

A Guide to Guidance

Sourcebook for PPPs in TEN-Transport

epec
European PPP Expertise Centre

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A Guide to Guidance – Sourcebook for PPPs in TEN-Transport was prepared by EPEC in collaboration with a consultancy team led by Frontier Economics.

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European Commission

Introduction to

A Guide to Guidance

Sourcebook for PPPs in TEN-Transport

A well integrated and sustainable transport system for both people and goods remains a key policy objective for the European Union and essential for the future prosperity and the social welfare of Europe and its citizens. This is also the objective of the Trans European Transport Network (TEN-T) and progress towards completion of the network will contribute to the achievement of the Single Market.

The major transport projects necessary to complete the network are large and complex. We need to improve their planning, encourage innovation and promote new and sustainable financing arrangements. If we are to remove the bottlenecks, we need to draw on cutting edge expertise at the level of both the public and the private sector.

This is why the European Commission remains committed to exploring those opportunities that can come from a greater involvement of the private sector, in particular by increasing the role of public private partnership (PPPs). PPPs have already shown some good results in the past, but enhancing their delivery requires new expertise, capacity and knowledge in the public sector. For this reason, the Commission has been working together with the European Investment Bank through the European PPP Expertise Centre (EPEC) to promote the sharing of expertise and good practice necessary for the successful delivery of PPP programmes.

I am pleased to introduce the latest outcome of this cooperation. A Guide to Guidance – Sourcebook for PPPs in TEN-Transport.

In close cooperation, EPEC, the EIB, the EU Commission Services and the Member States have produced a document which I am confident will provide promoters with the means to access some of the best guidance currently available. In this way, the Guide to Guidance will complement the wider toolbox on PPPs that the European Commission has been developing in order to optimise the financing of transport infrastructure projects.

I hope you will find the Guide to Guidance useful and I invite you to discuss it with colleagues from the TEN-T Executive Agency and EPEC.

Siim Kallas
Vice President of the European Commission

How to use the Guide

The Guide can be used in a number of ways. For example:

- As a broad guide to procurement and implementation issues in PPPs;
- As an introduction to the information to be requested from PPP advisers;
- As a starting point to learn more about specific aspects of PPP design.

Because it has been designed as a good practice sourcebook, the value of the Guide ultimately depends on the value of the information sources provided in it. These sources are indicated in the Guidance box at the end of each step. They contain the title of the publication, its author(s), date of publication and a brief paragraph explaining the topics covered in the publication.

For example:

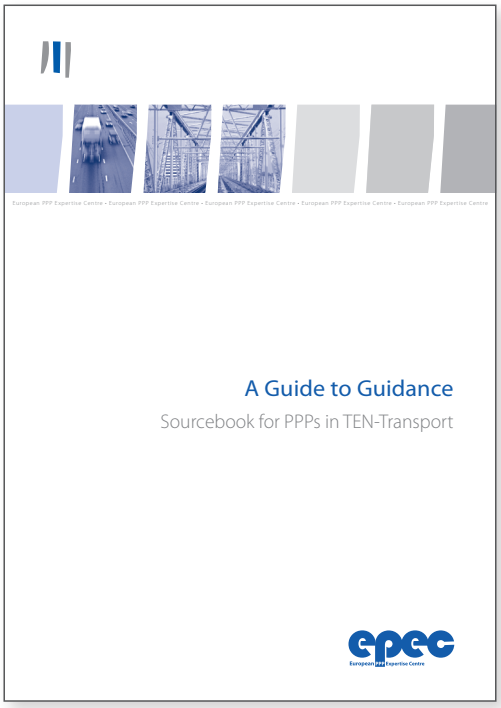
Reference number | **Publication title** | **Author and date**

(1) *Guidelines for Successful Public Private Partnerships*,
European Commission, Directorate General Regional Policy (March 2003).
→ Section 2, part 3 (pages 50–55) contains a brief description of the main sources of risk in a PPP project and its financial implications.
http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf

Internet link | **Source description**

All sources have a reference number to guide the reader to further information about the issue discussed in the text. This is done by using the symbol "**>**" next to the relevant reference number.

Most sources relate to existing PPP guidelines or public policy material which can be accessed via the internet. In those cases, the references include the internet link address, as shown above. For publications, such as printed books, or other published material that cannot be accessed via the internet, the source description includes the ISBN details.



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1 Introduction

1.1 Objective and background

This *Guide to Guidance* (the Guide) has been primarily designed to assist public officials responsible for trans-European transport network (TEN-T) projects to improve their understanding of the key issues and procedures involved in the procurement of TEN-T projects with PPP (Public Private Partnerships) arrangements.

A PPP arrangement differs from conventional public procurement in several respects. In a PPP arrangement the public and private sectors collaborate to deliver public infrastructure projects – such as roads, railways, airports, etc. – which typically share the following features:

- A long-term PPP contract between a public contracting authority and a private sector PPP company based on the procurement of services, not of assets.
- The transfer of certain project risks to the private sector, notably in the areas of design, build, operations and finance.
- A focus on the specification of project outputs rather than project inputs, taking account of the "whole life cycle" implications for the project.
- The application of private financing (often 'project financing') to underpin the risks transferred to the private sector.
- Payments to the private sector which reflect the services delivered. The PPP company may be paid either by users (e.g. toll motorway); by the public contracting authority (e.g. availability payments, shadow tolls); or by a combination of both (e.g. low user charges together with operating public subsidies).

The rationale for using a PPP arrangement instead of conventional public procurement rests on the proposition that optimal risk sharing with the private partner delivers better Value for Money for the public sector.

PPP arrangements are, however, more complex than conventional public procurement. They require detailed project preparation and planning, proper management of the procurement phase to incentivise competition among bidders. They also require careful contract design to set service standards, allocate risks and reach an acceptable balance between commercial risks and returns. These features require skills in the public sector which are not typically called for in conventional procurement.

This Guide seeks to identify the "best of breed" guidance currently available from PPP guidelines worldwide and selected professional publications. By providing a sourcebook of good PPP practice, it is designed to help public officials address the challenges of PPPs.

The need for well-structured PPPs has never been greater. EU Member States and the European Commission have placed emphasis on the need to accelerate investments in infrastructure, notably investments in TEN-T

projects, by mobilising public and private sector finance through PPP arrangements as part of a strategy to address the economic downturn.[1]

This Guide has a particular focus on TEN-T. Issues of particular relevance to TEN-T are italicized in blue text boxes. Where guidance particularly relevant to these issues exists, this is identified. However, in some cases, the available guidance is insufficiently specific to deal with such issues. In this case, the public authority should seek advice from suitably qualified advisors.

The policy objective of TEN-T is the establishment of a single, multimodal network covering both traditional ground-based structures and equipment (including intelligent transport systems) to enable safe and efficient traffic across the EU and support the European internal market. The transport infrastructure components of TEN-T are road, rail and inland waterway networks, motorways of the sea, seaports and inland waterway ports, airports and other interconnection points between modal networks.[2] While the investment needs of the TEN-T network are high, many of the principles involved in applying for PPP funding will be applicable to other sectors, and experience gained elsewhere will be applicable to the TEN-T network.

Notwithstanding, a high proportion of TEN-T projects will have features which will make more complex their delivery as PPP projects than as conventionally procured projects. For example:

- *Technology risks in complex communication systems (e.g. for rail, aerospace); or*
- *Interface risks related to the interplay of particularly complex services (e.g. signaling, maintenance, operations, and communications in rail projects); or*
- *Counterparty risks in cross border projects.*

The rest of this introductory chapter summarises the legal and regulatory framework for PPPs in the EU, describes the intended audience for the Guide, summarises the contents of the document, and explains the structure of the four core chapters (Chapters 2 to 5) with indications of how best to use the Guide.

[1] See Commission Communication: COM(2009) 615 of 19 November 2009, *Mobilising private and public investment for recovery and long term structural change: developing Public Private Partnerships* http://www.eib.org/epec/infocentre/documents/Commission%20Communication%20on%20PPP-en.pdf

[2] Access http://ec.europa.eu/transport/infrastructure/tent_policy_review/tent_policy_review_en.htm for policy documentation about TEN-T

1.2 A note on legal frameworks for PPP

The term "public-private partnership" (PPP) is not defined in the EU legislation on public contracts. In general, it refers to forms of co-operation between public authorities and the private sector which aim at ensuring the funding, construction, renovation, management and maintenance of infrastructure associated with the provision of a service.[3]

A legal and regulatory framework that supports PPPs is meant to facilitate investments in complex and long-term PPP arrangements, reduce transaction costs, ensure appropriate regulatory controls, and provide legal and economic mechanisms to enable the resolution of contract disputes.

The design of PPP legal frameworks varies across EU countries depending on legal tradition and existing laws. A PPP legal framework should include:[4]

- *Provisions that make the PPP project possible and facilitate its functioning* (for example, the legal right to establish a project company; or the terms and conditions under which public assets may be transferred to non-public entities; or the power of the project company to choose sub-contractors on its own terms, etc.); and
- *Provisions that enable governments to provide financing, where relevant* (for example, to provide subsidies or to make long-term commitments of public expenditure for the life of the PPP contract).

A PPP legal framework is typically identified in laws and regulations, but also in policy documents, guidance notes, and in the design of PPP contracts. The exact nature of the legal and regulatory framework applicable to a particular PPP transaction also depends, among others, on the financing mechanisms contemplated and the scope of responsibilities transferred to the PPP company. **These are issues on which the public sector should always secure advice from suitably qualified advisors.**

Country legal traditions

Most countries in Europe have a legal tradition based on civil law. Their law derives from a set of written rules or a civil code. By contrast, in common law jurisdictions such as England and Wales, Ireland and Gibraltar, it is the common law (meaning case law and precedents rather than a civil code) which forms the fundamental basis of all commercial transactions, and from which the principles underpinning the allocation of risk have developed.

PPP arrangements in many civil law countries are governed by administrative law. Administrative law sets out fundamental principles which, in many cases, cannot be derogated from or overridden by agreement of the parties. As

[3] Green Paper on Public-Private Partnerships and Community Law on Public Contracts and Concessions, COM(2004)327 Final, European Commission (2004), Brussels.
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2004:0327:FIN:EN:PDF
[4] See chapter 10 of *Transport Infrastructure Investments: Options for Efficiency,* OECD (2008). ISBN 978-92-821-01551-1

such, it provides the framework within which PPP contracts must be negotiated[5].

Common law and civil law jurisdictions have distinct approaches to many issues relevant to PPPs. Differences also exist among civil law countries. It is not possible to explore here all European jurisdictions and we will instead highlight only some of the main aspects that could be particularly important.

In many civil law countries a number of the rights implied by law are relevant to PPPs. A public authority may often be unable to renounce a right conferred upon it by the body of administrative laws and regulations that govern it. This can be perceived by the private party as a limitation to negotiations of bespoke PPP contracts. These rights may include the right of a contracting authority unilaterally to cancel a contract early, the right of an operator to compensation following an unexpected rise in the cost of operations, or the right of an authority to make unilateral changes to the contract if they are in the public interest. Some civil law jurisdictions also contain mandatory notice periods which must be observed before termination for breach of contract (by either party) can be invoked. In certain civil law jurisdictions, direct agreements or step-in rights are not possible or if they are, they are limited in scope and reach by the existing administrative laws and regulations[6].

Different approaches are also adopted towards security and insolvency in civil and common law jurisdictions. In insolvency situations, the emphasis in common law jurisdictions is on rescue and reorganisation. In contrast in civil law jurisdictions, the insolvency process focuses on winding companies up. In relation to security, which generally forms an important part of PPP arrangements, the concept of trusts in common law jurisdictions allows a security trustee to hold security on behalf of lenders. This avoids the civil law practice of granting security separately to all lenders, and re-registering it if they change, which can be costly and impractical.

A further practical issue in some civil law jurisdictions is that concessions are not allowed to be transferred to a replacement concessionaire without going through the whole re-tendering process. This is the case for example in Slovakia, and causes major issues for any project lenders who may need step in and cure rights, which is a fundamental principle of project finance. This issue can be partially addressed by allowing for the transfer of the shares in the concessionaire, but with the disadvantage that any transfer of shares carries with it the liabilities of the concessionaire and the asset of the concession.

In general, common law jurisdictions will have a less prescriptive approach to the structuring of PPPs than civil law jurisdictions but one has to ensure that both in substance and in terms of formalities public bodies exercise powers to enter into PPP contracts within the scope of their powers, particularly in the

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[5]World Bank Guidance on Legal Framework assessment, including a list of key issues in civil law countries that may impact PPP arrangements: http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTLAWJUSTICE/EXTINFRANDLAW/0,,contentMDK:21734392~menuPK:64860402~pagePK:4710368~piPK:64860384~theSitePK:4817374~isCURL:Y,00.html

[6] A number of these concepts are explained more fully in Annex 1 which deals with Project Finance.

case of authorities which are not departments of state (that is, part of central government). In addition, regard must be had to administrative (rather than legal requirements) imposed by Finance Ministries and to standard form documentation.

Specific PPP laws

Often in civil law countries, concession laws are introduced to enable PPP projects and to define the type of services that could be procured under PPPs. Specific PPP laws have been introduced in Belgium, Italy, Poland, Portugal and Spain, among others. These laws may focus on a specific transport mode, such as motorways, or may apply to PPP arrangements across transport modes and infrastructure sectors. When a country enacts a PPP law, it normally requires changes and references to other binding legislation and regulations.

A specific PPP law is not a necessary condition for PPP development. The legal framework can also be provided by changing existing legal provisions which may have an impact on the PPP project. For example, the UK has developed its pioneer PFI model with no PPP law, although specific legislation to confirm powers to enter into PPP contracts was introduced in the UK in respect of health service bodies and local authorities to address concerns expressed principally on behalf of funders. Nevertheless, PPP laws can establish fundamental principles that PPP arrangements should adhere to (for example, the need to assess Value for Money) and to ensure transparency and accountability in the provision of infrastructure.

EU legislation

Under EU law, there is no specific system governing PPPs. There is, however, EU legislation which is relevant to certain aspects of PPPs. For example, PPPs represent one method of public sector procurement. The EU has two procurement directives, the *Public Sector Directive* (2004/18/EC), which prescribes the procedures for the award of works contracts, public supply contracts and public service contracts; and the *Utilities Directive* (2004/17/EC), which prescribes procurement procedures for entities operating in the water, energy, transport and postal sectors. Furthermore, all contracts in which a public body awards work involving an economic activity to a third party, whether PPPs or not, must be examined in the light of the rules and principles of the EC Treaty, including, in particular, the principles of transparency, equal treatment, proportionality and mutual recognition.[7]

[7] *Communication on Public-Private Partnerships and Community Law on Public Procurement and Concessions* European Commission Communication COM(2005) 569 final (November 2005) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0569:FIN:EN:PDF

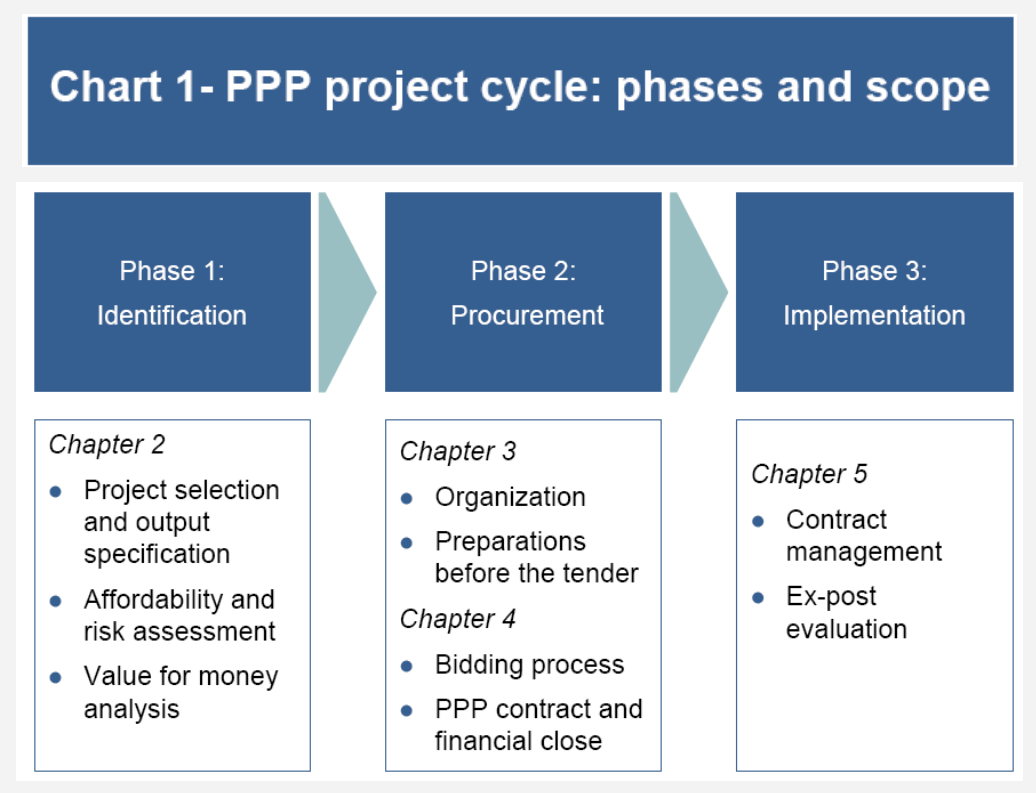
1.3 Readership

The Guide is primarily intended for public sector officials from EU Member States who are in charge of TEN-T projects and have knowledge and experience in conventional public procurement but who are not familiar with PPP arrangements. Users may find themselves at different stages of decision-making in the PPP project cycle. To illustrate this point consider the following hypothetical scenarios:

- **Scenario 1** – A TEN-T project proposal has been identified and initial pre-feasibility studies completed. The public contracting authority is considering whether to follow a PPP route and needs to compare PPP against other available procurement strategies to be able to select a preferred procurement option. The Guide suggests a number of sources of information to help the public sector authorities to do the necessary analysis to check if PPP is the preferred procurement option (Chapter 2). This analysis normally involves an ex ante comparison of a PPP with a notional conventionally funded project (a Public Sector Comparator). The following elements will usually be considered:
    - Affordability (i.e. the revenue consequences of the options);
    - Risk allocation (i.e. the risks that will be retained by the public sector under each option);
    - Value for Money (i.e. the cost and quality consequences of the options);
    - Bankability (i.e. the feasibility of securing private finance for the project under reasonable market conditions); and
    - Eurostat treatment of PPP projects (i.e. the impact of a PPP on the public authority's debt and deficit situation).
- **Scenario 2** - A public contracting authority is committed to develop a TEN-T project with a PPP arrangement but the public officials in charge of defining the project strategy have not been previously involved, or have little experience, with PPP procurement methods. They need to understand, among other things, what to expect in terms of how to seek expert advice, the steps required in the PPP project cycle, and how to engage with the private sector. The Guide provides a "road map" of all the steps that need to be taken in the procurement phase of the PPP cycle (Chapter 3 and Chapter 4).
- **Scenario 3** - A TEN-T PPP project is already under implementation and the PPP company proposes changes to the contract, which may impact its financial balance and the Value for Money rationale of the existing PPP arrangement, for example. The public sector officials in charge need to understand the impact of the proposed changes and what information to request from their advisers to be able to negotiate with the PPP company with a view to preserve Value for Money in the contract. The Guide covers the key issues that the public contracting authority needs to consider when renegotiating a PPP contract (Chapter 5).

1.4 Structure and contents

Chart 1 summarises the three key phases of the PPP project cycle. Throughout, its treatment of these phases, the Guide identifies sources from PPP guidelines or professional publications where readers can access further material.



The Guide has four core chapters and one annex. Chapters 2 to 5, the core chapters, cover the procurement and implementation phases of the PPP project cycle and have two stages each (see Table 1):

- Chapter 2 provides a summary of the main issues related to the identification phase of the PPP project cycle, including project selection, feasibility studies, affordability, risk allocation and Value for Money.
- Chapter 3 goes over the detailed preparation steps typically required before launching the public tender for the award of the PPP contract.
- Chapter 4 covers the procurement phase of the PPP cycle, including request for proposals, selection of preferred bidder, and financial close.
- Chapter 5 focuses on contract management issues (including changes to the contract, disputes, renegotiations, and termination) and ex-post evaluation.

The structure of the core chapters has the following features:

- For each stage shown in Table 1, the Guide identifies the *key steps* which the public contracting authority and its advisers need to take before moving to the next stage.
- The discussion of the *key steps* listed in the third column of Table 1 includes the rationale for the step, the key tasks involved and a list of publication sources to understand those tasks further.

Table 1. Core chapters: stages and steps

Chapters	Stages	Key steps
Chapter 2: **Project Identification**	2.1 - Project selection	- Identification - Output specifications
	2.2 - Assessment of PPP option	- Affordability - Risk allocation - Eurostat treatment - Bankability - Value for Money
Chapter 3: **Detailed preparation**	3.1 - Getting organised	- Project team - Advisory team - Plan and timetable
	3.2 - Before launching the tender	- Further studies - TEN-T funding - Detailed PPP design - Procurement method - Bid evaluation criteria - Draft PPP contract
Chapter 4: **Procurement**	4.1 - Bidding process	- Notice and prequalification - Invitation to tender - Interaction with bidders - Contract award
	4.2 - PPP contract and financial close	- Final PPP contract - Financial agreements - Financial close
Chapter 5: **Project implementation**	5.1 – Contract management	- Management responsibilities - Monitoring service outputs - Adjustments in the contract - Changes to the contract - Dispute resolution - Asset maintenance - Contract termination
	5.2 - Ex-post evaluation	- Institutional framework - Analytical framework

In addition:

- Some specific issues, for example traffic risks and payment mechanisms, or combining EU grants with private finance, are developed in more detail with *text boxes* because of their relevance to TEN-T PPPs and their fundamental role in the design of the PPP arrangements.
- At the end of each step, there is a *Guidance* box with references for further material on the issues discussed in that step (see section 1.6, *How to use the Guide*).
- *Checklists* are included at the end of each stage to remind the reader of the key tasks that have to be fulfilled before moving to the next stage.
- A *Summary* in the form of a chart is included at the end of each core chapter listing all the stages, steps and key tasks discussed in the chapter.

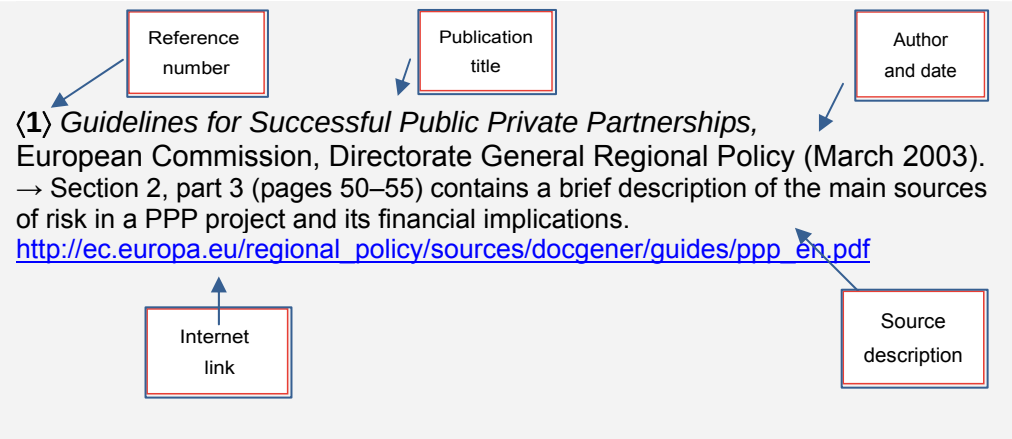
The Annex completes the Guide and covers the basics of project finance which are relevant to PPP projects in general.

1.5 How to use the Guide

The Guide can be used in a number of ways. For example:

- As a broad guide to procurement and implementation issues in PPPs;
- As an introduction to the information to be requested from PPP advisers;
- As a starting point to learn more about specific aspects of PPP design.

Because it has been designed as a good practice sourcebook, the value of the Guide ultimately depends on the value of the information sources provided in it. These sources are indicated in the *Guidance* box at the end of each step. They contain the title of the publication, its author(s), date of publication and a brief paragraph explaining the material covered in the publication. For example:



All sources have a reference number to guide the reader to further information about the issue discussed in the text. This is done by using the symbol "➤" next to the relevant reference number.

Reference numbers preceded by an asterisk (e.g. *⟨**4**⟩) signify a publication with a higher than average degree of complexity.

Most sources relate to existing PPP guidelines or public policy material which can be accessed via the internet. In those cases, the references include the internet link address, as shown above. For publications, such as printed books, or other published material that cannot be accessed via the internet, the source description includes the ISBN details.

1.5.1 Caveats

- In a rapidly changing environment, such as that characterised by infrastructure PPPs worldwide, new practices develop quickly making existing ones obsolete. In preparing the Guide, an effort has been made to review and recommend the most up to date PPP guidelines and documentation currently available.
- The Guide is written in English. Most of the PPP guidance currently available comes from countries such as Australia or the United Kingdom, for example – which have an extensive PPP experience – or from

international organisations, such as the World Bank, whose institutional mandate includes the gathering of best practice worldwide. In the case of the latter, although the language of the guidance is English, the content draws on experience from non-English speaking countries and therefore such sources are applicable to a wider audience.

- The Guide also includes references to available PPP guidance material in non-English speaking European countries such as France, Germany, and Greece, for example. This Guide, however, only references the original language guidance source.
- **This Guide does not replace, to any extent or measure, the need for a public contracting authority to take professional advice from its legal, technical, financial, environmental and other advisers**. The Guide should, however, assist users in having a more productive dialogue with their advisers.

2 Project identification

Chapter 2 provides a brief summary of the main issues of the project identification phase, which takes place before the procurement phase (see Chart 1). The project identification phase is important because it determines whether the selected TEN-T project can (and whether it should) be delivered as a PPP instead of using conventional public procurement.➤⟨1⟩

Chapters 3, 4 and 5, which provide the main focus of the Guide, then cover in detail the procurement and implementation phases of the PPP project cycle.

2.1 Project selection

The ultimate objective of a project selection process is to ensure that it represents "*Value for Money*". Value for Money refers to the best available outcome for society taking account of all benefits, costs, and risks over the whole life of the project.➤⟨2⟩ A necessary condition for a project to represent Value for Money, irrespective of the procurement option chosen to deliver the project, is that the benefits to be derived from the project outweigh the costs. This is normally tested by undertaking a cost-benefit analysis of the project and its requirements.

A distinctive feature of PPP projects is that their requirements are defined in terms of *outputs* rather than *inputs*. Conventional project procurement has usually focused on inputs. In this regard, PPPs involve fundamental changes in the way projects are prepared and in the information that the public contracting authority needs to provide to private sector investors. While the typical set of feasibility studies used in the public procurement of transport projects focus on inputs, PPP projects demand a clear set of output requirements and service quality standards which are reflected in the PPP contract (see step 3.2.6, *Prepare draft PPP contract*).

In the project selection step, the public contracting authority and its advisers will review alternative project definitions in the context of a PPP policy, sometimes following guidelines that the public sector will use to assess all PPP projects. These guidelines normally specify who approves what and when throughout the process of project selection, preparation, and procurement.

Once a project specification is selected, the public contracting authority and its advisers will undertake feasibility analyses and project preparation, including traffic demand analysis, cost analysis and a preliminary environmental assessment of the potential impacts of the project.

In the project identification phase, and in order to consider the PPP procurement option, the public authority and its advisers need to answer a set of key questions:

- Is the project *affordable*? Will users or the government, or both, pay for the project? How will they pay? (user charges, operating subsidies, EU grants, government guarantees, etc.).

- What are the key *sources of risk* in the proposed project? What is the optimal risk allocation and risk management strategy?
- What are the *financing sources* for the proposed project? Will the project be *bankable* (capable of raising debt finance) and attract investors and comply with the requisites for EU funding?
- Even if the project is affordable and bankable, does the project represent *Value for Money*?
- For many countries, the issue of the balance sheet treatment of the project (ie will it score as a public sector investment for purposes of the Debt and Deficit Procedure) is also important.

Stage 2.1 identifies a list of issues and considerations for the attention of the public authority and its advisers. It does not however offer a comprehensive catalogue of recommendations, as the assessment of the PPP choice will be dependent on the specific situation of each country, notably in terms of legal and institutional context. The TEN-T Executive Agency, DG MOVE and EPEC may develop these considerations and provide more tailored guidance in a future document.

2.2 Assessment of PPP option

Affordability

Affordability relates to capacity to pay for building, operating and maintaining the TEN-T project, be it capacity to pay by users of the infrastructure services or by the government that has identified the need for the infrastructure asset to be built.

An affordability assessment requires a careful analysis of the expected operating and maintenance costs of the TEN-T project, together with the levels of cash flow required to repay the loans and provide a return to investors. The financial and technical advisers will develop a financial model to assess alternatives in terms of a range of capital, operating, and maintenance cost estimates, appropriate cost escalation indexes, and assumed financing structure and preliminary contract terms. At the pre-feasibility stage, the financial model is developed at a fairly high level. It is later on, at the feasibility stage and when PPP arrangement is designed in detail, that the financial model is further developed and refined. (see step 3.2.3, *Prepare detailed design of the PPP arrangement*).

The assessment of costs translates into an estimate of the required revenues to meet those costs:

- In PPPs where users pay directly for the service (so-called *revenue-based PPPs*), the public contracting authority and its advisers need to examine the capacity and willingness of users to pay, especially if tariffs need to be increased from current levels to meet revenue cash-flow targets. In many PPPs, the public sector will need to subsidise the service in order to make it affordable. The use of public subsidies can

impact the Value for Money of a PPP arrangement requiring that the net life-cycle efficiency savings from the PPP option be large enough to compensate for the use of public funds.

- In PPPs where the public contracting authority makes the payments (so-called *availability-based PPPs*), assessment of affordability is a key consideration in the design of the project. The public contracting authority will enter into payment obligations over the life of the PPP contract, which represents long-term commitments by government, lenders and investors and can influence the design of the project and its Value for Money proposition. Sometimes, options may need to be examined that combine direct fees from users with government service payments or that contribute existing government assets to the project.

Thus, affordability relates not only to the financial balance of the PPP arrangement, but also to government expenditure items in general. A TEN-T project is considered to be affordable if government expenditure associated with it, whether it is via PPP or via conventional public procurement, can be accommodated within the inter-temporal budget limit of the government.

Risk allocation

Achieving the Value for Money that justifies the PPP option also depends on the ability to identify, analyse and allocate project risks adequately. Failure to do so translates into financial costs. Thus, at the project identification stage, in addition to assessing the sources of revenue linked with the affordability of the project, the public contracting authority and its advisers need to establish a broad assessment of the risks that arise from the project requirements in order to manage them. Risk management is an ongoing process which continues throughout the life of a PPP project. It takes place in five stages: ➤⟨3⟩, ⟨4⟩

- *Risk identification.* The process of identifying all the risks relevant to the project.
- *Risk assessment.* Determining the likelihood of identified risks materialising and the magnitude of their consequences if they do materialise.
- *Risk allocation.* Allocating responsibility for dealing with the consequences of each risk to one of the parties to the contract, or agreeing to deal with the risk through a specified mechanism which may involve sharing the risk.
- *Risk mitigation.* Attempting to reduce the likelihood of the risk occurring and the degree of its consequences for the risk-taker.
- *Monitoring and review.* Monitoring and reviewing identified risks and new risks as the PPP project develops and its environment changes, with new risks to be assessed, allocated, mitigated and monitored. This process continues during the life of the PPP contract.

Broadly speaking, PPP project risks can be divided into commercial risk and legal and political risks:➤⟨5⟩.

Project identification

- *Commercial risk* can be divided into supply and demand risks. Supply risk concerns mainly the ability of the PPP company to deliver. Supply risk can be sub-divided into construction risk and supply-side operation risk (where construction and operation constitute the two phases of the project). Construction and supply-side operation risks include financial market risk due to, for example, changes in the cost of capital or changes in exchange rates and inflation. Demand risk relates to insufficient traffic volumes or a traffic composition not in line with base case assumptions.

- *Legal and political risks* relate to, among other factors, the legal framework, dispute resolution, the regulatory framework, government policy, taxation, expropriation and nationalisation.

In general, the private sector is better placed to assume commercial risk while the public sector is better placed to assume legal and political risk.

If government guarantees are envisaged, the public contracting authority and its advisers need to assess the impact of the risk allocation on the cost of the guarantee and its future implications on public finances before granting the guarantee. ➤⟨6⟩

Bankability

A PPP project is considered "bankable" if lenders are willing to finance it – and this generally means on a project finance basis.➤⟨7⟩

The majority of third-party funding for PPP projects normally consists of long-term debt finance, which typically varies from 70 percent to as much as 90 percent of the total funding requirement (for example, in a PFI-model PPP), depending on the perceived risks of the project. Debt is a cheaper source of funding than equity, as it carries relatively less risk. Lending to PPP projects (usually referred to as project financing or limited-recourse financing) looks to the cash flow of the project as the principal source of security (see the Annex for an introduction to project finance issues as they apply to TEN-T PPP projects).

The public contracting authority and its advisers need to assess financial risks thoroughly. The financial risks experienced by transport PPPs projects tend to be related to some or all of the following factors:➤⟨8⟩

- Too much reliance on "best case" scenarios for revenue assumptions and on levels of demand from a poorly chosen "baseline" case;

- Lack of attention to financing needs in the project feasibility, which leads to larger amounts of debt in projects;

- Long-term PPP projects that are financed with short-term debt, coupled with a sometimes unjustified assumption that the short-term debt can be rolled over at the same or even better refinancing conditions;

- Floating rate debt that creates interest rate risk;

- Governments that do not consider the allocation of risks properly and ignore the incentives for strategic renegotiation; or

- Refinancing can also create unforeseen benefits for the private operator, in which the government might not share if the contract does not explicitly provide for this possibility. (see Box 6, *Sharing the gains from refinancing*).

Value for Money analysis

A PPP project yields *Value for Money* if it results in a net positive gain to society which is greater than that which could be achieved through any alternative procurement route (relative to doing no project). It is good practice to carry out a Value for Money analysis – essentially a cost-benefit analysis – as part of the initial preparation of a TEN-T project, regardless of whether it is procured conventionally or as a PPP.

In some countries like the UK, which have extensive PPP programmes, a PPP project is said to achieve Value for Money if it costs less than the best realistic *public sector* project alternative (often a hypothetical project) which would deliver the same (or very similar) services.➤⟨9⟩ This public sector alternative is often referred to as the *public sector comparator* (PSC).

Carrying out a PSC exercise is part of building the business case for a PPP project and it is a legal requirement in many PPP programmes worldwide. Advisers need to make various cost adjustments to be able to do a detailed quantitative comparison between the PPP project and the PSC. These cost adjustments include differences in tax regime, for example.

It is generally assumed that the PPP option will be more efficient in investment, operating and maintenance costs than the PSC. So the key question in assessing Value for Money is usually whether the greater efficiency of the PPP project is likely to outweigh factors that might make the PPP more costly – the main ones being *transaction and contract oversight costs* (additional bidding, contracting, and monitoring costs in a PPP setting) and *financing costs* (possible added costs due to private sector financing, especially equity financing).➤⟨10⟩,⟨11⟩,⟨12⟩

Experience suggests that the likelihood that a PPP provides Value for Money is higher when all or most of the following exist:➤⟨2⟩

- There is a major investment programme, requiring effective management of risks associated with construction and delivery; this may be a single major project or a series of replicable smaller projects;
- The private sector has the expertise to design and implement the project and is expected to offer Value for Money;
- The public sector is able to define its service needs as outputs, which can be written in the PPP contract ensuring effective and accountable delivery of transport infrastructure services in the long run;
- Risk allocation between the public and private sectors can be clearly identified and implemented;
- It is possible to estimate the long-term costs on a whole-of-life basis of providing the transport infrastructure assets and services involved;

- The value of the project is sufficiently large to ensure that procurement costs are not disproportionate; or
- The technological aspects of the project are reasonably stable and not susceptible to short term and sudden changes.

The project identification phase therefore involves an early assessment of what payment structure is feasible, what the government or the users can afford to pay (and when), the impact on the project scope, service level, structure, and the associated risks the private sector might be prepared to accept. This exercise should help the public sector to identify and manage any long-term fiscal obligations – implicit and explicit – that may result from a TEN-T PPP.

Debt and deficit treatment of PPPs by Eurostat

In challenging times for public finances, the national debt and deficit treatment of a PPP is always likely to be a critical issue from the perspectives of the public contracting authority and government. The reason for this is that, given the economic convergence criteria in the *Stability and Growth Pact*[8] and the mandatory requirements of the *Excessive Deficit Procedure*, EU governments are concerned that they may be prevented from going ahead with an economically worthwhile PPP because of its 'debt and deficit' treatment.

Eurostat requires that the debt and deficit treatment follows the requirements of the European System of Accounts (ESA95), which is mandated by a Council Regulation. ➤⟨13⟩

Eurostat has issued several interpretations of ESA95, including a *Manual on Government Deficit and Debt* (MGDD). ➤⟨14⟩

For the purposes of recording PPPs, ESA 95 requires national statisticians to look at the balance of risk and reward in the underlying PPP arrangement. Such balance is judged by analysing the allocation of two key risk categories: construction risks and market risks (i.e. availability and demand) between government and the private sector (the PPP company):

- **Construction risk** covers events related to the construction and completion of the PPP asset(s). In practice, it is related to events such as late delivery, non-compliance with specified standards, significant additional costs, technical deficiency, and external negative effects (including environmental risk) which trigger compensation payments to third parties;
- **Availability risk** covers situations where, during the PPP operational phase, underperformance resulting from the state of asset results in services being partial or wholly unavailable, or where these services fail to meet the quality standards specified in the PPP contract;

[8] A criterion is that the ratio of government deficit to gross domestic product must not exceed 3% and the ratio of government debt to gross domestic product must not exceed 60%. See http://europa.eu/scadplus/glossary/convergence_criteria_en.htm.

- **Demand risk** relates to the variability of demand (higher or lower than expected when the PPP contract was signed) irrespective of the performance of the PPP company. Such a change in demand should be the consequence of factors such as the business cycle, new market trends, a change in final users' preferences, or technological obsolescence. This is part of the usual "economic risk" borne by private businesses in a market economy (see Box 3 *Traffic revenue risk allocation*).

Table 2 illustrates the combinations of risk allocation between government and private sector (the PPP company) which result in the PPP being classified "on" or "off" the government's balance sheet.

Table 2. Accounting treatment of a PPP according to ESA95 rules

RISK TYPE	WHO BEARS THE RISK?							
Construction risk	Government				Private			
Demand risk	Government		Private		Government		Private	
Availability risk	Gov.	Priv.	Gov.	Priv.	Gov.	Priv.	Gov.	Priv.
"On" or "off" government balance sheet?	***ON***	***ON***	***ON***	***ON***	***ON***	***OFF***	***OFF***	***OFF***

Thus, the conclusions from Table 2 are:

- If the government bears the construction risk, the PPP will always be on the government's balance sheet irrespective of the allocation of the demand and availability risks.
- If the private partner bears the construction risk, the PPP will be classified off the government's balance sheet unless the government bears both demand *and* availability risk.

Thus, it is important for the public contracting authority and its advisers to be aware that the risk allocation which they agree to in the PPP contract can have a direct influence on the treatment of the PPP arrangement for the purpose of its impact on the national debt and deficit.

In addition to the key risks in Table 2, *Eurostat* also takes into consideration other ways through which governments get involved in PPP arrangements. Again, where such ways influence risk allocation, they may affect the debt and deficit treatment of PPPs. Ways in which a government may become involved in PPP arrangements include: government financing, government guarantees, and contract termination clauses which involve financial compensation by the government. The impact on the treatment of PPPs of

such government financial involvement depends on a careful interpretation of several features including the transfer of risks and rewards that takes place and the degree of government control over the underlying PPP asset. ➤⟨15⟩

In case of doubts regarding the appropriate statistical treatment for a PPP arrangement, a Member State statistical authority can request advice from *Eurostat* on a past (ex post) or future (ex ante) PPP project. *Eurostat* has established specific administrative rules for the provision of ex-ante advice. ➤⟨16⟩

Guidance

⟨**1**⟩ *Attracting Investors to African Public-Private Partnerships, A Project Preparation Guide,*
The World Bank/ICA/PPIAF (2009), ISBN 978-0-8213-7730-7.
→ Excellent PPP Guide prepared by Partnerships UK for the World Bank. Chapter 4 covers project selection, scope and requirements.

⟨**2**⟩ *An Introductory Guide to Public Private Partnerships (PPPs)*
Government of Hong Kong SAR, 2nd edition (March 2008)
→ Chapter 1 (pages 5–17) explain what circumstances are most suitable for a PPP arrangement and Annex D provides an outline of how to construct a PSC.
http://www.eu.gov.hk/english/psi/psi_guides/psi_guides_ppgpop/psi_guides_ppgpop.html#3

⟨**3**⟩ François Bergère et al., *Le Guide Opérationnel des PPP*
Le Moniteur, Third Edition (2010) ISBN 978-2-281-12718-8
→ Annex 5 (pages 239-249 and page 399) provides a detailed description of the analysis and distribution of risk in a PPP contract (risk identification, risk quantification and probability, generally using a Monte Carlo simulation, risk allocation). Pages pp 261-264 cover the accounting and statistical treatment of PPPs in French national accounts and *Eurostat* criteria.

⟨**4**⟩ *Partnership Victoria Guidance Material: Risk Allocation Guide,*
Infrastructure Australia (December 2008).
→ Part One (pages 1–38), deals with risk allocation principles.
http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

⟨**5**⟩ *Public-Private Partnerships – In Pursuit of Risk Sharing and Value for Money,*
OECD (2008), ISBN 978-92-64-04279-7.
→ Chapter 3 reviews affordability, risk allocation and Value for Money in PPPs while chapter 4 discusses how PPPs are treated in the public sector budget and accounts.

***⟨**6**⟩** Timothy Irwin, *Government Guarantees Allocating and Valuing Risks in privately Financed Infrastructure Projects,*
The World Bank, Washington DC, ISBN-10: 0-8213-6859-1 (electronic).
→ Comprehensive discussion on the use of government guarantees and the allocation of key project risks in public infrastructure projects with private financing.
http://siteresources.worldbank.org/INTSDNETWORK/Resources/Government_Guarantees.pdf

⟨**7**⟩ Graham Vinter, *Project Finance: A Legal Guide,*
Sweet and Maxwell Ltd. Third Edition (2006) ISBN: 0421-909501.
→ Chapter 6 presents a discussion of what lenders require for a project to be considered “bankable”.

⟨**8**⟩ Estache, A., E. Juan and L. Trujillo, *Public-Private Partnerships in Transport*,
Policy Research Working Paper 4436, The World Bank, Washington DC. (2007).
→ Provides a good review of PPP experience in transport with attention to the realisation of financial and other risks.
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1072402

⟨**9**⟩ *Value for Money Assessment Guidance,*
HM Treasury (November 2006).
→ Describes current UK approach for assessing Value for Money in PFI projects.

Project identification

http://www.hm-treasury.gov.uk/d/vfm_assessmentguidance061006opt.pdf

*⟨**10**⟩ *Public Sector Comparator: Technical Note,*
Department of Treasury and Finance, Victoria, Australia. (Partnerships Victoria, June 2001).
→ Detailed instructions for preparing the PSC analysis. See also the Supplementary Technical Note published in July 2003.
http://www.partnerships.vic.gov.au/CA25708500035EB6/0/E4C501A76F826D77CA2570C0001B45EA?OpenDocument

⟨**11**⟩ *Frequently Asked Questions and Common Problems in Public Sector Comparator (PSC) Development,*
Department of Treasury and Finance, Victoria, Australia. (Partnerships Victoria, February 2009).
→ Useful 6-page document, especially the one-page list of typical problems. Some parts deal specifically with issues in Victoria but most material is applicable broadly.
http://www.partnerships.vic.gov.au/CA25708500035EB6/WebObj/A6PSC-FAQs/$File/A6%20PSC%20-%20FAQs.pdf

⟨**12**⟩ *Guidelines for Successful Public Private Partnerships,*
European Commission, Directorate General Regional Policy (March 2003).
→ Part 3 (pages 50–59) provides an overview of the economic and financial implications of PPP risks and Value for Money assessment of PPPs.
http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf

⟨**13**⟩ *The European system of national and regional accounts in the Community,*
Council Regulation (EC) No 2223/96 of 25 June 1996
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31996R2223:EN:HTML
ESA95 is available from the Eurostat website under:
http://circa.europa.eu/irc/dsis/nfaccount/info/data/esa95/esa95-new.htm

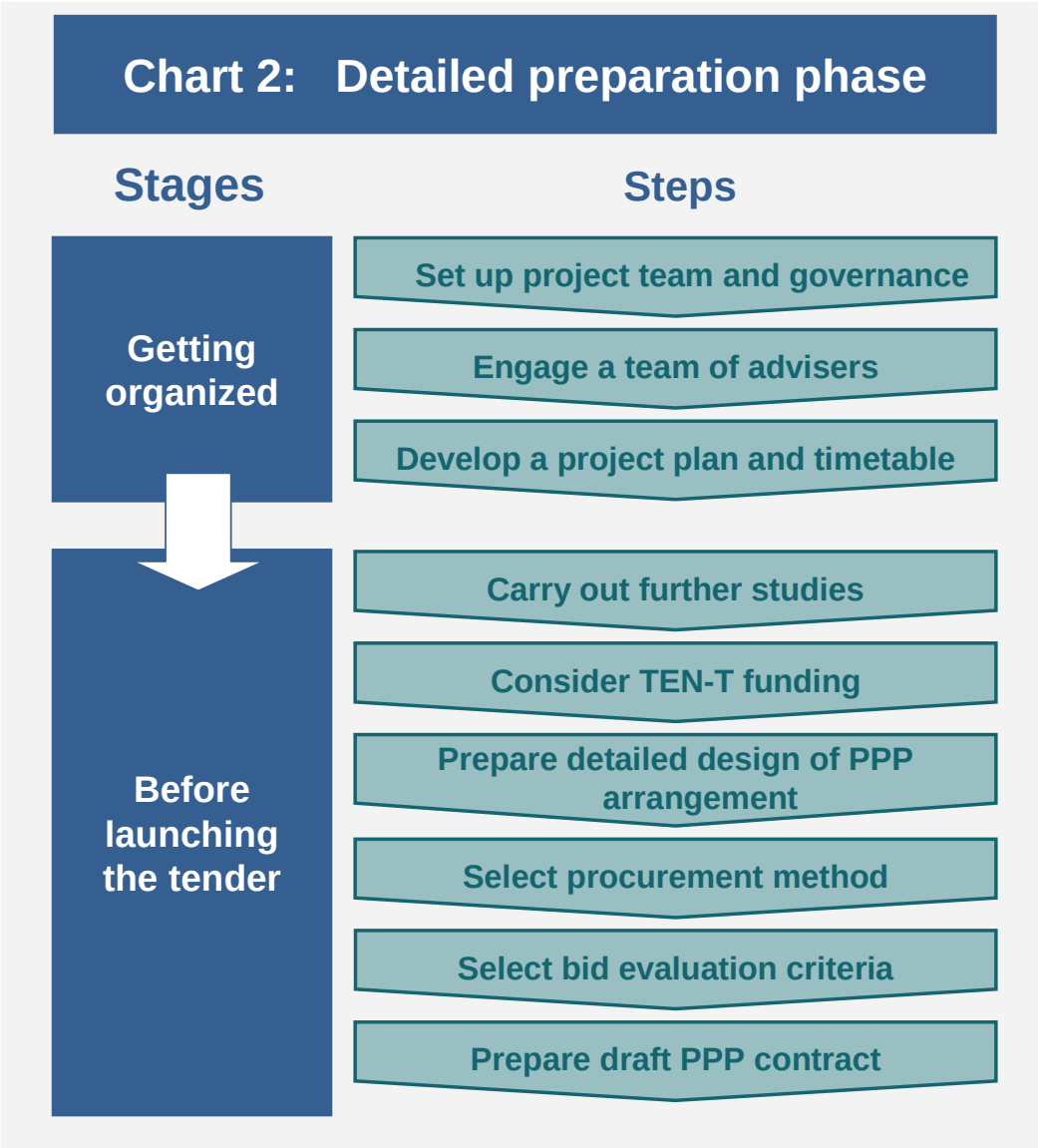
⟨**14**⟩ *ESA95 manual on government deficit and debt,*
European Communities (2002 edition)
→ Part IV (Leases, licenses and concessions) cover the treatment of long term contracts between government units and nongovernment partners (PPPs)
http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-42-02-585/EN/KS-42-02-585-EN.PDF

⟨**15**⟩ *Accounting and Statistical Treatment of Public-Private: Partnerships Purposes, Methodology, and Recent Trends,*
European PPP Expertise Centre (2010)
→ Thorough review of all aspects and trade-offs related to the statistical and accounting treatment of PPPs including Eurostat rules and national accounting issues in EU Member States.
http://www.eib.org/epec/infocentre/index.htm

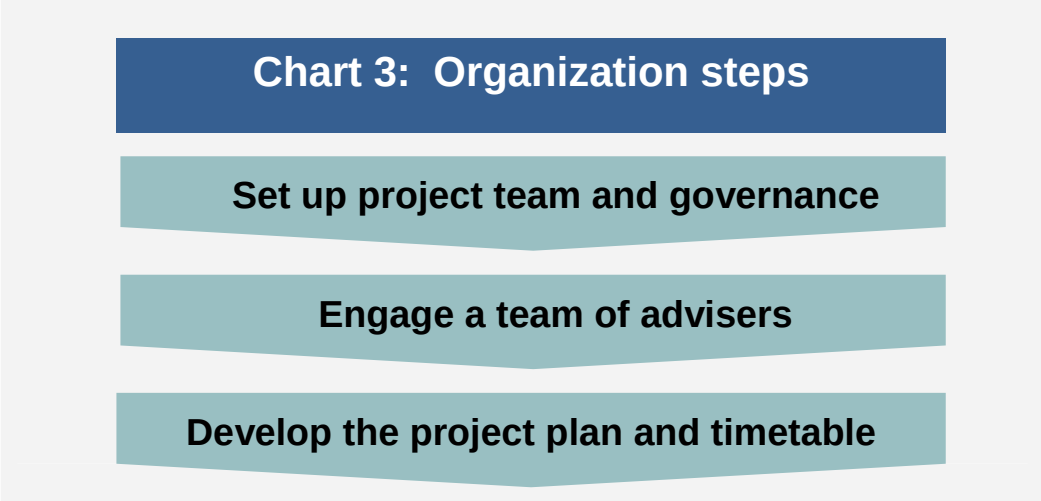
⟨**16**⟩ *Eurostat*
→ Specific administrative rules for the provision of ex-ante advice on the treatment of PPPs
http://epp.eurostat.ec.europa.eu/pls/portal/docs/PAGE/PGP_DS_GFS/PGE_DS_GFS_0/TAB_MET/EUROSTAT%20EX-ANTE%20ADVISE%2019%20JULY%202006%20-%20FINAL%20(2)_1.PDF

3 Detailed preparation

Before the formal procurement phase starts, preparation work is necessary at two levels. We refer to these as (i) getting organised and (ii) finalising all preparations before launching the tender. Chart 2 summarises these stages and their key steps, which are described in detail in this chapter.



3.1 Getting organised



The project procurement phase in the PPP cycle begins after the project has received approval by the relevant public authority based on a detailed feasibility report or business case. Such approval would support the development of the project as a PPP. Chapter 2 summarised some of the issues addressed in making the business case.

Approval of the main project features is important as a prerequisite of the start of the procurement phase since detailed project preparation is a resource-intensive undertaking.

The process before engaging with potential bidders involves two stages: getting organised (Stage 3.1) and detailed preparations before launching the tender (Stage 3.2). Stage 3.1 has two goals:

- Put in place the “project management team”, including external advisers, and allocate responsibilities; and
- Plan and schedule the tasks for the detailed preparation and procurement phases.

3.1.1 Set up the project team and governance structure

The complexity and scale of a TEN-T PPP project will usually justify a team-based management approach to ensure that all the required skills are effectively applied.

A common way of implementing effective project governance for PPP project development is by a system of boards or committees. Different systems can be considered, but they normally include: ➤⟨1⟩

- A project board, or *steering committee*, comprising the main public sector stakeholders and led by a senior officer within the public authority that is responsible for delivering the project; and
- A *project management team*, responsible for managing the PPP project (including managing advisers) and reporting to the steering committee. Of particular importance is the *project director*. During the intense procurement phase, this will be a full-time job. The skill set should include familiarity with private business as well as an understanding of how government administration works.

The governance structure of a cross border TEN-T project is likely to be particularly complex. In this case, it will be necessary to consider the following:

- *The impact of different approval and accountability arrangements across the two or more jurisdictions;*
- *The implications of differing legal structures (see Section 2.1)*
- *Arrangements for chairing the project board or steering committee;*
- *The language in which the board will conduct its business and, where necessary, translation arrangements for reports;*
- *The issue of whether there will be one project management team (and project director) or two and, in the latter case, how interface issues will work; and*
- *In a competitive dialogue, or negotiations, how will it be ensured that the management of information to the bidders is appropriately controlled?*

A project board, or steering committee and, in certain cases, even a project team, may benefit from the presence of experts from the TEN-T Executive Agency. The options for this engagement can be discussed with the Agency.

Guidance

⟨**1**⟩ *National Public Private Partnership Guidelines*, *Volume 2: Practitioners' Guide*,
Infrastructure Australia (December 2008).
→ Section 8 sets out the standard management team structure for a PPP, including a steering committee, the project director and the project team.
http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

3.1.2 Engage a team of advisers

The importance of having in place a strong group of expert advisers cannot be overstated. The engagement of PPP advisers requires that sufficient resources are budgeted for that purpose early in the project cycle. The PPP project management team will require different types of advisers for different phases of the PPP project preparation process. Consultants would almost certainly have been used to prepare the various feasibility reports. They may have been hired separately and in a more ad-hoc manner. It is when the procurement phase begins that a comprehensive plan needs to be developed for how advisers will be used:

- The core team of advisers for the procurement phase will usually consist of a financial adviser, a technical adviser, and a legal adviser (each of these composed of more than one individual). Other consultants will be required for specific inputs – e.g. separate consultants for environmental, social impact, regulatory risk and insurance matters. The exact nature of the broad advisory team will depend on the TEN-T project and the in-house resources available. (see Box 1 on *PPP advice during procurement)*.
- A public authority with considerable experience in PPP procurement can engage the advisers on separate mandates rather than a consortium mandate, with the project director, normally a public official, managing the entire process. It may be advisable, however, to hire a consortium of consultants, under one contract, led by one of them (often the financial advisor).➤⟨1⟩,⟨2⟩
- Even if a single consortium of consultants is engaged, it is useful for the project director to be able to discuss issues with each member of the advisory group separately to ensure that any differences of opinion on difficult issues are brought out and solutions are identified.➤⟨3⟩, ⟨4⟩

Public authorities should pay careful attention to the incentives created by different ways of engaging advisers and remunerating them. For example, if the consultants hired to carry out the feasibility work are fairly certain that they will be kept on board to advise on the transaction, they may have a disincentive to disclose major problems with the project for fear that preparation will not continue. Alternatively if the transaction advisers are paid a success fee in full when the PPP contract is signed, they may have an incentive to deliver a project that is not yet bankable and that takes many months (or years) to reach financial close. It may therefore be useful at the outset of the process for the public authority to hire an initial high-level consultant to assist in the planning of all the technical assistance that will be needed during the process, prepare terms of reference, etc.

There will be important advantages in selecting a team of advisors with experience of TEN-T projects in addition to PPP experience. For example, financial consultants should be capable of advising on the range of TEN-T financial support options, and how to optimise these in the projects financial structure. Legal advisors should be capable of fielding teams from all countries involved in a cross border TEN-T project. This is crucial where the project spans countries with both common and civil law jurisdictions.

It is also important that the authority actively manages the team of advisors; provides necessary inputs and reviews the outputs of the work of the consultants, ensuring that the goals of the project, as envisaged by the authority, are pursued throughout. In the case of a TEN-T project, due to their size and complexity, it is likely that the contracting authority is larger and more sophisticated than an authority responsible for other type of projects. In this case, all resources which are internal to the authority should be used or at least consulted (e.g. PPP task forces, specialised units, etc).

Guidance

***⟨1⟩** *Toolkit on Hiring and Managing Advisers for Private Participation in Infrastructure,*

PPIAF–World Bank (2001).

→ An extensive document giving guidance on all aspects of engaging and managing PPP project advisers. Pages 51–53 contain a discussion of whether to hire a lead advisor.

http://rru.worldbank.org/Toolkits/HiringManagingAdvisors/

⟨**2**⟩ François Bergère et al., *Le Guide Opérationnel des PPP*

Le Moniteur, Third Edition (2010) ISBN 978-2-281-12718-8

→ Pages 78-86 provide a brief introduction to how and why the public authority should use external advisers to help through the procurement process.

⟨**3**⟩ *Toolkit for Public-Private Partnerships in Roads and Highways*,

PPIAF–World Bank, Module 5 (version March 2009).

→ Highlights key information about the use of advisers, including typical costs and types of advisory skills needed.

http://www.ppiaf.org/documents/toolkits/highwaystoolkit/5/5-8.html

***⟨4⟩** *How to Appoint and Manage Advisers to PFI Projects*,

Technical Note No. 3; HM Treasury Taskforce (undated).

→ A useful guide to the engagement of legal, technical, financial and project management advisers, the appointment process, checklists and forms.

http://www.hm-treasury.gov.uk/d/PPP_TTF_Technote3.pdf

3.1.3 Develop a plan and timetable for project preparation and procurement

A key initial task for the project management team or teams (in fact, probably an initial task for the advisers) is to develop a detailed project plan, including a timetable for project preparation and procurement. The plan needs to take into account all the key steps in the process including:➤⟨1⟩

- document development;
- stakeholder consultation;
- bidding process and private sector interface; and
- government approval process.

PPP preparation is a complex undertaking with parallel activities feeding into critical paths. It is important that activities that are on the critical paths be initiated at the planned time and monitored closely to ensure that they proceed as planned and do not cause delays to other activities. It is helpful to use project-planning software to create the timeline in the form of a Gantt chart. The chart can then be easily updated from time to time (the project director should require the project management team to do this).

Guidance

⟨**1**⟩ *National Public Private Partnership Guidelines, Volume 2: Practitioners' guide,*
Australian Government – Infrastructure Australia (December 2008).
→ A short section on developing a project plan and timetable (pages 6–7). http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

CHECKLIST*: Getting organised*

The project management team, working in the public contracting authority and its group of advisers, will have to address a set of questions regarding organisation before proceeding to the next stage. For example:

- Are all relevant project approvals in place?
- Is a credible and well-resourced team in place to manage project preparations and procurement?
- Are project governance structures and processes established to ensure effective decision making?
- Are credible and experienced advisers appointed?
- Have all relevant stakeholders been identified and consulted to check their commitment to the project?
- Is a realistic procurement timetable in place for the procurement phase?
- Has appropriate care been taken to deal with the impact of TEN-T specific issues, such as coordinating approval processes in multi-jurisdiction projects?

Box 1: PPP advice during procurement

Advisers are normally involved at every stage of the PPP project cycle, including the initial feasibility assessment, project preparations, project procurement, and project implementation. A non-exhaustive list of examples of the legal, financial, technical and environmental assistance typically provided by PPP advisers, in particular during the procurement phase, will include the following:➤⟨1⟩

Legal adviser

- Advise the public sector on the issue of the legal powers (or vires) necessary to enter into the project
- Assist in the assessment of the legal feasibility of the project as a TEN-T (for example, where appropriate, relating to cross jurisdiction issues)
- Advise on the appropriate procurement route
- Advise on, or draft, the initial contract notice
- Advise on, or draft, procurement documentation such as pre-qualification questionnaires, invitation to tender, evaluation criteria etc.
- Assist in the assessment of the powers and legal feasibility of the project
- Develop the contract and bid documentation for the project
- Ensure that bids meet the legal and contractual requirements for submission
- Evaluate and advise on all processes and legal and contractual solutions throughout the procurement phase, including contract negotiation
- Provide support in the clarification and fine-tuning of legal aspects

Technical adviser

- Draft the output requirements and specifications of the PPP project
- Develop payment mechanisms in the PPP contract (with the financial advisers)
- Evaluate and advise on all technical solutions during the procurement phase
- Undertake technical due diligence on bidders' solutions
- Carry out any site condition, planning, and design work

Financial adviser

- Support the development of all financial aspects of the project
- Advise on the applicability of specific sources of TEN-T funding, and how these can be optimised in the funding structure
- Ensure that all financial aspects of the bidders' solutions meet the

Detailed preparation

requirements for submitting a financial bid

- Optimise and scrutinise the financial models submitted by bidders
- Evaluate and advise on financial proposals throughout the procurement phase
- Undertake financial due diligence on bids submitted

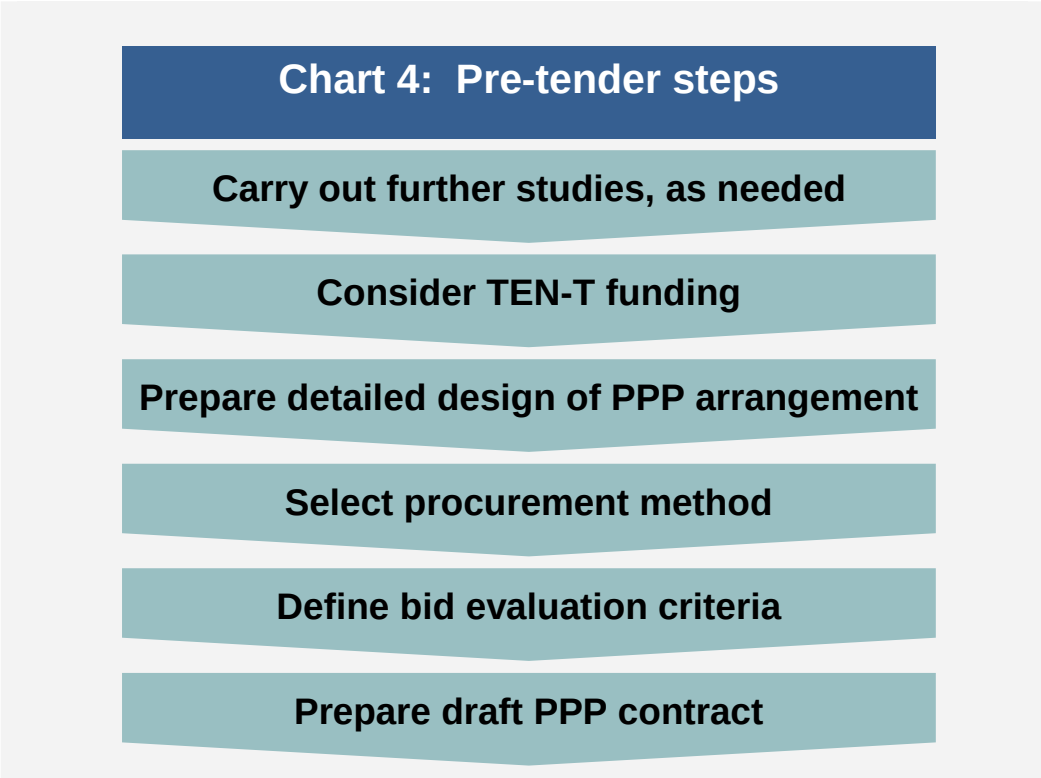
Environmental adviser

- Examine the potential environmental impact of the project
- Assist in environmental due diligence, including required permits and certifications
- Identify potential environmental risks and how submitted bids address them
- Consider the mitigation of such risks and the impact on the scope and design of the project

Guidance

⟨**1**⟩ *Attracting Investors to African Public-Private Partnerships, A Project Preparation Guide,*
The World Bank/ICA/PPIAF (2009), ISBN 978-0-8213-7730-7.
→ Excellent PPP guide prepared by Partnerships UK for the World Bank. Chapter 6 covers the role and scope of PPP advisers. Even though the guide contains examples of PPP projects in Africa, most of the guideline material is generic and applicable worldwide.

3.2 Before launching the tender



Stage 3.2 has two main goals:

- further develop all aspects of the PPP design (responsibilities, risk allocation, payment mechanism, etc.) in a progressive and iterative manner, concluding with a full draft PPP contract; and
- select the tendering method, decide on bid evaluation criteria and prepare the complete tender documents.

At this stage, consideration should also be given to the use of specific TEN-T funding instruments in the financial structure of the project. It is essential that these are analysed now, both to ensure that they can be brought to the attention of potential bidders and that the overall project structure can be designed in a way that is consistent with the requirements of any instruments selected by the project team.

At the end of Stage 3.2, the project management team will be ready to prequalify consortia interested in bidding for the TEN-T project and issue the invitation to tender. It is useful to end Stage 3.2 at that point because in some jurisdictions a high-level clearance will be required before publishing the procurement notice and proceeding with the invitation to tender. The end of Stage 3.2 is therefore an important milestone in the project delivery phase of the PPP cycle.

Detailed preparation

Some steps of the PPP cycle may not proceed in the rigid chronological order as Chart 4 implies, and there are often overlaps. For example, the final tasks of detailed PPP design preparation may continue during the later prequalification exercise. This will often be the most efficient way for the advisers to proceed.

3.2.1 Carry out further studies, as needed

Even though the core technical, financial and economic studies will have been carried out during the feasibility phase, there may be a need for further, more focused studies during the procurement phase.➤⟨1⟩

- Preparing the business case and appraising the TEN-T project may have brought to light aspects where more detailed work is needed – for example, refinement of transport network effects to better understand future travel demand for the services, if this is a high-risk area.
- The studies during the feasibility phase will have been oriented most of all to helping the public authority or authorities take a yes/no decision and select among major project alternatives, not necessarily to refine the TEN-T PPP design in preparation for contract drafting.
- As the PPP design advances, decisions about risk allocation may require additional studies. For example, in some projects (e.g. involving tunnels) it may be useful for the public authority to carry out an initial study of ground conditions and make these available to bidders.
- The public authority and its team of advisers should take great care to ensure a clear delineation of the extent to which the private sector can rely on the results of information given by the public authority. Unintentional warranties given by the public sector can undermine risk transfer. Legal advice should always be sought on potential legal responsibility or liability arising out of the provision of information by the public sector to the private sector. As a general principle, the private sector should be required to do its own due diligence investigations rather than rely on information provided to it.

Guidance

⟨**1**⟩ *Toolkit for Public-Private Partnerships in Roads and Highways,* PPIAF–World Bank (version March 2009).
→ Module 5, section 3, describes the detailed due diligence and feasibility studies that are required to fully understand the project features which will feed into the tender documents and the PPP contract.
http://www.ppiaf.org/documents/toolkits/highwaystoolkit/5/5-3.html

3.2.2 Consider TEN-T funding

In a PPP, commercial financing is generally the responsibility of the PPP company, not the public contracting authority. But a TEN-T PPP may offer the potential to benefit from a range of financial instruments established by the EU. These may have the effect of increasing the affordability and / or value for money of the project to the public sector. The TEN-T Executive Agency will be able to advise further on the applicability of the instruments noted in this section to specific projects

Grants from the Cohesion and Structural Funds

EU grant funding may be available for projects located in areas which benefit from the Cohesion or Structural Funds (see Box 2 Combining Cohesion and Structural Funds with PPPs). In these cases, the public authority will often play a significant role in mobilising this financing (e.g. grants must usually be channelled through a sponsoring public sector entity).➤⟨1⟩

TEN-T funding instruments

In addition to funding available through the TEN-T Annual and Multi-Annual Programmes' Calls for proposals, there are other financing instruments and initiatives that have been designed to facilitate the procurement and implementation of TEN-T projects using PPP arrangements: ➤⟨2⟩

- *Construction cost-based grants equivalent to up to 30 percent of the total construction cost to support payment obligations after project completion in availability-based PPPs;*
- *Provision of loan guarantees: up to EUR 500 million is availableto support a loan and guarantee instrument (see LGTT below); and*
- *Provision of risk capital: up to 1% of EUR 80 billion of the TEN-T budget can be invested as equity or quasi-equity through a dedicated infrastructure fund (see Marguerite fund, below).*

The Community's financial envelope for the implementation of the TEN-T Programme for the period 2007–2013 is approximately €8 billion. ➤⟨3⟩(4)

EIB finance

The European Investment Bank is also an important source of loans and guarantees for TEN-T projects.

Other initiatives, such as the facilitation of the issuance of TEN-T project bonds, are currently being considered by EIB and the EU Commission. ➤⟨3⟩

Loan Guarantee for TEN-Transport (LGTT)

The LGTT was set up and developed jointly by the EIB and the European Commission with the aim to attract a larger private sector participation in the financing of revenue-risk TEN-T projects. The instrument enables the transfer of demand risk inherent in a concession-based PPP project during the early years of operation thereby significantly improving the financial viability of the project and making the capital structure more robust. By providing the guarantee the EIB is taking over this risk by potentially becoming a

mezzanine lender to the project. The flexibility of the LGTT structure permits a tailoring of the product to fit the needs of the project. The product fits optimally with state-guaranteed senior debt and is an excellent element in mini-perm structures.

The EIB and the EC have committed capital of EUR 500 million each to enable LGTT of around EUR 5 billion to be issued until 2013. The EC contribution is made from the current TEN-T Budget while the EIB part is under the Structured Finance Facility (SFF) capital allocation.

The instrument was launched in 2008 and during its first full year of operation in 2009 it was used in three PPP road projects that reached financial close with a total guarantee amount of EUR 70 million. ➤⟨5⟩

A recent example of a TEN-T PPP project which used the LGTT instrument is A5 (Malsch-Offenburg) motorway in Germany. ➤⟨6⟩

Marguerite Fund

The Marguerite Fund, established by the EIB and a number of partners, is designed to support equity investments in new (greenfield) infrastructure projects in the areas of transport (TEN-T), energy (TEN-E) and renewables. The target volume of the Fund is EUR 1.5 billion, of which over EUR 700m has already been committed during the initial closing in March 2010.

In subsequent fund-raising rounds, other institutional investors, both private and public may join the Fund. In parallel to the equity commitment, the Core Sponsors and other institutions have also established a EUR 5 billion debt financing initiative. The Fund is expected to be a model in the future for other similar public and private funds in the EU in view of the approach taken to combining market principles while still supporting public policy objectives.➤⟨7⟩

Guidance

⟨**1**⟩ *Guidelines for Successful Public Private Partnerships,*
European Commission, Directorate General Regional Policy (March 2003).
→Part 4 (pages 63–72) discusses PPP characteristics and European Commission grant financing.
http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf

⟨**2**⟩ *Mobilising Private and Public Investment for Recovery and Long Term Structural Change: Developing Public Private Partnerships,*
Community Communication COM (2009)615.
→ Section 3.5 describes TEN-T instruments aimed at increasing private sector participation.
http://www.eib.org/epec/infocentre/documents/Commission%20Communication%20on%20PPP-en.pdf

(3) *Issues Paper on facilitating additional TEN-T investment*
European Commission, European Investment Bank (October 2009
→ Identifies potential measures for consideration by EU and national policy makers that could deepen and diversify access to sources of finance as well as financial instruments capable of facilitating additional investment in the development of the TEN-T Infrastructure.
http://www.eib.org/projects/documents/issues-paper-on-facilitating-additional-ten-t-investment.htm?lang=-en

⟨**4**⟩ *Transport Infrastructure – Funding Rules,* European Commission, DG TREN (2009).
→ Explains the general rules for the granting of Community financial aid in the field of trans-European transport, energy and telecommunication networks developed in Regulation 680/2007.
http://ec.europa.eu/transport/infrastructure/funding/funding_rules/funding_rules_en.htm

⟨**5**⟩ *The Loan Guarantee Instrument for Trans-European Transport Network Projects,*
European Investment Bank (2008).
→ A 2-page Factsheet that provides information on the LGTT instrument.
http://www.eib.europa.eu/attachments/press/2008-005-fact_sheet_en.pdf

⟨**6**⟩ *A5 Case Study,*
European PPP Expertise Centre-EPEC (December 2009).
→ Description of the A5 motorway PPP with a focus on toll payment mechanism: tolls collected from lorries through the nation-wide electronic tolling system with a system of non-availability penalties.
http://www.eib.org/epec/infocentre/documents/A5%20PPP%20Case%20Study%20-%20Final.pdf

<7> *The Marguerite Fund*
European Investment Bank and Partners
→ Detail of the Fund from the EIB web site
http://www.eib.europa.eu/about/news/2020-european-fund-for-energy-climate-change-and-infrastructure-marguerite-fund.htm?lang=-en

Box 2: Combining Cohesion and Structural Funds with PPPs

A revenue-based TEN-T PPP can be self-supporting if investment costs are funded entirely by private financing and project revenues derive solely from user charges. In many cases, however, full cost recovery through user charges may not be feasible – e.g. because of limited willingness to pay or affordability constraints. In these cases – where the government has to provide financial support to make the PPP financially feasible either at the start or on a recurrent basis – EU grants may be available for TEN-T projects to cover part of the funding gap.

Public authorities pursuing PPPs should be aware of the terms and conditions of EU grant funding to be able to benefit from them to the fullest extent. The European Commission is expected in the near future to issue guidance on the legal and methodological issues involved in combining EU funds with PPPs, in particular in the framework of the JASPERS initiative, in order to facilitate and increase the uptake of PPPs in Structural Fund projects.➤⟨1⟩ Some of the issues under review at present include the following:

A) *Understanding EU grant eligibility requirements relating to PPPs and how to determine the maximum permitted amount of EU grant funding for a specific PPP*➤⟨2⟩

- The EU grant can cover up to 85% of eligible expenditures. Co-financing by the government (at least 15%) is always required.
- If the PPP will generate some revenue from user charges, the "eligible expenditure" for purposes of determining the amount of the EU grant is reduced by the net contribution (i.e. after covering operating and maintenance costs) that such user-charge revenue makes to capital expenditures (determined on a discounted basis). This is the "funding gap" approach.
- The direct beneficiary of the grant must be the public authority responsible for the PPP, generally the public authority contracting party. This makes the procedures somewhat more complicated than if the PPP project company could receive the grant funds directly, but it has been found to be workable.

B) *Understanding the procedures (including timing) for the submission of documents and the approval of funding*

- *Approval of funding before bidding for the PPP takes place.* In many ways, this is the preferred solution. The grant arrangements can be thoroughly vetted, planned and specified in advance, and bidders will be asked to bid on that basis. This requires detailed structuring of the PPP project before going to the market, but (as noted elsewhere in this Guide) this is the best approach regardless of the presence of any grant funding.
- *Approval of funding after the preferred bidder has been selected.* In this approach, although it is well understood at an earlier stage how an EU grant can be incorporated into the PPP and the contract and bidding are well structured to take this into consideration, the approval of the grant is not obtained until after the preferred bidder has been selected. This

approach is advantageous where the results of the PPP bidding process need to be clarified in order to enable key elements of the grant application to be filled in (e.g. if there would be significant uncertainty about the size of grant required).

C) Structuring a PPP that includes EU grant funding in a way that does not weaken incentives and reduce Value for Money

- For example, EU grants should not incentivise the private partner to allocate too much of the costs to capital expenditures rather than operation and maintenance expenditures – thus removing one of the benefits of PPPs, namely optimal whole-life costing. Good practice can be maintained by careful structuring of the PPP contract and the bidding process. This should not be difficult if competent advisers are engaged. It will also be less of a problem where the grant funding is modest and there remains a significant amount of private funding.

D) *Determining the way (or ways) that EU grant funds can be applied to the PPP*

- *Parallel co-financing of capex (capital grant).* In this method, a distinct component of capex is financed by the private sector and another by the EU grant and government funds.
- *Blended co-financing of capex (capex subsidy, capital grant).* This is the most common model. The EU grant and state funds are used jointly with the financing mobilised by the private partner to make payments during the construction period under a single prime construction contract.
- *DBO (design build operate) contract.* This is an extreme form of the approach above in which private financing has been entirely replaced with EU grant and state budgetary funds, but there is just one prime contract covering both the construction and operating phases.
- *Partial grant funding of service fee (payment subsidy).* Grant funds could be used during the operating period as full or partial payment of *availability payments,* that is, time-based payments which would otherwise be made solely by the public authority, as opposed to user charges. (N.B. The feasibility of this model, in particular the application of EU funds to cover availability payments which would be incurred after the December 2015 deadline for EU funds expenditure in the current financial perspective, is not yet clear.)

In all cases, it is essential for the user of this Guide to seek proper advice and discuss the project with the relevant EC authority (e.g. national management authority, DG REGIO, TEN-T Executive Agency), maintaining a dialogue during project development and procurement, to ensure that the PPP is being designed and procured in a way that will give the greatest assurances that the applicable EU grant will be forthcoming and to avoid later procedural complications.

Finally, there are other considerations to be taken into account when incorporating EU grants into a PPP, for example: choice of the right tender evaluation criteria; ensuring that the grant will not be considered to be illegal state aid; or minimising the risk – through careful contract design – that a

"significant modification" might result in a required repayment of the EU grant.

Guidance

⟨**1**⟩ *Mobilising Private and Public Investment for Recovery and Long Term Structural Change: Developing Public Private Partnerships*,
Commission Communication: COM(2009) 615 (19 November 2009).
→ Communication explaining the European Commission's objective of promoting private sector participation in the field of infrastructure and research via PPPs.
http://www.eib.org/epec/infocentre/documents/Commission%20Communication%20on%20PPP-en.pdf

⟨**2**⟩ *Guide to Cost Benefit Analysis of Investment Projects,*
European Commission, Directorate General Regional Policy (July 2008).
→ Annex I (page 242) explains the basic formulae for EU grant determination.
http://ec.europa.eu/regional_policy/sources/docgener/guides/cost/guide2008_en.pdf

⟨**3**⟩ *Guidelines for Successful Public Private Partnerships,*
European Commission, Directorate General Regional Policy (March 2003).
→ Part 4 (pages 63–72) discusses the integration of grant financing with PPPs.
http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf

⟨**4**⟩ *Hybrid PPPs: Leveraging EU Funds and Private Capital,*
PricewaterhouseCoopers (January 2006).
→ The most thorough discussion of the basic issues publicly available at present.
http://www.ppiaf.org/content/view/666/485/

⟨**5**⟩ Hugh Goldsmith, *Combining PPP with EU Grants,*
International Seminar "Strengthening Public Investment and Managing Fiscal Risks from PPPs", Budapest, 8 March 2007.
→ Overview of the key issues and models being considered by the EIB.
http://www.imf.org/external/np/seminars/eng/2007/ppp/pdf/hg.pdf

⟨**6**⟩ Joachim Schneider, *Combining EU Grant Funding with Public Private Partnership,*
Presentation, 9 October 2008.
→ Listing of key issues and models and outline of the topics of a forthcoming study commissioned by JASPERS.
http://ec.europa.eu/regional_policy/conferences/od2008/doc/presentation/09C50_SCHNEIDER.ppt

Detailed preparation

3.2.3 Prepare detailed design of the PPP arrangement ➤⟨1⟩⟨2⟩

All aspects of the PPP arrangement – responsibilities, risk allocation, payment mechanism, etc. – need to be developed in further detail, with the ultimate goal of producing the draft PPP contract. It is advisable to deal with this in smaller sub-steps rather than to try to draft a full PPP contract right away. This simplifies the internal review process: it is better to focus the initial internal discussion and approval on the broad commercial aspects of project design rather than on detailed legal terms.

- The first sub-step might be to prepare a document outlining the principal commercial terms ("heads of terms"), and once the heads of terms have been internally approved, to progressively develop and refine the different topics.➤⟨3⟩ Certain aspects (e.g. payment mechanism) might first require the preparation by the advisers of discussion notes presenting and assessing various alternatives.
- The risk allocation of the PPP arrangement will be further developed with the help of advisers and the results checked against prevailing market conditions. Preliminary risk matrices or registers will have been used in the feasibility phase, and they will be further refined in this phase.➤⟨4⟩
- The assessment of traffic volumes and traffic risks is essential in TEN-T projects as in any other large transport infrastructure projects. Experience shows that in many cases the appraisal of transport projects tends to overestimate traffic volumes. The public authority should be aware of this risk. The allocation of traffic risk in a TEN-T project is given effect through the payment mechanism in the PPP contract, which may seek to transfer some, all or none of the traffic risk to the private sector (see Box 3 *Traffic revenue risk allocation* and Box 4 *Payment Mechanism*).
- The financial model of the expected PPP (sometimes called a "shadow bid" model) – prepared initially by the public contracting authority and its advisers for use in the feasibility analysis – should be further developed and refined and should be used to examine alternative risk allocations and payment mechanisms. (Note that this is not the same financial model that a bidder will prepare and submit with its proposal).

The problematic issues concerning risks to be transferred in a TEN-T PPP are usually more related to the underlying transport technology than the status of the project as a TEN per se.

Many TENs are based around transport modalities with particularly challenging risks. Examples include the interface issues inherent in rail projects (in addition to the interface between track infrastructure and train operation, there are issues relating to communications technology, signalling, cross border issues), or information technology issues in airport developments and so on. Rail TEN-T projects are typically high cost and they are usually much more complex and difficult to complete. In addition, the choice of a particular technical solution, for example, for rolling stock may limit the scope for the future replacement of a non-performing supplier or sub-

contractor. This will generally lead lenders to increase their assessment of the risk of the project.

Sources of guidance in this field are scarce and that is why advisors with previous TEN-T rail experience will be extremely important to the progress of the project. The TEN-T Executive Agency, DG MOVE and EPEC may consider developing specific rail-related guidance in the future.

A more general issue in traffic risk projects is that of network effects. Because projects form part of a wider network, the traffic performance (irrespective of the traffic mode) will be, in part, determined by performance of other parts of the network. This will typically be outside the control of both the private sector partner and the public authorities. This may result in risks which lenders, in particular, find difficult to accept. TEN-T specific instruments, such as those available from the EIB or the EU Commission, might help in addressing this issue.

Guidance

⟨**1**⟩ *Guidelines for Successful Public Private Partnerships,*
European Commission, Directorate General Regional Policy (March 2003).
→ Section 2, part 3 (pages 50–55) contains a brief description of the main sources of risk in a PPP project and its financial implications. Section 5 (pages 82–89) provides a brief overview of PPP project design issues from the EC perspective.
http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf

⟨**2**⟩ *Guide for the Implementation of Public-Private Partnerships in Greece*, Special Secretariat for Public-Private Partnerships, Ministry of Economy and Finance (Athens, 2006).
→ Pages 6–8 provide a summary of the minimum content of a PPP contract.
http://www.sdit.mnec.gr/export/sites/sdit/en/infopoint/implementation/ppp_guide_en_final.pdf

⟨**3**⟩ *An Introductory Guide to Public Private Partnerships (PPPs),*
Government of Hong Kong SAR, 2nd edition (March 2008).
→ Annex F contains a 5-page outline of heads of terms for a generic PPP contract.
http://www.eu.gov.hk/english/psi/psi_guides/psi_guides_ppgpop/psi_guides_ppgpop.html#3

⟨**4**⟩ *National Public Private Partnership Guidelines*, *Volume 2: Practitioners' Guide,* Infrastructure Australia (December, 2008).
→ Annex B (pages 50–58 and 77–91) discusses risk allocation and gives an example of a generic PPP risk table.
http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

Detailed preparation

Box 3: Traffic revenue risk allocation

Forecasting traffic demand is crucial in all TEN-T PPPs since traffic influences both project costs – through capital and maintenance expenditures – and project revenues, especially if direct user charges, such as tolls, are the main source of cash flow for the PPP company. An accurate estimation of the future level and composition of traffic volumes is, however, a difficult task:

- Traffic forecasts tend to overestimate actual traffic levels ("optimism bias");➤⟨1⟩
- Inflated traffic forecasts may be linked to traffic modelling flaws but also to strategic decisions of PPP contractors when they bid. Traffic forecasts commissioned by the lending banks, for example, are less prone to traffic optimism bias.

Given such uncertainty, the allocation of traffic revenue risk is a key decision in the design of the TEN-T PPP contract and it is linked to the choice of payment mechanism (see Box 4 *Payment Mechanism)*. There are several options for allocating traffic revenue risk.➤⟨2⟩ Consider motorway PPPs:

- At one end is the conventional toll road where revenues derive from toll payments and, thus, the PPP company (and its lenders) are exposed to full traffic revenue risk.
- At the other end lies the "availability"-based option where the PPP company receives fixed periodic payments from the public budget as long as the road is available for use; in this case, the PPP company bears little or no traffic revenue risk.
- In between there are several options designed to share the traffic revenue risk, such as:

  a) Revenue sharing bands: lower and upper thresholds to share traffic revenue risk between the PPP company and the government if traffic is outside the thresholds;

  b) Flexible-term contracts: the PPP contract will end when the concessionaire has received a certain amount of revenues from users (e.g. the "Least Present Value of Revenue" approach, implemented mostly in Chile);➤⟨3⟩

  c) Financial re-balancing: provisions to change the economic balance of the contract if traffic is much lower or much higher than planned.

Recent practice in transport projects has seen the use of a mixed payment mechanism consisting of availability payment – intended to cover operating expenses and debt service – and a direct user charge (e.g. toll) that provides the equity return.➤⟨4⟩

Guidance

⟨**1**⟩ Robert Bain, *Toll Road Traffic and Revenue Forecasts*,
Robert Bain Publisher (2009), ISBN-10: 0956152716.
→ Chapter 3 surveys empirical evidence on traffic risk and lists common sources of forecasting errors. It is written for a non-specialist audience.

⟨**2**⟩ *Toolkit for Public-Private Partnerships in Roads and Highways*,
PPIAF–World Bank (Version March 2009).
→ Module 2 contains an Issue Paper on payment mechanisms and implications for risk allocation.
http://www.ppiaf.org/documents/toolkits/highwaystoolkit/6/bibliography/pdf/payment_mechanisms.pdf

⟨**3**⟩ J.M Vassallo, *Traffic Risk Mitigation in Highway Concession Projects: the Experience of Chile*.
Journal of Transport Economics and Policy, Vol. 40 (3) (2006), pages 359–381.
→ Describes pioneering Chilean experience with highway concessions.

***⟨4⟩** *Public-Private Partnerships: Principles of Policy and Finance,*
E. R. Yescombe, (2007). Elsevier Publisher, ISBN: 978-0-7506-8054-7.
→ Chapter 13 presents a detailed discussion of payment structures in PPP contracts.

Detailed preparation

3.2.4 Select procurement method

Before engaging in the formal bidding process, the TEN-T PPP project team will need to select a competitive procurement procedure. Several procedures are permitted under EU legislation. These procedures are not designed specifically for PPPs: they apply to all goods, works or services contracts. ➤⟨1⟩⟨2⟩

The complexity of a PPP combined with the lack of specific EU legislation in respect of PPPs means that it is essential for the authority to be well-versed in the EU public procurement legal framework in advance of launching a tender. The authority's team should include a procurement specialist who should work closely with the legal advisors to ensure adherence to the procurement legislation at EU and national level. In addition, it is advisable for senior management and project leaders to have a working knowledge of the relevant EU procurement legislation. ➤⟨3⟩

Works and services concessions, in which the right of exploitation of the works or services rests with the *concessionaire*, must also adhere to the basic principles of the EC Treaty – transparency, equal treatment, proportionality and mutual recognition. ➤⟨4⟩

Institutionalised Public Private Partnerships refer to a specific type of PPP where public and private parties establish an entity with mixed capital in which the private party takes part actively in the operation of contracts awarded to the partnership. The European Commission has released a specific Interpretative Communication to address the application of EU procurement law in this instance.➤⟨5⟩

EU legislation allows four procurement procedures: open, restricted (these two are also sometimes referred to as standard procedures), negotiated (an exceptional procedure) and competitive dialogue (the use of which is subject to conditions). The choices may be more limited under national laws and specific legal advice is required for each jurisdiction. Table 3 compares a few key features across the four EU procurement procedures which can be used for procuring PPPs. The public authority should always take legal advice before selecting the procurement procedure.

TEN-T PPP projects may raise particular issues relating to procurement::

- *Since no shortlisting is allowed under the open procedure, it is highly unlikely that it will be a preferred procurement option for TEN-T PPP projects, which generally involve complex features making it very costly for bidders to prepare their proposals.*
- *Since under the restricted procedure, no discussions and changes are permitted after issuing the specifications in the invitation to tender, it is unlikely that the restricted procedure would be preferred for TEN-T PPP projects. The restricted procedure can work for highly uniform and standardised projects that have been market tested in many similar transactions – e.g. possibly certain kinds of "accommodation" PPPs.* ➤⟨2⟩ *Most TEN-T PPPs will not fit that description.*

- *There is no detailed guidance in EU legislation on how to carry out negotiations under the negotiated procedure, although the contracting authority must respect the principles of transparency and equal treatment. In practice, negotiations for PPPs under this method often continue even when only one bidder remains, which weakens competitive pressure. The use of the negotiated procedure is envisaged in the EU public procurement legislation for exceptional cases and justification of its use is both essential and potentially onerous.*
- *The competitive dialogue procedure is designed for "particularly complex contracts", generally construed to include many kinds of PPPs. The competitive dialogue procedure established by Directive 2004/18/EC[9] is now the preferred procurement procedure for PPPs in several countries, for example, UK➤⟨6⟩(7)(8), Denmark, France➤⟨9⟩(10) and others➤⟨11⟩. As it is the case with the negotiated procedure, the use of the competitive dialogue procedure needs to be justified but as opposed to the negotiated procedure, there is more flexibility in its use: the project must be "particularly complex" to the extent that the contracting authority is not objectively able to specify in advance the technical means of satisfying its needs or the legal or the financial parameters of the project. ➤⟨12⟩(13)*
- *There is no reason why a procuring authority should open up the dialogue on all aspects of the bidder's proposal simply because the EU rules permit this (assuming this broad scope has been transposed into national law). Given the complexity of many TEN-T projects, and the constraints imposed by the fact that the project forms part of a network, it may be more appropriate in many cases for the public authority, in the tender documents, to limit disclosure and provide more structure to the dialogue process.*

[9] *Directive 2004/18/EC* of the European Parliament and of the Council of 31 March 2004 on the co-ordination of procedures for the award of public works contracts, public supply contracts and public service contracts.

Table 3. A comparison of EU procurement procedures

	Open Procedure	Restricted Procedure	Negotiated Procedure	Competitive Dialogue
Possibility to limit number of bidders	No prequalification or pre-selection is permitted. Any interested company may submit a bid.	The number of bidders may be limited to no less than five in accordance with criteria specified in contract notice (prequalification and shortlisting permitted).	The number of bidders may be limited to no less than three in accordance with criteria specified in contract notice (prequalification and shortlisting permitted).	The number of bidders may be limited to no less than three in accordance with criteria specified in contract notice (prequalification and shortlisting permitted).
Discussions during process	The specifications may not be changed during the bidding process, and no negotiations or dialogue may take place with bidders. Clarification is permitted.	The specifications may not be changed during the bidding process, and no negotiations or dialogue may take place with bidders. Clarification is permitted.	Negotiations permitted throughout process. Successive stages can be used to reduce the number of bidders (further short-listing).	Dialogue with bidders permitted on all aspects (similar to negotiated procedure, including further short-listing). When dialogue is concluded, final complete bids must be requested based on the solution(s) presented during the dialogue phase.
Discussions after final bid is submitted	No scope for negotiations with a bidder after bids are submitted.	No scope for negotiations with a bidder after bids are submitted.	Not relevant because the negotiations can continue until the contract is agreed. There need be no "final bid" per se.	Only permitted to clarify, fine tune or specify a bid. No changes permitted to basic features.
Basis for award	Lowest price or most economically advantageous tender	Lowest price or most economically advantageous tender	Lowest price or most economically advantageous tender	Most economically advantageous tender

Guidance

⟨**1**⟩ *Commission Interpretative Communication on Concessions under Community Law,*
European Commission (2000/C 121/02).
→ A concise description of EU policy on the procurement of concessions.
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2000:121:0002:0013:EN:PDF

⟨**2**⟩ *The Use of Restricted Procedure to Procure PPP/PFIs in Selected European Countries*,
Ernst & Young (August 2009).
→ Gives capsule summaries of the common methods used in different countries. Concludes that, with the exception of Greece, the restricted procedure is not actively used for the procurement of PPPs in Europe.
http://www.ey.com/Publication/vwLUAssets/Infrastructure_Advisory_08_2009_-_Use_of_Restricted_Procedure_to_procure_PPP_PFIs_in_selected_European_countries/$FILE/EY_IA_08_2009_-_Restricted_Procedure.pdf

⟨**3**⟩ European Commission: Directorate General for Internal Markets and Services – Public Procurement website – a primary source for all EU procurement legislation and related explanatory notes, public consultations, communications and guidance
http://ec.europa.eu/internal_market/publicprocurement/index_en.htm

⟨**4**⟩ *Communication on Public-Private Partnerships and Community Law on Public Procurement and Concessions* European Commission Communication COM(2005) 569 final (November 2005)
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0569:FIN:EN:PDF

⟨**5**⟩ COMMISSION INTERPRETATIVE COMMUNICATION on the application of Community law on Public Procurement and Concessions to Institutionalised Public-Private Partnerships (IPPP) (Text with EEA relevance)
http://ec.europa.eu/internal_market/publicprocurement/docs/ppp/comm_2007_6661_en.pdf

⟨**6**⟩ David Lee, et al., *Competitive Dialogue Procedure in the UK PFI Sector*,
Allen & Overy (Feb. 2007).
→ Sets out the key procedural steps and issues involved in PFI competitive dialogue procedure in the UK.
http://www.allenovery.com/AOWEB/AreasOfExpertise/Editorial.aspx?contentTypeID=1&itemID=33566&prefLangID=410

***⟨**7**⟩ *Competitive Dialogue in 2008: OGC/HMT Joint Guidance on Using the Procedure,*
UK Office of Government Commerce (2008).
→ Detailed guidance on how to use the competitive dialogue procedure.
http://www.ogc.gov.uk/documents/OGC_HMT_2008_Guidance_on_Competitive_Dialogue.pdf

⟨**8**⟩ *A Formula for Success: Procurement Effectiveness in Major Project Delivery,*
UK Office of Government Commerce (March 2009).
→ A concise 12-page booklet outlining a few basic principles for the effective procurement of complex projects.
http://www.ogc.gov.uk/documents/A_Formula_for_Success.pdf

⟨**9**⟩ *Les Contrats de Partenariat. Principes et Méthodes*,
Ministère de l'Économie, de l'Industrie et de l'Emploi (May 2005).

Detailed preparation

→ Chapter 3 discusses the selection of the procurement option in the context of current French legislation.
http://www.ppp.bercy.gouv.fr/guide_contrat_partenariat.pdf

⟨**10**⟩ François Bergère et al., *Le Guide Opérationnel des PPP*
Le Moniteur, Third Edition (2010) ISBN 978-2-281-12718-8
→ Pages 169-185 cover procurement methods available for PPP procurement with a helpful box on how to properly conduct competitive dialogue (p 182).

***⟨**11**⟩ *European PPP Report 2009,*
DLA Piper (with the contribution of EPEC).
→ Some country descriptions in Section 2 of the report briefly mention the procurement methods followed.
Available upon request at www.dlapiper.com

⟨**12**⟩ EXPLANATORY NOTE – COMPETITIVE DIALOGUE – CLASSIC DIRECTIVE
http://ec.europa.eu/internal_market/publicprocurement/docs/explan-notes/classic-dir-dialogue_en.pdf

⟨**13**⟩ Michael Burnett, *Public-Private Partnerships (PPP) – A Decision Maker's Guide*
Institut Européen d'Administration Publique (2007) ISBN 978-92-9203-001-8.
→ Chapter 4 *The Legal Framework* contains an interesting discussion on the use of competitive dialogue.

3.2.5 Define bid evaluation criteria

The EU procurement regime allows some flexibility regarding the criteria that can be used to evaluate bids and select the preferred bidder. The broad aim is to select the "most economically advantageous tender".

The choice of criteria for scoring and ranking alternative competing bids is a key decision in procuring a PPP. The objective is to tailor the contract award criteria to the particular project and contract terms to achieve the best possible results (Value for Money). ➤⟨1⟩

Failure to apply award criteria properly can be a source of challenge to the procurement outcome. The public authorities should, therefore, always take appropriate advice before the bid evaluation criteria are finalised.

As a rule, award criteria (and the weighting to be applied to each criterion) should be specified in advance. This may be problematic in the case of a competitive dialogue procedure where detailed award criteria are rarely known in advance. In this instance, EU law allows that the criteria be listed in decreasing order of their importance. In either case, the award criteria must appear in the contract notice or the descriptive document and may not be changed during the award procedure.

Some examples of criteria include:

- the lowest tariffs, service fee or level of grant or subsidy;
- the largest payments to the public authority (up-front or periodic), including the level of tariffs or service fee;
- the shortest duration of the PPP (before handing the assets over to the public authority); or
- the best promised performance, in terms of a key objective indicator, such as service coverage, year by year.

There are a number of examples of imaginative use of award criteria to achieve particular objectives, for example, the Least Present Value of Revenue criterion in toll motorways (pioneered in Chile). In this case, the concession ends once the concessionaire has received cumulative revenue whose net present value equals the value it has bid. This is a way of combining a criterion based on the lowest remuneration with a mechanism for transferring traffic risk to the public sector.➤⟨2⟩

Guidance

***⟨1⟩** *National Public Private Partnership Guidelines*, *Volume 2: Practitioners' Guide,*

Infrastructure Australia (December 2008).

→ Part Two (Detailed Technical and Process Issues) discusses bid evaluation criteria from commercial, technical and quality of delivery points of view.

http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

⟨**2**⟩ Eduardo Engel, Ronald Fischer and Alexander Galetovic, *A New Approach to Private Roads,*

Regulation (Fall 2002), pages 18–22.

→ Describes the "Least-Present-Value-of-Revenue" criterion used to award concessions pioneered in Chile's toll road PPP programme.

http://www.cato.org/pubs/regulation/regv25n3/v25n3-6.pdf

3.2.6 Prepare draft PPP contract ➤⟨1⟩(2)

A full draft PPP contract should be attached to the invitation to tender. It should cover the following topics at a minimum:

- Rights and obligations of the parties
- Risk allocation (including risks related to site issues)
- Payment mechanisms (tariffs, subsidy, grants) and adjustments to payments in response to various contingencies (see Box 4 *Payment Mechanism)*.
- Service performance standards and targets and objective and measurable indicators
- Procedure for permitted modifications, as well as their scope and nature
- Penalties (and possibly bonuses)
- Security and performance bonds, insurance
- Term of contract
- Conditions for termination (categorised by party and by type of event) and compensation upon termination (for each type)
- Step-in rights (both for lenders and, in emergency situations, the public sector)
- Definition and impact of force majeure and change in law
- Dispute resolution procedures

In the past, it was sometimes the practice to include only a summary of the main commercial terms with the invitation to tender. Nowadays, it is considered better practice to prepare and issue a full draft contract – and this, in effect, becomes necessary in both the restricted and competitive dialogue procedures given the limitation on negotiations after receiving the final bids. Legal advisors should be involved in preparing this full draft of the PPP contract.

Guidance

⟨**1**⟩ Christopher Clement-Davies, *Public Private Partnerships in Central and Eastern Europe: Structuring Concession Agreements*,
Law in Transition 2007 (EBRD, London).
→ Discusses the structuring of concessions agreements focusing on the principal issues that may determine success or failure.
http://www.ebrd.com/pubs/legal/lit071f.pdf

***⟨**2**⟩ *Toolkit for Public-Private Partnerships in Roads and Highways,*
PPIAF–World Bank (version March 2009).
→ Module 4 (section 3) contains a detailed description of the most relevant contract clauses and other agreements, bonds, guarantees, specific and "boiler plate" provisions.
http://www.ppiaf.org/documents/toolkits/highwaystoolkit/4/4-3.html

Box 4: *Payment mechanism* ➤⟨1⟩(2)(3)

The payment mechanism lies at the heart of the PPP contract. The primary purpose of the payment mechanism is to remunerate the PPP company sufficiently so that it will be willing to enter into the PPP contract and provide the service. Beyond that, the payment mechanism is the principal means in a PPP contract to allocate risks and provide incentives.

A useful way to think about designing the payment mechanism is to begin with an extreme or ideal form and then see where certain risks should be shifted back to the public authority or users. *Ideally*, the public authority might want to pay the PPP company, in arrears, a fixed price for (and only for) each unit of service that is provided and that meets the service-quality requirements. This captures the key PPP principles that payment should be made only if the service is available and that payment should not be based on the PPP company's *actual* costs (it is not a "cost-plus" contract); this simple ideal mechanism is one that gives strong incentives to the PPP company for good performance.

Much of the detailed design of a payment mechanism can be conceptualised as moving away from this simple ideal either to take into account more complexities or because this simple mechanism would cause the PPP company to bear too much risk. "Too much" in this context could mean that the premium that would have to be paid to the PPP company for it to be willing to take the risk would not be worth the gain that might be obtained from increased efficiency. Or it could mean that there would be too great a probability of excess profits or, alternatively, high losses accruing to the PPP company – in either case, threatening the viability of the arrangement. In this connection, one key principle in the design of the payment mechanism is that risks that are entirely beyond the control of the PPP company should generally not be allocated to the PPP company.

Some of the different ways, then, that adjustments are made to the simple (stylised) payment mechanism outlined above are the following:

- Payments are generally indexed in some manner to compensate for cost increases due to inflation.
- In some cases, certain well-defined costs that are beyond the control of the PPP company are handled on a pass-through basis (i.e. actual substantiated costs for the particular item are passed through into the service fee).
- Deductions that are made to the service fee for poor performance are linked to the *degree* of deficiency in service quality (set out in objective rules and using verifiable measures). Generally, the amount of the deduction should be in line with the losses that would be expected to be borne by the government or users by the shortfall in service quality.
- Demand (volume or traffic) risk – a key issue in PPP design – is often assessed as being at least partially beyond the control of the PPP company, and sometimes wholly beyond its control. A variety of mechanisms exist to shift some or all demand risk away from the

PPP company. For example, the unit price could gradually increase as demand falls. Or there could be a minimum payment guarantee (where the company is paid for a certain quantity even if the actual quantity falls below that minimum).

The list above only begins to describe the various adjustments that can be made in designing the payment mechanism in practice. Designers should always be on the lookout for features that could give the PPP operator perverse incentives and features that are complicated and ambiguous in ways that might provoke disputes later on. There are many trade-offs in this exercise. Payment mechanism design is as much an art as a science.

Looking at payment mechanisms that are commonly used in similar types of projects is a good way to begin the design process. In addition, the public authority's advisors should make use of a financial model of the expected PPP to test alternative payment mechanisms, using sensitivity and scenario analysis, and, most important, to *calibrate* the parameters of the chosen mechanism so that it is likely to perform well under different conditions that might arise. An important consideration is often that, although poor performance should have strong negative impact on returns to equity holders – a strong "bite" – it may be counterproductive if the shortfall in cash flow too easily jeopardises debt service payments, an outcome that could lead to the bankruptcy of the project company.

Guidance

⟨**1**⟩ E. R. Yescombe, *Public-Private Partnerships: Principles of Policy and Finance,*

Elsevier (2007), ISBN: 978-0-7506-8054-7.

→ Chapter 13 is devoted to a description and discussion of the payment mechanism.

⟨**2**⟩ *Briefing Note 1: Payment Mechanisms in Operational PPP Projects,*

Financial Partnerships Unit, Finance Directorate, Scottish Government (Nov. 2007).

→ Discussion of key issues in designing a payment mechanism.

http://www.scotland.gov.uk/Resource/Doc/923/0054674.doc

⟨**3**⟩ *Standardisation of PFI Contracts,*

HM Treasury (UK), Version 4 (March 2007).

→ Chapter 7 presents a thorough overview of the major principles and issues and gives some drafting suggestions.

http://www.hm-treasury.gov.uk/ppp_standardised_contracts.htm

CHECKLIST*: Before launching the tender*

Before launching the tender, the public contracting authority and its team of advisers need to feel satisfied they have addressed a series of key questions, many of which result from work undertaken or overviewed by the PPP advisers. For example,

- Are the requirements and scope of the TEN-T project clear and fixed?
- Have all the environmental and planning approvals been identified and obtained?
- Are there any unresolved issues regarding site and land acquisition?
- Has the public contracting authority the powers to award the contract and enter into a long term contract?
- If required by law, has a Value for Money assessment of the proposed TEN-T investment been carried out?
- Is the scope of the TEN-T project affordable from the point of view of the public sector periodic payments required (availability-based PPP) or are tariff levels realistic and affordable (revenue-based PPP)?
- With availability-based PPPs, have budgets and government or parliamentary approvals been obtained for any public sector payment obligations?
- Is there enough evidence of sufficient commercial interest from contractors, lenders and investors to justify launching the tender?
- Have project risks been identified and a potential risk allocation been assessed?
- Have plans to publicise the launch of the project been agreed and finalised?
- Has a project information memorandum been prepared?
- Have the bidder qualification and bid evaluation criteria been developed?
- Has the draft PPP contract been prepared including the project specifications, service standards, payment mechanism and proposed risk allocation?

3.2.7 Summary

Chart 5: Detailed preparation summary

Stage 3.1: Getting organized

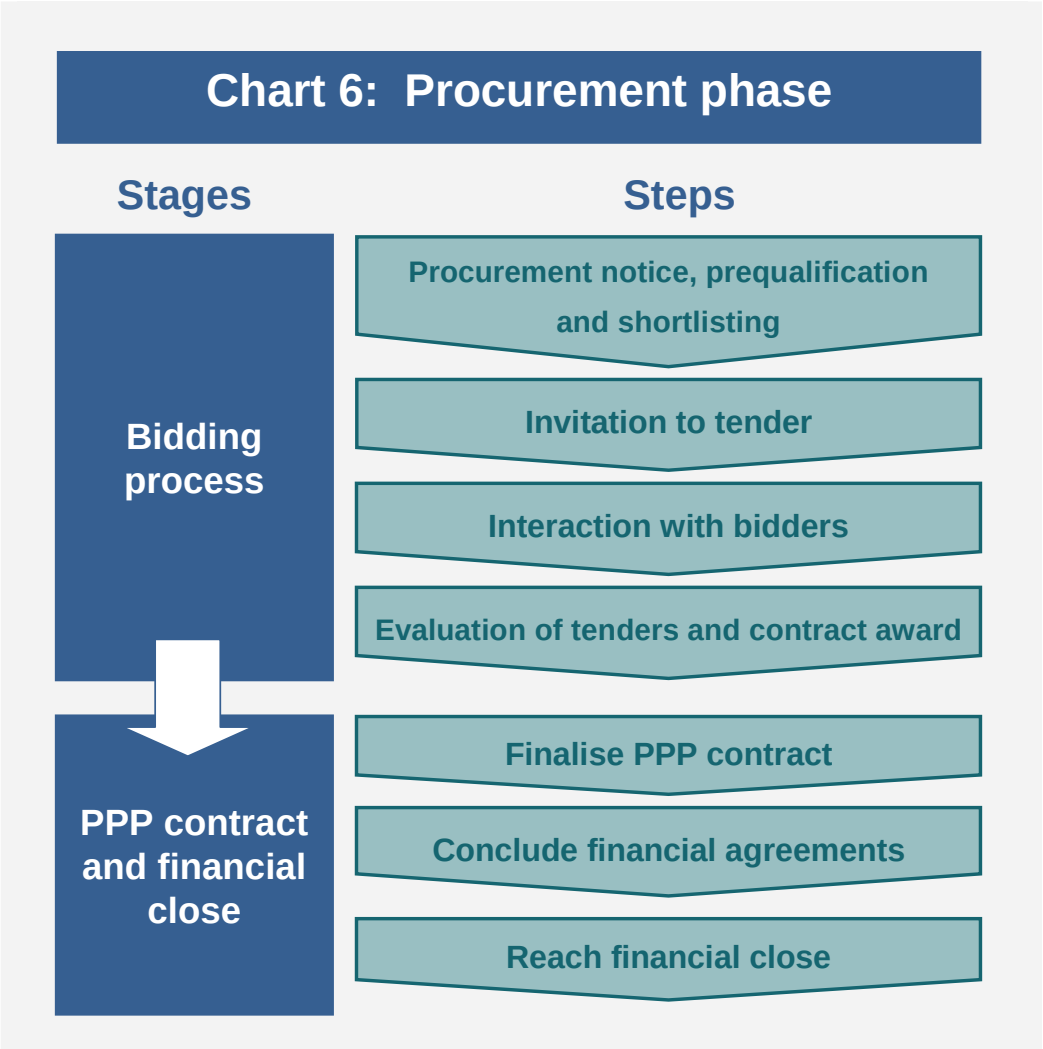
Steps	Key tasks
Set up project team and governance	- Set up the project management team - Implement the PPP project governance structure
Engage a team of advisors	- Identify the expertise needs of the team - Select the necessary advisors to cover those needs
Develop a project plan and timetable	- Identify the several project activities and the critical paths - Develop a detailed project plan and timetable

Stage 3.2: Before launching the tender

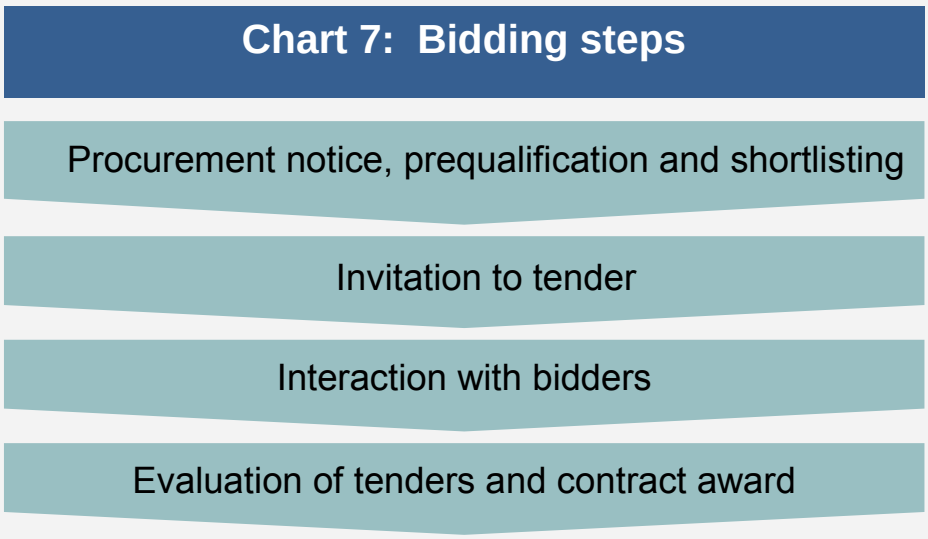
Steps	Key tasks
Carry out further studies, as needed	- Detailed business case - Detailed assessment of the risks of implementing the PPP
Consider TEN-T funding	- Consider funding from TEN-T financing instruments
Prepare detailed design of PPP arrangement	- Outline principal commercial terms - Build detailed risk register - Undertake detailed commercial and financial analysis
Select procurement method	- Define the scope for interaction with the private sector and consider the legal alternatives - Select the procurement method
Select bid evaluation criteria	- Set up evaluation committee - Select the criteria for scoring alternative bids
Prepare draft PPP contract	- Prescribe the required service standards, risk allocation and payment mechanism in detail - Finalise draft PPP contract

4 Procurement

The procurement phase, as the term is used in this Guide, begins with the publication of the procurement notice and ends with financial close, the point at which project activities (beginning with construction) can start up. The procurement phase constitutes the main focus of the Guide. It has been broken down for convenience into two stages: (i) the bidding process stage; and (ii) the stage which includes the activities carried out from the award of the PPP contract to financial close. Chart 6 outlines the stages and steps in the procurement phase, which is described in more detail in the sections that follow.



4.1 Bidding process



The PPP bidding process involves a series of steps summarised in Chart 7. The goal of the bidding process is to maximise Value for Money by creating appropriate incentives through a competitive process for the award of the long-term PPP contract.

At the start of Stage 4.1 (or earlier), a tender *evaluation committee* will be established. The composition of the committee will often be prescribed by national law. The role of the evaluation committee is to oversee the procurement process and take (or recommend) key decisions, such as decisions about the short list and the preferred bidder. The tender evaluation committee will generally be advised and supported by experienced and specialised consultants (often the transaction team of advisers).

During the bidding process, sufficient attention during the bidding process should be placed on the key good procurement principles of *transparency* and *equal treatment*, which will help bolster the legitimacy of the PPP and acceptance by stakeholders. It should be recognised that in cross border projects, transparency requirements may vary in different countries.

These good procurement principles must be respected from the time the formal tendering process begins. Informal discussions with companies may take place before the process formally begins – and this is particularly important in respect of TEN-T projects. For example, while keeping in mind that achieving balance amongst potential bidders is the eventual goal, the authority may organise info days, technical briefings, early public release of technical documents, etc. As soon as the procurement notice is published, all potential bidders must be given *equal treatment* and a careful audit trail of all contacts with potential bidders must be kept.

- This section of the Guide focuses primarily on *commercial principles of procurement* having general applicability and not on the detailed requirements of EU legislation transposed into national law – although certain EU requirements will be noted in some instances. The goal is to convey to readers the logic and rationale behind the various steps and considerations, rather than to present them simply as procedures prescribed by law (e.g. required time periods are not discussed).
- In particular, although parts of Chapter 3 refer to the restricted and competitive dialogue procedures under EU law (and to the negotiated procedure to the extent that the public authority has created its own more structured process), the same issues when addressed in this Chapter 4 are not set out in separate sections but instead they become part of the topics discussed in this chapter.
- When mention is made in the following sections of how an issue is "typically" handled, or how something should be done according to "good practice" (or similar), the reference is to *good general international practice for PPP procurement*.

Readers of this Guide are encouraged to seek advice on how to conform the procurement activities described here to the requirements of national law.

4.1.1 Procurement notice, prequalification and shortlisting ➤⟨1⟩(2)(3)(4)

Publishing the public procurement notice marks the start of the formal procurement process. The contracting authority must comply with all requirements related to the publication of notices in the Official Journal of the European Union (OJEU). This is followed by a questionnaire to allow interested companies to demonstrate their qualifications, also known as the submission of an expression of interest.

- The purpose of prequalification is to include only those bidders that appear to be capable of carrying out the PPP in an adequate manner.
- The wording of the brief project description contained in the OJEU notice should be broad enough so that it will not need to be subsequently changed – which might then require the notice process to start over again.

Typically, interested parties that respond to an initial notice are sent a short statement of information about the project and instructions or a questionnaire. These form the basis of a qualification submission that such parties must make to demonstrate their capacity to implement the project.

The invitation to prequalify (or prequalification questionnaire, as it may be called) should contain at least the following:

- The broader context of the project;
- An overview of the project, including the intended allocation of major risks and envisaged responsibilities of each party;
- A list and summary of the major studies that will be made available to bidders concerning the project;
- The intended procurement process;
- The qualifications that companies can put forward (e.g. parent or subsidiary companies' qualifications);
- The criteria and tests that will be used to evaluate the prequalification statement (but not necessarily the precise details to be used in any scoring or ranking since that could lead to strategic manipulation by the candidates); and
- A timetable.

It is standard practice for the contracting authority's legal advisers to draft both the PPP procurement notice and the prequalification questionnaire.

Shortlisting

The purpose of short-listing is to reduce the number of bidders to generally three to five. Bidding for a PPP, especially a complex PPP, is a costly undertaking for a bidder. The aim is to maximise competition, not the number of bidders. The presence of too many bidders on the short list may reduce the interest of some in participating and may cause good bidders to drop out.

In some cases, the public sector has sought to encourage candidacy by agreeing in advance to make a payment to each losing bidder that would partially reimburse it for the costs of bid preparation. Such payment could be made from money that the public authority would receive from the winning bidder (once again, specified in advance). The size of the payment has to be calibrated to discourage frivolous bids. Practice varies widely between countries. The public authority should ask their advisers about current market practice in the relevant sector and jurisdiction.

In evaluating the qualification submission, the public authority will focus on the *technical capability, business capability* and *financial position* of the potential bidders. In line with EU public procurement legislation, these capacities must be, in principle, demonstrated jointly, rather than individually, by the members of a consortium.

The prequalification submission will usually be required to describe the following:

- Business activities of the consortium (e.g. how many projects of a similar nature, suitably defined, the consortium has implemented over a specified number of past years);
- Financial information (e.g. thresholds involving turnover and net worth);
- Legal information about the PPP consortium, including any relevant litigation involving the companies; and
- Quality of personnel available to be involved in the project.

The first step of the prequalification and shortlisting process is often to determine which consortia have passed the thresholds on all the relevant dimensions (i.e. pass/fail tests). Most of the criteria (e.g. company revenue) are expressed in terms of clear and objective thresholds. If that determination gives a number of consortia that exceeds the maximum number pre-specified for the shortlist (generally no more than five, depending on the type of project and market), then a systematic and predetermined process for scoring or ranking should be used to narrow down the list to arrive at a shortlist.

Sometimes shortlisting is done partly on the basis of responses that are submitted to a set of open-ended questions about how the companies would address certain key issues if they were to win the contract. For example, in the competitive dialogue procedure, initial shortlisting can be based partly on an assessment of the outline or indicative solutions given by the candidates.

At the end of the process, a well-substantiated prequalification report should be prepared to have a good audit trail. Unsuccessful candidates should be debriefed.

The scale and complexity of many TEN-T projects will tend to limit potential competition. It will be important, therefore, for the public authority to take steps to market the project opportunity effectively to the private sector. Experience shows that the commitment of the public authority to drive through the project – in effect, the political commitment to the project – is extremely important. Commitment at European level is equally important. The TEN-T Executive Agency can advise on how this commitment can be best demonstrated, and communicated, to potential bidders.

Guidance

→ All four references below contain short sections summarising the main steps involved in obtaining expressions of interest and in carrying out prequalification and shortlisting.

⟨**1**⟩ *Toolkit for Public-Private Partnerships in Roads and Highways,*

World Bank and PPIAF (Version March 2009), Module 5, pages 91–97. http://www.ppiaf.org/documents/toolkits/highwaystoolkit/5/5-8.html

⟨**2**⟩ *National Public Private Partnership Guidelines*, *Volume 2: Practitioners' Guide,*

Infrastructure Australia, pages 11–16 and 59–61.

http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

⟨**3**⟩ *Working with Government: Guidelines for Privately Financed Projects*,

New South Wales Government (December 2006), pages 27–30. http://www.treasury.nsw.gov.au/wwg/working_with_government_wwg_guidelines_for_privately_financed_projects

⟨**4**⟩ *Practitioners Guide,*

Partnerships Victoria (June 2001), pages 29–33. http://www.partnerships.vic.gov.au/CA25708500035EB6/0/6223D96175BAEF08CA2570C0001966C3?OpenDocument

4.1.2 Invitation to tender ➤⟨1⟩(2)

Preparation of the tender documents will usually have begun during the last step in Stage 3.2 (prepare draft PPP contract) but to be time efficient, finalisation often takes place during the prequalification period.

- The invitation to tender documentation should contain all the information that bidders will need to bid. It is important that advisers devote sufficient time and effort to develop the documentation in enough detail to ensure comparability of the bids and to reduce the need for debate and clarification before signing the contract.
- The tender documentation, which is usually extensive in detail and volume, will normally include (but not be limited to) information such as the following:➤⟨3⟩,⟨4⟩
    - Detailed information memorandum about the project;
    - Summary of the key commercial principles, including the obligations of each party and risk allocation;
    - Detailed output specifications and minimal required design and technical features;
    - Full draft PPP contract (which, in some countries, would be based on mandatory standard contract terms or on required guidelines of some kind);
    - Instructions to bidders concerning all the information they must submit and the detailed procedures (date and time, etc.) for submission;
    - Evaluation criteria; and
    - Requirements for bid bonds or equivalent security.

Guidance

⟨**1**⟩ *Toolkit for Public-Private Partnerships in Roads and Highways,*
World Bank and PPIAF (Version March 2009).
→ Module 5 (pages 98–102) provides a brief summary of the bidding process with and the contents of bidding documents.
http://www.ppiaf.org/documents/toolkits/highwaystoolkit/5/5-8.html

⟨**2**⟩ *Working with Government: Guidelines for Privately Financed Projects,*
New South Wales Government (December 2006).
→ Very brief summary in pages 30–32 of process and contents of Expressions of Interest.
http://www.treasury.nsw.gov.au/wwg/working_with_government_wwg_guidelines_for_privately_financed_projects

⟨**3**⟩ *Scottish Capital Investment Manual, PPP Guide,*
Scottish Government (April 2009).
→ Section 2 (From OJEU to Contract Award, pages 41–48) outlines the contents of the Invitation to Participate in Dialogue.
http://www.scim.scot.nhs.uk/PDFs/Manuals/PPP/Part1/PPP_Guide1_Full.pdf

***⟨4⟩** *Guidelines for PPP: Request for Proposal,*
Planning Commission, Government of India (2nd edition, July 2009).
→ Useful as a guide to the contents of the invitation to tender; it includes a relatively complete model RFP. Publication details accessible at
http://www.dkagencies.com/doc/from/1063/to/1123/bkId/DK73523321714616846917392537 1/details.html

4.1.3 Interaction with bidders ➤⟨1⟩(2)

Under EU procurement law, the nature and level of communication permissible with bidders will be determined by the procurement procedure chosen (see Step 3.2.4, *Select procurement method*).

In order to maximise the benefits of PPPs, and obtain maximum Value for Money, it is critical to manage the bid process well.

- Shortly after issuing the invitation to tender it is usual to hold a bidders' conference to explain issues and take questions from the bidders. Written clarifications should be provided to all bidders.
- It is also typical to provide for a "data room" open to bidders where they can access detailed documents concerning all aspects of the project.➤⟨3⟩

The complexity of some TEN-T PPP projects will normally require a high degree of interaction between the project management team and the bidders.

The terms and conditions for an interactive process, including the procedures, protocols and ground rules should be included in the broader set of conditions, rights and obligations to which bidders consent. The objective of developing this iterative process is to improve the quality of the proposals by:

- fostering innovative solutions from different bidders;
- clarifying any technical, financial, and commercial issues; and
- providing direct and specific feedback to bidders on key aspects of their bids.

The project management team has to take particular care to protect each bidder's commercial in-confidence material and intellectual property. More generally, the project management team will have to consider probity principles and rules as part of the implementation of the interactive process.

TEN-T cross border projects may raise particular difficulties. Amongst those to take into account are:

- *Language – in which languages will data room material be made available?*
- *Location – whilst most materials will be available electronically, if a physical data room is envisaged, where will this be located?*
- *Management of communication with bidders – where parallel project teams exist, the management of communication with bidders will be particularly critical. The procurement could be compromised if information which should legitimately be made available to all bidders is reserved to one or a small number.*

Guidance

⟨**1**⟩ *National Public Private Partnership Guidelines*, *Volume 2: Practitioners' Guide,*
Infrastructure Australia (December 2008).
→ A discussion about the interaction with bidders is found at pages 23–24
http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

⟨**2**⟩ *Competitive Dialogue in 2008: OGC/HMT Joint Guidance on Using the Procedure,*
UK Office of Government Commerce (2008).
→ A discussion of the dialogue process from the UK perspective is contained in pages 22–29.
http://www.ogc.gov.uk/documents/OGC_HMT_2008_Guidance_on_Competitive_Dialogue.pdf

⟨**3**⟩ *Public Private Partnership Handbook,*
Asian Development Bank (2008).
→ A short outline of the type of documentation to be placed in the data room is found on page 71.
http://www.adb.org/Documents/Handbooks/Public-Private-Partnership/default.asp

4.1.4 Evaluation of tenders and selection of preferred bidder

Once the tenders are submitted, they must be evaluated to arrive at the selection of the preferred bidder.

Bids will generally be first assessed on a number of pass/fail criteria before deciding on the single preferred bidder:

- For example, even if the evaluation score is not based on a technical evaluation, a determination must be made that the technical solution proposed by a bidder is feasible, deliverable and robust, that it is based on reliable technologies, that it meets all minimal technical requirements set and that the costs and financial model are consistent with the technical solution.
- It is important to look at the proposed project management also: the bidding consortium must come across as a cohesive entity rather than just a collection of companies thrown together for bidding purposes.

A key issue is the choice of the criteria for the evaluation and scoring of alternative bids (see Step 3.2.5 *Define bid evaluation criteria*).

Occasionally only one bidder will submit a tender despite the public authority having issued the invitation to tender to several shortlisted candidates. In good procurement practice, the question of how to proceed should be considered case by case.➤⟨1⟩

- If it appears that bidder interest was low because of deficiencies in the tender documents (including the project specifications or the draft PPP contract) and these can realistically be remedied, then the best solution might be to repeat the tender procedure – this time on a better footing.
- If it appears that the bid was made in the bidder's belief that there would be good competition (and this should be supported by the public authority's advisers carrying out benchmarking of prices and in some cases by insisting on actual market testing of the prices of the major subcontracts), then the best solution might be to continue with the procurement and consider the sole bidder to be the winner, provided that the tender is fully compliant and meets all pass/fail evaluation criteria.

An important issue relating to the PPP contract award concerns the new EU Remedies Directive (2007/66/EC), which was required to be transposed into national law by 20 December 2009.➤⟨2⟩. The two most noteworthy elements of this Directive are the following:

- A minimum "standstill period" of 10 days is required between the contract award decision and the actual conclusion of the contract to allow rejected bidders time to conduct their review and decide whether they want to challenge the award. (Such a standstill period had already emerged in case law; the purpose of the new Directive provision is to standardise the terms across member states); and
- More important, under the new Remedies Directive, an aggrieved bidder can bring an action to have the contract rendered "ineffective" if the procuring authority contravened EU procurement rules in a serious way.

Previously, the sole remedy was to award monetary compensation to the aggrieved bidder, but now the contract would come to an end. This contract termination or cancellation will operate only prospectively. Exactly how the various rights and obligations of the parties at that point will be sorted out is left to national law.

Guidance

⟨**1**⟩ *Competitive Dialogue in 2008: OGC/HMT Joint Guidance on Using the Procedure*
UK Office of Government Commerce (2008).
→ A box on page 27 gives guidance on what to do if there is only a single (or no) bidder.
http://www.ogc.gov.uk/documents/OGC_HMT_2008_Guidance_on_Competitive_Dialogue.pdf

⟨**2**⟩ *Revision of the Public Procurement Remedies Directive,*
European Commission (2007).
→ Brief description of the new Remedies Directive and links to FAQs, public consultation documents, etc.
http://ec.europa.eu/internal_market/publicprocurement/remedies/remedies_en.htm

⟨**3**⟩ *Toolkit for Public-Private Partnerships in Roads and Highways*
World Bank and PPIAF (Version March 2009).
→ Module 5, pages 102–106.
http://www.ppiaf.org/documents/toolkits/highwaystoolkit/5/5-8.html

⟨**4**⟩ *Scottish Capital Investment Manual, PPP Guide*
Scottish Government (April 2009).
→ Section 2 (From OJEU to Contract Award) pages 28–35.
http://www.scim.scot.nhs.uk/PDFs/Manuals/PPP/Part1/PPP_Guide1_Full.pdf

⟨**5**⟩ *Procurement Guidelines for PPP Projects*
IPDF, Ministry of Finance, Pakistan, (September 2007).
→ An indication of how the evaluation would be carried out by the project team in pages 23–26.
http://www.ipdf.gov.pk/Procurment_draft_guideline.pdf

⟨**6**⟩ Michael Kerf et al., *Concessions for Infrastructure: A Guide to Their Design and Award*
World Bank (1998).
→ A brief discussion of methods used to evaluate tenders in pages 75 -79.
http://rru.worldbank.org/Documents/Toolkits/concessions_fulltoolkit.pdf

⟨**7**⟩ *National Public Private Partnership Guidelines*, *Volume 2: Practitioners' Guide*, Infrastructure Australia (December, 2008).
→ Pages 61–64 discuss the bid evaluation process.
http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

⟨**8**⟩ *Procurement Processes and Standardized Bidding Documents,*
PPP in Infrastructure Resource Center, World Bank
→ Links to standardized guidelines and bidding documents issued by various countries
http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTLAWJUSTICE/EXTINFRANDLAW/0,,contentMDK:21759171~menuPK:5117613~pagePK:4710368~piPK:64860384~theSitePK:4817374,00.html

⟨**9**⟩ Technical Note 4: How to appoint and work with a preferred bidder,
UK Treasury Taskforce, February 2007
http://www.hm-treasury.gov.uk/d/ACFBEE.pdf

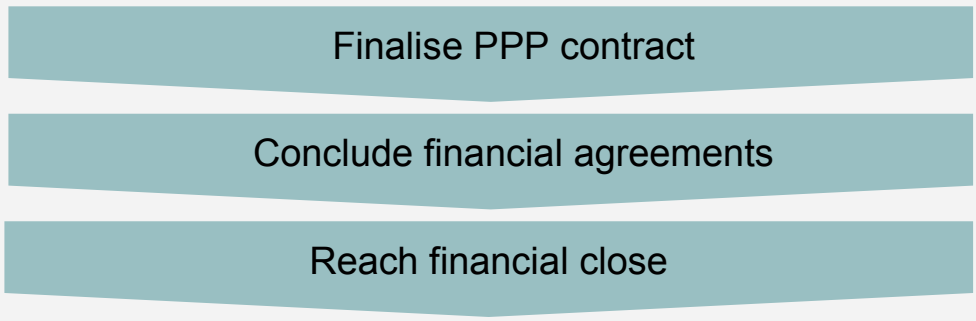
CHECKLIST: *Bidding process*

To carry out a successful bidding process, the public contracting authority and its team of advisers need to ensure that all key questions related to the bidding process have been adequately addressed. For example:

- Is the institution responsible for awarding and managing the bidding process clearly identified?
- Does the format of the pre-qualification documents allow bidders to present information about themselves and clearly sets out the evaluation criteria and processes applicable in pre-qualification complying with the openness and transparency required by EU legislation?
- Do the pre-qualification evaluation criteria include all relevant features related to the quality and strength of the bidders in terms of their capacity to deliver and their awareness of the TEN-T PPP project?
- Does the invitation to tender document include a draft PPP contract, which should set out, among other things, the payment mechanism and penalty regime, and all necessary project data, and output requirements of the public contracting authority?
- Does the invitation to tender document contain all essential components of the TEN-T project, especially the minimum technical, environmental, legal and financial requirements to be provided by bidders which constitute a compliant bid?
- Have adequate provisions ensuring no warranties and setting rules of access to the data room been included in the invitation to tender document?
- Have all critical processes necessary to manage the interaction with bidders during the bidding process (including a code of conduct, communication with bidders, audit trails and meetings, consortia changes and bidders due diligence) been considered and implemented?
- Have the evaluation criteria and processes been established and evaluation teams and committees appointed before bids are submitted?
- Have both public and private sectors considered specific issues of TEN-T funding? Has LGTT or any other specialised financial instrument been considered, if applicable?

4.2 PPP contract and financial close

Chart 8: PPP contract and financial close steps



The finalisation of the PPP arrangements, leading to commercial and subsequently financial close, involves a series of steps summarised in Chart 8. The activities involved in these steps, although concerned in some respects with broad issues, more often deal with highly detailed matters and fine-tuning. Close interaction between the public contracting authority, the private partner and financiers is essential. Stage 4.2 in particular requires thorough organisation and management for it to proceed efficiently. It should be planned carefully, generally making use of experienced advisers. Many PPP projects have experienced difficulties, which can last for years, due to lack of adequate planning or expert advice.

4.2.1 Finalise PPP contract

As noted in the discussion of Step 3.2.4 (*Select procurement method*), different procurement procedures allow for different types and intensities of discussion or negotiation after selection of the preferred bidder and before signing the PPP contract.➤⟨1⟩⟨2⟩. For example:

- Under the EU restricted or competitive dialogue procedures, once the final tenders have been received and a preferred bidder has been selected, the final adjustments should be limited to clarification and confirmation of commitments.

Irrespective of specific EU considerations, a basic principle of good procurement is that any changes to the PPP contract agreed with the preferred bidder in final negotiations must not be *material* to the procurement, in the sense that it must be clear that if these changes had been included in the draft contract and tender documents that was provided to bidders before they submitted their bids, this could not have resulted in *another* bidder being selected as preferred bidder. For example:

- Changing a fundamental aspect of the risk allocation or the committed finance would clearly go beyond what is permitted in good procurement practice and by EU law.

The final discussions with the preferred bidder are often referred to loosely as "final negotiations" even if they are not strictly *negotiations* under the applicable procurement regime. The public contracting authority's negotiating team and the preferred bidder will work together to agree on a framework for final discussions/negotiations. This framework will typically include issues such as:

- timetable;
- definition of remaining issues; and
- the recording of agreed matters.

Guidance

⟨**1**⟩ *Practitioners Guide,*
Partnerships Victoria (June 2001).
→ Chapter 12 (pages 46–48) describes the steps taken in final negotiations of the PPP contract
http://www.partnerships.vic.gov.au/CA25708500035EB6/0/6223D96175BAEF08CA2570C0001966C3?OpenDocument

⟨**2**⟩ E. R. Yescombe, *Public-Private Partnerships: Principles of Policy and Finance,*
Elsevier (2007), ISBN: 978-0-7506-8054-7.
→ Section 6.3.8 offers a concise discussion about the risks of post-bid negotiations (as opposed to clarifications and fine tuning) after the preferred bidder has been selected.

4.2.2 Conclude financing agreements

TEN-T PPPs are normally financed in whole or part through project finance arrangements. Where possible, public authorities should seek to secure a fully committed financing package along with their bids. In this case, concluding the financing agreements could take place shortly after, or simultaneously with, signing the PPP contract.

However, in current market conditions (notably during any period of reduced liquidity in the financial markets), it is unlikely that fully committed financing can be provided at the time of bidding. In this event, it is unlikely that the entire package of financing agreements needed for the project can be concluded immediately after the PPP contract is signed.

Prior to the current crisis, PPP financing for major project financed transactions was usually provided via syndication arrangements whereby a single bank, or small number of banks, would take all project debt, then "re-sell" it to a syndicate of banks.

In practice, most current projects are funded by "clubs" of banks which assume they will hold project debt to maturity (i.e. it will not be sold down, or syndicated). In some cases, these club arrangements can only be concluded after appointment of the preferred bidder – so called post preferred bidder "book-building" (see below).

The strength of financier commitment which can be obtained at the time of bidding will depend on the particular project and market. Bidders should at least show a reasonably *deliverable* financing plan in their proposals – i.e. it should be demonstrated that the debt, equity and grant providers have reviewed and accepted the broad design of the PPP and the major contractual provisions, including the proposed risk allocation. For many projects this commitment will be conditional to some extent since financiers will generally not complete their *detailed* due diligence until after the PPP contract has been signed.

Sometimes lenders will insist on changes to the PPP contract after they carry out their review and detailed due diligence. There may be limits, however, to how much the public authority can change the PPP contract at that point in response to lenders' requests without going against good procurement principles. Normally, most lenders will also want to see full draft subcontracts and ensure that major subcontracts (e.g. turnkey construction contract and operating and maintenance contract) are pre-agreed and subcontractors are committed to fixed price contracts before they sign the financing agreements.

In some larger PPPs, the public authority has played an active role in ensuring competitive financing terms by requiring a *debt funding competition*, particularly in the UK. Under this method, the preferred bidder is required to carry out a competition, overseen by the public authority, for third-party debt in order to obtain the best financing terms, and the public authority takes the benefit (in whole or in part) gained by any improvement in financing terms. This method requires intensive involvement of capable financial advisers, and it may not be suitable for projects or in markets where financial innovation is expected to play a significant role in the competitive position of bidders. Moreover, it may not be suitable in conditions of limited financial liquidity.➤⟨1⟩

In these circumstances, the private sector may need to engage in post preferred bidder "book-building". ➤⟨2⟩

A large number of financing agreements are needed for a project financed PPP deal. These agreements have three basic purposes:

- First, they are designed to protect the interests of senior lenders *vis a vis* sub contractors and other providers of finance (for example, equity investors). In particular, senior lenders wish to ensure that *considering the total financial risks taken on the private sector*, those borne by their borrower (the PPP company) are minimised. In practice this means that to the greatest possible extent, risks taken by the private sector are 'passed down' to sub-contractors (rather than remaining with a thinly capitalised PPP company);
- Second, the agreements need to clearly establish that the servicing of senior of debt takes priority over returns to all other forms of finance – indeed, this is what makes senior debt 'senior'; and
- Third, the suite of financing agreements is designed to ensure that, should things go wrong to the extent that lenders' debt investment is at risk, lenders have the powers to take the actions they deem necessary to protect their investment.

The third point is crucial, and goes to the heart of the benefits that PPP can deliver for the public authority. A well designed PPP aligns the interests of lenders and the public authority in that both require a successful project to meet their objectives. Lenders are incentivised – and empowered - to ensure that problems with the project are addressed in a timely manner. Only in this way can they be certain that their investment is assured. For this reason, the public authority should be able to rely on lenders' incentives to deal effectively with problems in both construction and operation that would threaten the project's performance. This is a major source of risk transfer from public to private sector in PPP projects ➤⟨3⟩ (see the Annex *Project Finance*).

Some of the typical financing agreements to be prepared and concluded are:

- senior loan agreements (agreements between lenders and the PPP company setting out the rights and obligations of each party regarding the senior debt);
- common terms agreement (an agreement among all the financing parties and the PPP company that sets out the terms that are common to all the financing instruments and the relation between them – including definitions, conditions, order of drawdowns, project accounts, voting powers for waivers and amendments, etc.; a common terms agreement greatly clarifies and simplifies the multi-sourcing of finance for a PPP);
- where subordinated or mezzanine debt is used in the financing structure, subordinated loan agreements may be provided by the project sponsors or third party investors, or both;
- shareholder agreement as part of the constitutive documents of the PPP company;

Procurement

- direct agreement (allowing the senior lender to take over the project – "step in" – under certain circumstances specified in the tender documents);
- accounts agreement (involving a bank to control the cash flowing to and from the PPP company, to make sure that it is used in the way that has been agreed and that the PPP company's shareholders cannot siphon out cash if disaster is looming);
- shareholder funds and subordination agreement (to ensure subordination to the senior lenders' interests);
- security agreements (share pledge; charge over accounts; movables pledge; receivables pledge, etc.);
- sub-contracts for construction, operations and other services;
- parent company guarantees and other forms of credit enhancement; and
- Legal opinions from the lender's legal advisors on the enforceability of contracts.

These agreements often contain many cross-references and therefore will generally have to be prepared as a unified package.➤⟨4⟩

Enforceability of contracts is a key issue for lenders in their due diligence investigations. This includes the issue of the *vires*, or powers, of the public authority to enter into transactions. This issue is likely to be considerably more complex in cross border transactions where lenders will need to be assured that mechanisms are in place to ensure enforceability against public authorities in multiple jurisdictions. The issues of the liability attaching to Authority A on Authority B's default will also be important.

Guidance

***⟨1⟩** *Preferred Bidder Debt Funding Competitions,*
HM Treasury (Aug. 2006).
→ Draft outline guidance.
http://www.hm-treasury.gov.uk/d/ppp_pbdfcguide100806.pdf

⟨**2**⟩ *The financial crisis and the PPP market. Potential Remedial Actions*
European PPP Expertise Centre – EPEC (Abridged version, August, 2009).
→ Abridged version of a study providing a framework for analysing some potential responses to the financial crisis, as it affects the Public Private Partnerships (PPP) market across the EU, and identifying a list of issues and considerations for the attention of public sector.
http://www.eib.org/epec/infocentre/index.htm

⟨**3)** E. R. Yescombe, *Public-Private Partnerships: Principles of Policy and Finance,*
Elsevier (2007), ISBN: 978-0-7506-8054-7.
→ Chapter 8 provides a good summary of what project finance is and why it is often used for PPPs.

***⟨4⟩** Graham Vinter, *Project Finance: A Legal Guide,*
Sweet and Maxwell Ltd. Third Edition (2006), ISBN: 0421-909501.
→ Chapter 7 includes how to negotiate a credit loan agreement, and chapter 8 discusses credit security and related issues.

Procurement

Box 5: Insurance ➤⟨1⟩(2)(3)

Adequate insurance coverage for a wide range of events is especially important for a PPP project because the single-purpose and thinly capitalised nature of the PPP company make it unlikely that the company will be able to self-insure to any substantial extent.

In this regard, the interests of the public authority and the senior lenders for the most part are well aligned and it may therefore seem that the public authority can rely on the lenders to impose adequate insurance requirements on the PPP company. Nevertheless, it is a prudent safeguard for the public authority to require inclusion in the PPP contract of certain minimal insurance requirements (which should not go beyond what the lenders are likely to require). These insurance requirements should be developed and negotiated with the support of professional insurance advisers since project finance-related insurance is a highly specialised area.

The main categories of insurance coverage that the public authority would normally require include the following:

- During the construction phase:
  - Contractors' "all risks" insurance (physical loss or damage to all works and equipment at the construction site);
  - Third party liability insurance; and
  - Possibly: "Delay in start up" (DSU) insurance (loss of revenue or profit due to a delay in project completion).
- During the operation phase:
  - "All risks" property insurance;
  - Third party liability insurance; and
  - Business interruption insurance (similar to DSU insurance).

Special environmental insurance could also be required, depending on the type of project.

For each kind of insurance coverage, requirements should be set out in the PPP contract regarding the basic features, minimum level of coverage, principal exclusions and maximum deductible (i.e. the amount for each event below which the insurance company will not pay).

There will be other issues that will have to be considered. For example, for certain types of coverage, it may be in the public authority's interest to agree to indemnify the PPP company if a risk becomes "uninsurable" (including being insurable only at a prohibitive cost).

Guidance

⟨**1**⟩ E. R. Yescombe, *Public-Private Partnerships: Principles of Policy and Finance,*
Elsevier (2007), ISBN: 978-0-7506-8054-7.
→ Section 12.4 (pages 211–218) provides a summary of the major issues and concerns for the public authority.

⟨**2**⟩ Graham Vinter, *Project Finance: A Legal Guide,*
Sweet and Maxwell Ltd. Third Edition (2006), ISBN: 0421-909501.
→ Chapter 6 discusses certain insurance issues from a more legal perspective.

*⟨**3**⟩ *Standardisation of PFI Contracts,*
HM Treasury (UK), Version 4 (March 2007).
→ Chapter 25 consists of a detailed treatment of a wide range of insurance issues, along with suggested and (in UK) required contract clauses.
http://www.hm-treasury.gov.uk/ppp_standardised_contracts.htm

4.2.3 Reach financial close

Financial close occurs when all the project and financing agreements have been signed and all the required conditions contained in them have been met to enable funds to start flowing (from loans, equity and grants) so that the project can truly start up.

Any remaining "conditions precedent" in the financing agreements need to be fulfilled before funds can be disbursed. Among them typically are the following:➤⟨1⟩,⟨2⟩

- Permitting and planning approvals have been secured;
- key land acquisition steps achieved;
- clarification of remaining design issues;
- finalising and signing of any remaining key project and financing documents; and
- all funding approvals are in place (e.g. all remaining issues needed to secure release of grant funding from a donor)

Finally, public authorities will need to confirm that requirements of all internal approvals have been met. These could include:

- Confirmation of legality of procurement;
- Approval for derogation from any standard contracting terms;
- Value for Money check; and
- Affordability check.

There is often a considerable amount of detailed work to do to reach financial close by the PPP company and by the public contracting authority. The effort needed should not be underestimated. The public contracting authority should manage its tasks effectively with the help of its team of advisers.

Guidance

⟨**1**⟩ Scott L. Hoffman, *The Law and Business of International Project Finance,* Cambridge University Press, 3rd edition (2008), ISBN: 978-0-521-70878-4.
→ Chapter 24 (pages 328–335) describes 27 typical categories of conditions precedent to financial close for a generic project finance deal.

⟨**2**⟩ E. R. Yescombe, *Principles of Project Finance,* Academic Press (2002), ISBN: 12-0-770851-0 (pp. 312–314).
→ Brief summary of what financial close entails, including list of typical requirements, in pages 312–314.

CHECKLIST: *PPP contract and financial close*

To negotiate the PPP contract and reach financial close, the public contracting authority and its team of advisers need to ensure that key questions related to the PPP contract, financing and ancillary agreements have been adequately addressed. For example,

- Has a negotiating team been assembled and empowered to take decisions on most issues pertaining to the PPP contract?
- Have the contracting authority and the negotiating team agreed a negotiating strategy, including an assessment of the position of the contracting authority on key issues and a risk management strategy?
- Have the legal advisers evaluated the marked-up draft PPP contract, assessing it against its risk allocation and Value for Money implications?
- Have the financial advisers assessed affordability, project costs, sources and costs of funding, project "bankability" (including private consortium composition, structure, risk distribution and funding plan)?
- Have the negotiations resulted in terms and conditions that vary substantially and materially from the bid offer and therefore could be open to challenge because they are less favourable or could have resulted in the selection of a different bidder?
- Have all the legal and administrative requirements of contract award been complied with?
- Is the PPP contract still affordable and does it represent Value for Money?

4.2.4 Summary

Chart 9: Procurement summary

Stage 4.1: Bidding process

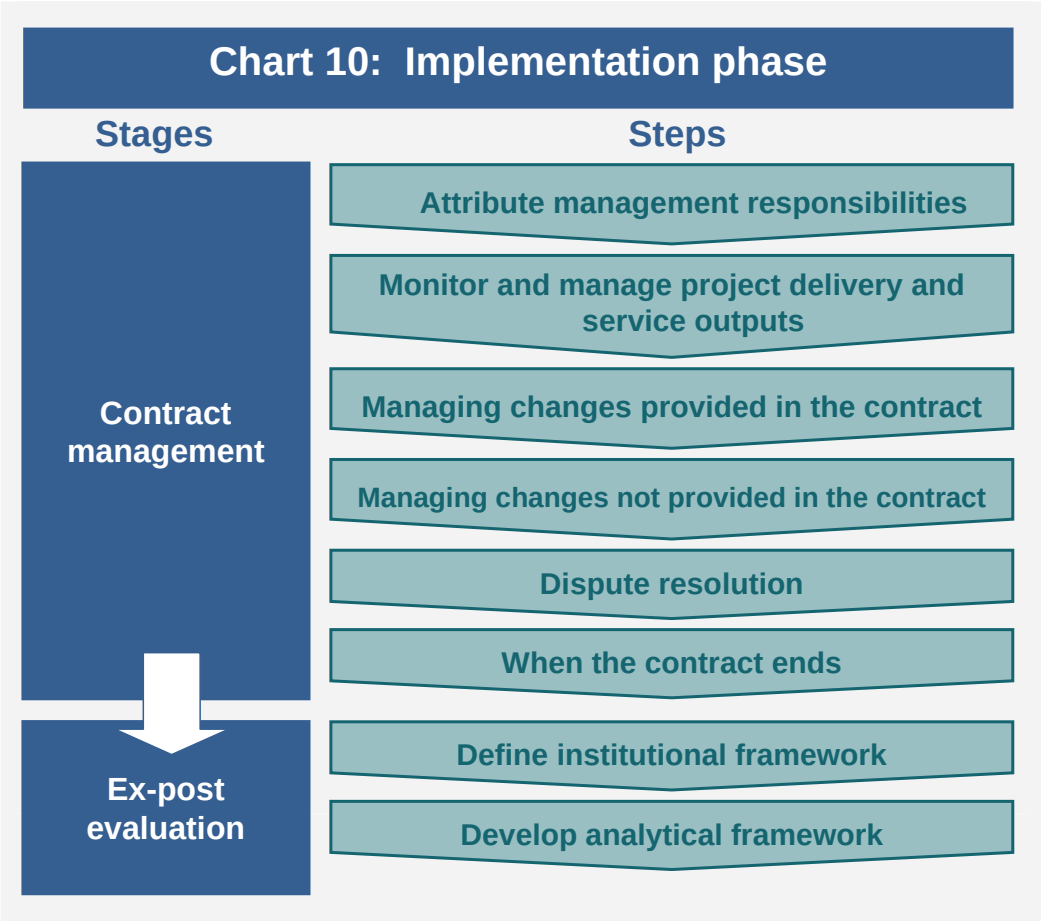
Steps	Key tasks
Procurement notice, prequalification and shortlisting	- Issue public procurement notice - Send an invitation to prequalify to interested parties - Shortlist bidders and publish prequalification report
Invitation to tender	-Send invitation to tender to shortlisted bidders
Interaction with bidders	- Hold a bidders conference - Issue the necessary written clarifications
Evaluation of tenders and contract award	- Select preferred bidder

Stage 4.2: PPP contract and financial close

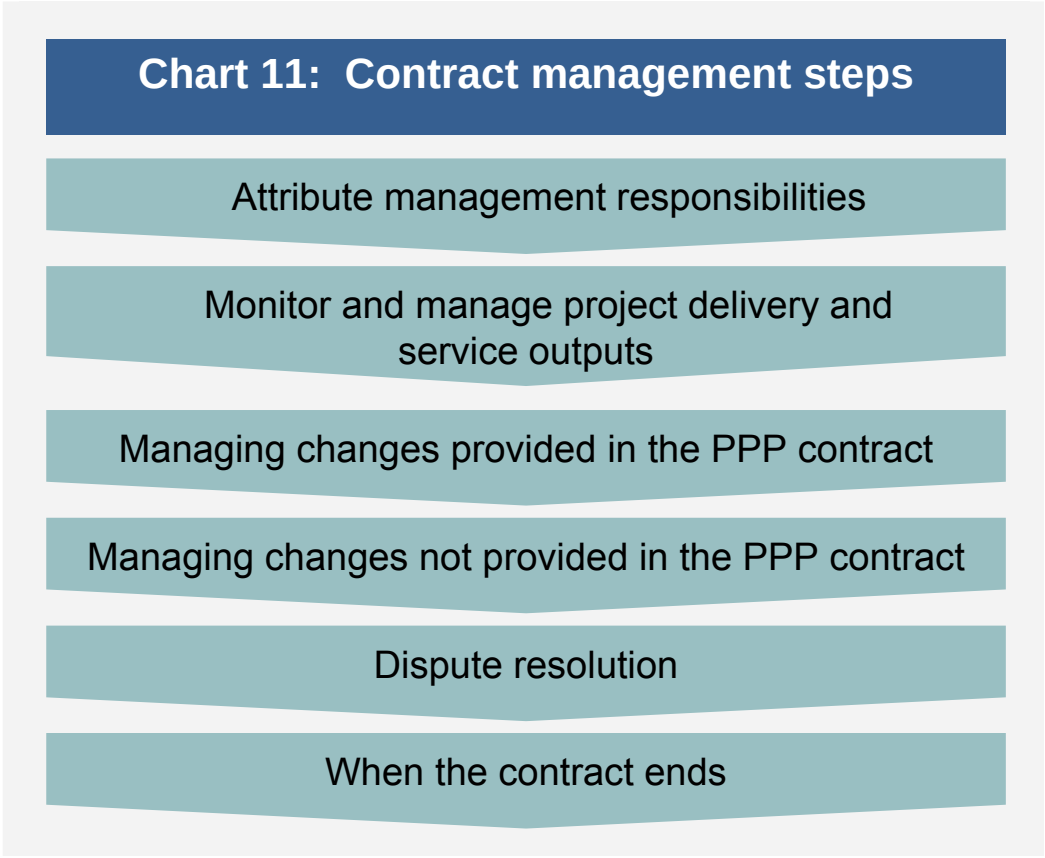
Steps	Key tasks
Finalise PPP contract	- Negotiate contract details with preferred bidder - Implement non-material changes to the contract and sign PPP contract
Conclude financial agreements	- Conclude the financing and ancillary agreements associated with the PPP project
Reach financial close	- Sign all PPP-related agreements

5 Project Implementation

This chapter covers the time during which a TEN-T PPP project is being implemented. The chapter deals with the most common issues which officials in the public contracting authority may have to address during the life of the project. This implies regular monitoring of performance and taking appropriate actions as set out in the PPP contract. In some circumstances, it can also include addressing the need for changes to the contract – for example, modifying the performance specifications or the scope of the project. Chart 10 summarises the main stages and steps involved in the project implementation phase of a TEN-T PPP.



5.1 Contract management



The contract management stage involves a series of steps summarised in Chart 11. During the implementation of the PPP project, the public contracting authority should ensure the following:

- separation of project management and contract management responsibilities;
- provision of the contract management team with clearly defined responsibilities and sufficient resources; and
- establishment of management rules to deal with PPP contract monitoring, adjustment to the contract and dispute resolution to maintain contract integrity.

Although good preparation and procurement of a PPP project are important, the way the PPP contract is overseen and managed during implementation is critical to its success or failure – and to the ultimate determination of Value for Money.

The rest of this section develops the rationale and contents of the activities that the public authority will carry out during the implementation of the PPP.

5.1.1 Attribute management responsibilities

After contract signing, the responsibility for contract management will normally be transferred to a contract management team, established by the public contracting authority. If a roads agency, for example, has more than one PPP contract, it makes sense for efficiency reasons that a single contract management team manages all ongoing PPP contracts.

A contract management team, reporting to a contract director, will carry out many day-to-day contract management activities. It is desirable to include the proposed contract director in the project management team at an early stage of the procurement process, or at least allow her to observe the procurement process and have access to procurement team members. This enables an informed preparation of the contract management strategy, including an understanding of the project and its inherent risks.

Before this transfer of responsibilities occurs, the public authority will need to ensure that:➤⟨1⟩

- there is a clear definition of responsibilities, by separating project management from contract management responsibilities;
- the provisions for handling contract changes and managing contractor failure are in place;
- a system of ongoing contract management review is in place, which includes proper oversight of contract management by public stakeholders; and
- there are sufficient budget and staff resources to undertake the contract management responsibilities.

It is important that the public authorities set the basic framework under which contract management teams will operate prior to choosing the preferred bidder. This will reduce the uncertainty faced by the bidders in terms of the expected costs and required interaction with the public authorities throughout the duration of the contract. Specifically, bidders will need to incorporate monitoring and contract compliance costs into their bids and should therefore be provided with a clear indication of what type of information will be required from them and how often.

At the start of the contract managing phase, the contract management team will need to develop in detail the management tools and processes, including contingency plans and protocols in place to manage changes by means of a contract administration manual.➤⟨2⟩

Guidance

⟨**1**⟩ *Partnership Victoria Guidance Material: Contract Management Guide,*
Infrastructure Australia (December 2008).

→ Section 1 (pages 3–6) and section 4 (pages 23–25) identify the main steps to develop a contract management strategy.

http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

⟨**2**⟩ *Guidelines for the Provision of Infrastructure and Capital Investments through Public Private Partnerships: Procedures for the Assessment, Approval, Audit and Procurement of Projects,*
Irish Government (July 2006).

→ Discusses the establishment of a project management structure in the context of PPPs in Ireland (page 21).

http://www.ppp.gov.ie/keydocs/guidance/central/Value%20for%20Money%20%20Technical%20%20Note.doc

5.1.2 Monitor and manage project delivery and service outputs

The contract should have clearly stated the obligations of the PPP company and defined the service characteristics, outputs and quality levels expected.

- Effective contract management depends, in the first place, on getting the contract right. This implies setting out the procedures that guarantee a close monitoring of the PPP company's performance and general compliance with the agreed contract.
- The contract management team will normally start by agreeing with the PPP company all the tasks and sub-tasks that each party needs to undertake and the appropriate timeframes for their completion. These operational details are generally absent from the PPP and operation & maintenance contracts and need to be set out in a contract administration manual (consistent with these contracts) at the start of the contract management phase.➤⟨1⟩
- If implemented properly, effective contract management will identify and monitor the PPP company's operations and public authority's responsibilities and manage all risks over the life of the contract to achieve the project objectives.

Regular monitoring

In order to effectively monitor the project implementation, the PPP company will need to provide the contract management team with operational and financial data on an ongoing basis. The PPP contract, and operation & maintenance agreement, should have set out at least the basic items of information required and the timing. Often, more detail will need to be specified at the start of the contract management phase. The contract management team should request only as much data as is necessary for the effective monitoring (and ex-post evaluation) of the project. Excessive data collection imposes unnecessary burdens on the PPP company and on the public contracting authority.➤⟨2⟩

Some examples of the monitoring activities of the contract management team are:➤⟨3⟩,⟨4⟩

- monitor the achievement of key performance indicators;
- review quality control and quality assurance procedures to ensure that these systems are in place and effective;
- establish and manage the day-to-day relationship with the PPP project company; and
- report regularly to the stakeholders.

Risk management

The risks that the contract management team will need to manage fall into different categories:➤⟨5⟩

- project risks contractually allocated between the parties;

- intrinsic risks borne by the public contracting authority;
- project risks not contractually allocated; and
- risks associated with changes to the contract.

It is essential that the contract management team has a clear understanding of the requirements of the contract and the rationale for those requirements. The role of the contract management team will be different depending on whether or not these risks have been identified in the contract and contingency plans established.

Any potential problems should be identified early and acted upon. If problems appear to be persistent, and if the project company's first point of contact cannot deal with them, the issue should be elevated to a more senior level. Procedures like this will usually be specified in the PPP contract administration manual.

Reporting requirements may be more complex for cross border projects, or those that have benefited from public sector capital contributions, either from European Commission or national funds.

Guidance

⟨**1**⟩ *Partnership Victoria Guidance Material: Contract Management Guide,*
Infrastructure Australia (December 2008).

→ Section 7 (pages 7–12; pages 46–55), section 6 (pages 28–40), and section 13 (page 104–106) discuss the main issues regarding the contract administration manual (with an example), a description of the reporting requirements in contract monitoring, and a description of the information management process required by ongoing reviews, respectively.

http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

⟨**2**⟩ *An Introductory Guide to Public Private Partnerships (PPPs),*
Government of Hong Kong SAR, 2nd edition (March 2008).

→ Section 8 (pages 61–65) highlights the main issues arising from performance monitoring.

http://www.eu.gov.hk/english/psi/psi_guides/psi_guides_ppgpop/psi_guides_ppgpop.html#3

⟨**3**⟩ *Guidelines for Successful Public Private Partnerships,*
European Commission, Directorate General Regional Policy (March 2003).

→ Section 6 (pages 90–92) provides a brief overview of the contract monitoring activity from the EC perspective, with some additional examples.

http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf

⟨**4**⟩ *Toolkit for Public-Private Partnerships in Roads and Highways,*
PPIAF–World Bank (version March 2009).

→ Module 5, section 5 (pages 122–127) identifies the relevant issues addressed by contract managers and contains an example of the indicators usually monitored in toll roads projects.

http://www.ppiaf.org/documents/toolkits/highwaystoolkit/4/4-3.html

⟨**5**⟩ *National Public Private Partnership Guidelines*, *Volume 2: Practitioners' Guide,*
Infrastructure Australia (December 2008).

→ Appendix H.2 (pages 124–128) identifies main project risks and their relationship with contract management.

http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

5.1.3 Managing changes provided in the PPP contract

PPP contract changes are easier to deal with if appropriate procedures are in place. The tender documents and consequently the contract will typically set out the triggers and methodologies for adjustment but may not detail all the steps that need to be undertaken to implement the changes. In the case of changes provided for in the tender documents and in the contract, the contract administration manual, in addition to specifying the responsible departments or staff, should contain clear terms and specific conditions governing:

- who can request a change;
- who should be involved in assessing the impact of the change;
- who can authorise the change; and
- how the implementation of the change is overseen and verified.

It is relevant to distinguish between routine changes, extraordinary changes, and contingency plans provided in the contract:

- *Routine changes* to the contract will normally be dealt with by the contract management team. In this context, typical changes provided for in the contract are changes in payment amounts through benchmarking, market testing or other mechanisms, such as indexation or adjustments in response to changes in traffic volumes, for example.➤⟨1⟩
- *Changes provided for in the contract* that are related to extraordinary events are more complex and need in many circumstances to be elevated to a more senior level for the final decision. For example, certain changes in output specifications, the refinancing of the deal or changes in the law are often dealt with as extraordinary events. The contract manual should set out in detail the terms and conditions governing the criteria for pricing, limited output variation in the contract and refinancing, and any grounds on which the concessionaire or the contract management team may refuse to implement a variation. Provision is made in many contracts for refinancing debt or equity. The contract may also cover sharing of gains from refinancing (see Box 6 *Sharing gains from refinancing*). It should be noted that the consent of lenders may be required for the types of changes noted in this section.
- For *emergency events*, that is, unplanned or unexpected events that threaten the ongoing provision of services, a set of protocols developing a contingency plan should be in place. Such a plan has to be consistent with the basic responsibilities set out in the PPP contract. Protocols can cover scenarios such as:➤⟨2⟩
- business continuity and disaster recovery planning;
- public sector step-in planning; and
- default planning.

In all cases, it is important to exercise best efforts to respect the terms of the PPP contract, taking advice as appropriate.➤⟨3⟩ **(4)**

Guidance

⟨**1**⟩ *An Introductory Guide to Public Private Partnerships (PPPs),*
Government of Hong Kong SAR, 2nd edition (March 2008).

→ Section 8 (pages 68–71) discusses some of the implications of adjustments to contract terms.

http://www.eu.gov.hk/english/psi/psi_guides/psi_guides_ppgpop/psi_guides_ppgpop.html#3

⟨**2**⟩ *Partnership Victoria Guidance Material: Contract Management Guide*,
Infrastructure Australia (December 2008).

→ Section 12 (pages 96–102) offers a discussion of each scenario mentioned in the main text in more detail.

http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

⟨**3**⟩ *Standardisation of PFI Contracts,*
HM Treasury UK (version 4, March 2007).

→ Several chapters discuss in detail different kinds of contractual adjustment mechanisms designed to deal with supervening events – e.g.: compensation, relief and force majeure events (chapter 5); change in service (chapter 13); change in law (chapter 14); and price variations (chapter 15).

http://www.hm-treasury.gov.uk/ppp_standardised_contracts.htm

⟨**4**⟩ *Sample Clauses*,
PPP in Infrastructure Resource Center, World Bank.

→ Outlines a number of clauses dealing with areas that can give rise to confusion in infrastructure projects if not carefully considered (change of law, dispute resolution, force majeure, insurance clauses).

http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTLAWJUSTICE/EXTINFRANDLAW/0,,contentMDK:21759221~menuPK:4704603~pagePK:4710368~piPK:64860384~theSitePK:4817374~isCURL:Y,00.html

Box 6: Sharing gains from refinancing ➤⟨1⟩

An important issue in the design and implementation of PPPs, which has gained relevance in the past decade, is the sharing of gains that the PPP company realises from refinancing the PPP by replacing the original bank debt (or equity) by new debt on more favourable terms. Refinancing can become feasible if the interest rate drops or if risks affecting the project have decreased. Refinancing can take a number of different forms – e.g.:

- reduction in interest margins;
- extension of debt maturity;
- increase in the amount of debt at the expense of equity (e.g. made possible because reduced risk has lowered the lenders' minimum required debt service cover ratio); or
- reduction in reserve account requirements.

Refinancing will often result in gains to the shareholders of the PPP company. Part of the gain may be due to the PPP's good performance and the company's efforts in reducing risk. But part of the gain can also be due to greater confidence of lenders in the PPP market in the particular country, or due to macroeconomic factors – all of which are beyond the control of the PPP company. In that case, gains to the shareholders can appear undeserved and create political difficulties. For this reason, it is considered appropriate to share the gains from refinancing in some way between the company shareholders and the public authority to prevent a windfall to the PPP company shareholders.

Current practice is to include detailed provisions in the PPP contract setting out a mechanical method for determining and sharing the gains from future refinancing – rather than to rely on broad principles and unconstrained renegotiations of the contract when a refinancing takes place. The UK started the trend in 2002 with its standardised contract provisions for refinancing and other countries have followed a similar approach.

Refinancing methods are complex and their use requires intensive support from financial and legal advisers. The contract provisions require specialised drafting. The exercise requires several steps:➤⟨2⟩⟨3⟩

- calculate the expected gain to the shareholders from the refinancing (e.g. incremental net present value of the refinancing gain to the shareholders);
- determine the portion of the gain that goes to each contractual party (e.g. 50:50 or a share going to the public authority with step increases up to a final marginal rate of 70% as is the case currently in the UK); and
- decide how the sharing should take place (e.g. lump sum payment to the authority, decrease in service fee to the PPP company or another method).

There are many other details about the method that need to be specified in advance to avoid later discussion and disagreements – e.g. about the discount and interest rates to be used and about how to treat the possible

impact of a refinancing on the termination payment that the public authority might have to make in the future. What is most important, in the spirit of the PPP approach, is to anticipate these questions ahead of time and include detailed provisions in the PPP contract.

Guidance

⟨**1**⟩ E. R. Yescombe, *Public-Private Partnerships: Principles of Policy and Finance,*

Elsevier (2007), ISBN: 978-0-7506-8054-7.

→ Chapter 16 gives an in-depth summary of the major issues involved in the refinancing of PPP projects.

⟨**2**⟩ *Guidance Note: Calculation of the Authority's Share of a Refinancing Gain,*

UK Office of Government Commerce (2005).

→ This document gives a detailed explanation of the basic method used in the UK.

http://www.hm-treasury.gov.uk/d/pfi_refinancingguidance21307.pdf

⟨**3**⟩ *Standardisation of PFI Contracts,*

HM Treasury (UK), Version 4 (March 2007).

→ The model contract clause governing the sharing of refinancing gains can be found in section 34.8.

http://www.hm-treasury.gov.uk/ppp_standardised_contracts.htm

5.1.4 Managing changes not provided in the PPP contract

Unforeseen contract changes in services involving both construction and operational changes are not unusual especially considering the length of PPP contracts. The contract management team needs to address these issues and correctly strike the balance between:

- encouraging the contractor to manage its risk; and
- preventing the contractor's poor performance, whatever the reason, from endangering the viability of the PPP contract.

While contract renegotiations may be a common feature of PPPs in some countries➤⟨1⟩, there is a need to acknowledge and limit the risks involved. Contracts can be designed in ways that aim to minimise major renegotiations at a later stage. Contract renegotiations involve careful analysis and dialogue between the parties before contract changes are agreed and implemented. The use of an experienced, trusted and neutral facilitator can be beneficial.

While some renegotiations are efficient, many are opportunistic and should be deterred.

During the first few years of the TEN-T PPP project, it is not uncommon that several minor adjustments are made to the PPP contract. These minor changes, as long as they are in compliance with EU law, are typically beneficial, since they are a way to correct mistakes or gaps, or to clarify issues.

Major contract renegotiations, which typically have considerable implications, are in principle forbidden under EU law and are generally regarded as undesirable for reasons which include:

- Competitive bidding is distorted: the most likely winner is not the most efficient operator but the one most skilled in renegotiation;
- Renegotiation takes place away from competitive pressures when carried out in a bilateral government-operator environment; or
- Renegotiations often decrease the overall economic benefits of the PPP and might have a negative fiscal impact.➤⟨2⟩

It should be noted that lenders may also have rights to prevent changes to the contract which would, in their opinion, alter the credit status of the PPP company, which is their borrower.➤⟨1⟩⟨3⟩

Guidance

*****⟨**1**⟩ J. L Guasch, *Granting and Renegotiating Infrastructure Concessions-Doing It Right,*
The World Bank Institute (2004), ISBN: 0-8213-3792-0.
→ Chapter 7 contains lessons for optimal concession design with a view to avoiding opportunistic renegotiations, based on experience from hundreds of renegotiations of infrastructure concessions in Latin America.

⟨**2**⟩ *Toolkit for Public-Private Partnerships in Roads and Highways,*
PPIAF–World Bank (version March 2009).
→ Module 5, section 5 (pages 133–138), discusses the main disadvantages and occasional advantages of contract renegotiation, and provides some of the lessons learned from past experience.
http://www.ppiaf.org/documents/toolkits/highwaystoolkit/4/4-3.html

⟨**3**⟩ *Guidelines for the Provision of Infrastructure and Capital Investments through Public Private Partnerships: Procedures for the Assessment, Approval, Audit and Procurement of Projects,*
Government of Ireland (July 2006).
→ Pages 31–32 contain a discussion of the implications of changes to the contract associated with refinancing in the context of PPPs in Ireland.
http://www.ppp.gov.ie/keydocs/guidance/central/Value%20for%20Money%20%20Technical%20%20Note.doc

5.1.5 Dispute resolution

Contractual disputes are common in PPPs for a number of reasons, for example:

- the contract is long term and unexpected circumstances are bound to emerge;
- PPP projects involve large investments in immovable assets; or
- PPP projects tend to be large and complex.

These issues are even more relevant in the case of cross border TEN-T projects and, as in the case of any PPP, properly addressing them implies close involvement of legal advisors.

Disputes may occur because of unforeseen outcomes or circumstances. The mechanisms that are available to resolve disputes and conflicts are a major part of the assessment of contract risks by private investors in PPP projects. Some examples are:➤⟨1⟩,⟨2⟩

- the national court system (litigation);
- arbitration (national or international);
- expert determination of some kind (often used for limited issues – e.g. a specific technical or financial issue in dispute – or used to give an interim decision which can then be appealed in litigation or arbitration);
- mediation or conciliation (where the third party does not give a binding decision but the goal is rather to enable the parties to reach agreement); and
- a decision by a specialised regulatory body or a similar body.

The first three mechanisms generally involve adjudication based strictly on the PPP contract. The last mechanism (decision by a regulatory body) could be based mainly on the PPP contract but some regulators have a tendency to diverge from the PPP contract in certain ways, based on their legal mandate. In some cases, the issues decided by the regulator are not governed by detailed rules in the contract and it is understood that the regulator will exercise a certain amount of discretionary judgment. This may add considerable risk for investors if they do not have confidence in the stability of the regulatory framework or the decisions of the regulator.

Effective relationship management in a PPP project facilitates the easy resolution of disputes in the future. Likewise, if a party resorts to an inappropriate dispute resolution process, the process can worsen the damage to the relationship resulting from the dispute.➤⟨3⟩,⟨4⟩

For this reason, it is vital that an appropriate dispute resolution process is set out beforehand in the PPP contract.

Guidance

⟨**1**⟩ *Toolkit for Public-Private Partnerships in Roads and Highways,*
PPIAF–World Bank (version March 2009).
→ Module 5, section 5 (pages 139–140) identifies some dispute resolution procedures.
http://www.ppiaf.org/documents/toolkits/highwaystoolkit/4/4-3.html

⟨**2**⟩ *Standardisation of PFI Contracts,*
HM Treasury UK (version 4, March 2007).
→ Section 5 (pages 233–235) discusses alternative dispute resolution procedures in the context of the UK.
http://www.hm-treasury.gov.uk/ppp_standardised_contracts.htm

⟨**3**⟩ *Guidelines for Successful Public Private Partnerships,*
European Commission, Directorate General Regional Policy (March 2003).
→ Section 6 (pages 93–94) discusses relationship management issues.
http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf

⟨**4**⟩ *Partnership Victoria Guidance Material: Contract Management Guide,*
Infrastructure Australia (December 2008).
→ Section 8 (pages 58–67) offers a discussion of the importance of maintaining good communication channels in the context of dispute resolution.
http://www.infrastructureaustralia.gov.au/public_private_partnership_policy_guidelines.aspx

5.1.6 When the contract ends

A PPP contract should include detailed provisions dealing with the termination of the contract. The main issues to be addressed are:

- the circumstances in which the contract may be terminated by a party;
- the payment (if any) that must be made by the public authority to the PPP company upon termination (depending on the circumstances); and
- the condition of the assets when they are handed over to the public authority following a termination.

As a general remark, it should be stressed that the early termination should not alter the initial balance of the contract, as this might be considered an unlawful modification.

This sub-section will focus on the second point above but will also briefly discuss the other two topics.

a) Grounds for termination

The typical grounds for termination are:

- Expiry at the end of the contract term
- Default by the PPP company
- Default by the public authority
- Voluntary decision by the public authority ("convenience termination")
- Termination in the case of prolonged force majeure

The contract should describe in detail the circumstances that will allow a party to terminate the contract because the other party has defaulted on its obligations. The contractual breach has to be fundamental in nature. For example, the public authority would normally be entitled to terminate the contract in the case of the insolvency or bankruptcy of the PPP company or an egregious deficiency in service standards (e.g. where health or safety is threatened) that is not promptly remedied. A detailed list should be included of all the breaches that entitle termination.

Especially difficult can be how to handle the common problem of "persistent breach" – the accumulation of many breaches, each of which would not be enough to trigger termination but all of which together constitute fundamental non-performance. It is good practice to try to make the criterion to assess the existence of persistent breach as objective as possible – e.g. by specifying a value of accumulated penalties, deductions or performance points (over a specified period of time) that will be used as the trigger.

The typical example of default by the public authority is non-payment of the service fee (or other payment due to the PPP company), including cases in which the public authority has not adequately adjusted the company's remuneration in accordance with the terms of the contract, in response to

various contingencies that have arisen. Another (broad) example is serious interference with ability of the PPP company to perform.

b) Termination payments

The public authority may be required under the contract to make payments to the PPP company if the contract is terminated. These provisions are generally complex and need to be carefully drafted with the assistance of specialised advisors. They require the balancing of a number of considerations, especially:

- fairness;
- incentives; and
- an appropriate trade-off between conceptual correctness and certainty (this will be illustrated below).

The specification of termination payments can be important even if the contract is never terminated. For example, if the public authority is renegotiating the contract with the PPP company, it should not accept an outcome that would be less favourable to it than simply terminating and making the requisite payment. So the termination payment becomes the "reservation price" in the renegotiations.

The following sets out in a simplified way the approaches for calculating the termination payment for different kinds of termination. ➤⟨1⟩,⟨2⟩,⟨3⟩

Expiry of contract

PPPs are usually structured so that the public authority makes no payment to the PPP company when the PPP expires at the end of its normal term. But under certain circumstances, payments will be provided for. For example, if new assets have been constructed in connection with an extraordinary event, the terms of compensation may include a lump-sum termination payment to be made by the public authority, as well as an increase in the periodic service fee during the remaining term of the PPP.

Termination for default by the PPP company

Termination for contractor default is the final stage of a process which commences when a project is failing to perform to expectation. The PPP contract would be expected to set out the various circumstances which could trigger termination. These will include failure to complete construction, persistent failure to meet performance standards and the insolvency of the private sector partner. The contract will also set out the circumstances in which failure to perform can not be used to trigger termination (sometimes known as "relief events").

In the first instance of serious failure on the part of a *contractor* (e.g. insolvency, poor performance, corruption etc.), the PPP company would be expected to replace non-performing sub-contractors and seek termination damages from the replaced contractor. These should be set at a level which would allow the project company to meet any additional costs associated with the replacement contractor.

In the case of default by the PPP company, lenders would expect to be allowed to step-in to save the PPP project and the public sector would be expected to permit, and rely on, lenders to control the PPP project. The right of step-in is typically foreseen in a direct agreement entered into between the project company, the lenders and the parties to the project's key underlying commercial contracts.

The PPP contract will be terminated only if lenders choose not to step-in, or choose to step out of a non-performing project. It would be normal that in these cases equity would be entirely lost and no compensation would be payable to shareholders. Compensation for transfer of the PPP project assets may be payable to senior lenders. This will be determined either through the provisions of the PPP contract, the applicable legal code, or where the public sector has agreed to guarantee part of the project's senior debt.

As a general principle, the public sector should not be incentivised to seek early termination, but equally lenders should not expect to avoid loss where the public sector is incurring additional costs. In practice, a number of mechanisms can be employed to achieve a balanced result:

- For example, in a typical PFI arrangement in the UK, where there is a liquid market in similar projects and the early termination is due to default by the project company, the procuring authority can choose to "sell" the unexpired period of the project contract and the best bid capital sum obtained as a result of such "sale" will be used to pay compensation to the lenders (so-called "*market value based compensation on termination*").

- Where there is no liquid market in similar projects the amount of the lenders' compensation will typically be determined by the present value of future cash flow under the project minus present value of future costs minus rectification costs (so-called "*fair value based compensation on termination*").

The insolvency of the PPP company is an important cause of contractor default. In traffic risk projects, this could occur when the failure of traffic volumes to grow sufficiently in the early post construction years means that the PPP company can no longer service its debt in line with the agreed schedule. In this case, lenders could choose to 'accelerate' their debt (i.e. make the entire debt due and payable) – this would force the PPP company into insolvency. In this scenario, the incorporation of the LGTT in the financing structure could significantly reduce the risk of default. It would, therefore, also reduce the potential call on any guarantees offered to senior lenders by the public authority.

It is generally accepted nowadays in PPPs that, if the assets financed under the project remain with the public, the public authority should often make a termination payment to the PPP company even if the contract has been terminated for default by the PPP company. Otherwise, the public will have received an unjustified windfall. Given that most or all of this payment will go to lenders, the shareholders of the PPP company will emerge as losers in this kind of termination – which is as it should be since the PPP company was at fault.

This is a key issue in the PPP contract, and of considerable importance to the bankability of the deal. There are different methods used to calculate the payment that the public authority must make to the PPP company (which must be used as first priority to pay lenders), including:

- repayment of outstanding debt (to the extent it has been properly used for project assets) or a pre-specified percentage of outstanding debt;
- depreciated value of assets financed by debt (there are several variants of this general approach);
- present value of expected future net cash outflow to be avoided by the public authority by terminating the contract (i.e. the service fee less all costs that the public authority will have to incur); and
- open-market sale (the public authority rebids the PPP contract, selects a new company that will continue with the contract and then pays to the original PPP company the proceeds it receives from the sale).

Methods actually used can combine the different approaches in various ways. Each of these methods has pros and cons. For example, it is argued that lenders should not be assured of 100% recovery because that would remove their incentives to conduct thorough due diligence and careful project monitoring. Another example: the open-market-sale method will not work well if there is no liquid market for PPP contracts. Finally, the method involving a net present value calculation may be conceptually appealing, but making forecasts of future costs and revenues can be highly speculative and lead to disputes. Parties therefore often prefer solutions involving the certainty of easily determined values and clear calculations.

Termination for default by the public authority; or voluntary termination

A long tradition in contract law, supported by considerations of fairness and correct incentives, argues in this case for putting the PPP company in the financial position it would have been in if the contract had not been terminated but had run its course ("expectation damages"). Lenders should therefore be fully compensated. The problems arise with how to calculate the payment due to the equity holders. Generally, some form of discounted cash flow measure is used. Variants include the following, each having pros and cons:

- Net present value of what the future cash flows to equity holders would most likely have been, from the termination date up to the normal end of the PPP contract. This is the most conceptually correct method, but it suffers from the uncertainty of the forecasts that would need to be made.
- Same as above, but based on the pro forma cash flows in *base case* financial model. This has greater certainty but might suffer from problems relating to fairness and incentives (e.g. if the project is doing much better than expected in the base case, it might give the public authority an incentive to terminate the contract).
- A payment that will give the equity holders the IRR they expected, based on all cash flows from the beginning of the contract up to (and including)

termination. This can have the advantages of more certainty in the early years of the PPP contract – e.g. before the operating phase has begun.

Termination for prolonged force majeure

The basic principle in this case is that since neither party is at fault, the burden should be shared in some way. Therefore, the required payment will often be somewhere between those required in the cases of PPP company default and public authority default. It may be, for example, that outstanding debt is paid and sometimes also the value of the equity injected into the project (but not a return on that equity).

Other details

The description above gives just the rudiments. The PPP contract will have to include other components and give greater precision about many of the elements of the calculations, for example:

- how sub-contractors' costs related to termination should be dealt with;
- how to categorize for these purposes mezzanine and other subordinated debt (i.e. which types are to be treated like senior debt and which types like equity?);
- how to deal with reserves, insurance proceeds, etc.; and
- the precise specification of the discount rate to be used for each type of present value calculation (nominal or real? pre-tax or post-tax? based on the base case financial model or on current market values, or on both?).

c) Condition of assets at expiry of the PPP contract

The PPP contract should contain provisions to ensure that the assets are handed back to the public authority in good condition. For example, the contract could include provisions such as the following: ⟨**2**⟩,⟨**4**⟩

- Clear principles describing the condition the assets must be in at contract expiry (e.g. expected useful life to be remaining for each type of asset, or ability to meet certain performance tests)
- Assessment of asset condition and description of works to be completed, made by an independent expert sufficiently in advance of the expiry date
- Possibly, deductions to be made from the service fee during this final period, the proceeds of which to be held in an escrow account
- Verification by an independent expert that the needed works have been completed adequately, and subsequent release of retention money to the PPP company

Guidance

⟨**1**⟩ E. R. Yescombe, *Public-Private Partnerships: Principles of Policy and Finance,*
Elsevier (2007). ISBN: 978-0-7506-8054-7.
→ Chapter 15 provides an extensive discussion of the major issues in determining the approach and calculating the termination payment for different types of termination.

⟨**2**⟩ *Updated Standard Commercial Principles*,
Partnerships Victoria, Guidance Material (April 2008).
→ Section 29 presents a concise set of principles governing the termination payments to be made under a PPP contract. The work may be useful as an introduction, since it is the form of summary terms (cf. *Standardisation of PFI Contracts,* noted below).
http://www.partnerships.vic.gov.au/CA25708500035EB6/0/39517301B59F9F16CA25742700229DC3?OpenDocument

⟨**3**⟩ *Standardisation of PFI Contracts*,
HM Treasury, Version 4 (March 2007).
→ Section 21 gives extensive and detailed drafting instructions for PPP contract provisions governing types of termination and termination payments, along with a discussion of the reasoning behind the various provisions.
http://www.hm-treasury.gov.uk/d/pfi_sopc4pu101_210307.pdf

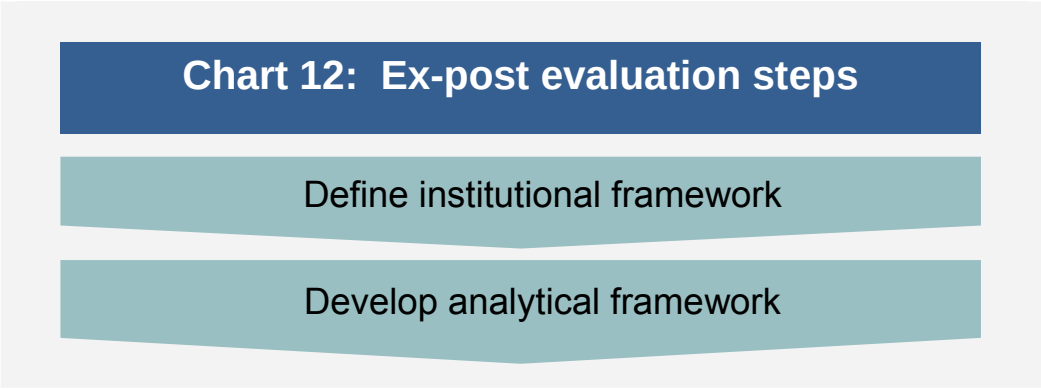
⟨**4**⟩ *Toolkit for Public-Private Partnerships in Roads and Highways,*
PPIAF–World Bank (version March 2009).
→ Module 5, section 5 (pages 126–132) provides a discussion of the requirements of asset hand-over and the importance of ensuring the maintenance of assets' residual value.
http://www.ppiaf.org/documents/toolkits/highwaystoolkit/4/4-3.html

CHECKLIST*: Contract management*

In the operational period of a TEN-T PPP project, the focus of the public contracting authority is to manage the contract while maintaining operational performance. To achieve this, the public contracting authority and its team of advisers need to consider all items in the following checklist:

- Has the possibility of engaging the same advisers employed in the procurement phase been considered in terms of their availability, potential engagement, required budget and conflict of interest?
- Have experienced advisers been consulted with to help the contract management team address sensitive changes to the contract, including refinancing?
- Has a contract administration manual been developed to help coordinate information on contract terms with contract management procedures, including allocation of responsibilities and timetables?
- Have guidelines been developed for users to help monitor contract performance in case this is envisaged?
- In availability-based PPPs, are payments to the PPP company being processed properly and in accordance with the PPP contract?
- Have all necessary steps been taken to ensure continuing review and monitoring of project risks using, for example, the risk register developed during the detailed preparation phase?
- In the event of changes to the contract, what steps are envisaged to keep monitoring efforts on operational performance and not just on managing changes to the contract? In particular, what mechanism has been developed to ensure that Value for Money is maintained after the changes if risks are transferred from the PPP company back to the contracting authority?
- Have criteria and procedures been agreed to monitor the residual value of the asset so that the asset management and maintenance practices support the TEN-T PPP project objectives and maximise Value for Money?
- Has a communication strategy been developed to deal with the PPP company, transport users and other relevant stakeholders with regular reviews and updates?

5.2 Ex-post evaluation



The detailed ex-post evaluation of PPPs involves the two steps summarised in Chart 12. A sound evaluation of a PPP project requires the public sector to:

- identify the public body that will undertake the review of a particular PPP project;
- ensure the independence of that body *vis-à-vis* the teams responsible for implementing and managing the PPP contract; and
- define the questions that need to be answered in the evaluation exercise.

The rest of this section describes these aspects and their rationale in more detail and suggests relevant examples of ex-post evaluations for further reading.

5.2.1 Define the institutional framework

Ex-post evaluation of TEN-T PPP projects facilitates learning lessons from the experience of implemented projects, including successes and failures. These lessons can improve future decisions on whether to use the PPP route or how to design PPP contracts, for example, and ultimately how best to prepare and implement PPP projects.

It is important that the information needs for ex-post evaluation are thought through carefully and specified in the PPP contract. This ensures that the right information is gathered during the course of the project with the support of the public contracting authority and the project team.

The timing for evaluating a PPP is an open question, although a balance is needed between getting useful information quickly to inform current processes and getting meaningful data on performance. Evaluation around 12–18 months after the commencement of operations will provide information on the bidding process, the delivery of the project asset, and initial performance. Subsequent evaluations will provide better information on operational performance. ➤⟨1⟩

The purpose of an ex-post evaluation is twofold:➤⟨2⟩

- Evaluate the merits of PPPs associated with a particular type of project (e.g. TEN-T highway PPP projects).
- Identify potential issues related to the implementation or management of specific PPP contracts (e.g. availability-based PPPs).

Evaluation requires the establishment of relevant criteria and methods and the capacity within the public authority to carry out the process. In order for this process to be successful it is important that the public authorities:

- define the set of questions they would like to see answered; and
- decide on who is best placed to answer those questions.

The type of body most suitable for the ex-post evaluation exercise depends on the objectives of the PPP ex-post evaluation. It is not unusual, for example, that national audit units undertake such studies.➤⟨3⟩ In some instances, for example, ex-post evaluation can be contracted out to a consulting firm, especially when in-house expertise is not available within a public body.

But whatever the nature, the public authority will have to ensure that the body undertaking the evaluation is independent from the teams responsible for delivering and implementing the PPP project subject to evaluation.➤⟨4⟩

Guidance

⟨**1**⟩ *Benchmarking Period – Sample Wording*
PPP in Infrastructure Resource Center (PPPIRC)
→ Considers the problem of inaccuracies in the assumptions for financial modelling and performance standards, and provides sample wording for an initial benchmarking period at the beginning of a contract.
http://siteresources.worldbank.org/INTINFANDLAW/Resources/benchmarkingperiod.pdf

⟨**2**⟩ *Guidelines for the Provision of Infrastructure and Capital Investments through Public Private Partnerships: Procedures for the Assessment, Approval, Audit and Procurement of Projects,*
The Government of Ireland (July 2006).
→ A discussion of the different purposes of ex-post evaluation is in pages 30–31.
http://www.ppp.gov.ie/keydocs/guidance/central/Value%20for%20Money%20%20Technical%20%20Note.doc

***⟨3⟩** Various reports,
UK National Audit Office (NAO).
→ The NAO has played an important role in looking at the PFI/PPP experience in the UK. Their report on the Fazakerley PFI prison contract, for example, revealed the need to share the gains from refinancing PFI/PPP contracts to protect Value for Money for the taxpayer. Over the years NAO reports have audited many transport PPP projects drawing lessons that are relevant to TEN-T PPP projects. Examples are the first four Design-Build-Finance-Operate highway projects in the UK, the Channel Tunnel rail link, and the London Underground PPP contracts.
http://www.nao.org.uk/guidance__good_practice/good_practice/ppp_and_pfi.aspx

⟨**4**⟩ *Highway Public Private Partnerships, More Rigorous Up-Front Analysis Could Better Secure Potential Benefits and Protect Public Interest,*
US Government Accounting Office (February 2008).
→ The report is an example of a PPP review by the US Audit Public Body.
www.gao.gov/cgi-bin/getrpt?GAO-08-44

5.2.2 Develop an analytical framework

Once responsibilities have been attributed and the aim of the ex-post evaluation study has been defined, it will be necessary to decide which analytical framework is most adequate to achieve the aims of the study. ➤⟨1⟩ This implies defining:

- the evaluation criteria and expected outcomes of the project; and
- the appropriate alternative (i.e. counter factual: what would have happened if the project had not been implemented as a PPP?)

A well-designed PPP contract should have provided for sufficient information, collected during the monitoring phase, to support this evaluation exercise.

PPP projects will normally be defined in terms of Value for Money. This implies identifying both the benefits derived from project outputs and the costs to deliver those outputs, both monetary and in terms of timing. However, more qualitative benefits and costs, such as service quality, contract design and risk allocation, need also to be considered in the evaluation.

In addition to examining the costs and benefits, the evaluation will need to identify which alternatives should have been looked at. These can be alternative procurement models to PPP, or different project delivery and implementation procedures. It is common to use the public sector comparator as a relevant alternative. However, depending on the objectives of the study, other comparators can also be considered, such as the expected Value for Money at the start of the project.➤⟨2⟩,⟨3⟩

Guidance

⟨**1**⟩ Michael Burnett, *Public-Private Partnerships (PPP) – A Decision Maker's Guide,*

Institut Européen d'Administration Publique (2007), ISBN -978-92-9203-001-8.

→ Chapter 6 (pages 150–165) develops a detailed operational approach to PPP audits.

⟨**2**⟩ *Resource Book on PPP Case Studies,*

Directorate-General of Regional Policy, European Commission (June 2004).

→ Example of PPP review in the EU using case studies.

http://ec.europa.eu/regional_policy/sources/docgener/guides/pppguide.htm

⟨**3**⟩ *Case Studies of Transportation Public-Private-Partnerships in the United States*,

US Department of Transportation (July 2007).

→ An example of PPP review in the transport sector using case studies in the US and other countries.

www.fhwa.dot.gov/ppp/pdf/us_ppp_case_studies_final_report_7-7-07.pdf

CHECKLIST*: Ex-post evaluation*

An ex-post evaluation of a TEN-T PPP project can focus on many aspects including, for example, the design and performance of a PPP contract, or an audit of the procurement process. Examples of the type of questions to address when designing and undertaking an ex-post evaluation are:

- Has agreement been reached on the primary focus of the ex-post evaluation? Is it the behaviour and effectiveness of the public contracting authority; the effectiveness of the procurement method chosen (e.g. competitive dialogue?) including negotiations and contract award; or effectiveness in the performance and management of the TEN-T PPP contract; or all of the above?
- Have the information needs for ex-post evaluation been identified and included in the TEN-T PPP contract to allow the gathering of adequate information during the performance phase?
- Have the necessary instructions been given, resources made available and high level support obtained to motivate both the contract management team and the public contracting authority to get the necessary information for an ex-post evaluation assessment?
- Has a timetable for ex-post evaluation been developed and approved balancing the need of getting useful information quickly to inform current processes and getting meaningful data on performance?

5.2.3 Summary

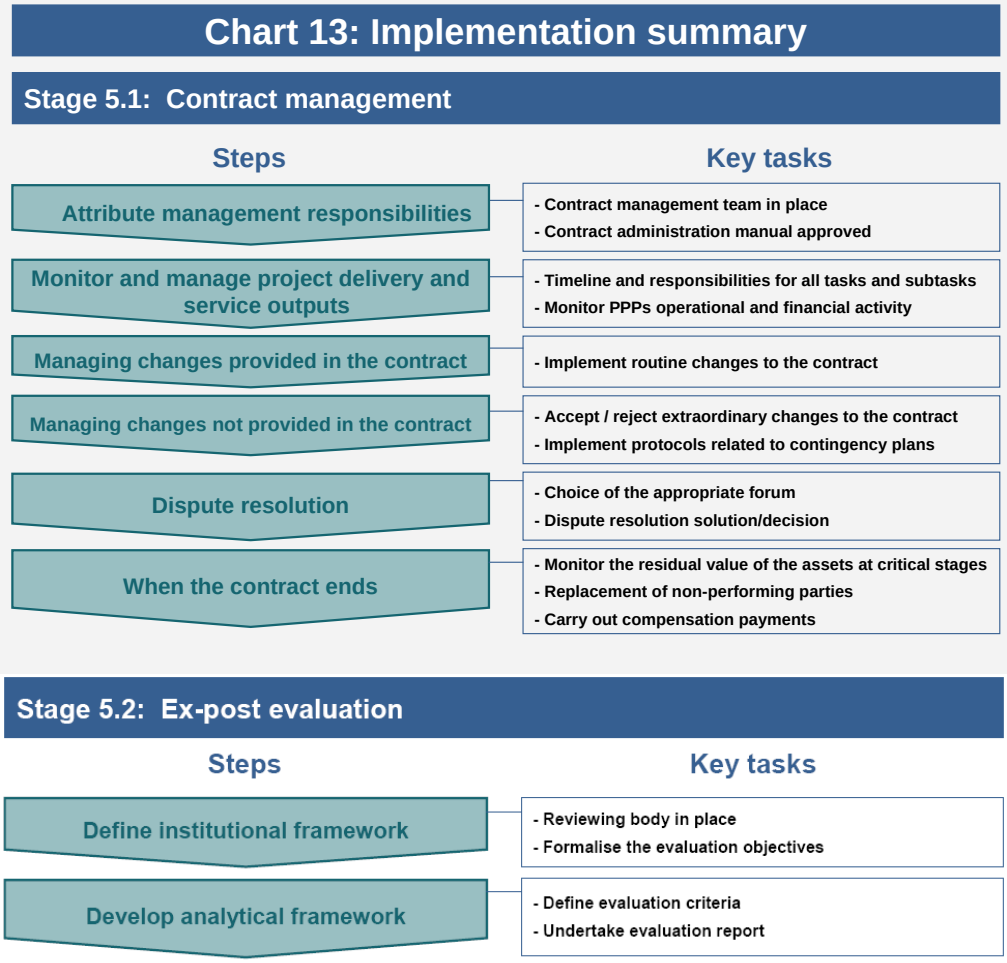


Chart 13: Implementation summary
Stage 5.1: Contract management
Steps
Key tasks
Attribute management responsibilities
- Contract management team in place
- Contract administration manual approved
Monitor and manage project delivery and service outputs
- Timeline and responsibilities for all tasks and subtasks
- Monitor PPPs operational and financial activity
Managing changes provided in the contract
- Implement routine changes to the contract
Managing changes not provided in the contract
- Accept / reject extraordinary changes to the contract
- Implement protocols related to contingency plans
Dispute resolution
- Choice of the appropriate forum
- Dispute resolution solution/decision
When the contract ends
- Monitor the residual value of the assets at critical stages
- Replacement of non-performing parties
- Carry out compensation payments
Stage 5.2: Ex-post evaluation
Steps
Key tasks
Define institutional framework
- Reviewing body in place
- Formalise the evaluation objectives
Develop analytical framework
- Define evaluation criteria
- Undertake evaluation report

Annex: Project finance

Introduction

This Annex introduces some basic concepts of project finance and how they relate to the financial structure of TEN-T PPP projects. It is not meant to cover all the issues relevant to the PPP financing structure, which are many and complex. The project management team should rely on the expertise of financial and legal advisers to understand the relevant trade-offs in project finance issues.

TEN-T PPP projects are generally financed using *project finance* arrangements. In project finance, lenders rely either exclusively (*non-recourse* financing) or mainly (*limited recourse* financing) on the cash flow generated by the project to repay their loans and earn a return on their investments. This is in contrast to corporate financing where lenders take assets on the borrower's balance sheet as security for their loans.

It is important to appreciate that the project finance structure should be designed to optimise the costs of finance for the project. It should also underpin the allocation of risks between the public and private sectors as agreed in the project agreement. In particular, the project financing should ensure that financial and other risks are well managed within and between the private consortium and its financiers. This should give comfort to the public authority that the private partner, and particularly its funders, are both incentivised and empowered to deal in a timely manner with problems that may occur in the project. Indeed, to a very large extent, the project finance structure should ensure that the interests of the main lenders to the project are aligned with those of the public authority – that is, that both need the project to succeed in order to meet their objectives. Where this is the case, the public authority can be confident that the lenders will take on much of the burden of the assuring the on-going performance of the project. This is a key element of the transfer of risk from public to the private sector in PPPs.

Project finance structures

In a project finance transaction, a PPP company would usually be set up by the sponsors solely for the purpose of a PPP. It will act as borrower under the underlying financing agreements and will be a party to a number of other project-related agreements.➤⟨1⟩

The top-tier funding provided by lenders or capital market investors, usually referred to as "senior debt" typically forms the largest but not the sole source of funding for the PPP company. The rest of the required financing will be provided by the sponsors in the form of equity or junior debt. Grants, often in effect a form of public sector unremunerated equity, may also make up the financing package.

Since senior lenders do not have access to the sponsors' balance sheets in project financed transactions, they need to ensure that the project produces sufficient cash flow to service the debt. They also need to ensure that the legal structuring of the project is such that senior lenders have priority over more junior creditors in access to this cash. In addition, lenders will usually also seek additional credit support from the sponsors and/or third parties to

hedge themselves against the risk of the project's failing to generate sufficient cash flow. Finally, lenders will wish to ensure that where a project suffers shortfalls in cash as a result of poor performance by one or more of the project sub-contractors, these shortfalls impact on payments to the sub-contractor leaving the ability of the project company to service the debt unimpaired.

Even though in a PPP it is the private sector that arranges the financing and it is the PPP company that is the borrower, it is important for public sector officials and their advisers to understand the financing arrangements and their consequences for a number of reasons:

- When the public authority evaluates the bidder's proposal, it must be able to assess whether the proposed PPP contract is *bankable* and whether the proposed financing is *deliverable*. Otherwise it will be a waste of time to award the PPP contract to a company that ends up being unable to finance the project.
- The allocation of risks in the PPP contract (developed by the public contracting authority and their advisers and set out in the draft contract included in the invitation to tender) can affect the feasibility of different financing packages and the overall cost of financing.
- The financing can have an impact on the long-term robustness of the PPP arrangement. For example, the higher the debt-to-equity ratio, the more likely that in bad times the PPP company will run the risk of a loan default, terminating the project. Conversely, the more debt in a project, the more lenders are incentivised to ensure that project problems are addressed in order to protect their investment.
- If the PPP includes state guarantees, or EU funds, as is the case in TEN-T projects, the public contracting authority will play a direct role in some part of the financing package.
- The amounts and details of the financing can directly affect contingent obligations of the public contracting authority – e.g. the payments the public sector would have to make if the contract were terminated for various reasons.
- The public contracting authority's financial advisers should have a thorough understanding of what will be needed to make the PPP project bankable, given market conditions and practices prevalent at the time. Carrying out market sounding exercises at different points during the project preparation stages will greatly assist in developing a good understanding of investor and lender attitudes. It will save a great deal of time if any credit enhancements to be provided by the state (or to be initiated by the state – e.g. by a request to an international financial institution like the EIB or to the European Commission in the case of a TEN-T project) are described in the invitation to tender (see step 4.1.2, *Invitation to tender*).➤⟨2⟩,⟨3⟩

5.2.3.1 Financing structure

As outlined above, the financing of a PPP consists principally of senior debt[10] and equity (which may sometimes be in the form of junior shareholder loans). The financial structure may also include other forms of junior debt (such as "mezzanine" debt which ranks between senior debt and pure equity) and in some cases up-front grant funding.

PPP projects should seek to achieve optimum (as opposed to maximum) risk transfer between the public and private sector. But the allocation of risks amongst the private sector parties is also crucial. Financial structuring of the project relies on a careful assessment of construction, operating and revenue risks and seeks to achieve optimum risk allocation between the private partners to the transaction. In practice, this means limiting risks to senior lenders and allocating this to equity investors, sub-contractors, guarantors and other parties through contractual arrangements of one kind or another.

As a general principle, the higher the gearing of a project, the more affordable it is likely to be to the public sector.[11] This is because senior debt is less expensive than the other forms of financing (except for grants). Other things being equal, project gearing (i.e. the level of debt senior lenders will provide relative to the level of equity) will be determined by the variability of project's cash flows. The greater the degree of riskiness in the cash flows, the greater the "cushion" lenders will need in the forecast of available cash flow beyond what will be needed for debt service. This is necessary to give comfort that the debt can be repaid even in a bad-case scenario. Lenders will specify their requirement in terms of forward-looking (i.e. predicted) Annual Debt Service Cover Ratio (ADSCR)[12] above a specified minimum level. The value of required ADSCR will depend in large part on project risk, and therefore variability of cash flows.[13]

For a given gearing (or volume of debt in the project), the target ADSCR will determine the level of the annual charge to be paid by the authority. Alternatively, for a given level of charge to the authority (perhaps the affordability limit), the target ADSCR will determine the project's gearing. In other words, the lower a project gearing (the more equity relative to debt), the higher the cover ratio from a given unitary charge.

The public authority's financial advisers need to understand lender requirements in this regard. It will greatly facilitate financing if the project developed and taken to the market is structured in such a way that the cover ratios lenders expect to use for the particular sector and type of project are justified when the lender carries out a risk analysis. This will also facilitate achieving the best possible cost for the financing and will thus have direct

[10] I.e. where debt service is paid from cash flow on a priority basis.
[11] In a typical TEN-T PPP project, up to 70%–80% of financing would be procured in the form of senior debt while the share of equity would not normally exceed 20%–30%.
[12] The ADSCR is defined as the ratio of free cash (i.e. cash left to the project after payment of operating and essential capital costs) available to meet annual interest and principal payments on debt.
[13] For example, if the payment mechanism is designed so that the project company does not take demand risk, lenders might be satisfied with a projected annual debt service cover ratio (ADSCR) of 1.3x. But if a PPP company bears substantial traffic risk, then lenders may insist on a minimum ADSCR as high as 2.0x. Lenders use detailed forward-looking financial models to estimate future cash flows and cover ratios.

implications for the public sector as the public sector is the ultimate payer for a PPP.

One of the fundamental trade-offs in designing PPPs is therefore to strive for the right balance between risk allocation between the public and private sector, the risk allocation with the private sector consortium and cost of funding for the project company.

Debt

Senior debt enjoys priority in terms of repayment to all other financing. Mezzanine debt is subordinated in terms of repayment to senior debt but ranks above equity both for distributions of free cash in the so-called "cash waterfall" (i.e. priority of each cash inflow and outflow in a project) and on a liquidation of the borrower (i.e. the project company) Since mezzanine debt's repayment can be affected by poor performance of the borrower and bearing in mind the priority in repayment of senior debt, return on mezzanine debt is typically higher than on senior debt.

Debt to a PPP project is normally priced on the basis of the underlying cost of funds to the lender plus a fixed component (or "margin") expressed as a number of basis points to cover default risk and the lender's other costs (operating costs, the opportunity cost of capital allocations, profit, etc.).

It is important to bear in mind that the underlying cost of funds is typically determined on the basis of floating interest rates (i.e. rates that fluctuate with market movements). These are normally based on interbank lending rates such as EURIBOR in the Euro market or LIBOR in the Sterling market. In contrast to these floating rate funds, the revenues received by the project company do not generally change along with the interest rates. This mismatch is typically remedied by the use of an interest-rate swap, through which the project company ends up paying a *fixed* interest rate. Incorporating these instruments into the financing structure should be left to the responsibility of the project company, as it is the project company who has the right incentives to take appropriate actions. However, the cost of these swaps is relevant to the public sector as they may result in costs in certain termination situations. For this reason, they should be analysed by the authority's financial advisor.

Debt for major TEN-T projects may be provided by either commercial banks, international financial institutions (such as the European Investment Bank) or directly from the capital markets. In this latter case, project companies issue bonds which are taken up by financial institutions such as pension or insurance companies which are looking for long term investments. More information on capital market funding for PPP investments can be found in the references below.➤⟨4⟩

Financial advisers will be able to advise on the likely sources of funding for a given project. They would also be expected to make an assessment of the anticipated costs and benefits of funding options. This will include an assessment of the debt tenors (the length of time to maturity, or repayment, of debt) likely to be available from various sources. This is particularly important if long term funding is not available for the project and where the public sector

may be drawn into risks associated with the need to refinance short term loans (so-called “mini-perm” structures).➤⟨4⟩

Equity

Equity is usually provided by the sponsors and can also be provided by contractors who will build and operate the project as well as financial institutions. A large part of the “equity” (often referred to as “quasi-equity”) may actually be in the form of shareholder subordinated debt, because of tax and accounting benefits. Since equity holders bear primary risks under a PPP project, they will seek higher return on the funding provided by them.

Credit enhancement

Credit support from sponsors and sub-contractors. Sponsors will often be required by senior lenders to put in place certain credit-enhancement measures that take some of the risk away from those senior lenders (and in some cases, equity holders). These can take a variety of forms, including the following:

- *Guarantees* by the sponsors and third parties relating to the performance of the project company’s[14] or other participants’[15] obligations under the project documentation.
- *Financing facilities* that provide temporary liquidity to deal with specific risks (e.g. a large depreciation of the local currency).
- *Insurance* against certain project-related risks (e.g. construction risks, loss of revenue, third party liability, environmental liability, etc.).

Public sector support. State support instruments may also be deployed, for example:

- *Direct funding* support by way of public sector capital contributions. These may come from national, regional or specific funds for TEN-T (visit EPEC and TEN-T EA websites for more information). They may be designed to make a project bankable or affordable.
- *Contingent support or guarantees* by the State to the project company or other private sector participants for certain types of risks which can not otherwise be effectively managed or mitigated by the project company or other private sector participants (e.g. minimum revenue guarantee for a toll road).

Loan Guarantee for TEN-Transport (LGTT). LGTT is a unique credit enhancement instrument which is specific to TEN-T projects in which the private sector takes traffic risk (visit EPEC, TEN-T EA) ➤⟨5⟩

One important consequence of employing LGTT in the financing structure is that this will usually reduce the risk of a state guarantee being called.

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[14] For example, standby or guarantee letters of credit used to protect against the project company’s failures to meet its payment and other obligations due by it under the project agreements.

[15] For example, performance bonds callable in case of the contractor’s failure to perform the terms of the construction contract. Parent company guarantees will also often be required from construction and other service sub-contractors.

Annex: Project finance

5.2.3.2 Security structure

As noted above, project finance lenders exclusively or mainly rely on project cash flow. Lenders' security arrangements reflect this and consist mainly of:

- Secured interests over all the project assets (including and especially all contracts) to enable the lender to "step in" if the project has failed and temporarily play the role of concessionaire and see to the appointment of a replacement.
- Controls over all cash flows going into and coming from the project company. As noted above, loan contracts and other project documents will establish the "waterfall" for the use of cash coming into the project company. This will ensure that senior debt service always has priority. In addition, it will define the circumstances in which senior lenders are able to prevent equity distributions ("lock up"). This will usually be defined in terms of the performance of project financial ratios such as ADSCR and the Loan Life Cover Ratio (LLCR).[16]
- Cash flow controls in the form of reserve funds (debt service reserve account, maintenance reserve account).

[16] The LLCR is defined as the ratio of the net present value of cash flow available for debt service for the outstanding life of the debt to the outstanding debt amount.

Guidance

⟨**1**⟩ E. R. Yescombe, *Public-Private Partnerships: Principles of Policy and Finance,*
Elsevier. (2007), ISBN: 978-0-7506-8054-7.
→ Chapter 8 provides a summary of what project finance is and why it is often used for PPPs.

***⟨2⟩** *Toolkit for Public-Private Partnerships in Roads and Highways,*
World Bank and PPIAF (Version March 2009).
→ Module 6 contains graphical and numerical financial models based on a highway PPP project which illustrate the trade offs inherent in alternative funding structures with model simulations.
http://www.ppiaf.org/documents/toolkits/highwaystoolkit/6/financial_models/index.html

***⟨3⟩** E. R. Yescombe, *Public-Private Partnerships: Principles of Policy and Finance,*
Elsevier (2007), ISBN: 978-0-7506-8054-7.
→ Chapter 10 provides a comprehensive introduction on how bidders and their lenders structure the financing of a PPP.

***⟨4⟩** *Capital Markets in PPP Financing – Where Were We and Where Are We Going?,*
European PPP Expertise Centre – EPEC (February 2010).
→ Abridged version of a study providing background information on the role of capital markets in PPP financing and setting out the reasons why the capital markets have now largely withdrawn from it, while suggesting possible solutions and identifying valuable roles EPEC might play.
http://www.eib.org/epec/infocentre/index.htm

(5) *Issues Paper on facilitating additional TEN-T investment*
European Commission, European Investment Bank (October 2009
→ Identifies potential measures for consideration by EU and national policy makers that could deepen and diversify access to sources of finance as well as financial instruments capable of facilitating additional investment in the development of the TEN-T Infrastructure.
http://www.eib.org/projects/documents/issues-paper-on-facilitating-additional-ten-t-investment.htm?lang=-en

⟨**6**⟩ *Resource Book on PPP Case Studies,*
European Commission Brussels (June 2004).
→ Part III (Transport Infrastructure) contains nine transport PPP case studies (including some TEN-T projects) with information on the contractual and financial relations between the parties and the degree of risk transfer.
http://ec.europa.eu/regional_policy/sources/docgener/guides/pppresourcebook.pdf

⟨**7**⟩ *Hybrid PPPs: Levering EU Funds and Private Capital,*
PPIAF & PriceWaterhouseCoopers (January 2006).
→ Analysis of a small sample of “hybrid” PPPs with mixed success regarding financial closure where EU grants are involved. Projects are located in Ireland, Portugal, Spain and Greece (Cohesion and Structural Funds), or in the accession countries (ISPA).
http://info.worldbank.org/etools/PPPI-Portal/eLibrary3.asp?ObjectID=240059&ParentTopicID=2332&topicID=2332&T=1

***⟨8⟩** Odo Matsukawa, *Review of Risk Mitigation Instruments for Infrastructure Financing and Recent Trends and Developments,*
World Bank. Trends and Policy Options, No. 4 (2007).
http://www.ppiaf.org/documents/trends_and_policy/Riskmitigationinstruments.pdf

Annex: Project finance



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