by economist Ray Fisman and political analyst Miriam Golden on the effects of corruption and how to effectively combat it, the authors draw three conclusions. First, in broad strokes, corruption in some societies is a problem of coordination: although some agents wish to get away from it, it is not to their advantage to do so unless other implicated agents do the same. If there is such a thing as a "corruption trap," escaping from it involves a coordinated effort on multiple, simultaneous fronts. The second conclusion is that this coordinated effort must be put toward making the corruption common knowledge, i.e., through public exposure on traditional or social media, or other media that facilitates mass transparency of corruption cases. Finally, the third conclusion, somewhat in tension with the first in that there are no proven universal recipes to fight corruption, there must be continuous trial and error to learn from successful cases (such as how corruption was overcome in Scandinavian countries like Sweden, or in US cities at the turn of the twentieth century), as well as from failed or uncertain cases, such as political changes that have come about in the name of beating corruption in countries like Italy or Guatemala, but have only apparently served as a way for corruption to seek out different means aimed at similar ends. Nevertheless, Fisman and Golden's book perhaps fails to sufficiently emphasize the distribution and power

aspects of corruption, and ignores concerning factors that can affect the success of projects like PPPs. These factors include the increasing power of big multinational corporations and economic powers that can escape the control of democratic governments, or the capacity of economic interests or great fortunes to vertically capture an entire political system.

Box 12

### **Document on anti-corruption standards**


The UNECE working group on PPPs encourages the drafting of documents on standards for improving how PPPs are applied. The first standard approved by the group was on combatting corruption and included recommendations on how to prevent it in a PPP. More information at [https://www.unece.org/leadadmin/DAM/ceci/documents/2016/PPP/TOS-PPP/ECE\\_CECI\\_PPP\\_2016\\_CRP\\_3.pdf](https://www.unece.org/leadadmin/DAM/ceci/documents/2016/PPP/TOS-PPP/ECE_CECI_PPP_2016_CRP_3.pdf)

Corruption must be understood, by nature, as an informal institution that is not subject to written rules. Therefore, there must be a zero-tolerance culture in response. A society's institutional quality is a public asset (i.e., not subject to competition or exclusiveness) and is hard to measure, so its provision depends on one group's ability to activate social values and standards that are intrinsically altruistic and cooperative.

It raises the question of whether improved institutional quality for PPPs wouldn't also make traditional public provision of services more viable. The answer is yes, although it wouldn't have access to a broad pool of technological and management capacity. On the other hand, it might be more feasible to reform a limited number of institutions than the overall institutional framework of a country.

## **TRANSPARENCY, PARTICIPATION AND LEGITIMACY: THE GOALS OF GOOD INSTITUTIONAL ARCHITECTURE**

While attention to institutional quality is too often focused on the characteristics of the agencies involved in PPPs (such as their independence or how they appoint employees), it is as or more important for each of them to be perceived as legitimate in public opinion in order for projects to be successful. In democratic societies, PPP projects are usually very visible—although this is not always the case for their financing mechanisms and the commitments assumed by the public sector—and unlikely to be successful without sufficient citizen support. Therefore, the first requirement for a good institutional context in the case of a PPP is a process of transparency and participation involving all stakeholders with potential influence in the partnership's success. Participation by users and the public in general is especially important, since they are ultimately the ones who pay for the project through their taxes.



It is well known, according to the literature on behavioral economics, that societies are more prepared to accept the outcome of a project if it is preceded by a decision-making process that is perceived to be fair and participatory. Of course, maximum transparency and the proper mechanisms to prevent public decision-makers from being influenced by a few interested parties, and avoiding corruption pure and simple, will contribute to the perception of institutional quality.

Maximum transparency should include the avoidance of disproportionate commitments as mentioned, or at least publicly recognize their existence with an explanation to the general public and the interested parties *ex ante* of all liabilities accepted by the public sector in the contractual stage.

#### PPP CONTRACT GUIDING PRINCIPLES

Aside from the specific details of the institutional characteristics of entities involved in PPPs, it is important for the entire process to be guided by a set of principles, such as:

- Employ good mechanisms for selecting human capital through processes that seek a broad base and are based on merit and competition.
- Foster innovative processes and ideas through internal and external mechanisms that put agencies at the forefront of efficacy and efficiency in their organizational and decision-making methods.
- Create a culture that seeks to avoid expert biases, especially when it comes to convention and tunnel-vision, through mechanisms aimed at correcting them, such as the obligation to explain all decisions or consider different alternatives before making a decision, as well as the systematic analysis *ex post* of all decisions.
- This requires the adoption of solid assessment methods and possibly external and international monitoring mechanisms to prevent gaps in the institutional architecture. Experts and personnel with intrinsic preferences must be selected when appropriate. Likewise, their extrinsic incentives (systems of payment and promotion) must be carefully designed.
- Therefore, good standards of corporate governance must be implemented in the institutions that manage PPPs (PPP units) in order to achieve a certain level of independence and, at the same time, as a stability measure in light of political ups and downs (appointment of top management, remunerations, etc.).

#### INSTITUTIONAL ARCHITECTURE AND DEGREE OF GOVERNMENT DECENTRALIZATION

Institutional quality is important not only in institutions dedicated specifically to PPPs, but also those with influence over this type of contracting, such as the Comptroller or Public Prosecutor's Office.

However, the debate usually focuses on the specific institutions that must preside over the PPP contracting process. In this regard, it is important to keep the institutional endowment of each country in mind, which will condition the specific institutional architecture: degree of decentralization, type of government (presidential versus parliamentary), membership in supra-national alliances, as well as legal origin.

Institutional architecture means deciding on the number, type (function, degree of dependence on government ministries) and relationship between the public-sector agencies and units involved in a PPP project. This will depend on the institutional starting point, the availability of human resources, the quality of government in general and other specific factors that may vary in space and time.

Stopping for moment to reflect on one of these aspects, although there is literature on this and we could examine others, is it important to underscore the impact of a country's degree of decentralization over the institutions regulating PPP contracts. Governance of this type of contract in a centralized country cannot be the same as in one that is decentralized. A centralized government will have the resources and economies of scale to create a large, centralized independent agency, while a decentralized one advises leveraging institutional complementarity to decentralize PPPs from infrastructure. This, however, does not entail creating equally independent structures at this level, because there will not be human or financial resources nor political capital available to undertake it. More important than trying to apply one model in all countries is for the units created and the institutional architecture as a whole to allow their agents to perform in a context of limited discretion (because they must make decisions in the event of contingencies unforeseen in the initial contracts), but subject to a strict process of accountability and maximum discipline.

## INGREDIENTS FOR GOOD PPP GOVERNANCE

The following is a list of basic recommendations to guarantee good governance of a PPP project.

### RECOMMENDATIONS FOR DESIGNING THE GOVERNANCE ARCHITECTURE OF A PPP

#### 1. Avoid centralizing the entire PPP process in the public works agency.

More than attempting to impose a single model, it is important to be aware of what to avoid. Engel et al. (2014) point out, as an example of poor standards, that in many countries the same public works agency is in charge of infrastructure planning, design and awarding of PPP contracts, monitoring compliance and renegotiating. These authors consider this practice to be poor governance, given that public works agencies tend to be biased in favor of as much construction as possible. This is because the performance of those in charge will most likely be measured based on number of projects developed and not on quality or contribution to societal wellbeing.

Furthermore, the same authors mention that there is a conflict of interest within the same agency between the promotion, on one hand, and the regulation and control of compliance on the other. Appropriate governance “improves the selection and individual assessment of projects; it separates the design from the awarding of contract supervision; and allows renegotiations subject to independent review.” This is the opinion of Engel et al., based mainly on the case of Chile. However, in comparison to other countries, Chile is generally seen as an example of good institutional order, despite the heavy-weight role of the Ministry of Public Works in PPP. The possible creation of various authorities must depend on the resources available in each case and on a realistic assessment of the alternatives.

## 2. Improve the normative and regulatory framework

One suggested practice is to improve the legal context and protection of property rights before attempting to introduce a PPP, since PPPs are more sensitive to deficiencies in this area than conventional infrastructure contracts. Otherwise, the traditional contract will be preferred since there is less risk in resorting to regulation under a short-term construction contract than in a long-term PPP.

Experience in Latin America has shown that enthusiastic governments that are well-prepared and have support from all levels usually attain the desired results. Nevertheless, they need for their countries to have a legal precedent or framework in place to begin to structure projects (Vassallo, *Asociación Público-Privada en América Latina: aprendiendo de la experiencia*).

## 3. Public, independent PPP Unit

If the prior institutional conditions are adequate, a public, independent PPP unit should assume the management of this type of contract from signing through conclusion, in order to provide efficient service to an array of end users (see Box 13). To achieve this objective, this authority must provide strict oversight of performance to ensure the private partner is sufficiently committed. Experience has shown that services outsourced to a private sector operator require as much or more involvement by the contract awarding party as those supplied internally.

Box 13

### Central PPP Unit

A PPP model was used for a water treatment facility in New Cairo, Egypt. The government created a central PPP unit that reported to the Ministry of Finance, but had independent management. Coincidentally, the country went through the Arab Spring revolution during the execution of works, with successive changes of government. The existence of that central PPP unit allowed the work to proceed normally and the project was the first successful PPP in the country. More information at: <http://www.iese.edu/research/pdfs/ST-0425-E.pdf>

#### 4. Strengthen public employee preparedness

At the same time, government structuring and management of PPP projects need to be improved through training workshops and the spreading of knowledge and good standards. It is important to keep in mind that the private sector usually has high-level experts in legal and technical matters that must be debated, and that can set the tone for the project's future.

A recent phenomenon is free online courses called MOOCs (massive online open courses) that offer some platforms for online education. One example is the course on Introduction to Public-Private Partnership Contract Management, which CAF created with the support of the Monterrey Institute of Technology and Higher Education (ITESM), given from the Miríadax platform.

#### 5. Constantly monitor the contract

PPP contracts are generally designed based on performance results. For this reason, the authority must monitor them during operation in order to ensure the project provides the promised benefits. This task will require a technical team, either with internal or external staff, to use project monitoring systems known as BIMs (building information management).

#### 6. Combine oversight of small projects

Considering that these control mechanisms are costly, it is a good idea to group various small projects under one contract to defray costs, particularly in low-budget projects.

### KEY PUBLIC SECTOR TASKS IN PPP GOVERNANCE

Adequate management to help guarantee better project governance can be divided into a set of key tasks:

- Create a multi-disciplinary operational management team with the best human capital for the PPP unit.
- Establish robust, effective project governance to guarantee coordination of the different actors' functions in the project and the internal organization of responsibilities: a directing committee in charge of the main strategic decisions, and a management committee. The former can be made up of members of management from the government and the concessionaire, while the latter can consist of the management team in charge of the PPP unit's operation and the concessionaire's technical team.
- Create a PPP contract that is as clear and complete as possible and that reflects the planning, execution and follow-up of design, as well as construction and maintenance.
- Guarantee standardized directives for contract management that are easy to manage and cover monitoring, quality and number of meetings necessary, the lines of relationship between public and private agents, etc. without falling into micro-management and leaving room for the private operator's discretion.

- Put together a set of effective information management tools. In a typical PPP project, most of the information is provided by the private partner. The PPP unit should require the private partner to provide periodic reports on project performance.
- Present a financial model for compliance with operative management requirements that is known to the different parties, and approved by the management committee at the beginning of the project. This will also require continuous monitoring.
- Carry out conflict prevention and management, including changes in the project, aiming for the contract to incorporate information that is as detailed as possible about how to address these issues. In the event of a conflict that is not covered in the contract, the parties must agree on a third, external party to act as mediator.
- Comply with the procedure for concluding the contract. Before it concludes, both parties must be very clear on the process for transferring the assets and obligations associated with operation.

It is recommendable that all the issues mentioned here be compiled in a **contract management manual** created by the PPP unit and partially shared with the private sector.

#### IDEAL STRUCTURE FOR PPP GOVERNANCE

One decisive element for achieving successful public policy application lies in good project governance, considering the incomplete nature of most contracts (Grossman y Hart, 1986xxi) especially when they are long-term. In the case of cities, incorporating a greater number of social and political stakeholders requires better instruments of governance in light of the potential for unexpected situations that could affect one of the groups.

To achieve better governance, institutions must allow the parties to find solutions that favor continuity of quality public service. In the case of cities in emerging countries, these problems of governance can be amplified due to a lack of political empowerment among residents and sufficiently strong institutions.

Ultimately, there is no formal, ideal structure for defining the governance of a PPP. However, Engel et al. (2014) offer very ambitious recommendations on desirable institutions and governability for implementing successful PPP projects. They propose four different independent agencies:

- a planning agency in charge of project design, assessment and selection before awarding the contract;
- an outside council in charge of reviewing cost-benefit analyses;



- a PPP oversight board to ensure contract compliance, monitor performance standards and quality of service, and provide information to users and the public once the contract is awarded;
- a panel of experts in charge of reviewing contract renegotiations and conflict resolution. These agencies must prevent incentives that would lead private companies to behave opportunistically.

Box 14

### Lima's Metro Line 2: governance across different administrations

Line 2 of Lima's metro network is a project of the Ministry of Transportation and Communications, intended to form the backbone of the Peruvian capital in an east-west direction via a 27-km main line and an 8-km branch of Line 4. The project is being developed under a PPP contract, co-financed by the Peruvian government, that transfers the risks of design, partial financing, construction and operation to a private partner, the Sociedad Concesionaria Metro de Lima Línea 2. The institutional framework for the project is quite complex, with five different public entities involved. By law in this country, ProInversion is the party responsible for preparing and tendering PPP contracts; once a contract is signed, however, its supervision is handed over to the corresponding sectorial organization, in this case, OSITRAN (Organismo Supervisor de la Inversión en Infraestructura de Transporte de Uso Público).

The contract holder, however, is the awarding administration, in this case, the Ministry of Transportation and Communications (MTC), which manages its PPP projects through the General Office Transportation Concessions (DGCT). The DGCT must coordinate with the Lima Metropolitan Municipal government (MML) on all matters related to the integration of the city's public transportation network. In addition, the Autonomous Authority for Lima/Callao Mass Transit Electric System Special Project was created for this project, an entity reporting to the MTC and tasked with providing technical support to the other organizations and with the production, supervision and approval of studies and technical documents.

In addition to these organizations, there is also the General Office of Socio-Environmental Affairs (DGASA), in charge of supervising compliance with environmental plans, social management, expropriation and resettlement. In practice, this institutional structure is predictably not very operative. The lack of coordination between the project promoter, Provision, and the supervisor, OSITRAN, generates inefficiencies and requires re-adaptations and modification during project execution. The concessionaire is not always clear on to whom it must report, when in reality, it must report simultaneously to the DGCT, as official interlocutor; OSITRAN, as supervisor of technical and contractual compliance; and DGASA, with regard to its competences. The task of the AATE as technical expert is not always simple, since it must be carried out through another interlocutor, either the DGCT or OSITRAN, with which it shares technical responsibilities.

**MooC: CAF, Introduction to Public-Private Partnership Contract Management.**

Fisman y Golden (2017) propose an independent anti-corruption authority and cite the example of authorities of this type in Guatemala and Hong Kong. These and other examples highlight the advantages and disadvantages of the independence of certain public bodies. When independent agencies enjoy broad public support and are backed by some international body, their success is more likely, but the main issue is that this success depends on **political authorities' respect for their independence**. In other words, more than solving the problem of committing to a path of action to resist temptation, what creates independence from regulators or other organisms is relocation. Now it is not politicians but regulators who must face up to and resist temptation, but at the same time, the politicians must resist the temptation not to respect the independence of regulators and, in many cases, not achieve it.

These ambitious recommendations must be subject to the existence of resources and the institutional provision in terms of legal tradition, degree of decentralization and legal system and government. Furthermore, regulatory independence is not a panacea but depends upon a good system of accountability, and does not exclude the need for capable political leadership to gain consensus from society as a whole.

#### A STRUCTURE OF GOVERNANCE FOR LOCAL GOVERNMENT

In the previous section, we presented the ideal structure of governance, in which we consider the need for various agencies/bodies that are independent from the government and from each other, with the following functions distributed among them:

- Planning and selection of projects.
- Cost-benefit analysis.
- Verification of contract compliance.
- Supervision of contract renegotiation proposals.
- Oversight of corrupt conduct by private as well as public stakeholders.

However, in reality local and regional governments in Latin America can make the implementation of this structure of governance difficult. The reason is these governments may lack the economic resources to maintain such a complex structure or it may not be easy to find the right professional profiles in the local setting to carry out these functions.

In any case, we propose the following **actions intended to guarantee a proper structure of governance** to apply to the previously mentioned functions:

1. Arrive at agreements with the national government for its PPP experts to participate in project selection in an advisory capacity for local government. These agreements may involve temporary assignment of said experts from the national arena to their equivalent position at the local level.

2. Achieve agreements with a higher level of government with experts in PPP for it to carry out the PPP contracting in a lower government jurisdiction, preserving the latter's authority in that jurisdiction.
3. Contract external professionals and, if necessary, from international offices in the event that specific expertise is required that is not available locally.
4. Guarantee the affiliation by local government with national or international alliances, and that all members of the latter will devote resources to hire the services of an independent team of professionals to advise and actively participate in the design, implementation and oversight of the PPP.
5. The previous point can be structured with the government, where the regional government provides local government with a team of professionals (from the regional executive branch or external to it) to provide support on different tasks.
6. Seek the help of multilateral agencies (like CAF), either to access its experts or for contracting the necessary external experts (see point 3).
7. Share the council of outside experts among various administrations, whether at the same or different levels (see point 3), since said council is not meant to be exclusive to just one administration. Indeed, it could be a permanent body promoted by the national government. This type of council of experts are not usually paid a salary, although their travel expenses are usually covered as well as some fees associated with meetings they attend for this purpose.
8. Creating a mixed enterprise between a public administration and a private operator can also be a formula for putting private know-how to work when the public sector lacks this knowledge. This provides a short-term solution for the mixed enterprise to take charge of managing PPP contracts, but also, proper management of the mixed enterprise enables knowledge transfer from the private to the public sector over the long term.
9. Include the costs of external services in the PPP contract in the event of a lack of funds, and require the company to bear the burden of said contracting costs, but with the guarantee that the selection of these services is handled by the administration.

In any case, there is no single solution, and will depend on the capacities of each administration and each territorial reality (see Box 15 for the complex governance in the case of a water treatment project in Serra, Espírito Santo, Brazil). But aside from these proposals, which can be considered on an ad hoc basis for a specific PPP project, regional governments must consider training public professionals in the creation and oversight of PPP projects in order to strengthen and reinforce administrative structure over the long term as knowledge is acquired. Having a regional government team of PPP experts will better ensure the implementation of future PPPs by both the regional government and local administrations within its territory.

This last suggestion can also be worthwhile for local governments, although they should consider the projected volume of PPPs anticipated for the coming years and determine whether this warrants installing a stable professional structure for managing PPP projects.

Box 15

### **Institutional framework example: Water treatment project in Serra, Espírito Santo (Brazil)**

As a federal republic, Brazil has an institutional structure on a national, state and municipal scale when it comes to managing PPPs, so these institutions are common for different areas of government. The following is a description of agents that have had a major role in the conception, structuring and development of this project.

- The Espírito Santo PPP Management Council (CGP-ES) was created under State Complementary Law 492 of 10/8/2009. This is made up of the Secretariat's of Government, State Development, Planning, Finance, Management and Human Resources, as well as the State Attorney General. It has a deliberative role in that it sets priorities and supervises the Espírito Santo PPP Program's activities. It is in charge of approving the results of technical studies and defining PPP projects, as well as the creation of technical working groups responsible for monitoring PPP contracts. It also has the authority to create a special commission in charge of overseeing the economic-financial balance of contracts.
- The Espírito Santo PPP Unit was also created under the State Complementary Law, tied to the Secretariat of Economy and Planning (SEP). Its function is to provide technical support, assistance with project and contract preparation and execution, alongside the interested bodies and entities.
- The Espírito Santo Water Treatment Company (CESAN) has an agreement of cooperation with the State of Espírito Santo. Founded in 1967, this is a mixed-economy company incorporated under the private law legal regime as a limited liability company (S.A.) Its principal function is the capture, treatment and distribution of potable water, as well as the collection and treatment of wastewaters in the state. Under municipal law 4.010 of 30/1/2013, CESAN in Serra is authorized to seek partnerships with the private sector via subcontracting, public-private partnership or other forms of legally permitted partnerships. This allowed the Serra municipal project to be structured as a PPP.
- The Estruturadora Brasileira de Projetos (EBP) was created as a private company in 2008, when many PPP projects began to be developed in Brazil by entities with little experience. Its shareholders are the major Brazilian banks, and its mission is to support the public sector by improving how PPP projects are structured at the national and sub-national levels. EBP works for governments, establishing technical cooperation mandates with them, although its fees are paid by the private concessionaire once the contract has been successfully awarded in accordance with Article 21 of Law 8.987. This risk poses an incentive for EBP to structure projects aimed at success. It should be noted that, depending on the regulatory framework of the municipality or state, EBP can be contracted without competition from other companies. This company manages the complete structuring of the project through contract signing. To this end, it coordinates studies and projects, carries out value-for-money analysis, handles the process of public consultation and organizes the roadshow for attracting competitors to the tender process. The approximate duration of the entire process for each project is two years, with an average number of four consortia participating in each tender.
- Espírito Santo public services regulatory agency (ARSP) is the entity that ensures the proper public service is provided for the state's water treatment. Inheritor of Agência Reguladora de Saneamento Básico e Infraestrutura Viária do Espírito Santo (ARSI), it is in charge of regulating the contract between CESAN and the municipality of Serra. ARSP has a direct relationship with CESAN but not with the concessionaire. However, it does relay questions related to water treatment from the agency directly to the concessionaire. Likewise, part of its regulatory role involves making regular inspections of infrastructure and, if needed, it can sanction CESAN.

Source: Asociación público-privada en América Latina: aproximación a las ciudades y estudio de nuevos casos (upcoming CAF publication).

# 4

## CONTRACT RENEGOTIATIONS

## CONTRACT RENEGOTIATIONS

### SIGNIFICADO Y ORIGEN DE LA RENEGOCIACIÓN

In some countries, contracts for public procurement, and for the public sector in general, often end up costing the public treasury more than they were originally awarded for. This happens because, once awarded and all provisions defined and clear—i.e., the purpose of the contract and corresponding compensation (contract price)—“new” circumstances may arise and require that changes be introduced, either to the services to be rendered, the compensation payable to the contractor or both. Introducing these changes in the execution phase, when not expressly provided for in the contract, is done through “renegotiation” (see Box 16) between the parties of their formal rights and obligations, thus producing a change in the contract conditions stipulated in the tender stage and based on which the other bidders formulated their offers.

Box 16

#### Renegotiation

Note that renegotiation refers to the negotiation of the terms of contract once awarded, but in reality, there may not have been a “negotiation” in all tender processes between the public sector and private agents, and therefore the term “renegotiation” is not necessarily the most appropriate, i.e., it would be better to simply use the term contract “negotiation” or “modification”. In tender processes that include a competitive dialogue phase, there is certainly a prior negotiation, so in these cases the term “renegotiation” is warranted. Moreover, the term “renegotiation” excludes any changes that arise in the contract execution, but its possibility is already expressly provided for and established in the contract specifications, since in that case the “novelty” of “renegotiation” does not exist in that it is predetermined and everyone participating in the tender knows this.

Bearing this in mind, contractual renegotiations should stick to changes or modifications strictly necessary for the contract to meet, for the duration of its term of validity, the public needs for which it was designed, and should not disturb the original economic balance in favor of any party. Otherwise, the contract would be executed according to substantially different terms from those of the tender, excluding the other bidders from exercising their right to participate in this “new” contract.

The fact that “renegotiation” of the contract between the parties, once awarded, can depart from the principles of publicity and attendance, sheds light on the reasons underlying this procedure in the public arena. The rules and principles here are completely different from the private sector, in that the traditional principle that contracts are regulated by the will of the parties in the private sector—whereby, the parties can freely alter their obligations if they agree to do so—is not applicable in the public sector, where the contract must be executed in

accordance with the terms of the tender to ensure the principle of equality among bidders and that of effective attendance at the tender and execution of the contract.

Nevertheless, this contractual immutability is not absolute, since a public contract must always satisfy these needs. Therefore, if the contract execution departs for any number of reasons from the government's needs (e.g., due to the existence of new technologies, changes in political priorities or alterations in the national economy, among others), the law grants the government the prerogative of modifying the contract so it can respond anew to public needs.

Thus, legislation on public procurement in some countries explicitly entitles government to make “changes” or “modifications” to contracts during their term of validity, which the contractor must then fulfill. This happens in ordinances where regulations on public sector contracting are based on the recognition of some government prerogatives that put it at an advantageous over private entities it contracts with (see **Annex 2** on the legal framework for PPPs in CAF member countries).

Ultimately, this is about standard practices known as “prerogatives or exceptions” (see Box 17) used by government in cases where it contracts goods, services or supplies from third parties, i.e., when it acts bilaterally with a private entity.


The fact that these public contracts can be modified according to the will of one of the parties in certain circumstances has opened a path to contractors themselves initiating the process of contract renegotiation or modification, with the aim of making the contract simply economically “sustainable” or, in other cases, more advantageous for them. Since this occurs in the execution phase of contracts—with works already underway, delayed in public opinion—the government may feel pressured to accept these changes and avoid terminating a contract that has already begun.

Box 17

### **Prerogatives or exceptions**

Procedures provided for unilateral action by the government for it to exercise its authority or its public powers to impose sanctions, expropriations, etc.

For instance, one of these exceptions is the administration's power to introduce changes once the contract has been awarded if it needs to be adjusted to meet new needs. The counterpart of this is the contractor's right to adjust his compensation, i.e., to be paid the excess amount or difference for what the government has ordered it to do.



In this context, renegotiation ends up being a timely mechanism for re-routing a contract that has departed from the initial public objective, or where new, unforeseen circumstances arise during the tender process, but just like waste prevention is better than recycling when it comes to the environment, in contracting it is better to prevent during the tender phase than to renegotiate during execution. Therefore, renegotiation should only be used as an exception, driven by reasons of public interest and not a way to enter contractual changes to the advantage of the contractor or the disadvantage of the public treasury.

## CAUSES OF CONTRACT MODIFICATION ONCE AWARDED

The need to introduce changes to signed contracts, both conventional and PPPs, is usually due to two ills that need to be eradicated:

### PROJECTS LACKING TECHNICAL OR POLITICAL CLOSURE

This first cause takes us to scenarios where awarded contracts must be modified because the tender has been carried out before the administration reached technical or political closure on the project. For instance, a subway project that lacks the necessary consensus to be implemented, or a new highway that causes damage to an ecologically valuable area and generates opposition from residents. The first case will require the construction of new stations at greater cost, while the second will demand a different route and a new project. It is also common, but not desirable, for an administration to rush to announce a project and start construction as soon as possible, even though the project does not have the necessary technical maturity, that the projected solutions are not adaptable to the land, or the necessary basic geological studies are not in place to guarantee the proper execution of the project. Resolving the “new needs detected in the execution phase” requires modification of the initial contract, adding new (additional) provisions that the administration will have to absorb.

None of these cases should lead to a renegotiation, because this means transferring the weaknesses of the planning and design phase to the execution phase. It is therefore essential to adhere to the following maxim: **“Projects should be slow in planning and fast in execution.”**

Making timely and necessary projections, studying them carefully, providing procedures for public viewing and discussion with those affected, not skimping in the planning and design phase, etc. allows project execution to go faster and avoid changes or surprises that could increase costs or delay works.



## THE CONTRACTOR SELECTION SYSTEM: LOWEST BIDDER WINS

The second problem arises from the contractor selection process, in which the government sets the real cost of the project, but awards the contract to the lowest bidder, with bidders forced to offer a better price.

The contractor is selected based on a technical and an economic offer that may hold different weight based on the government's preferences and the specific type of contract. The technical proposal ensures the quality of the product, but precisely for this reason, its appraisal entails a certain degree of discretion. The economic offer provides a more affordable option in terms of the provisions to be developed, whereby the lowest offer always receives more points, unless it raises doubts in the administration as to whether the contract can reasonably be met at that price.

In some countries, it is customary for bidders to offer at very reduced rates. In many cases, the contractor is well aware of both how difficult it is to execute the contract at the price offered and that the government may end up paying any excess costs, which may ultimately exceed the amount initially set in the tender as a reasonable contract price.

Public administrations have for years tried to surmount these dynamics that, on one hand, prove expensive for public coffers and, on the other, involve awarding the contractor an additional percentage for its services without any competition.

The experiences analyzed in Latin America show us that attracting competition in tender processes has been a serious problem, and the challenge is to achieve greater participation. To do this, governments should work on creating a climate of equal treatment, make projects known to potentially interested parties and allow sufficient time for them to prepare their proposals.

## CHANGES TO PPP CONTRACTS

In the previous section, we analyzed the ills plaguing public procurement for all types of contracts, which are often cause for renegotiation. At this point, we will now focus on the specific features of PPP contracts and the consequences of renegotiation, alteration or modification of contract.

Such features include the transfer of **risks of financing, design and construction, expropriation and exploitation**, or in other words, the shared burden of these risks between the contractor and the public procurement sector.

### FINANCING RISK

As seen in Chapter 2, financing risk means the contractor assuming all or part of a project's financing; i.e., it must finance the construction under the contract, the investment or part of it, at its own risk, with its own funds or through access to the debt market.

The government will absorb the long-term investment cost—not guaranteed, since the borrowing cost is at the contractor’s risk—by compensating the contractor through payment of an annual “canon” payable during the exploitation phase of the investment or according to another payment mechanism (see section on “Concessionaire payment systems”).

In countries with Anglo Saxon influence, contractors are required to put down a “firm offer” in the tender phase, meaning the offer must be accompanied by a statement issued by a banking entity that agrees to grant a loan for the amount stated in the offer and to guarantee the bidder access to said amount for the duration of the contract execution. In other contexts, bidders present their offers having had merely informal contact with banks, and may end up winning the contract without having secured financing. This practice has led to numerous renegotiations between the government and winning contractors in order to salvage a previously awarded contract that has been stalled and cannot go forward until financing is secured.

One of the main problems with PPP projects tendered before the world economic crisis was that bidders were unable to close borrowing transactions in the same conditions in which they made their offers. While a loan operation may be closed in these cases, it may have been in less advantageous conditions than those originally foreseen due to variations in currency prices or because the credit market for PPP financing may have dried up.

The first of these cases falls within the financing risk scenario, which the contractor must absorb, where lack of contractor diligence and foresight certainly could not be claimed as sufficient reason for the parties to initiate a renegotiation. This, however, has a limit in the case of true credit market disappearance, in that it does not seem that the consequences of a macroeconomic crisis should be borne by the contractor alone.

In order to avoid this situation and the need to renegotiate a contract, it is recommendable to follow the practice explained at the beginning of this section, in which tenderers are required to place firm offers backed by financial institutions (see Box 18).

Box 18

### **How to avoid renegotiation for reasons of financing risk?**

The Court of Justice of the European Union (CJEU) gave its ruling in July 2017 on the need for tenderers for public works to supply accreditation of economic and financial capacity through a statement issued by a banking entity whereby said entity commits to granting the tenderer a loan.

In Latin America, contracts are awarded in most cases without a definitive financial closing. The main reasons for this are: to expedite the tender process, to save costs for bidders in their offers and to avoid giving financial entities too much power in the negotiation with bidders. While these are advantages, this runs the risk of changes in market conditions that entail important cost overruns compared to the original offer, possibly rendering the project unviable in some cases. (Vassallo, *Asociación Público- Privada en América Latina: aprendiendo de la experiencia*).

## DESIGN AND CONSTRUCTION RISK

In the case of a PPP contract that involves investment, part of the concessionaire's obligations is the execution of works, as well as drafting the construction project, meaning the definition of final designs. The assumption of construction risk by the successful bidder is an essential element to consider in a PPP. Therefore, before the tender phase, the government must have done a prior technical study to gather information on layout or preliminary design, to serve as the basis for the call to tender and for bidders present their offers.

The preliminary study, by virtue of its nature, is not complete nor does it contain the final designs for construction, but it does map out the project in broad strokes. In this sense, once the execution phase of works commence, costs may increase due to departures between the predesigned cost for the tender phase based on this limited preliminary study and the real cost at the time of execution.

PPP contracts are typically characterized by departures between the projected cost during tendering and the final cost of the investment assumed by the winning contractor, at its own risk, since its risk-transfer matrix usually includes the production of final designs. Thus, although in theory such departures may be greater in these contracts due to the unique nature of this tender process, in which there is no definitive executive project, the reality is quite the opposite. This is because the cost overrun must be assumed by the winning bidder, who therefore takes the necessary measures to ensure that the final designs will be adjustable to the maximum possible reality when it comes to execution.

For all of the above, investment costs should not be increased in PPP contracts for the purpose of renegotiation under the assumption that government will absorb this cost increase.

It is true that, in certain scenarios, the government has recognized cost increases on works as "changes" due to public needs in cases of demands submitted by contractors based on offers that were too low that cannot realistically be carried out in due term. These situations should be the exception and spurred by the existence of new, unforeseen and unforeseeable circumstances at the time of tender. In other words, it must be demonstrated that such changes or new investment requirements are absolutely necessary for this type of action to be carried out to meet the government's needs. Renegotiation cannot be an insurance policy in private sector hands for the government to pay whatever excess costs arise in the execution phase.

The main recommendation for governments planning to put these contracts up for tender is to act with the maximum diligence possible in the project development, preliminary project or informative study phase that will serve as the basis for the tender, i.e., carry these out with the greatest care for detail possible. Know the terrain, the subsoil, define the construction method, specify materials or finishes, among others; this is all essential to avoid cost overruns that involve renegotiating more investment, as long as the design is up to the public authority. In the event that the design is handled by the contractor, it's better for the PPP contract to define the quality standards and technical specifications, and allow the private sector to make the numbers as it sees fit. This differs from the vision of public works.

The fact that there are cost overruns on PPP contracts beyond the limits provided for casts doubt on the true efficiency of the model, which is based on the notion that the private sector is capable of being more efficient when allowed to manage the entire project cycle (design, construction, maintenance and operation).

Based on the Latin American experience, the following actions are recommended: 1) the public sector should allow for cost overruns for reasons of public interest, and must therefore have the moral and legal force necessary, if the contractor does not meet its commitments, to quickly replace it with the second-place bidder; 2) that such public interest be certified by a commission of independent experts; and 3) guarantee competition in the execution of works arising from substantial modifications in order to prevent such changes from costing society more than what is fair (Vassallo, *Asociación Público-Privada en América Latina: aprendiendo de la experiencia*).

Box 19

### Fair Price

Fair price is the compensation paid to the expropriated entity for the loss of assets or rights subject to expropriation.

## EXPROPRIATION RISK

Transfer of expropriation risk occurs when the concessionaire is declared the beneficiary of the expropriation and, therefore, acquires the assets and pays the fair price of expropriation (see Box 19).

It is in the government's interest to transfer the expropriation risk because, this way, the cost of the assets and rights being appropriated is assumed by the beneficiary (the concessionaire) and the government can pay it back via concessional canon in comfortable installments.

Box 20

### Case of Madrid's Beltways

The case of the beltways around Madrid, the final fair price exceeded the price offered by the winning bidder in the tender by 175%. In this case, a law was passed whereby the Spanish government assumed the cost of the expropriations (Law 26/2009 of 23 December, on General State Budgets for 2010. Additional provision 41, sections 1 and 2).

The variations in land values in some countries based on their status as rural or urban assets has, in some cases, led to expropriation prices considered during the tender process to be infinitely lower than those considered by the courts (this was precisely one of the reasons for the cost overrun on Madrid's beltways [see Box 20], in which the government ended up defraying part of that, considering that it was an "unforeseen cause" that required the contract to be adjusted).

In order to avoid this, it is recommended that the government be as diligent as possible in estimating the compensation for expropriation at the time of the economic viability study for the PPP.

Moreover, if it is conceivable that appraisals on expropriations will depart significantly from initial values, the winning contractor should not then assume the expropriation risk, but rather the government assume full liability for it. This does not necessarily mean the contractor cannot continue to make payments on the expropriated assets, and later be reimbursed by the administration for the full amount via concessional canon without assuming any risk whatsoever.

The big problem in Latin America is that land registers are not always available for property to be expropriated, and this has led to tenders for projects the government didn't hold the land titles to at the time of construction.

Even though expropriation risk shows up in the public sector's column, the lack of available land has led to works delays, cost overruns and, in some cases, even early termination of contract. In any case, this fact has meant an **increase in the initial contract price** in the majority of cases. Bearing this in mind, **governments should only issue calls to tender if they hold the land titles**, or, if not all of them, a large percentage.

## EXPLOITATION RISK

Otro de los elementos esenciales para definir un contrato de APP es la traslación al adjudicatario del riesgo de explotación del objeto del contrato, de manera que la contraprestación del adjudicatario en estos contratos no se concibe como un «precio cierto», sino como el derecho a explotar el bien a su riesgo y ventura.

Another essential element that must go into defining a PPP contract is the transfer of the contract's exploitation risk to the winning contractor, whereby compensation in these contracts is not conceived as a "sure price," but as the contractor's right to exploit the asset at its own risk.

Payment to the contractor can be carried out by the government, directly by users or through a combined system. And this payment may be "for availability" or "for use" of the asset in question. In the first case, the government pays the contractor based on the "real conditions in which the asset may be used" (e.g. in the case of a highway, no stretches in poor conditions or any under construction, and expeditious resolution of incidents will be taken into account; in the case of a hospital, surgeons available, elevators in working order, etc.) Contractor "payment for use" is based on the number of users of a highway or a certain public service. In simplified terms, in the first case they are being paid based on quality of service, and in the second on quantity.

If we compare the two systems, experience shows that in the case of "payment for use", there is a greater transfer of risk than in "payment for availability", where it is not easy to establish a system of penalties to guarantee a true transfer of risk, even though the former is the preferred system of credit entities.

Thus, it is payment for use systems that, in practice, have led to more demands for renegotiation. And the world economic crisis has led to a reduction in use of certain infrastructures, especially affecting these projects. In Spain, this system was used to build a new high-performance road system, both by the state and the different autonomous communities. The crisis Spain went through at the end of the first decade of this millennium involved a significant loss of jobs and the closing of numerous businesses and trade activities, which led to a decline in highway traffic. The new highways, opened just before or during the crisis, were tendered prior to that and based on overly optimistic economic models. (See Box 21). This was all accompanied by a fall in public infrastructure investment, such that the administration stopped all physical continuity of the infrastructure tendered (ceased to make the projected investments) and some of this infrastructure ended up as "roads to nowhere," not to mention, without traffic. Some of these concessions are bankrupt; in others, the governments renegotiated the contracts to be able to sustain them during the worst years of the crisis.

Box 21

### Example of unmet use projections

In Spain, the case of highway 41 (AP-41) between Madrid and Toledo is paradigmatic. It was tendered through public works concession as the first stretch of a new corridor between the capital and Castilla-La Mancha. Bidders projections for use depended on the continuity of the highway, which was ultimately stopped due to the economic crisis and the lack of investment in new road infrastructure. For this reason, additional provision 42.4 of Law 26/2009 of Dec. 23 was approved on the General State Budget for 2010, providing measures to compensate for falling traffic volumes over a five-year period for certain road infrastructure. After that, additional provision 8 of Law 43/2010 provided that the contractors affected by declining traffic could create a compensation account to allow for anticipated future income from tolls.

To be sure, although an economic crisis cannot be considered cause for a renegotiation of contract, nor does it seem reasonable for the contractor to bear the burden of the effects of that crisis that neither it nor the government could have predicted.

In order to avoid the decline of PPPs that employ payment for use regime, the first thing to bear in mind is that the viability study preceding any PPP action must be done as earnestly as possible and taking into account the different economic vicissitudes that could arise over the term of long-term contracts like PPPs. Clearly, another option is for the PPP's duration not to be disproportionately long but rather what is strictly necessary to be economically efficient, which, furthermore, reinforces the principle of competition in public tenders, since it involves anticipating a new tender.

Another measure to adopt would be to define a system of combined payment between use and availability, e.g. payment to the concessionaire for good road conditions and another for the effective use thereof. This is currently a trend for PPPs to avoid falling prey entirely to the problems associated with each of these payment systems. Another recent trend is to ensure a minimum payment if traffic, for instance, does not reach predicted levels, and share the benefits if it surpasses the maximum limits.

Nevertheless, based on experience in Latin America, it is recommended that contracts based on quality and availability indicators transfer somewhat more of the risk to the concessionaire, since this may help generate greater social welfare. It is likewise advisable for the contract to provide the procedure for readjusting the terms of the concession agreement in order to minimize the arbitrary nature of renegotiation, as indicated in the following section.

## READJUSTMENT OF THE CONCESSION AGREEMENT

The previous section showed how the main elements of PPP contracts can require the renegotiation of the contract and the adoption of preventive measures by the government aimed at minimizing or eliminating the need to renegotiate.

These administrative measures must be supported by strong, current legislation on public procurement that restricts or is absolutely strict in its determination of the legal framework for renegotiations. As such, it must define:

1. The (only) causes assessed that can give rise to a contract renegotiation.
2. The procedure for renegotiation, as determined by mandatory technical and legal reports, the participation of outside experts if necessary, and the expert oversight of public spending, in accordance with specific country regulations.
3. The maximum percentage by which the contract can be readjusted, which should not exceed 20% of the investment amount.
4. The measures for the reestablishing the economic balance of the contract that the government can adopt, including rate increases or contract extension.
5. The necessary publicity regarding the modification of contracts, so as to prevent abusive practices.
6. In addition to all of the above, it is worth underscoring a new practice that has come up in the current European directives on contracting: to make it mandatory to supervise the proper application of contractual regulations by entities created for this purpose and, in particular, to promote competition and combat illegalities associated with public procurement. In the case of Spain, for instance, the new bill on contracts specifies that one of the functions of this new oversight entity is to ensure the proper application of the government prerogatives on contracting, principal among which is the power to renegotiate contracts. In light of the complexity of PPPs, their high price tags and the significant number of renegotiations carried out in recent years in Latin America, an organization of this type could be a valuable asset for assessing the validity of these mechanisms and for ensuring they are used prudently and only as an exception.

Furthermore, it should be noted that governments, when resorting to the mechanism of renegotiation, must respect a fundamental limit: to preserve, during the life of the contract, the nature of the PPP. In other words, the contract cannot lose the characteristics of a PPP in the execution phase, since this would turn it into a traditional contractual formula and the singularities and potential of this type of contract would be lost. While this seems obvious, it must be said that renegotiation practices have led oversight bodies, both national and supra-national, to consider the denaturalization of the contract due to the loss of associated risks. In



this event, the consequences for certain economies affected by a high level of debt and public deficit are catastrophic, since the accounting of these large contracts as a public expense has a very negative impact on public finance over long periods of time. In these cases, a contract termination would seem much more prudent than a bad renegotiation.

Ultimately, renegotiation is a mechanism for contractual modification that can be useful if applied in limitation and as long as it is founded on true needs in the public interest that arise in the contract execution phase, and that is not just a simple mechanism to increase benefits payable to the contractor. Experience has shown that governments apply this mechanism recurrently, causing significant increases in public spending. Taking the time to design contracts and projects, and carrying out the proper technical, economic and legal analyses, reduces the need to renegotiate. Therefore, let us leave renegotiation in its proper place: as **a public power to redirect a contract that does not adapt to new public needs, as an exception and not simply a habitual phase in the process of executing public contracts**. It is better to devote resources and time to the planning and pre-design phase than to renegotiate during the execution phase.



# 5

## FINANCIAL ASPECTS OF PPPs

# FINANCIAL ASPECTS OF PPPs

The construction of infrastructure for the provision of public services requires sizeable financial resources, which must come from the government promoting the works and/or the private companies willing to fund them. In the case of private companies, they can act as shareholders of the concessionaire or as lenders, with loans granted in the form of credits or bonds.

There are many ways for governments to tackle this situation, although these possibilities will be largely determined by the economic resources available and a government's debt capacity. In regard to the latter, the existing debt volume should be factored in along with the government's tax collection capacity and the country's, region's or municipality's economic growth perspectives. These concepts and others derived from the country's sociopolitical conditions and government's competencies will be assessed by risk rating agencies under a credit rating that will reflect the government's credit capacity.

The two paragraphs above describe then the conditioning factors that financial companies weigh before lending money to governments; these factors, in turn, will be largely determined by the government's credit trustworthiness. However, the lending capacity of financial companies will be contingent upon the availability of capital in the country and the market's financial development, also known as "financial depth."

According to the OECD,<sup>2</sup> "Enlarging financial depth might continue to be the main challenge faced by Latin America's financial systems. Financial depth—calculated as the ratio between the total number of loans and national revenue—has improved since 2000 in many economies in the region. However, and except for Chile, the financial system in Latin American countries is still less sound than those in other world economies."<sup>3</sup>

Thus, with inadequate financial depth, it will be difficult for the financial sector to take on the role of mediator between savers (borrowers) and investors. There is a large volume of empirical evidence that demonstrates the important role played by a developed banking sector along with capital markets in fostering economic growth.<sup>4</sup>

On many occasions, the structure selected for project development is actually defined on the basis of these financial constraints. How a project is structured will vary greatly if a government chooses a wholly public or entirely private supply, or a mixed solution under a PPP. In the case of a PPP, the private sector will fulfill some of the project tasks, e.g. financing along with its associated risk.

<sup>2</sup> OECD's Development Centre (2010), «Latin American Perspectives in 2011: How middle-class is Latin America?».

<sup>3</sup> Loans/GDP ratios are below 50% in all Latin-American economies, except for Chile.

<sup>4</sup> For a deeper view on economic growth and financial system, see Thiel, M. (July 2001), «Finance and economic growth: a review of theory and the available evidence.» ECFIN.

This guide will focus on the use of PPPs in local and regional settings as a way of providing infrastructure and public services. The next section will analyze the financial instruments and mechanisms available to private companies to fund projects and minimize the associated economic uncertainty, especially in regard to local and regional undertakings.

## PROJECT FUNDING

The first thing to take into consideration when commissioning infrastructure is the expected cost and how funds will be secured. It is a basic and relevant principle: **how much it will cost and how it will be paid**. The government must decide how infrastructure costs will be paid: by the government (payment based on availability or payment based on usage), with the fees paid by users, or with a combination of both, where the government would subsidize part of the cost of the fee paid by users. If the government pays, the infrastructure cost must be in relation to the tax collection capacity or supported by other administration levels that help afford these payments. In addition, equity and progressivity elements will need to be considered to address general interest, avoiding infrastructure subsidies whose main beneficiaries are the most affluent social sectors.

In regard to the financial structure of a project, the origin of the revenues to be collected by the concessionaire (SPV) will determine the project's bankability, i.e., the project's capacity to secure capital and bank financing. Project shareholders and lenders alike will value the project's capacity to generate revenues that can be used to repay capital at competitive rates to return any borrowed amounts (plus interest). Under an availability payment system, private investors will focus their analysis on the financial situation of government's accounts, collected taxes and/or guarantees offered by higher-level administrative agencies. In a system where fees are paid by users, private agents must conduct a detailed analysis of demand estimates, as the concessionaire's revenues will rely on demand.

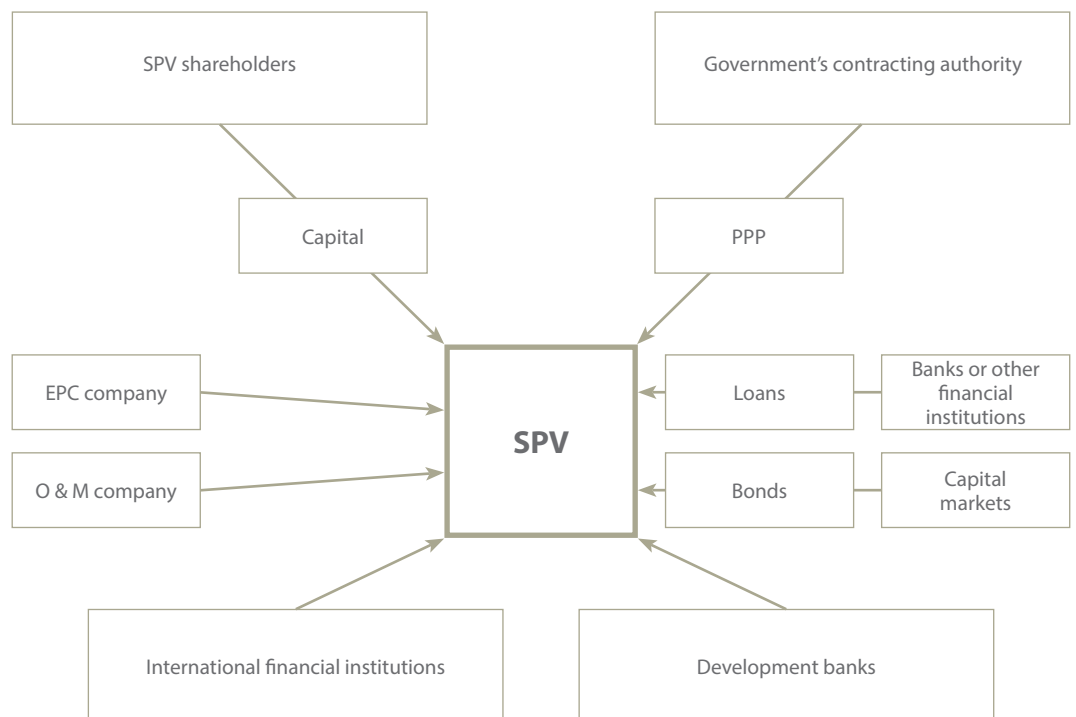
The origin of service revenues will be especially relevant if the project uses a project finance system, under which the concessionaire will have limited liability as only project cash flow is used for debt repayment, whether generated by the number of users and the fees they pay or by the government's repayment capacity in the event of payment based on usage

## FINANCIAL STRUCTURE

In most cases, a PPP's financial structure involves the creation of a SPV that mobilizes any resources necessary to finance infrastructure construction for service provision and operation. A typical SPV structure is outlined in Figure 2:

Figure 2  
**SPV layout**

Source:  
Authors



SPVs are concessionaire companies set up for a specific project, controlled by one or multiple shareholders, which contribute capital. The SPV secures financial resources from banks (loans) or financial markets (bonds). It also hires specialized companies to perform engineering, construction, operation and maintenance tasks.

Thus, the company obtains its resources from project shareholders (capital), bank loans as debt or bond issues. The SPV will generally allow shareholder entities to limit their exposure to risk solely to the capital invested in the project.

The interest rate required by lenders or bond buyers will mainly depend on their perception of the project risk, the guarantees provided by the contracting authority and the legal protection offered in the event of project bankruptcy. The higher the perceived risk, the higher the return rates required by investors to finance the PPP project.

A critical element of the interest rate will also be the concessionaire company's capitalization, i.e., the volume of capital and volume of debt the concessionaire wants to have over liabilities. This will reveal the interest the concessionaire's shareholders have at stake and, therefore, their project share. The higher the capital, the higher the risks for the sponsor and the lower the debt financial costs.

Investors will have to analyze not only the concessionaire's financial structure to estimate the level of risk, but also the origin of revenues. If the payment system is based on availability, the lender will have to know the credit rating of the government entity in charge; it will need to consider its institutional quality, competencies, capacity to collect taxes and the total public debt volume, as all these elements will define its capacity to pay the concessionaire. This is mostly relevant for regional and municipal governments, as they will need to secure payment guarantees or the support of the national government. If bond or loan repayment depends solely on the cash flow generated by the project activity (project finance), the lender will have to assess the project's viability very carefully based on studies of future demand to make up for the impossibility of relying on other income (non-recourse debt).

Under the project finance mode, the SPV has limited liability for the debt and debt service is paid solely using concession revenues. The issued debt is a non-recourse type, beyond infrastructure, and therefore sponsors are members of the SPV's executive board. In other words, this is a financial technique that enables indebtedness by using the project cash flows as collateral or guarantee, where the project is legally and economically self-governing. The financing of this mode, in turn, involves two stages: the construction period is financed with the capital contributed by the sponsor to the SPV, to which subordinate debt and bank loans are added; once construction is completed and operations begin, long-term bonds are issued during the second stage to replace bank loans, allowing the sponsor to sell "the capital to an infrastructure operator or institutional investors" (EFG [2014])

In this second stage, institutional investors<sup>5</sup> such as pension funds, sovereign funds or investment funds play a particularly important role. Pension funds will normally seek long-term investment opportunities offsetting their long-term obligations, generally involving low-volatility, although this involves low financial returns. Given the existing liquidity surplus,

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<sup>5</sup> In some cases, such as the transport infrastructure investments in Colombia for the period 2014-2022 (the second and third wave of 4G concessions) capital funds from institutional investors also financed the construction cost; in this particular case, the financed portion was 14%. For more information, see «Concesiones de Infraestructura de Cuarta Generación (4G): Requerimientos de Inversión y Financiamiento Público-Privado» [Fourth Generation Infrastructure Concessions (4G): public-private investment and financing requirements], published by Asociación Nacional de Instituciones Financieras [National Association of Financial Institutions] (ANIF), November 2014. [http://www.anif.co/sites/default/files/investigaciones/anif-cci-4gfinan1114\\_1.pdf](http://www.anif.co/sites/default/files/investigaciones/anif-cci-4gfinan1114_1.pdf)

and a setting with low market returns, infrastructure investments have become a target for these funds, mainly in the case of international funds (see Box 22). Figure 3 shows a graphic structure of “project finance” schemes.

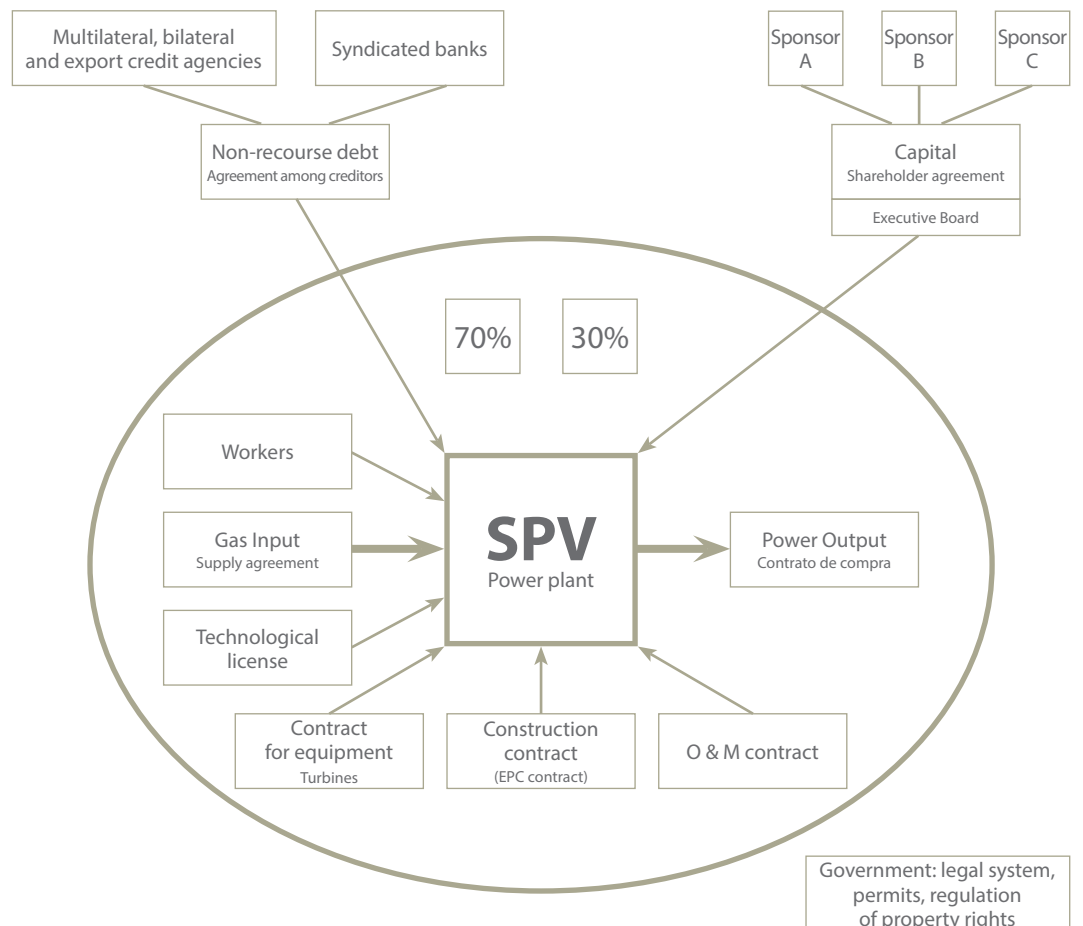
Box 22

### The Barcelona tramway case

When the tramway was constructed in Barcelona (June 2001), the main project shareholders were Alstom and three other construction companies: FCC Construcción, ACCIONA and Comsa. These jointly held 41.83% of the shares. In 2013, Globalvía joined the group as a stockholder and acquired almost all the shares of these three companies, becoming the principal shareholder in the concession, with 43.39%. As of March 2016, Globalvía is owned by pension funds OPTrust (Canada), PGGM (Netherlands) and USS (England).

Figure 3  
**Project finance structure**

Source:  
Based on Esty, B. C. (2004). *Modern Project Finance: A Casebook*. Hoboken, N.J.: John Wiley & Sons, 2004.





As shown in Figure 3, in a project finance scheme the risk assumed by the shareholder company (sponsor) is limited to the capital contributed to the project. In addition, the debt contributed by the financial institutions is of a non-recourse type, which limits the risk solely to the amount invested in the project. It is precisely because of these limitations that this scheme is used for large project development.

This type of financing was historically used for projects such as the Suez Canal (1858) and the US train network (1840-1870). More recently, it has been used to finance oil-well development, mine exploitation, power plants and transport infrastructure. Typically, all these business ventures have long-term stable cash flows generated by the activity of a company set up for an individual project (SPV).

A project finance system involves:


- The establishment of a special, legally independent company for the project (SPV).
- Financing based on limited liability debt from sponsors and capital from the consortium member companies. Sponsors cannot lose more than the invested capital.
- Investment financing targets a single asset with a sole purpose.
- A high debt level (70% to 100%).
- Loan repayment is linked solely to project revenues.
- SPV activity normally creates payment obligations to be met by a different agent (power consumers, buyers of minerals or infrastructure users, e.g., schools, hospitals, among others).

These contracts bring about multiple benefits:

- i. Lower agency costs<sup>6</sup> by aligning the lender's goals with those of company leaders. A project finance system reduces the discrete management of revenues by setting up mechanisms that allocate the (foreseeable) cash flows and decrease free cash flows by increasing debt repayment and forcing repayment during the first years of high debt ratios to the owners of senior debt. The concentration of shareholders and lending banks makes monitoring easier.
- ii. Limiting opportunistic behavior by the following agents:
  - a. Partners: PPPs normally require large investment for infrastructure construction; this infrastructure will be integrated into a given project, on which it is dependent for operation. Outside this collaboration, the project has little business value (e.g., El Realito aqueduct in Mexico relies on a water supply from El Realito dam; see Boxes 5 and 25), especially when there is no possibility of vertical integration. For these reasons, long-term purchase and sale agreements prior to project investment and established in the project finance system, along with a joint control of assets and collection rights, will align the partners' incentives.

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<sup>6</sup> Agency costs originate in the conflict of interests that may appear between shareholders (principal) and managers (agent) over company management. While shareholders want to maximize the company's value, managers want to maximize their personal goals (power, money, etc.).



b. The government: high debt repayment leaves little cash available for the company; a high debt, in turn, reduces accounting benefits and, therefore, the potential opposition to the project by local agents. In addition, a project finance system favors the participation of multilateral agencies, while the non-recourse debt typical of this type of financing often includes strict clauses, all of which reduces incentives for the government to engage in possible opportunistic behavior.

iii. Avoiding the risk of sponsors being hit by poor project evolution. If the project does not work well, this will not impact sponsor's balance sheet.

In spite of these benefits, project finance structuring is more complex than corporate loans, its transaction costs are higher because of the need to create an SPV. Debt is more expensive given its limited risk for the sponsor (the risk is higher for the lender, which has to conduct extensive prior studies and introduce stricter clauses) and restricts the corporate leaders' management capacity (innovation) on account of stringent controls set forth by the lenders under the contract because their revenues (debt repayment) depend on project evolution.

Therefore, project finance systems (financing using the project's cash flow only) are solely used for large projects, as they isolate a sponsor's evolution from that of the project, restricting project risks.

## FINANCIAL INSTRUMENTS MOSTLY USED BY PPP CONCESSIONAIRES

Most PPPs are also structured as SPVs, although they are not financed only by cash flow from operations.

The most widely used credit instruments to secure funding in addition to capital contributions are:

- Bank loans. These are loans granted companies by financial institutions for investing in assets to carry out an activity or finance their current operations. The financing cost is lower for the company compared to the cost of corporate debt because of the nature of financed operations (involving a lower risk).
- Syndicated loans. These are loans offered by a group of syndicated banks that work together to provide funds to a single lender. Syndication occurs because the loan volume needed for the implementation of a given project is too large to be provided by a single entity. These instruments are also used when a project requires lenders specialized in certain types of assets. This type of loans distributes the risk among the different banks.

- Financing by national banks. These entities can be a stable source of financing for public works projects as they associate debt repayment guarantee with future transfers from the national government to regional or local governments (see the Tlajomulco case in Box 23).
- Financing provided by international financial institutions or development banks (WB, FMI, CAF, IADB, ADB, AfDB, EIB, EBRD, etc.). These institutions improve project coordination and provide loans under favorable conditions, mainly for projects in developing countries. The participation of these institutions in PPPs has been rated as positive, especially in the case of very long-term contracts.<sup>xxiii</sup>
- Self-financing by the principal shareholder. This system narrows the gap of information asymmetry if new investors join the project (see Box 18).
- Bond issues (corporate debt). Bonds are normally issued to secure money for project financing. Bonds are a debt instrument for an investor to lend money to an entity (in this case, a SPV) for a limited period of time often at a fixed interest rate. Under the most common system, the SPV regularly pays a coupon to the bond holder and, upon maturity of the bond term, the principal is returned. Infrastructure (asset) can be used by the SPV as the guarantee for principal return (bond amount). The complexity and cost of bond issues make them suitable for large infrastructure projects. Pension plans play a key role in this type of financing as they need to invest in long-term financial assets to afford their long-term payment obligations. Long-term investments in infrastructure offer a low return but are also low-risk transactions, which makes them perfectly suited to the type of assets these companies need.

Box 23

### **Financing the municipal administrative center in Tlajomulco de Zúñiga (Mexico)**

The PPP to implement the government administrative center in Tlajomulco had a political risk associated to it because the opposition political parties were vocally opposed to the project and stated their intention to cancel it if they won the upcoming election. The municipality then took out a loan with the National Public Works and Services Bank in Mexico (Banco Nacional de Obras y Servicios Públicos, Banobras), which finances public works, to mitigate the consequences of this risk, i.e., the potential cancellation of payments for these works. The payment guarantee was that the loan was backed by the payment of future obligations by the federal government to the local government.

For more information, please visit: <http://scioteca.caf.com/handle/123456789/758>.

- Subordinated debt. This is a loan granted the SPV by investors, which ranks below senior debt in terms of repayment priority. It is also known as “junior debt.” In the event of the company’s bankruptcy, lenders will collect their money after full repayment of the senior debt. Debt holders have collection priority over shareholders. This is the debt with the highest risk.
- Senior debt. This is the first debt to be repaid by the company in the event of any insolvency issues. Therefore, senior debt holders have collection priority over subordinated or junior debt holders. This debt has a lower risk and, as such, pays a lower interest rate than the above debt.
- Bond issues per project. Contrary to the above case, bond holders collect solely on the basis of the revenues generated by the SPV (project finance).

Box 24

### Bond issue for Line 2 of the Lima Metro

The consortium building Line 2 of the Lima Metro (FCC, ACS, Cosapi, Impregilo and Ansaldo) successfully placed a bond issue of USD 1.15 billion in international markets to finance the project works (USD 5.8 billion). This is the largest private transport infrastructure bond issue in the history of Peru.

The concessionaire company placed the bonds on the international markets with a maturity of 19 years and a 5.875% annual coupon.

The metro project involves the construction of 35 kilometers of underground track including 35 stations, in addition to the system installation and subway cars.

- Government aids such as subsidies or public shareholder interest. These are normally granted under premium conditions compared to market conditions.

Financial instruments used to mitigate the risks assumed by the concessionaire should be added to the funds secured for infrastructure financing:

- Interest rate swaps. These manage the risk of a future rise in interest rate above the interest rate paid on the loan.
- Currency forwards. These manage the risk of local currency depreciation.

However, these instruments may not exist or, if they do, they may not have an affordable price for the concessionaire company. In addition, in the case of countries whose currency has limited liquidity on foreign exchange markets, the concessionaire may find itself in a situation where it cannot sell the amount of local currency it needs on the foreign exchange markets.

Projects should consider the special elements applicable to PPP financing in emerging countries, which are characterized by poorly developed capital markets, weak institutional contexts and highly volatile currency quotations. All this adds to the complexity of the processes involved in seeking financing. The cause of these difficulties can be traced back to a lack of available capital for the funding of this type of operation and a requirement from investors to obtain larger returns to offset the higher political and economic risk assumed. All these elements lead to a restrained availability of long-term loans, a critical type of funding for infrastructure construction, which requires many years for completion and high initial investments (Martínez-Peri and Schmukler, 2017).<sup>xxiv</sup>

Therefore, market failures and distortions can lead to lower-than-expected equilibrium throughout the life of financing:

- i. Long-term financing involves incurring higher risks by financiers, as information asymmetries can prevent creditors from learning the truth about the actual loan repayment capacity (Stiglitz and Weiss, 1981)
- ii. The coordination problems among bond holders that hold bonds with different maturity dates (junior and senior debt) can shorten loan duration as bond holders will intend to protect themselves from the other bond holders (Bolton and Jeanne, 2009; Brunnermeier and Oehmke, 2013).<sup>xxv</sup> This situation is known as maturity race.
- iii. Problems with incentives for financial agents can lead to the provision of loans with a shorter duration than expected, even in developed economies.

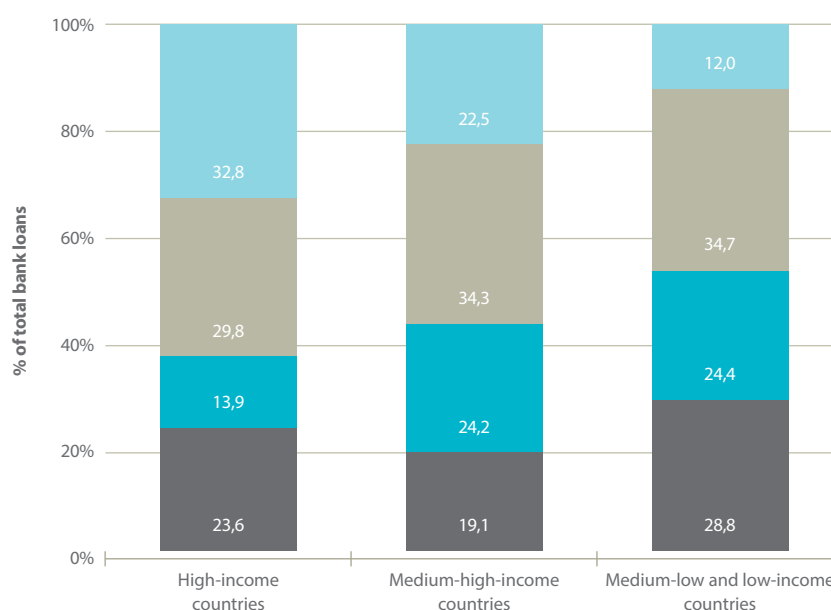
Martínez-Peri and Schmukler (2017) conclude that “the use of long-term financing in developing economies is more restricted than in advanced economies. Banks, which are the main source of long-term financing, lend at significantly shorter terms than in developing economies. Domestic investors not only have little participation in developing economies, but are offered just short-term investment incentives. However, access to international collective investment funds can help developing economies secure not just additional funds, but also longer-term financing, as these investors’ assets have a longer duration when compared to domestic funds.”

This analysis of international investment fund activity cannot be extrapolated to Latin America, as, according to these authors, this is not the situation in Chile (or, by extension, in the Latin American countries where regulations are similar to those in force in Chile). In these authors' view, they have found evidence that Chilean asset management institutions have a large volume of short-term assets and short-term investments compared to insurers, despite the large number of long-term assets available.

Figure 4  
**Maturity structure of bank loans to countries by revenue group, 2000-2013**

■ Less than 3 months  
■ 3 months to 1 year  
■ 1 to 5 years  
■ More than 5 years

Source:  
Based on Bankscope and Bureau van Dijk databases, Brussels. Available at: <https://www.bvdinfo.com/en-gb>



Given the greater uncertainty investors will face, they can require more secure government guarantees to make sure they will collect the agreed amounts. However, this would translate into higher project costs. One of the instruments used to give concessionaires **more guarantees of collection** is the establishment of one or several **trusts**. A trust is a contract under which an agent (trustor) transfers amounts of money to an entity, normally a financial institution (trustee) for it to administer these resources and guarantee payments to the beneficiary (beneficiary of the trust). These additional guarantees will lead, in the end, to lower risks for the concessionaire and, consequently, lower financing costs. In the case of El Realito aqueduct project (see Box 25), the guarantees furnished by the different participating institutions were the following:

- Up to 50% of payroll revenues (the state government in favor of Comisión Estatal del Agua [State Water Commission, CEA] San Luis Potosí, for the commission to pay Aquos, the concessionaire)
- Up to 100% of monies collected from the provision of the urban water cycle services to citizens (Interapas in favor of the CEA, for the CEA to pay Aquos El Realito)
- A credit line for a value up to three times the amount of the monthly fee (Interapas)

Box 25

### El Realito aqueduct case

In June 2009, a consortium was awarded the contract for the design, construction, operation and maintenance of El Realito aqueduct in San Luis Potosí (Mexico). This project provides water to municipalities mainly located in the metropolitan area of San Luis Potosí. In this PPP, payment to the concessionaire will be made under an innovative guarantee system including three trust funds. These guarantees will minimize default risks, foster the participation of private companies in the tender, boost competition and reduce costs, especially the financial cost.

## THE ROLE OF INTERNATIONAL FINANCIAL INSTITUTIONS

In PPP contracts, financing is critical, in terms of the channeling of funds from different investors and the participation of financial institutions in project selection and monitoring.

Arezki et al. (2017),<sup>xxvi</sup> in an interesting article, present the participation of multilateral development banks, such as the European Investment Bank and others, as a formula to address two problems at the same time:

- The relative stagnation suffered by PPP project development in recent years.
- The existing unbalance between surplus global savings and a gap still to be closed to cover the need for large infrastructure.

The participation of these institutions would put an end to the essentially bilateral character of PPPs and would improve project monitoring, while offering more guarantees to investors. This, in turn, would facilitate a long-term participation of investors like pension funds, insurance companies or sovereign funds. The guarantee that would be offered by these multilateral banks would reduce the risk and, hence, the cost of capital to attract private savings institutions, whose experience and human capital would help smooth the path for project selection and contract monitoring. In addition, it would be easier to link isolated PPP projects **to efficient networks** in cases such as transport, energy or water, especially in cases of **multinational or regional network systems**.

The aforementioned article suggests that the involvement of multinational development banks could be aligned with promoting the revaluation of land produced by the construction and commencement of operations of a given project as a source for recovering investment for the public sector and the private operators that participate in a PPP. This formula has

already been used in a successful contemporary project, i.e., the light train in Hong Kong. The participation of multilateral development banks would enable the implementation of this type of mechanisms on a much larger scale. However, the use of land revaluation entails risks, as this mechanism can have an associated speculative risk and, therefore, may compromise the project's financial structure (see Box 26).

In 2016, CAF coordinated a study on **value capture** experiences oriented toward the application in **public transport** infrastructure development. The value capture process has been implemented in many cities in Latin America (Bogota, Curitiba, São Paulo, Panama, Quito and Lima), and was compared with experiences considered successful or potentially successful outside the region (Hong Kong, Bangkok and Ho Chi Minh). The actions carried out were the following:

- i. design and development of the legal assessment regarding the possibilities and restrictions for the application of value capture instruments
- ii. support for the definition of the framework introduced to foster and facilitate proposals for the local integration of transport infrastructure projects with land use regulations and value capture strategies

At present, CAF is providing support by means of a value capture analysis of two stations on the first line of the Bogota Metro project and will provide support to the Panama metro project in 2018.

#### Box 26

### Porto Maravilha urbanistic operation

In 2009, the Rio de Janeiro City Hall, with the aim to revitalize the port region, approved an urban operation to construct a new zone, Porto Maravilha, over an area of 5,000,000m<sup>2</sup>. In order to finance this large urban reform, the City Hall, through the Comissão de Valores Mobiliários (Real Estate Value Commission, CVM), issued a call for tenders to award the residential and business construction rights on this land. This way, sufficient resources would be secured to pay the company that would undertake project construction and maintenance of this new area without using public funds. The first auctions of rights resulted in the construction of residential zones, hotels and shopping malls. This system, however, was interrupted by the real estate crisis that hit Brazil, bringing the remaining real estate transactions to a halt. In July 2017, it was published that the City Hall would assume the maintenance of Porto Maravilha, as the concessionaire company, from Porto Novo, which would cease provision of these services on the grounds of default on services. At present, there is 90% of property titles are paralyzed as a consequence of the financial crisis that is hitting the real estate sector. (For more information, see CAF's case study VLT Carioca, in Box 11).



# 6

## CONTEXTS OF SUCCESS

## SEVEN NECESSARY CONDITIONS TO ENSURE PPP SUCCESS IN URBAN SETTINGS

There is no denying that urban settings are and will be an essential element for the development of society as a whole. World populations are increasingly concentrated in urban areas. This generates benefits for companies (more business opportunities and potential consumer volume growth), individuals and their personal wellbeing (more jobs and education), and governments, as this reality may help increase public funds (from taxes on business and job activities). In this manner, public policies and the general well-being improve, as stated by Edward Glaeser.<sup>xviii</sup>

In addition to this positive aspect, there is also a negative side to urban agglomerations. For example, cities are where global challenges have a more direct impact. Different environmental agencies point out that cities are generating higher NO<sub>x</sub> (nitrogen oxide) emissions and power consumption levels than non-urban areas, thus accelerating climate change. Similarly, social inequality is on the rise and access to decent housing or quality education is increasingly difficult. In addition, cities are demanding better quality public services (solid waste management, sports and recreational areas, culture, among others).

The development of smart cities may be a mechanism to enhance these opportunities and mitigate global challenges. In spite of this, public-private cooperation is a necessary component of the effort to achieve smart cities or smart regions. This means involving the different agents that can help develop projects to improve the quality of life of society, in general, and specific groups, in particular. In this regard, PPPs can be a key instrument for attaining these goals. They enable the development of stable and long-term alliances with different actors with supplementary resources.

As described throughout this guide, PPPs are complex long-term contracts that involve incomplete information, sophisticated financial instruments and a concise need for the identification and definition of risk allocation. Then, there is a risk that these contracts may not achieve the goals driving them, or, even if they do, the economic and/or time conditions initially foreseen may not manifest as expected. It is against this background that this section will deal with some conditions that are deemed necessary to attain “good” PPPs in urban settings. It is important to highlight, though, that these conditions should not be understood as sufficient, as the whole set of recommendations described in this guide should also be taken into account.

### CONDITION 1. CREATE VALUE

As with any public policy, before implementing a PPP, policymakers should conduct a detailed analysis of the future impact of the project. Local authorities should present a **cost-benefit or value-for-money analysis** to assess whether putting the project into motion is worthwhile. The issue of value creation should be an important question for the companies engaged in

PPPs. They should not forget who their customer really is: it is not the public sector per se, but the users of the public service at hand, or, in other words, society at large. Value creation can be materialized through “customer satisfaction,” which, in this case, is citizen wellbeing. The key element to be assessed in these cases is how collaboration will be implemented to attain satisfaction most efficiently and select the form that would create the highest possible value. Both the public and private sectors and citizens alike will have the chance to capture and share value only if it can be created.

In addition, **selecting the best possible partner for the PPP** is essential to get the maximum project value, given that this partner will contribute very useful resources to help create value for the project. Partner selection requires an open and transparent tender process including incentives for tenderers to participate in project design.

## CONDITION 2. SET UP A STABLE SPACE FOR GOVERNANCE AND TRANSPARENCY


**Transparency, openness and commitment among stakeholders** are necessary conditions for public-private cooperation to be successful. This holds particularly true in urban or highly densely populated areas, where project stakeholders (see Box 27) are numerous, and their interests, which are not always aligned between them, should be taken into consideration throughout the life of the PPP.

It should be remembered that PPP contracts are **incomplete**, as **not all possible future events can be included in a contract** and, therefore, it is important that public authorities develop **mechanisms to facilitate the growth** of the existing **mutual trust** for the benefit of each agent after the contract has been signed or during the tender process, before tender award, among all bidders.

Box 27

### Project stakeholders

Stakeholders or interest groups can be multiple. The contracting authority and the concessionaire will of course be among them, but the presence of other companies, subcontractors of the concessionaire, should also be foreseen, along with citizens and merchants or retailers for whom the works may have a positive or negative impact. Opposition political groups against the government that has issued the call for tender for the project, environmental protection groups or civil society groups can also be found among them.



The creation of these mechanisms to foster the growth of mutual trust leads to the establishment of stable spaces of dialogue between PPP participants where they can clarify questions about the contract, responsibilities in case of unforeseen circumstances and contract compliance, among other factors.

To make governance more robust, governments should foster the creation of **independent oversight agencies over the whole collaboration process**. An independent institution can assure that the project meets the goal of providing benefits to citizens and not just to private companies, governments or public officials.

PPP units that are relatively independent from the government (in line with the institutional context) and the existence of a sound legal context are deemed two of the paramount conditions for a PPP to be successful. These units can act as arbitrators during negotiations and disputes, avoiding corrupt practices.

### CONDITION 3. GUARANTEE CONTRACT INNOVATION AND FLEXIBILITY

Innovation is key to creating value and more efficient public services. Therefore, **contracts should be flexible enough for concessionaires to have room to innovate** and, then, derive the greatest benefits from their innovations. With this in mind, **contracts should focus on results** more than on a detailed definition of inputs and services to enable company innovation, and establish a link with services instead of assets. Focusing activities on results and services boost company-driven innovation.

Now, for this push for innovation to work, suitable control systems need to be in place to ensure services are properly provided and minimize the risk of contract abuse. In addition, public officials need to be trained, informed and vigilant.

### CONDITION 4. TAKE INTO ACCOUNT THE EXTERNALITIES AND EFFECTS OF URBAN SETTINGS

Cities are, after all, groupings of people, companies and institutions. This is a beneficial reality because it facilitates the promotion of positive externalities, and PPPs can enhance these benefits among citizens and other stakeholders. However, PPPs can also create negative externalities for specific groups, especially during construction works and operation. **Authorities, therefore, should analyze all the potential negative externalities** that PPPs can generate, in addition to any unanticipated impact projects may have on the local economy, the environment and citizens, and find ways to mitigate them.

The use of traditional cost-benefit analysis methods and other standard assessment techniques should include project impact in terms of market benefits and the social and environmental value generated.

## CONDITION 5. ADVANCE PARTICIPATION

Involving all project stakeholders is critical for the generation of successful public-private collaborations. Local authorities can benefit from the experience of the private sector and knowledge about the needs of city inhabitants provided by citizens and communities alike. In fact, in social settings where there is ample debate about whether PPPs is or is not be the best tool for providing public services, or whether public services should be provided solely by the public sector, **the creation of participation mechanisms is indeed a helpful instrument in the face of rejection of PPPs.**

Participation should be implemented throughout every stage of a PPP: design (providing the opportunity for citizens to voice their opinion); tender and procurement (explaining the process to citizens); and construction (reaching a consensus with citizens regarding construction timeframes and how the execution of the works will impact their daily lives); and service commissioning (asking for and factoring in citizen assessments as users or project stakeholders).

## CONDITION 6. REVIEW PAYMENT SYSTEMS AND ASSESS NEW POTENTIAL BUSINESS MODELS

In an urban setting, local authorities should assess the possibility of using new payment systems, going beyond subsidies and professional fees associated with project development.


Systems like **income from advertisements** or **capital gains from the land** where infrastructure will be built can be successful strategies in cities with high population density. In this regard, shared bicycle services implemented in many European capital cities have been partially or fully financed through street furniture advertising contracts.

Another system can be the application of a combination of **payment based on usage** and **payment based on availability** methods as a solution for risk distribution, where a portion of the performance risk is transferred to the concessionaire through the usage payment mechanism, but the remaining portion of the risk is taken on by the government, if the concessionaire supplies a certain level of service quality (availability payment).

What is important is the private sector's experience finding new sources of revenue and their implementation of different payment systems in other local environments. In this regard, lessons learned from the generation of new business can be highly beneficial project input.

## CONDITION 7. USE AND TAKE ADVANTAGE OF BIG DATA

Individuals' constant interaction and use of public and private services in urban areas creates a mass amount of data that can be instrumental for public and private sectors alike. Today, many cities use sensors, video cameras, GPS-enabled devices and other data collection systems.



Furthermore, thanks to recent progress made in IT and data analysis, there are companies that can analyze collected data and identify behavior patterns and trends based on algorithms: this is known as the big data revolution, which can supply public and private actors with ideas about citizen preferences and how to provide services in a more profitable and effective way.

To the extent possible, local governments should always strive to give the private sector access to public data in order for these agents to create new uses leading to improved services, optimize resources, and overcome the socioeconomic challenges faced by urban settings and their inhabitants. Only through the implementation of these techniques can a city, today, complete the transformation process to become smart.

## THE NECESSARY SETTING

For a PPP to be successful, the above conditions must be met. However, in addition to these intrinsic features, it is also necessary to ensure certain minimum political, legal, economic and social conditions in the area where the PPP is going to be developed. These conditions for a successful PPP—listed below—create the **necessary setting**.

### SETTING CONDITION 1. ROBUST LEGAL FRAMEWORK

A robust legal framework that guarantees legal certainty for PPP contracts throughout the life of the project is a must. This framework should be in line with international legislation and include the different aspects that are essential for a proper PPP contract, i.e., describe how the private operator will be selected, how land will be acquired, what administrative procedures will be necessary to make an investment or how conflict resolution mechanisms will be implemented, among other things. In addition, the penalties for acts of corruption, influence peddling and abuse of power should be clearly defined.

### SETTING CONDITION 2. A STABLE POLITICAL ENVIRONMENT

The political setting where PPPs are developed should be stable, within a democratic state with a transparent election cycle. Changes in government should honor pre-existing PPPs and their contracts should continue to be legally valid regardless of political interests. Beyond political parties, society, in general, and communities, in particular, should be notified and given the opportunity to participate in infrastructure development processes in line with the impact infrastructure will have on their immediate environment.

### SETTING CONDITION 3. TRAINING OF PUBLIC OFFICIALS

Public officials responsible for PPP procurement, oversight, supervision, negotiations and project handover need to be sufficiently knowledgeable to carry out their duties, having received the proper education and training. If necessary, they should also receive expert advice to perform the specific tasks assigned to them.

### SETTING CONDITION 4. OPEN AND COMPETITIVE MARKET ECONOMY

The economic setting should be aligned with an open and competitive market economy, attractive to foreign investors, with access to international financial markets. The state, in turn, needs to be supported by strong and stable trade agreements, recognized by the international community.

## FINAL THOUGHTS

PPPs are not a new instrument. Public and private sectors have worked side by side for generations to implement vital projects for infrastructure development and public services such as highways, power transmission lines, railways, prisons, schools, hospitals and water treatment systems, among others.

Today, the reach and scope of challenges faced by humanity, especially in urban settings, call for joint efforts among public sector and private operators.

For the private sector, this could be a great opportunity, but it must develop the capacity to adapt to a changing environment and strike a balance between shareholder interests and urban community needs. Here, the public sector will play a critical role in demanding a more proactive role from the private sector, promoting PPP projects and overseeing their progress. The public sector must also guarantee that the projects benefit citizens and make an added value contribution to the community as a whole in the short and long term.





# A1

## **ANNEX 1. GLOSSARY**

# GLOSSARY

The following list of terms associated with PPPs, while not exhaustive, aims to incorporate as many concepts as possible.

## A

### **Agglomeration Economies**

The benefits that come when firms and people locate near one another in cities or industrial clusters. They can stem from a reduction in transportation costs between companies or the spreading of ideas and knowledge between people.

### **Asset**

Any item of economic value, either physical (e.g., a piece of land) or property right, expressed in economic cost or some other value system, that an individual or entity owns.

### **Assignment of Risk**

Allocation of liability for the management of a task to one of the parties in a contract for each of the existing risks; or, alternatively, agreement to share the risk management through a set of mechanisms.

### **Availability Payment**

System of payment in which the contracting authority pays the concessionaire for the construction and/or operation of infrastructure, i.e. for making it available, regardless of the use it is put to. Cases where this system of financing has been used include hospitals or prisons, where the operator has no capacity to increase or reduce demand.

## B

### **Bidder (also Tenderer)**

Private sector candidate, consortium, contractor or offeror who participates in a public tender for a project.

### **Big data**

An extremely large set of data that can be analyzed by computers to reveal patterns, trends and associations, especially related to human behavior and interactions.

### **Book Value**

Net amount an asset or liability is recorded for in accounting books. The book value is equal to the gross nominal amount of any asset or liability minus any provision or appraisal amount.

### **BOOT**

Acronym for build, own, operate and transfer. Type of PPP contract in which the private sector is in charge of the infrastructure defined therein, assumes ownership of that infrastructure until the contract ends, operates it during the term of the contract (including maintenance) and, finally, transfers it to the public sector.

## **BOT**

Acronym for build, operate, transfer. Type of PPP contract in which the private sector is in charge of building and operation (and maintenance) of the infrastructure defined in the contract for its duration, and for transferring it to the public sector once the contract ends.

## **Brownfield**

Refers to infrastructure in operation subject to renovation and/or improvement for the purpose of making more productive, efficient use of that infrastructure.

## **Bundling**

Integration of different tasks under a sole contract so as to internalize externalities among different complementary tasks. This makes it easier for the private operator to build and operate the project under a single contract, making operation potentially more efficient. As the case may be, this could lead to a reduction in taxes or public revenue needed to cover the project's cost. In the specific case of infrastructure, the integration of tasks could lead the concessionaire to build with better quality materials that could mean savings throughout the life of the contract.

## **C**

### **Collaborative Economy**

Agreement between participants to supply their own resource (e.g. work, goods or creative expression) to a common fund from which they can then take others, with or without a commercial transaction.

### **Commercial Closing**

Final process of assigning a contract to a company, which leads to the signing of the contract. The commercial closing is followed by the financial closing.

### **Competitive or Technical Dialogue**

Formal dialogue process between the government or public authority and tenderers to help with the definition and final design of the contract. This dialogue takes place after the preliminary information memorandum and before the contract announcement.

### **Concessionaire**

Company that wins the tender and carries out the tasks agreed under the contract. This may be a sole company or a group (consortium) formed to carry out the contract jointly, with different or equal shareholding (see “special purpose vehicle”).

### **Consortium**

Group of companies the combine to form a single entity, with equal or different shares, to jointly carry out a PPP contract (see “special purpose vehicle”).



### **Contract**

Agreement between public and private sector for the provision of the service defined therein.

### **Contracting Authority**

Institution, organization or public agency that takes the initiative to start a project or infrastructure, whereby said project becomes its immediate political responsibility. This could be a state, regional or local government or any other government or public agency.

### **Cost-benefit analysis**

Methodology used to estimate the costs and benefits, aside from monetary, associated with infrastructure construction. Benefits are defined as increases in people's wellbeing, and costs as reductions in wellbeing. In order to carry out a project according to this methodology, it must have greater social benefits than costs, society being the total number of individuals.

## **D**

### **DBFO**

Acronym for design, build, finance & operate. Type of PPP contract in which the private sector is in charge of the design, construction, financing and operation (including maintenance) of the asset for the duration of the contract.

### **DBFOT**

Acronym for design, build, finance, operate & transfer. Type of PPP contract in which the private sector is in charge of the design, construction, financing and operation (including maintenance) of the asset for the duration of the contract, and once it ends, for transferring ownership of the infrastructure to the government.

### **DBFM**

Acronym for design, build, finance & maintenance. Type of PPP contract in which the private sector is in charge of the design, construction, financing and maintenance of the asset for the duration of the contract.

### **DBM**

Acronym for design, build & maintenance. Type of PPP contract in which the private sector is in charge of the design, construction and maintenance of the asset for the duration of the contract.

### **DBOM**

Acronym for design, build, operation and maintenance. Type of PPP contract in which the private sector is in charge of the design, construction, operation and maintenance of the asset for the duration of the contract.

**Delivery Mode**

Type of contract in which the contracting authority tenders and indicates what tasks the concessionaire will carry out, as well as what that may involve: design, financing, construction, operation and/or maintenance.

**Design and Construction**

Format for provision or delivery of projects in which a sole entity (a contractor with sub-consultants, or a team of contractors and engineers, often with sub-consultants) is trusted with the design and construction of a project. The term encompasses DBM, DBF and other contracts that include services added to the design and construction.

**Discount Rate**

Type of deduction used to determine the present value of future cash flows.

**E****Economic Bid**

Cost proposal that forms part of the tender submitted by a company, including the cost as well as the technical criteria, which could include the design, project deadline, reliability and quality of service, assumption of risk by the bidder and any other characteristic considered important to public authorities.

**EPC**

Acronym for engineering, procurement and construction.

**Expression of Interest**

Expression of interest (EOI) by a private actor in submitting a project proposal to a government. This is usually done in writing, with the private party expressing its interest in participation in the selection process for operator, sometimes including official documentation signed to certify its legal availability to participate in said process.

**Expression of interest stage**

Stage when selection is made among private parties of those who will go on to the Invitation to Tender stage. The companies selected in this stage are those able to carry out the project.

**Externalities**

Indirect effects (positive or negative) borne by an agent as the result of decisions made by another (causative) agent, without the cost of these decisions being reflected in the price to third parties. Positive externalities could be the expense in research and development by a company that allows other agents to also benefit from that information by adding to general knowledge. Negative externalities include the classic example of pollution, whereby the agent that pollutes makes decisions solely based on direct cost, without considering the environmental costs generated.

## F

### **Fair Price**

Compensation paid for loss of expropriated assets or rights.

### **Financial Closing**

When the winning bidder obtains the necessary financial guarantees from banks or other institutions to finance the project.

## G

### **Greenfield Project**

Project carried out from the beginning, with no prior existing infrastructure.

### **Governance**

Way of governing in which the goal is durable economic, social and institutional development to promote a healthy balance between the state, civil society and the market. In the case of PPPs, this corresponds to the system of governance of a contract, which translates into an institution or mechanism that must allow the parties, for the duration of said contract, to resolve any disputes that may arise and/or situations not covered under the contract.

## I

### **Incomplete Contract**

Agreement that, as its name indicates, is not complete due uncertainty in the setting in which it is signed. This uncertainty is rooted in the fact that it is impossible to describe in a contract all the events that could arise throughout its term of validity. For this reason, it is important for PPP contracts to be enforceable and have good mechanisms of governance to resolve unexpected situations that may arise.

### **Informative Studies**

Technical studies done prior to project (also technical) execution that reflect the approximate costs and measurements of the potential works.

### **International Financial Institutions (IFI)**

Organizations that provide financing to governments, generally, although not exclusively, in developing countries. These include the World Bank (WB), Public–Private Infrastructure Advisory Facility (PPIAF), the International Monetary Fund (IMF), the Inter-American Development Bank (IDB), the European Bank for Reconstruction and Development (EBRD), the Asian Development Bank (ADB), CAF and the Development Bank of Latin America.

**Invitation for Expression of Interest (IEI)**

Invitation put on the market in search of expressions of interest to participate in a project.

**Invitation to Tender**

Stage in which binding proposals are requested from preselected bidders, with full, detailed costs, followed by the evaluation and selection of the best offer.

**L****Least Present Value of Revenue (LPVR)**

Criteria for tendering projects in which the duration of the concession is based on the income the concessionaire earns from the operation awarded. If the use (and, therefore, the income) is greater than expected, the duration of the contract is reduced, and if it is less, it is lengthened in order for the concessionaire to reach the agreed income. This tender system is only applicable, according to its creators, in cases in which the quality of service is verifiable.

**Life-Cycle Approach**

Designing a project based on its entire life cycle so as to allow the private sector to be more efficient in the planning and organization, and to optimize costs throughout the entire life cycle, risk management and innovation process.

**Low Bid**

An excessively low economic offer by a bidder in the tender stage for it to be able to take on the costs associated with the project's eventual execution.

**O****Output Specification**

Detailed description of the functions or results the new contract must attain. This is normally split between construction and service functions. The output specification is focused solely on the required results (output) of services, and not on how private sector participation (PSP) achieves them. This opens the door to innovation by the concessionaire in terms of how to achieve objectives.

**P****People-first PPPs**

Concept used by UNECE to define PPPs that have a positive impact on society in general, as well as on a particular group.

### **Pigouvian Taxes**

Type of tax that seeks to correct negative externalities. These taxes are intended to balance out the private marginal cost (what it costs the producer to produce) plus the tax and the social marginal cost (what it costs society, including the producer). This tax does not generate a loss in market efficiency, given that it internalizes the costs of an externality to producers or consumers, once modified.

### **PPP Unit**

The PPP Unit is intended to give a project independence from the government that prompted it. It can act as arbiter during negotiations and disputes, and prevent corrupt practices. It must ensure contract compliance, overseeing both the quality and functioning of service.

### **Present Value**

The value of future cash flows discounted to the present at a certain interest rate (such as the entity's cost of capital or funds). For instance, a dollar available at some future date is worth less than a dollar today, since today's dollar can be invested and earn interest in the meantime.

### **Private Finance Initiative (PFI)**

A system for financing a large number of government assets, established in 1995 in Great Britain and broadly adopted after 1997. It is major way to finance many assets in that it transfers significant risk to the private sector. It requires that a private consortium raise private funds to finance the project, involving investment in assets as well as long-term provision of services to the public sector.

### **Project Finance**

Financial technique that allows one to go into debt using collateral in the form of cash flow generated by a legal economically autonomous project. Financing goes through a special purpose entity (independent company) and, initially, the construction is done with capital contributed by a sponsor, to which subordinate debt and bank loans are added. Later, and to the extent that project risk is reduced, the bank loans are replaced by long-term bonds, so the sponsor can sell the capital to an infrastructure operator.

### **Project Revenue**

All taxes, rent, fees, charges and other items invoiced for a project by the public authority or sponsor. These may be fixed or adjustable.

### **PSC**

Acronym for public sector comparator of a project, defined as the hypothetical cost, adjusted for risk, of a public sector project for its duration if carried out by the government.



## R

### **Renegotiation**

Contract modification arising, generally, from a proposal by one of the parties and with the approval of both. This can come about due to unexpected issues during the contract's term, or because reality is not in keeping with the expectations created, putting the project's economic viability at risk.

## S

### **Special Purpose Vehicle (SPV)**

Generic term used for an ad hoc entity established by private investors to carry out a government contract. An SPV is an entity created to act legally as a consortium for a project.

### **System of payment**

Methods through which public services (not free) can be free or paid (totally or partially) for the user through a tax.

### **Sunk Costs**

Costs that a company has already incurred and cannot recover. In the case of a PPP, this may give rise to situations of moral hazard if an agent has built an immovable physical infrastructure. In this situation, the public stakeholder may have the opportunity to benefit by breaking the initial contract.

## T

### **Technical Tariff**

Accounting entry combining the costs of capital, operation and return for a project's concessionaire. These costs are financed with a fee paid by users and a government subsidy that covers the difference between the technical tariff and the fee paid by the user.

### **Tender**

Offer by a company submitted in a tender process, where only the price is taken into account.

### **Traditional Procurement**

Delivery of infrastructure and services associated with the public sector through traditional procurement processes.



### **Transaction Costs**

Costs of designing and supervising a contract in a context of incomplete information and possible opportunistic conduct by the private company.

### **Trust**

Contract in which a public or private agent (trustor) transfers certain sums of money to an entity, generally a financial institution (fiduciary) for it to administer the funds and guarantee payments to the beneficiary who, in this case, must guarantee payment to the concessionaire.

## **U**

### **User Fees**

Prices paid by users for use of infrastructure. This revenue from this fee may cover total or partial costs, depending on whether the government covers part of them.

## **V**

### **Value for money**

Greater positive earnings for society (in the case of PPPs) than what would have been attained if using other alternative procedures of provision.

## **W**

### **White Elephant**

Infrastructure that is too costly to build and maintain in relation to its intended use.

### **Whole-of-life**

Advance incorporation of design and construction with maintenance in course, in addition to renovation of any elements during the asset's life and the PPP's term of validity.

# A2

**ANNEX 2.  
LEGAL FRAMEWORK  
FOR PPPs IN LATIN AMERICA**

# LEGAL FRAMEWORK FOR PPPs IN LATIN AMERICA

	LAW ON PUBLIC-PRIVATE PARTNERSHIPS (PPP) / LAW ON CONCESSIONS	PRINCIPAL AGENTS (AWARDING AUTHORITY, PPP UNIT, ETC.)
<b>Argentina</b>	<p><b>Law 27.328/16</b> on PPP contracts (11). Covers infrastructure, housing, utilities, productive investment, applied research and technological innovation projects.</p> <p>Decree 966/05 allows unsolicited proposals, and Decree 967/05 Decree created the National Public-Private Partnership system.</p> <p>Also applicable to PPPs: Law 13064/47 (on public works), Law 17520/67 (on public concessions) and Decree 1023/01 (national public procurement regime).</p> <p>Other important regulations: Decree 676/01 (on the promotions of private participation in infrastructure development) and Decree 1299/00, later Decree 228/01 (on the creation and regulation of a fiduciary fund for promoting private participation in infrastructure works).</p> <p>Sectorial regulations, like Law 24065 (on electric power) and Law 24076 (on natural gas).</p>	<p>Awarding Authority: Federal Ministry of Planning, Public Investment and Services and its decentralized agencies.</p> <p><b>PPP unit does not exist.</b></p>
<b>Brazil</b>	<p><b>Law 11074/04</b>, applicable at national and supra-national level. Complementary to the laws on concessions (Law 8987/95 and Law 9074/95) and the law on acquisitions (Law 8666/93). Moreover, governments and municipalities can approve their own PPP laws. PPP contracts are prohibited for the provision of labor and equipment for public works, as well as for the installation of said equipment and execution of public works. The oil and gas sector is regulated under Law 12351/10.</p> <p>Federal Decree 8428/15 allows unsolicited proposals.</p> <p>Other important laws are the General Law on Government Contracts and Acquisitions (Federal Law 8666/93), General Law on Authorizations and Concessions of Public Services (Federal Law 8987/95), Law on Subsidies and Extensions of Public Services Concessions (Federal Law 9074/95) and the National Privatization Program (Federal Law 9491/97).</p>	<p>Awarding authority: government departments, special funds, autonomous government entities, public foundations, government-owned corporations and other entities controlled directly or indirectly by the European Union, the United States, the Federal District and municipal governments.</p> <p>PPP Unit: PPP Management Committee (CGP), established by Presidential Decree 5385/05, made up of representatives from the Ministry of Finance and the Presidency (1).</p> <p>Other important agents are the Ministry of Planning, Budget and Management (evaluates, shapes and monitors PPP projects), the Ministry of Finance (assesses each proposal to adjust the allocation permitted), the PPP Technical Committee (requests studies, surveys and investigations), the PPP Guarantee Fund (guarantees payment of public sector financial obligations on PPP projects) and Government Auditor General (monitors tender processes and contract assignment, as well as project implementation).</p>
<b>Chile</b>	<p><b>Law 20410/2010</b> (Amends Law on Public Works Concessions - Decree 900/96).</p> <p>Includes unsolicited proposals.</p> <p>Separate legislation for the following sectors: energy, water, sanitation, ports and railways.</p>	<p>PPP Unit and Awarding Authority: <b>coordination of public concessions works by the Ministry of Public Works.</b></p> <p>Control: tax auditor and Ministry of Public Works (MOP). Assessment: National System of Public Investment (SNIP).</p>
<b>Colombia</b>	<p><b>Law 1508/2012</b> (PPP Law) and <b>Decree 1467/12</b> (PPP regulations), compiled under <b>Law 1082/15</b>.</p> <p>These laws on PPPs apply at the state and sub-state level. The sectors falling within the private investment regime can elect not to be regulated under the PPP laws: telecommunications, energy (public utilities), ports and terminals, airport terminals, mining, oil and gas. For example, there are specific laws, such as Decree 063/15 on potable water and sanitation.</p> <p>Includes unsolicited proposals (PPP Law, Title III).</p> <p>Infrastructure Law: Law 1682/13.</p> <p>General Contractor Framework (Law. 80/93, Law 1150/07 and Law 1510/13) for matters not specifically regulated under the above-mentioned laws.</p>	<p>Awarding Authority: any government agency.</p> <p><b>There is no specific PPP Unit</b>, but there is the National Planning Department (planning and oversight, with the support program for public private partnerships in infrastructure works), the National Agency for Infrastructure of Colombia (ANI) and the national real estate agency Virgilio Barco Vargas (oversight and management).</p> <p>The Ministry of Finance and Public Credit is responsible for the approval and assessment of financial conditions.</p> <p>The National Council of Economic and Social Policy approves PPP contracts with an execution term of more than 30 years.</p> <p>The Superior Council on Fiscal Policy (CONFIS) authorizes public contracts as well as the use of public resources for PPP projects.</p>

	<b>LAW ON PUBLIC-PRIVATE PARTNERSHIPS (PPP) / LAW ON CONCESSIONS</b>	<b>PRINCIPAL AGENTS (AWARDING AUTHORITY, PPP UNIT, ETC.)</b>
<b>Costa Rica</b>	<p><b>Law on concessions: Law 7762/98</b> (Law on Public Works Concessions), amended by Law 8643/08.</p> <p>The following sectors are excluded: energy services, telecommunications, sanitation services and the specific cases of the port of Limón, Caldera and Puntarenas. Includes unsolicited proposals.</p> <p><b>Decree 39965/16</b> (was not approved): regulations for PPP contracts, to allow PPP projects developed for the first time to relate new regulations to existing ones.</p> <p><b>Laws 8643 and 7762</b> lay out the framework for concession and the creation of a Concessions Advisory Council.</p>	Awarding authority and PPP Unit: <b>National Concessions Council.</b>
<b>Ecuador (12)</b>	<p><b>Organic Law on Incentives for PPPs and Foreign Investment</b> (2015) and its regulation (<b>Executive Decree 582/2015 and Executive Decree 1040/16</b> - General Regulation for the Application of Organic Law on Incentives for PPPs and Foreign investment). (13)</p> <p>The law allows unsolicited proposals (art. 11).</p> <p>Additional laws: Organic Law on the National System of Public Procurement (2008), Organic Law on Public Companies (2009) and Law on State Modernization, Privatizations and Provision of Public Services by private initiative (1993).</p> <p>Sectorial regulation: Organic Law on Public Electric Power Service (2015) and the Special Law on Telecommunications (2015).</p>	<p>Awarding Authority: any Ministry or agency of the central government, municipalities, provincial governments and other public institutions that have sufficient authority to delegate private sector provision of public services or the construction of large infrastructure.</p> <p>PPP Unit: <b>Inter-Agency Committee on Public-Private Partnerships</b> (14).</p> <p>National Secretariat of Planning and Development: general regulator of investments.</p>
<b>El Salvador</b>	<p><b>Decree 379/13 Special Law on Public-Private Partnerships.</b></p> <p>Offers a framework for PPPs, excluding the water sector, through regulations that describe in detail the technical, social, environmental, fiscal, economic, legal and regulatory aspects.</p> <p>Includes unsolicited proposals.</p>	<p>Awarding Authority: Executive branch and its entities, decentralized agencies and municipalities.</p> <p>PPP Unit: <b>Agency for the Promotion of Exports and Investments of El Salvador (PROESA).</b></p>
<b>Guatemala</b>	<p><b>Law on Alliances for Economic Infrastructure Development (Decree 16/10)</b> and its <b>Regulations (Decree 360/11).</b></p> <p>These laws outline the legal framework for the creation, construction, development, uses, maintenance, modernization and expansion of infrastructure, highways, ports, airports, projects in development, electric grid and railways, as well as marketing, including provision of equipment and associated complementary services.</p> <p>Prevent private participation in certain sectors, including water, education and health.</p> <p>There is no legal provision for unsolicited proposals.</p>	<p>Awarding Authority: any state organization or institution; centralized, decentralized or autonomous.</p> <p>PPP Unit: <b>National Agency of Economic Infrastructure Development Alliances (Anadie)</b>, in charge of promotion of PPP contracts, in addition to technical support, tendering, contracting and oversight.</p> <p>PPP Council: National Council of Economic Infrastructure Development Alliances (Conadie) (8). National Program of Competitiveness of Guatemala (9).</p>
<b>Honduras</b>	<p><b>Legislative Decree 143/10:</b> Law on Promotion of Public-Private Partnerships, defining criteria, norms and procedures for implementing PPPs.</p> <p><b>Executive Decree 02073/10:</b> General Regulation for the Promotion of PPPs.</p> <p>Decree 51/11: Law on the Promotion and Protection of Investments.</p> <p>Decree 58/11: Special Law on the Simplification of Infrastructure Investment Procedures.</p>	<p>Awarding Authority and PPP Unit: <b>Commission for the Promotion of Public-Private Alliances (CoAliAnZA) and partnerships</b> (5).</p> <p>PPP Oversight: regulation, supervision and monitoring of PPP contracts and projects.</p>
<b>Jamaica</b>	<p>There is no PPP law, but there is a <b>PPP policy</b> (2012) as an addendum to the framework policy, as well as a procedural manual for the privatization of government assets. Moreover, said policy was prepared by the Development Bank of Jamaica Limited (DBJ), with advising from the Ministry of Finance and Planning. This applies to all sectors except housing.</p> <p>Includes unsolicited proposals (see paragraph 9).</p>	<p>Awarding Authority: any government ministry, agency or corporation.</p> <p>PPP Unit: PPP Unit of <b>the Development Bank of Jamaica</b> (operational management, development of business model and transaction phase of PPP) and <b>PPP Unit</b> of MOFPS (2) (analysis of value for money and fiscal impact of projects in PPPs).</p>

**LAW ON PUBLIC-PRIVATE PARTNERSHIPS (PPP) / LAW ON CONCESSIONS**

**PRINCIPAL AGENTS (AWARDING AUTHORITY, PPP UNIT, ETC.)**

<b>Mexico</b>	<p><b>Law on Public-Private Partnerships</b> (2012), amended in 2015; and <b>Regulation of the Law on Public-Private Partnerships</b> (2012), amended in 2014. This is an alternative mechanism to the fee-for-services system of contracting, and replaces the law on public procurement and public works.</p> <p>Allows unsolicited proposals.</p> <p>Applies at the federal, regional and municipal levels, when the federal government finances projects.</p> <p>Regulatory frameworks may be also at sub-state level.</p>	<p>Awarding Authority: any ministry or agency (all budgets for projects must be approved by Congress before being awarded).</p> <p><b>There is no PPP Unit:</b> each sector and level of government is responsible for project planning, implementation and supervision.</p> <p>Other important agents are the Secretariat of Finance and Public Credit along with the Investment Unit (lays out guidelines and policies for each project as well as appraisal and approval), and the Ministry of Public Service (which ensures compliance with the law, monitors transparency and assists in the event of disputes).</p>
<b>Nicaragua</b>	<p><b>PPP law: Law 935/16</b> (15). An additional law summarizing specific regulations of the PPP law is still pending.</p> <p>Additional laws include the <b>Law on Public Procurement</b> (2010) and its regulations (Decree 75/10), which specifies that it does not apply to administrative licenses and concessions and requires specific regulations. Public works concessions contracts are regulated by special laws existing in accordance with the type of public works.</p>	<p>Awarding Authority: executive branch and all its agencies, other state powers, autonomous entities, decentralized entities, regional governments, non-competitive state corporations, the public finance sector (only for management issues), public universities, etc. The Ministry of Transportation and Public Works is in charge of highway concessions.</p> <p><b>There is not PPP Unit</b> (16). But there is PRONicaragua, the investment promotion agency (17)</p>
<b>Panama</b>	<p><b>There is no PPP law.</b> Law 359/11 is pending ratification.</p> <p>Concessions are regulated under Law 22/06 (amended by Law 15/12), used for public procurement. There is no provision for unsolicited proposals.</p> <p>Regulations exist for specific sectors: Law 2/97 (incorporation of private capital in the water and health sectors), law 6/97 (dismantling of state electricity monopoly) and Law 5/98 (system for public works execution).</p>	<p>Awarding Authority: every ministry and public agency.</p> <p><b>There is no PPP unit:</b> Ministry of Public Works is responsible for preparation of studies, contracting the construction and monitoring of projects.</p>
<b>Paraguay</b>	<p><b>Law 5102/13:</b> Law for the promotion of investment in public infrastructure and expansion and improvement of goods and services by the state.</p> <p>Law 1618/00: general principles of the system regulating procedures for projects and contracts with private partners.</p>	<p>Awarding Authority: Ministry of Planning.</p> <p><b>PPP Unit: PPP Projects Unit</b>, within the Ministry of Planning, which develops, coordinates and executes all PPP projects.</p>
<b>Perú</b>	<p>Legislative Decree 1224/15, regulated by Supreme Decree 410/15: establishment of investment committees, emphasizing assessment reports, with the possibility of submitting unsolicited proposals and a fast-track process (3). This incorporates the OECD's good practices recommended in Principles for Public Governance of Public-Private Partnerships.</p> <p>Legislative Decree 1012/08 (legal framework on PPPs and regulations for the Accelerated Process of Promotion of Private Investment) and Decree 127/14 ("Regulation in PPPs").</p> <p>Supreme Decree 059-96 (Law on Concessions) and Supreme Decree 060-96 (Concessions Regulations) for awarding PPPs.</p> <p>Law 27293/00 (National Public Investment Law).</p> <p>Resolution 3656/12: parameters for measuring the PPP mechanism as a method of project execution.</p> <p>Supreme Decree 054/13: special provisions for execution of administrative procedures - PPP.</p> <p>Directive 004/09 (Proinversión): process and evaluation of private initiatives in investment projects.</p>	<p>Awarding Authority: all public sector non-financial entities (4).</p> <p>PPP Unit: <b>Agency of Private Investment Promotion (Proinversión)</b>, in charge of regulation, direction of policies and training for other public authorities, promotion of PPPs, technical support in project implementation and assignment.</p> <p>Agencies that regulate PPPs: Osiptel, telecommunications; Osinergmin, energy; Sunass, water and sanitation; and Ositran, transportation.</p> <p>National system of Private Investment Promotion: the Ministry of Economy and Finance, the General Office of Private Investment Promotion Policy (DGPIIP) and the specialized team in investment supervision, Proinversión, regional and local governments, the regulatory bodies of specific sectors and other public entities and agencies.</p>

	LAW ON PUBLIC-PRIVATE PARTNERSHIPS (PPP) / LAW ON CONCESSIONS	PRINCIPAL AGENTS (AWARDING AUTHORITY, PPP UNIT, ETC.)
<b>Dominican Republic</b>	<p><b>There is no PPP law .</b></p> <p><b>Law on concessions:</b> Law 340/06 (Law on Purchases and Contracting of Goods, Services, Works and Concessions), amended by Law 446 with the objective of excluding concessions from the purview of Law 340/06 in order to be regulated by a different regulation still pending approval.</p> <p>There are special regulations for the telecommunications and port sectors.</p> <p>The Law on Concessions allows unsolicited proposals (art. 33).</p>	<p>Awarding Authority: general management council on public purchasing; operative units of the central government, financially decentralized autonomous institutions, public social security institutions, municipal councils, the Federal District and financial and non-financial companies.</p> <p><b>There is no PPP Unit.</b></p>
<b>Trinidad and Tobago</b>	<p>There is no PPP law, but there is a PPP policy (2012).</p> <p>Law on Public Procurement: Law 1/2015.</p>	<p>Awarding Authority: any ministry, state enterprise, public law organizations or other government agency (18).</p> <p>The <b>PPP Unit within the Ministry of Finance</b> is responsible for the development of policies, review of projects and work with recruitment agencies to launch PPPs.</p>
<b>Uruguay</b>	<p><b>Public-Private Partnership Law 18876/11</b>, and its <b>regulatory decrees 17/012, 208/012 and 251/015</b>. Allows PPPs in the areas of transportation, prisons, schools, health services, social housing, waste treatment and energy structures, while water and sanitation services are under the purview of State Sanitation Works monopoly (6).</p> <p>Includes unsolicited proposals.</p>	<p>Awarding Authority: depends on the type of project. For example, the Ministry of transport and public works is responsible for transportation-related projects.</p> <p>PPP Unit: <b>Public-Private Partnership Projects Unit (7)</b>.</p> <p>Other important agents are the Office of Planning and Budget (assesses financial viability of PPP projects), the National Development Corporation (promotion of PPPs, development of technical guides, provision of consulting during selection process, structuring and contracting of PPP projects) and the agency for the promotion of exports and investment in Uruguay XXI.</p>

## ANNEX 2 CLARIFICATIONS

(1) Responsibilities: approval of PPP projects and contracts; authorization for opening tender processes; definition of high-priority services that must be provided within the framework of the PPP; definition of the criteria to analyze the suitability and timeliness of contracts; establishment of the procedures for awarding contracts; authorization to initiate tender process and approval of tender documentation; approval of PPP plan and the monitoring and assessment of its application; review of contract adherence report; drafting of standardized tender documentation and PPP contract examples; authorization for the use of the resources from the Public Private Partnership Fund to guarantee government financial obligations.

(2) Ministry of Finance and Planning.

(3) For projects related to public infrastructure/public services the state must supply, applied research and/or technological innovation projects, as well as PPPs that do not involve investment components.

(4) According to PPP Law: (i) Agency for Private Investment Promotion (Proinversión) for multifaceted state projects of national significance, projects involving investments of more than 15,000 UIT, private or state projects developed on national assets, self-financed national private initiatives, co-financed private initiatives; (II) Special Investment Committee of each ministry for projects not in the purview of Reinvestment, and (III) local and regional government committees in the case of regional or local projects.

(5) Promotes investments in two major areas: large-scale for national development through national public-private partnerships (NPPP) and small- and medium-scale projects considered priority for local and regional development for improving quality of life of Hondurans through local public-private partnerships (LPPPs).

(6) In no case may contracts include the provision of educational services in the case of education establishments, health services in the case of health centers or security services, sanitation assistance or re-education of prison inmates or state services and activities granted by law in monopoly to the state that are excluded from public-private contracting.

(7) Their functions include risk assessment and performance of the cost-benefit analysis value for money to determine the suitability of a project; verification of compliance with budgetary aspects, review of tender documentation, the suitability of offers tendered and provisional awards in relation to the previously defined project model.

(8) The final authority when it comes to the technical and financial viability of a project.

(9) It reports to the Deputy Minister of Investment and Competition of the Ministry of Economy and is financed with the support of the IDB Support Program for Strategic Investment and Productive Transformation.



(10) Concessions require approval of both chambers of the legislature and an executive decree. The decision-making processes and negotiations are controlled by different governmental departments without a central unit that advises or supervises PPP contracting, with PPP approval done through a long process without a standardized framework.

(11) Herbert Smith Freehills (2016), “Argentina Passes to Public-Private Partnership.” Available at: <https://www.herbertsmithfreehills.com/latest-thinking/argentina-passes-a-public-private-partnership-law> Harris Gomez Group (2017), “Argentina: Public-Private Partnership Regime Overview.” Available at: <http://www.hgomezgroup.com/2017/03/17/argentina-public-private-partnership-regime-overview> Veramendi, E. V., “Public-Private Partnership Contracts Bill”, Marval Or’ Farrell Mairal. Available at: <http://doingbusinessinarg.com/public-private-partnership-contracts-bill/>

(12) «El reglamento de la Ley APP dispone parámetros para proyectos,» El Telégrafo, May 25, 2016. Available at: <http://www.eltelegrafo.com.ec/noticias/economia/8/el-regulation-of-the-law-app-arrange-parameter-for-projects>.

(13) Responsible for the coordination and articulation of policies and regulations, as well as general orientation of the process of project approval through the adoption of principles such as fiscal sustainability, the appropriate allocation of risks and an adequate quality-price relationship.

(14) Central America Data, “Asociación Público-Private.” Available at: [http://www.centralamericadata.com/es/search?q1=content\\_es\\_le:%22asociaci%C3%B3n+p%C3%BAblica-privado%22&q2=mattersInCountry\\_es\\_le:%22Nicaragua%22](http://www.centralamericadata.com/es/search?q1=content_es_le:%22asociaci%C3%B3n+p%C3%BAblica-privado%22&q2=mattersInCountry_es_le:%22Nicaragua%22)

Or. Gow, and L. Brockmann (2017), “Nicaragua: Law on Public-Private Partnership in Nicaragua”, Mondaq. Available at: <http://www.mondaq.com/x/536418/Government+Contracts+Procurement+PPP/Ley+de+Asociacin+Pblico+Privada+en+Nicar>

(15) The General Office of Public Investments of the Ministry of Property and Public Credit of Nicaragua supports institutions that contract with the state to structure and develop PPP projects.

(16) In charge of facilitating coordination between institutions and alliances between the public and private sectors, and civil society and academia.

(17) The cabinet must approve all projects twice: once before entering the tender process and again before signing of final contract.

(18) The law also requires that potential PPPs require a minimum investment of USD 10 million and guarantee legislative approval before proceeding.



# A3

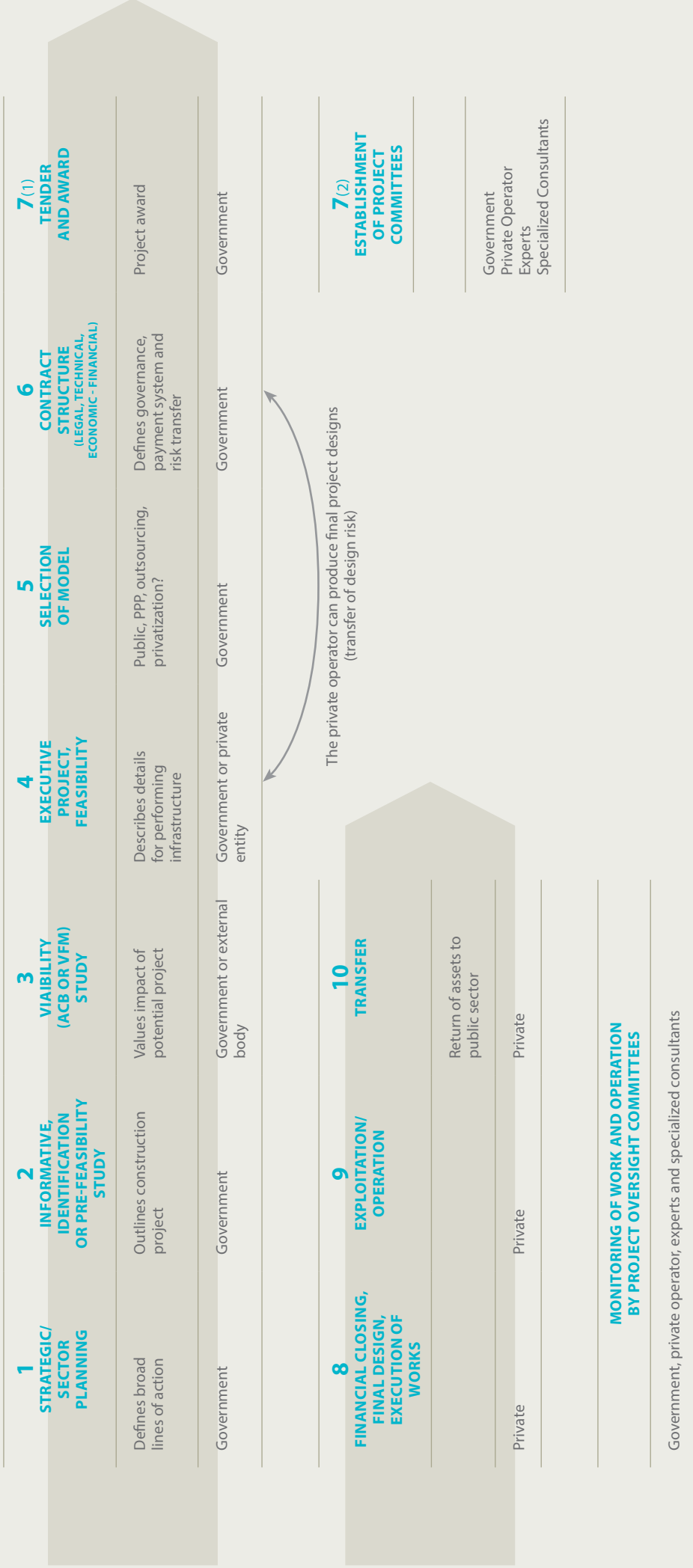
**Annex 3.  
PPP GUIDE  
SUMMARY SHEETS**

# SUMMARY SHEETS

**The following 11** sheets summarize the concepts examined in this guide. They can be used separately, as a aid to public officials in their first steps into PPP management concepts. However, we recommend using the guide and related publications (see “References”) as support documents to get a deeper and broader view of the topics approached.

- 1) Sheet 1 presents the **life cycle linked to a PPP**, from PPP planning to asset transfer upon contract completion.
- 2) Sheet 2 defines **what a PPP is**, when they should be used and why it is advisable to implement them.
- 3) Sheet 3 presents the different **types of tenders** in which a PPP can participate, including what steps to be followed before submitting a tender and how to evaluate the submitted proposals.
- 4) Sheet 4 describes the existing **contractor payment systems** and points out the positive and negative elements of each.
- 5) Sheet 5 presents a detailed description of the different **financial instruments** a contractor can use to secure financing for the works and subsequent operation.
- 6) Sheet 6 reviews the **risks** a PPP involved in a PPP and examines the risk that each party should assume.
- 7) Sheet 7 deals with **PPP governance** and shows what agencies should be in charge of governance, when they should be established and what functions they should perform.
- 8) Sheet 8 explores the concept of **renegotiation** and points out the reasons why renegotiations occur, their consequences and how to avoid the situations that lead to renegotiations.
- 9) Sheet 9 shows the **success conditions** for a PPP and the favorable setting where, in our opinion, PPPs should be implemented.
- 10) Sheet 10 compiles some of the **most common flaws of PPPs**, focusing particularly on six types.
- 11) Sheet 11 illustrates **smart urban settings**, how to obtain them and the urban management actions to implement.

# Life cycle linked to a PPP



## Public-private partnership (PPP): concept, motive and application

WHAT IS A PPP?	WHAT IS NOT A PPP?	TYPES OF PPP	PPPS FOR WHAT TYPES OF PROJECTS?
<p><b>Contractual PPP.</b> A project that normally combines design, construction, maintenance and financing of infrastructure, as well as operation of some public service. <b>Packaging of tasks or bundling.</b></p>	<p><b>It is not</b> outsourcing, because an outsourcing contract only affects one task and generally without risk transfer or financing.</p>	<ul style="list-style-type: none"> <li>• BOT</li> <li>• BOOT</li> <li>• D&amp;B</li> <li>• DBFO</li> <li>• DBFOT</li> <li>• DBFM</li> <li>• DBOM</li> <li>• DBM</li> <li>• Concession</li> </ul>	<p>For new works (<b>greenfield</b>): Construction and Operation. For existing works (<b>brownfield</b>): Exploitation / operation and maintenance.</p>
<p>An <b>institutional PPP</b> is a shared space between the public and private sectors, normally through the creation of a mixed private-public ownership companies.</p>	<p><b>It is NOT</b> a privatization because in that case the sale of a state-owned company to the private sector means that the latter undertakes both supply and production. And the public sector only intervenes through legal regulation.</p>	<p>B (<i>Building</i>), O (<i>Own or Operate</i>), T (<i>Transfer</i>), F (<i>Finance</i>), D (<i>Design</i>), M (<i>Manage</i>)</p>	<p>For <b>economic infrastructure</b> (roads, public transport, telecommunications, energy...) For <b>social facilities</b> (hospitals, schools, housing, water, prisons...) For implementation of <b>technological solutions</b> (sensors, smart lighting systems, data management...)</p>
PPP PROS		PPP CONS	WHEN TO USE A PPP?
<ol style="list-style-type: none"> <li>1. A private entity may feel encouraged <b>to be more efficient</b> because it can introduce monetary incentives.</li> <li>2. <b>Attraction of talent and technology</b> and transfer to the public sector.</li> <li>3. Can <b>improve selection of projects</b> in that PPPs must have a positive return on investment.</li> <li>4. Bundling leverages <b>economies of scale</b>.</li> <li>5. <b>Improves</b> private sector <b>accountability</b>.</li> <li>6. Allows for <b>comparison of results</b> with other non-PPP projects.</li> <li>7. Using private agents introduces <b>competition</b> in projects and incentivizes <b>lower costs for the public sector</b>.</li> </ol>	<ol style="list-style-type: none"> <li>1. <b>Loss of political control</b> over the project.</li> <li>2. Greater <b>capital costs</b>.</li> <li>3. Higher <b>transaction costs</b>.</li> <li>4. Risk of <b>inadequate distribution of risk</b>.</li> <li>5. Risk of <b>reduction of quality standards</b> of product or service.</li> <li>6. Use of PPP as a simple <b>instrument of accounting engineering</b>.</li> </ol>	<ol style="list-style-type: none"> <li>1. <b>Long-term</b> contracts associated with <b>heavy investment</b>.</li> <li>2. Possibility of leveraging <b>economies of scale</b>.</li> <li>3. When competition can <b>be introduced</b> in contractor selection.</li> <li>4. If <b>service or product quality</b> can be monitored.</li> <li>5. If <b>transaction costs</b> are low or lower than potential efficiency gains.</li> <li>6. When the risk can <b>be transferred</b> because the private party can insure it or has more capacity to manage it.</li> <li>7. When tasks <b>can be bundled</b> (leading to point 2).</li> <li>8. To implement <b>socially necessary infrastructure</b> that cannot be carried out due to budget constraints.</li> </ol>	

TYPE OF TENDER	DESCRIPTION	PROS	CONS
Open procedure	Competition open to all interested companies.	More transparency and competition.	Does not allow for preselection of interested parties.
Restricted procedure	Competition restricted to companies previously invited to participate.	Allows for potential preselection of interested parties.	Less competition and less transparency.
Negotiated procedure	Like restricted procedure, but with added possibility of negotiating proposals.	Allows for negotiation once company proposals are in.	Low competition and little transparency. Much public sector strength.
Competitive dialogue	Companies discuss project design with government before call to tender.	Incorporate business knowledge into tender process.	Long process (+2 years), but project ends up being more complete. Much public sector strength
Proposals from private sector	Companies submit projects to government.	Private entity carries out designs at own cost and risk, expanding areas where the public sector cannot reach due to budgetary constraints.	Risk of not being aligned with country objectives. Rules required to regulate processes (Chile, Peru, Colombia...).

### ESTUDIOS PREVIOS A LICITAR UN PROYECTO

Before drafting the construction project, it is advisable to assess project viability and value creation based on a preliminary informative study, such as:

1. **Cost - benefit analysis.** Methodology for estimating the costs and benefits associated with infrastructure construction, beyond the monetary ones. Benefits are defined as increases in people's wellbeing, and costs as reductions in it. According to this methodology, a project's social benefits should be greater than its social costs, where society is the sum of individuals.

2. **Value for money.** Methodology for calculating if a PPP will have a greater positive outcome for society than if other alternative provisioning procedures had been used.

### EVALUATION OF BID PROPOSALS

Different methods for assessing submitted tenders:

1. Price
2. Most advantageous economic offer
3. Investment recovery
4. Project completion time
5. Final user rates and fares
6. Solvent technical proposal

**Warning:** Too low a price may make project execution unviable and thus require renegotiation.

## Contractor payment systems

PAYMENT SYSTEM	DESCRIPTION	PROS	CONS
By availability	Private operator is paid to guarantee continuous service availability.	Allows control of service quality or performance through indicators.	Does not transfer demand risk. Low incentives after reducing costs, on account of quality requirements.
By usage	Private operator is paid based on number of users served. Users can pay this price directly ( <b>taxes or fees</b> ) or the government can ( <b>shadow-price</b> ).	Transfers demand risk. The capacity of private management must be known.	Poor design for meeting demand or how to deal with risk of inflation can render project unviable.
Cost-plus	Private operator is paid in accordance with costs incurred plus a predetermined rate of return.	Guarantees adaptation to contingencies.	Does not provide incentives for cost reduction.
Incentives	Private operator is paid a fixed amount and a variable payment based on certain objectives.	Distribution of risks between parties.	Any asymmetry of information may increase transaction costs (public sector has cost of overseeing private partner).
Fixed price	Private operator receives a fixed amount for service provision.	Incentives for cost reduction.	Incentives for reducing quality, which will require close oversight by public sector.
Capital gains	Private operator captures capital gains on land used for urbanized construction or associated advertising revenue.	The user does not pay.	Risk that projects arising from capital gains are not consistent with government planning.



## Financial instruments

INSTRUMENT	DESCRIPTION
Bank loans	A loan associated to the current activity of a business granted by a financial entity.
Syndicated loans	A loan granted by a group of financial entities for the current activity of a business.
Self-funding	The private party gets resources from its own funds or those of shareholders.
Multilateral banking and international financial institutions	A loan for specific projects, mainly targeted to developing countries.
Government aids	Economic aid associated to a specific project, which sometimes needs to be returned.
Corporate bonds	Debt issued on capital markets for project funding.
Bonds per project	Bond holders collect revenues from the company in charge of the PPP.
National banks	Loans for specific development projects backed by future transfers from the central government to local or regional administrations.

### WHAT IS AN SPV?

An SPV is an infrastructure concessionaire company that has specifically been established for a particular project and is controlled by one or multiple shareholders that contribute capital. The SPV secures financial resources such as debt either from banks (loans) or other financial institutions (bonds). In addition, this company hires specialty firms to perform tasks such as engineering, construction or maintenance.

### WHAT IS A PROJECT FINANCE SYSTEM?

By means of this financial technique, a company can become indebted using as collateral the cash flows generated by the project, which is legally and economically independent. Financing is provided by a special purpose vehicle (independent business) and is initially (construction) secured from capital contributed by the sponsor, to which subordinated debt and bank loans should be added. Subsequently, as the project risk decreases, bank loans are replaced by long-term bonds, so the sponsor can sell the capital to an infrastructure operator.

## Risk distribution

INSTRUMENT	DESCRIPTION	WHO ASSUMES THE RISK?
Expropriation or land-related	Land-acquisition related risk.	It is typically allocated to the government.
Design-related	Final project design related risk.	It is allocated to the private sector if the contract includes design; otherwise, it is allocated to the public sector.
Construction-related	Civil works-execution related risk.	It is typically allocated to the private sector. When high <b>geological risks</b> exist (tunnels), it can be split between both parties. The same applies to the <b>network interference risk</b> .
Operation-related	Infrastructure-performance related risk.	If there is no clear demand control, it is recommended that this risk be split between both parties.
Demand-related	Service use by citizens related risk.	It is typically allocated to the private sector, although the government can provide securities or guarantees to back the private sector in funds seeking.
Financial	Risk related to the obtention of economic resources for works execution and future works exploitation.	It is typically allocated to the private sector, although the government can provide securities or guarantees for the private sector to secure financing.
Inflation-related	Money-value change related risk.	It is typically split between both parties, foreseeing a price increase to mitigate inflation.
Exchange rate-related	Risk related to international currency exchange.	It is typically a private sector risk, but the government can reduce it by making part of the payments in foreign currency.
Political	Risk related to parliamentary or political changes.	It is typically assumed by the government.
Regulatory	Law-change related risk.	It is typically assumed by the government.
Environmental	Risk related to non-compliance with environmental regulations.	It is typically assumed by the private sector.
Social	Social-change risk.	It is typically assumed by the government.
Additional investments	Excess project costs-related risk.	It is a risk assumed by the party generating the excess cost.
Early contract termination	Risk related to the private party leaving the project.	It is a risk assumed by the party causing the early termination.

## PPP Governance

	AGENCIES	ROLE	COMPOSITION
Pre-APP	Planning agency*	Designs, evaluates and selects the projects before contract award.	Public agency.
	External committee*	Reviews the value creation evaluation.	Formed by experts who are external to the public sector, unrelated to the bidding companies, multidisciplinary (economists and engineers).
During APP		Issues the call for tender and contract for the project.	Public, formed by a multidisciplinary team (economists, engineers, lawyers...). Ideally, not under the supervision of the Public Works Department.
		Monitors works development, exploitation and quality. Writes the <b>Contract management manual</b> .	
	Steering committee	Makes works and operating strategic decisions.	PPP superintendency management and company management.
	Technical committee	Makes decisions regarding operation of works.	PPP superintendency and company technical experts.
	Independent experts*	Solve conflicts between the superintendency and the company, and review negotiations.	Formed by experts who are external to the government and unrelated to bidding companies, multidisciplinary (economists and lawyers)
Post-APP		Inspects asset upon delivery.	

\* These agencies can be created by an administrative body of a higher level and/or supported by multilateral organizations.

# Renegotiation

REASON	DESCRIPTION	CONSEQUENCES	HOW TO AVOID IT?
The project has not been technically closed	The construction project is not detailed enough to be performed correctly and has not foreseen all costs.	Design changes, increased costs, delayed work performance. Delayed revenue risk.	Political moments do not match technical moments. Need to strike a balance. Provide the necessary time to develop a good design.
The project has not been politically closed	The construction project is not supported by enough government parties or is rejected by neighbors.	Project performance risks.	Agree upon the project politically and with the community.
Too low an award	The winning bidder's price is too low.	Costs cannot be assumed. A higher price will be paid.	Do not accept a low quality bid, reckless prices or contract amendments (save for exceptions).
Inadequate economic resources	The operator cannot afford to fund the investment or the government cannot afford to pay the price.	The private party cannot afford to pay project costs.	Show proof of sufficient economic capacity before the tender. Creation of trusts.
Unmet demand forecasts	Demand is insufficient compared to demand levels provided for in the contract.	Project's financial unbalance that puts the PPP at risk of bankruptcy.	Write the project including good provisions and avoid putting the burden of the demand risk on the private party if it cannot manage it well (another option: availability-based risk).
<b>INSTRUMENTS TO AVOID RENEGOTIATIONS</b>			
1. Write a good construction project.		4. Capacity to reestablish the contract's economic equilibrium (by raising taxes or revising payment systems to contractor).	7. If applicable, restart the construction process (and cancel a portion of the contract) if renegotiation is not viable.
2. Issue a consistent tender: competent tenderers that are accountable for their submitted bids, avoiding low economic proposals.		5. Transparency during renegotiations.	
3. Detailed contract describing the potential for renegotiation and the applicable limits		6. Establishment of external agencies that will accompany PPP parties during renegotiation.	

## Success conditions

CONDITION	DESCRIPTION	IDEAL SETTING
Value generation	A PPP should create value for the private party, the government and citizens alike. This is why a detailed study should be conducted before setting up a PPP. Local authorities must submit a cost-benefit or value for money analysis to evaluate whether the project is worthwhile.	A robust legal framework in place that can guarantee the rights and duties of PPP participants.
Create a governance space	Transparency, openness and commitment between stakeholders are necessary conditions for a PPP to be successful. Public authorities should develop mechanisms to strengthen mutual trust between the agents, for their own benefit.	A stable political system upholding the agreements from previous governments and not terminating PPPs unilaterally.
Contract innovation and flexibility	Innovation is key to make public services more efficient. Contracts should be flexible enough for the concessionaire to innovate and obtain the highest benefits.	Training of public officials for them to acquire tools and knowledge for PPP management.
Externalities and effects of urban settings	Authorities should analyze all potential (positive and negative) externalities that a PPP can generate and find ways to enhance them (if they are positive) or mitigate them (if they are negative).	An open, competitive and attractive economic setting for investors.
Participation	Involving all project stakeholders is critical for the development of successful public-private partnerships. Local authorities can benefit from the private sector experience and their knowledge of the needs of citizens reported by the citizens themselves and the communities.	
Payment systems and new business models	In an urban context, local authorities should assess the possibility of implementing new payment systems different from subsidies and rates or fares paid by users when developing the project.	
Use of big data	Big data can offer an idea about citizen behavior and how to provide more profitable and effective services. Local governments should try to advance access to public data by private agents for service improvement purposes.	

## Some of the most common flaws of PPPs

TYPE OF FLAW	DESCRIPTION	POTENTIAL CONSEQUENCE
Project design	Poorly developed construction works design, including missing construction unit or when the proposal has not considered the difficulty arising from land expropriation, the impact on other works or services, the existence of archaeological findings, and geological or physical limitations.	The works may become more expensive as a result of unforeseen costs. Potential works performance delay.
Tender budget	The project budget has not included all project costs.	The works may become more expensive during execution. Potential economic viability risk for the building company as it needs to bear costs with no associated revenues.
Risk allocation	Poor risk allocation between the public and private sectors. Traditionally, risk allocation is favorable for the private sector to attract private investment for public projects.	Potential reduction of incentives to improve or maintain the works by the private operator, which may rise the price of infrastructure or decrease the quality of the associated service.
Role definition	The roles of the main actors involved in the PPP are not clearly defined. This applies both to the different levels of government and to the private actors that participate in infrastructure construction and operation, including external parties that may act as advisers to PPP members.	Possible lack of control of and follow-up on the works, which involves the risk of the works becoming more expensive or delayed based on an opportunistic behavior by the private party.
Economic-financial model	Poor design of the PPP's economic and financial model, where associated costs have not been included in full or where actual revenues are lower than revenue projections.	Potential project viability risk, which may involve the bankruptcy of the infrastructure construction or operating company, taking the works or services to a halt.
Project stakeholders' commitment	Some PPP partners (construction, operation or financial members) are not associated to the PPP along the full time provided for in their contracts.	Potential project continuity risk.

## Smart urban settings

### WHAT IS A SMART URBAN SETTING?

A smart urban setting can solve society challenges and needs, where technology can be a key vector for the development of solutions to meet citizens necessities.

### HOW TO ACHIEVE A SMART URBAN SETTING?

The key to a smart urban setting is smart governance, which consists of four elements.

### THE FOUR ELEMENTS OF SMART GOVERNANCE

#### Strategic urban planning

Thinking strategically means developing a structured process for the city that enables a definition of the type of city it would like to be.

#### Cooperation

The execution of strategic plans requires recognizing that cities cannot do everything by themselves.

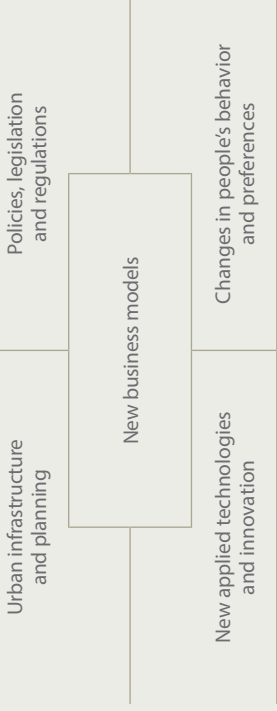
#### Openness and transparency

One of the most valuable assets a city has is the data that it generates and accumulates. Therefore, good data management is part of good governance.

#### New business models

One of the most striking economic phenomena in urban settings is the emergence of new business models. The "new" economies (collaborative, digital and green) give rise to unheard of business formats.

### SMART URBAN MANAGEMENT MODEL



New applied technologies and innovation

### HOW TO IMPLEMENT SMART GOVERNANCE?

Smart governance is reached by creating a new urban management model.

### WHAT TYPE OF COLLABORATION?

**Collaboration within the public sector** and the government itself (breaking silos??), with other higher- or lower-level administrations.  
**Collaboration with the private sector** for it to carry out the activities for which it has the highest levels of expertise or where it can contribute economic or technological resources.  
**Collaboration with citizens** for them to participate in the project design process, become aware of the award and construction processes, and take part in operating improvements.





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This publication is intended to help regional and local governments improve their understanding of Public-Private Partnerships by defining what a PPP is and what it is not; identifying assessment tools for the use of the PPP model compared to other possible formulas; and presenting best practices and lessons learned to meet the challenge posed by the process of structuring and managing a typical contract.