INTERNATIONAL BEST PRACTICE GUIDE

FOR

CONSULTING ENGINEERS

IN

PRIVATE FINANCE INITIATIVE (PFI) PROJECTS

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PFI/PPP Task Group

FIDIC Business Practices Committee

This report is updated continuously as new information is made available. It is not published as a printed document, and is made available at www.fidic.org/pfi

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PREFACE

While PFI/PPP projects now account for 50 percent of the British Government construction programme there has been varying enthusiasm for the system elsewhere in the World. The Netherlands has a strong PFI construction programme, and Japan, Australia, Italy, Ireland and South Africa can be said to have reached an intermediate stage of development of the PFI market.

In Australia and the UK the trade unions have been active in their opposition to PFI, whilst in Ireland, Scotland and South Africa, there has been opposition on political and ideological grounds. In a few instances it has been found that the service provider has been unable to manage projects any better than a government department, with resulting serious financial losses leading some major groups to withdraw from the PFI market.

Many countries are still in the early stages of PFI development and this report is intended to help consulting engineers understand both the political and financial motivation, together with the procedures necessary to use PFI as a procurement vehicle for project execution.

The objective of this report is to provide an ***International Best Practice Guide*** for consulting engineers wishing to engage in PFI projects. This report has been prepared by a FIDIC Business Practices Committee Task Group of specialists drawn from the industry with the assistance of member organizations in countries with experience in PFI/PPP to ensure that it will be a truly international guide benefiting all members.

Chapter 1 - Definitions and Classifications

1.1 Introduction

Private Finance Initiatives (PFI), Public Private Partnerships (PPP) or Design Build Finance and Operate (DBFO) all offer a unique opportunity for Clients, Contractors and Consultants. Not every method is described; only general definitions and classifications are presented. Throughout this report, PFI will be adopted as a generic term for all of the above forms of contract or similar variations.

1.2 Definitions

1.2.1 Private Finance Initiative (PFI)

The private sector, usually in the form of a consortium, provides managerial, commercial, financial and creative skills for the provision of public service. The public sector Client specifies the quality and service to be provided and pays an agreed fee for that service over a specified number of years, after which ownership passes to the Client. Examples are prisons that are built and staffed by the concessionaire.

1.2.2 Public Private Partnerships (PPP)

With this service, the ownership of the project remains with the Client. The cost of the project is not met entirely through private funds and there may be a contribution by the Government. The service provider will maintain the project throughout a fixed period, for which it receives an annual fee. Examples are hospitals, schools and courts of law.

The specialist staffs to manage/operate the project are provided by the Client.

1.2.3 Design, Build, Finance and Operate (DBFO)

The private sector plans, designs, builds, finances and operates the project for a given number of years. Compensation is derived directly from the public rather than from payments from the Client. Good examples of this are toll roads and bridges or public buildings with an admission charge. There is no Government contribution to the costs or guarantee of minimum use. The risk is entirely with the private sector.

1.3 Classifications

1.3.1 Classification by Business Mode

Service purchase type services sold to the public sector

The public side will, as a customer, pay fees for provision of services meeting certain standards to a private commissioned company. The business revenue of the private company comes from the public sector, which is directly involved in setting the service level. This type is, thus, a representative PFI with relatively strong public involvement.

Independent type financially free-standing projects

This type of business, a private commissioned company, directly collects fees from actual users of facilities, and its income depends on numbers of users (and unit prices). As a private operator, it bears all project risks and independently seeks to earn profits. The involvement of public entities is relatively low. This type of business has been used for toll bridges, museums, etc.

Joint venture type

In relatively large PFI projects, the project obtains assistance in the form of contributions, subsidies or government loans for social infrastructure portions (contributing to elimination of traffic congestion and regional redevelopment) that cannot be supported only by business revenue. The public sector contributes funds, but does not participate in management. This type, like the two types above, is characterized by entirely private management. The project size

is generally large. Examples include the railway project of Channel Tunnel Rail Link and a streetcar project (Croydon-Wimbledon) on the outskirts of London.

1.3.2 Classification by Payment of Fees

Usage payment type

In this type, fees paid by the public sector (used as revenue by the private operator) depend on the actual usage of the facilities. In road projects, fees are based on traffic volume or numbers of passengers (which are the revenue source from the viewpoint of the operator). The revenue fluctuates, depending on the degree of usage.

Availability payment type

Regardless of actual use of the facilities, the public sector pays fees for the facilities being made available. If it is impossible to meet the standards for maintaining the facilities as provided in the contract, usage fees are reduced or discontinued. In this case, the market risk is borne by the public sector, and private operators devote themselves to keeping the facilities available.

Mixed type

This is a mixture of usage payment type and availability payment type. It is adopted to balance the risks, particularly market risks, borne by the public and private sectors.

Chapter 2 Background/Process of PFI Employment

2.1 Introduction

The globally standardized PFI concept has been rapidly introduced, mainly in former British Commonwealth countries. A British-type PFI was incorporated in the public sector reform in Hong Kong which was implemented in 1989, and a guideline has already been published. A guideline has also been published in Singapore. The British-type scheme has already been established in Australia, Canada and South Africa, and has been introduced mainly in Europe. Korea and China are trying to adopt the British-type format. The British-type PFI is, thus, globally used. Described below is how PFI was introduced in the UK and the background/process thereto.

Background/Process of PFI with British Government

In 1992, the Chancellor of the Exchequer for the British Government, Norman Lamont, announced the Private Finance Initiative (PFI). The mission of the PFI was to introduce the financial resources and the management skills of the private sector into the provision of public sector services.

Since then the PFI has had a difficult infancy and has undergone a number of reviews and initiatives to promote its growth. Immediately on taking power in May 1997, the New Labour government appointed Sir Michael Bates to carry out a review of PFI (the first Bates Review). A key recommendation of the resulting Bates Report was that public sector projects should be prioritised in terms of their suitability for procurement by the PFI route, and only those suitable should be selected. This is in contrast to the previous government policy whereby all projects were subject to mandatory testing as to whether they could be procured under the PFI. The prioritisation of projects has led to a greater certainty that projects selected for PFI procurement will reach Financial Close and thereby reduces the costs of unsuccessful bidding by the private sector.

The total expenditure on PFI is estimated at £12 billion since 1997. The British Government has recommended that all public sector projects are to be procured via one of the following three routes:

- Private Finance Initiative
- Prime Contracting
- Design and Build

It is important to recognise that the PFI is about the provision of services, not necessarily the construction of capital assets. The construction of infrastructure may be a feature of many PFI projects but need not necessarily be. In any event, the long concession periods (typically 25 to 30 years) shift the emphasis from pure construction of a public sector asset to the procurement of a facility within which the public sector can fulfil its obligation to provide public services. This shift of emphasis is fundamental to the approach of those considering participation in PFI projects.

2.2 Process up to Execution of Contracts

Table1 below shows how a British-type PFI proceeds up to execution of contracts.

Table1
PFI Proceeds (British-Type)

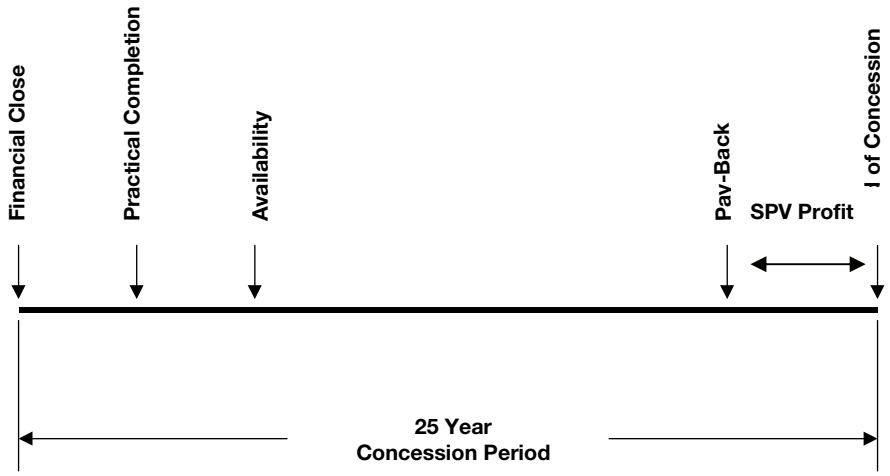
Phase	Major Steps	Contents
1	Establish business needs	Study contents of service and improvement of the manner of providing the service.
2	Appraise options	Study options to meet the above needs. Also consider alternatives and financial restraints.
3	Business case and reference project, market sounding	Work out project outline if PFI is most effective. Create "reference project" model to demonstrate feasibility. Conduct market survey as necessary. Involve a Treasury task force.
4	Create project team	Establish a dedicated team. External advisor may be employed.
5	OJEC (Official Journal of the European Community) notice	Public notice to invite firms interested in the project. Firms who expressed interest will receive Information Memorandum containing the following items: - Project outline, specifications of the required service - Payment source, selection criteria, dedicated team and advisor - Selection criteria, the information which firms must submit
6	Decide tactics for selecting operators	The public sector team to define selection method and time periods.
7	Prequalification	Draw up a long list, examine overall technical capabilities and experience as well as financial soundness of the firms interested in bidding.
8	Prepare shortlist	Examine firms for their project implementation capability and make a shortlist. The public and private sectors consult with each other to identify feasibility of the conditions.
9	Revisit and refine original appraisal	Re-evaluation of various conditions in the original proposal.
10	Invite firms to negotiations	Indicate the following items to the shortlist firms: required service level and restrictions, contract conditions, and tender evaluation criteria.
11	Negotiate with bidders	Negotiate with all bidders to fix contract conditions. After the negotiation, bidders submit best and final offers (BAFO).
12	Select preferred bidder; negotiate for financial closing	Select preferred bidders by BAFO for final negotiations to reach a contract. Recheck VfM (Value for Money) and feasibility.
13	Award of contract	Execute contract and place notice in the OJEC.

Source: Treasury Taskforce "Partnership for Prosperity"

2.3 Process of PFI Concession

On reaching Financial Close the concession period starts. The building contract is the first element if the construction of a capital asset forms part of the deal. Once Practical Completion under the building contract has been achieved a considerable amount of work needs to be completed until Availability of the facility is achieved. The SPV does not receive any revenue from the Client until Availability has been achieved. The revenue streams for the majority of the concession period are required in order to pay back the equity debt to the funders. It is only in the last few years that the SPV makes real money from the provision of services.

The precise project periods and payment arrangements vary from project to project. The following programme sets out the basic arrangements.



PFI Concession

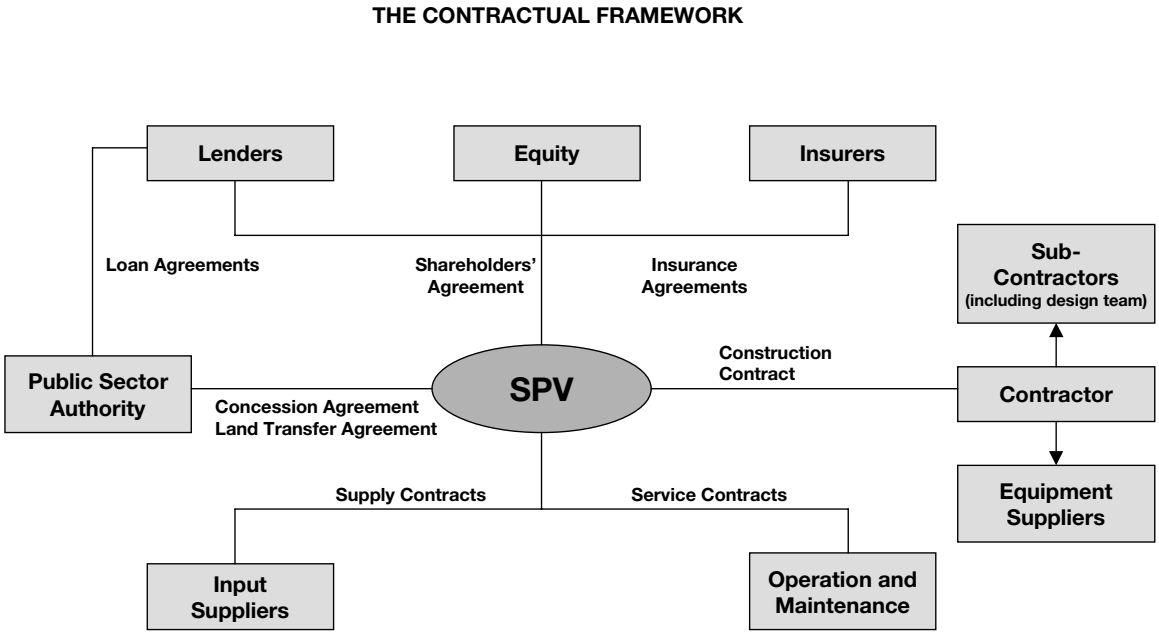
Chapter 3 Structure of PFI Scheme

3.1 Introduction

There are no blueprints as to how a PFI project is to be procured and structured. The way in which the private sector provides the facility and the way in which it is recompensed by the public sector continue to evolve. The basic method of recompense is via a unitary charge for services provided, but ideas such as shadow tolls are being developed all the time.

3.2 Typical Structure of PFI

The typical structure of the PFI scheme is set out as follows:



The Client sets out its performance requirements for the facility via output specifications. The Special Purpose Vehicle (SPV) undertakes to provide services to the Client, e.g. medical services over a 25 or 30-year concession. The SPV funds the capital expenditure required and the running costs of the completed facility. The Client pays the SPV revenue based on the availability of the facility to provide services. Formulae are agreed upon for the calculation of deductions from the revenue streams based on the nonavailability of the facility, e.g. closure of hospital wards.

The SPV may comprise any combination of private sector companies. Typically this includes construction companies, facility management contractors and funders. The SPV is primarily financed by debt from institutional lenders, although there may be some element of equity provided by the SPV partners. The SPV lets a construction contract to a contractor, which is usually an associated company of one of the SPV consortium members. The contract is invariably a design and build contract, but it is important to bear in mind that this is fundamentally different to a traditional FIDIC design and build contract. The SPV is likely to let a series of contracts for running and maintenance of the facility during the concession period.

The SPV is usually a company created for the purpose with no other assets than the concession agreement itself. The SPV therefore retains little risk itself. The Public Sector retains very little risk, this being one of the perceived advantages of the PFI. Therefore, it is the management contractors and consultants, together with supply and facilities management contractors, who bear much of the risk.

Why Construction Companies?

If PFI is primarily concerned with the provision of services, why are construction companies taking the lead in many PFI schemes? The existence of a construction element at the beginning of the concession period is, of course, a strong attraction.

The PFI was launched in 1992, a time of deep recession in the construction industry. Construction companies saw the PFI as a way of securing long-term facility management and maintenance contracts, as well as the construction contract. This has the benefit of evening out the vagaries of the construction economic cycle and helps to diversify into areas other than pure construction. Construction companies were (and still are) willing to take on projects at profit margins that would be unattractive to other commercial organisations.

3.3 Perceived Benefit of PFI

The perceived benefit of the PFI compared to traditional procurement of services is value for money. It is considered that value for money can be provided by the PFI for the following reasons:

- Long-term thinking is understanding the whole life cycle to lower maintenance and running costs.
- Better exploitation of the assets by the private sector to create additional revenue.
- Focus on the efficient delivery of services rather than the construction of the asset which over-designs the facility.
- Design with operational considerations in mind results in more efficient running of operations. This may be referred to as Functionality; for example, the requirement to position certain rooms/facilities adjacent to operating theatres in a hospital. This requirement may be stated by the Government Procurement Agency.

Design with constructability in mind and the use of value engineering to reduce construction costs.

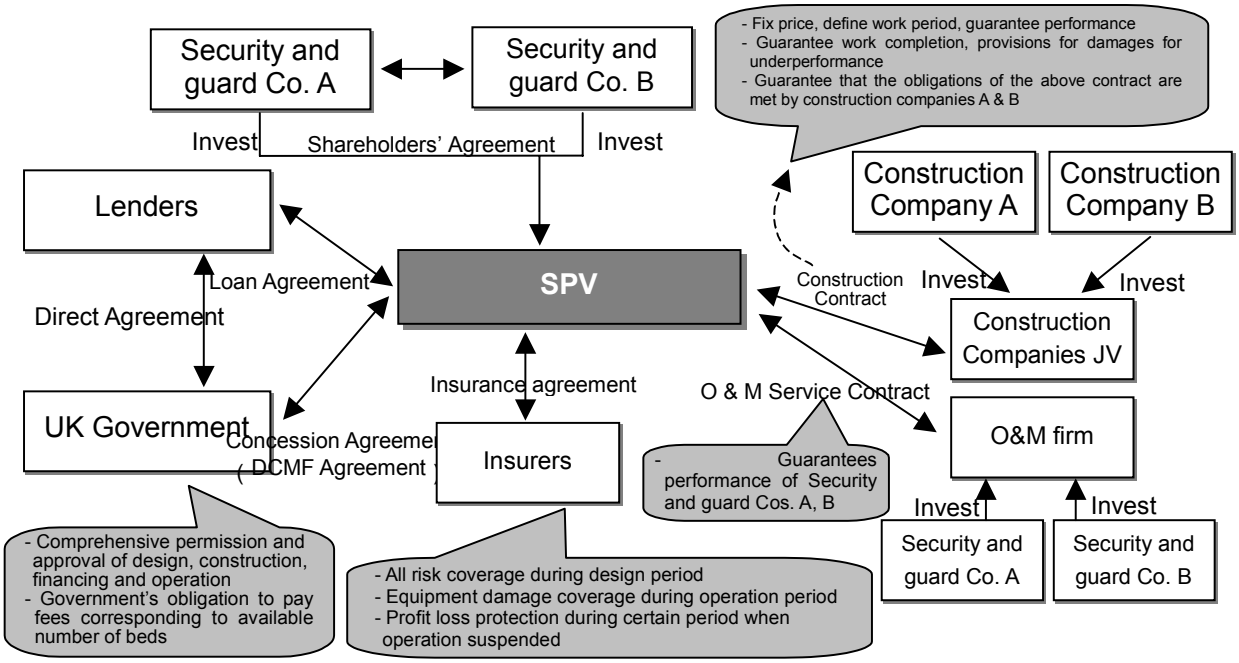
An additional important advantage of the PFI is seen as the transferring of risk from the public to the private sector, e.g. the risk of late construction completion. This is perhaps more difficult to quantify than comparison of direct construction or running costs which may ultimately prove to be the criteria on which the success of the PFI will be judged.

3.4 Sample Structure of PFI

The British PFI projects are conducted in many areas; for example, developing transportation infrastructure such as roads and railways, prisons and hospitals, government buildings, schools, and telecommunications. The UK government seeks PFI in all public projects, subject to their feasibility for private companies.

3.4.1 PFI Prison Project

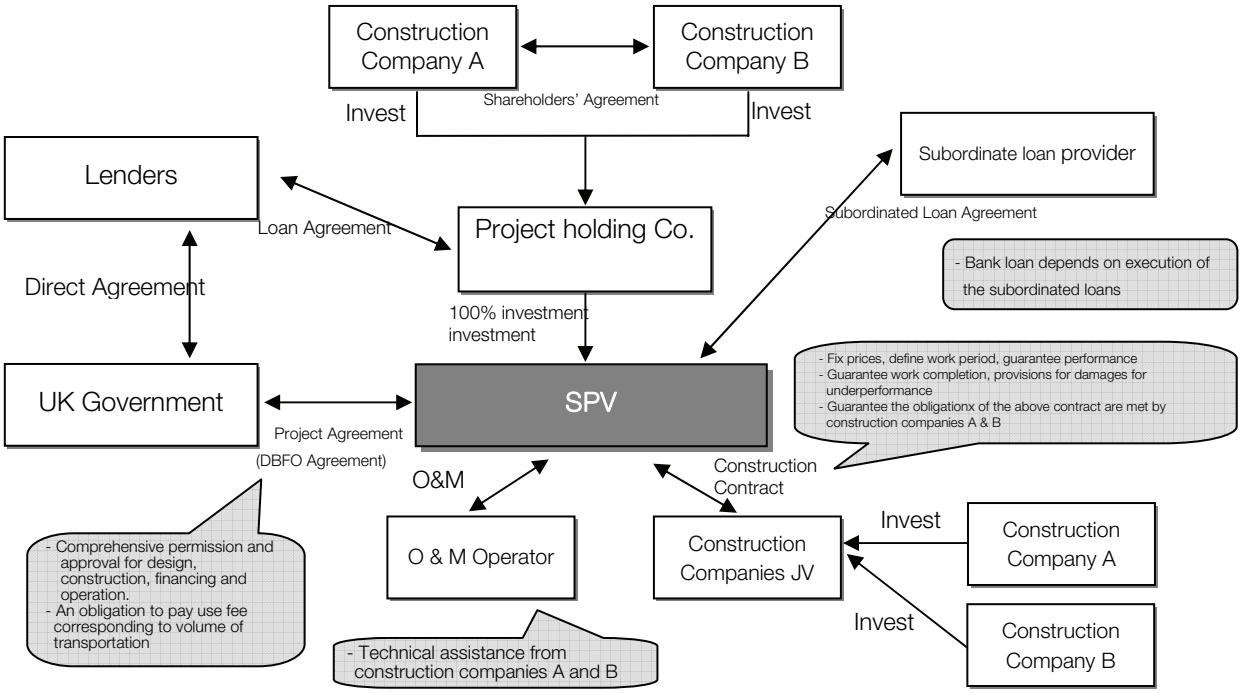
A typical PFI prison project structure is illustrated below.



- In a prison project, the sponsor will be a security and guard company with know-how in prison operation and security systems.
- The security company as the sponsor will exhibit its know-how by establishing a separate prison operating company to assume the responsibility of project operation and maintenance.
- DCMF refers to a comprehensive business commission (concession) contract ranging from design and construction to management and finance.

3.4.2 PFI Road Project

A typical PFI road project structure is illustrated below



- The sponsor is often a construction company because road construction is involved.
- The shareholders' agreement provides for contribution rates between sponsors and investment maintenance.
- Road construction is a relatively large-scale, very costly project; in some cases a bank loan, as well as subordinated loans of investment banks, or investment funds will be needed to diversify fund sources.
- Subordinated loans are high-risk/high-return instruments because payment of principal and interest comes after payments on high-ranking bank loans.

Chapter 4 Transformation to PPP

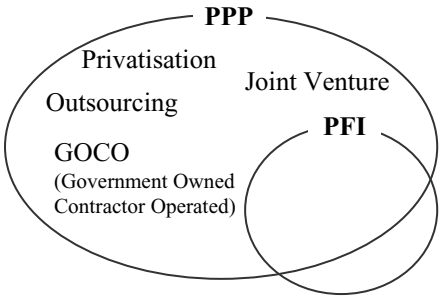
4.1 Introduction

The PFI was created in UK in 1992. Under the PFI, contractors are paid for the construction cost by private finance and then rent the finished project back to the public sector, often for terms of 20, 25 or 30 years.

In order to bridge the gap between the cost of the infrastructure needed and the resources available, and to ensure that the infrastructure is delivered more efficiently and cost-effectively, the key issue is how to deliver cost efficient investment and operation.

The UK's PFI expanded to a broader range of public infrastructure and combined it with the introduction of services being paid for by the public sector rather than the end-users. The UK has been a leading innovator in other partnership programmes. The UK's PPP includes extensive outsourcing of the planning and management of roads, and privatisation, Joint Venture between private and public, and GOCO. This has been used extensively at the local government level and is being increasingly applied on the national road network. Under these arrangements, private sector entities act as agents for government and deliver a wide range of public services previously provided directly by government.

Figure 1
Relationship between PFI/PPP



4.2 Definition of PPP

The PPP has been in general use since the 1990s. However, there is no widely agreed, single definition or model of a PPP. The EU Commission's 2004 Green Paper on Public-Private Partnerships referred to PPP as "forms of cooperation between the public and private sectors for the funding, construction, renovation, management or maintenance of an infrastructure or the provision of service." The European Investment Bank defined PPP as "Public-Private Partnership is a genetic term for the relationships formed between the private sector and public bodies often with the aim of introducing private sector resources and/or expertise in order to help provide and deliver public sector assets and services."

The term "PPP" covers a range of different structures where the private sector delivers a public project or services. Concession-based transport and utilities projects have existed in EU countries for many years, particularly in France, Italy and Spain, with revenues derived from payments by end-users.

The use of PPPs has now spread to many countries and depending on the country and the politics of the time, the term can cover a spectrum of models. These range from relatively short-term management contracts, to joint ventures and partial privatisations where there is a sharing of ownership between public and private sectors.

Different types of PPPs tend to share some common characteristics. These include contracting between the public and private sectors for the delivery of services, often involving infrastructure development and management, where risks are shared between the parties. Risks are allocated to the party which is best able to manage them, i.e. reduce their impact and/or absorb their consequences. Appropriate risk allocation should therefore minimise the cost of risks. The need to utilise private sector management and experience, and not only the capability of raising finance, is also a key issue.

Table 2
Comparison of PPP/PFI Among Countries

	UK	France	Germany
Title	PFI/PPP	PPP	PPP
Method of PPP	- PFI - Privatisation - Outsourcing - Joint Venture between public and private - GOCO (Government Owned Contractor Operated)	- Gerance (fixed commission) - Regie Interesse (variable commission) - Affermage (GOCO) - - Concession	- Privatisation - PFI
Criteria for applying PPP	- Value for money	- Affermage or Concession applied if end-users pay fees and private is able to operate	- Efficiency

According to the EU Commission Green Paper, PPP projects are characterised by:

- Relatively long relationships, involving cooperation between the public partner and the private partner on different aspects of planned project.
- Funding structures that combine private and public funds.
- The operator playing an important role at each stage in project (design, completion, implementation, funding).
- The public partner concentrating on defining the objectives to be attached.
- The distribution of risks between the public sector partner and the private sector partner.

4.3 Comparison of PPP Options

Each PPP structure has strengths and weaknesses which must be recognized and integrated. Table 3 summarises the advantages and disadvantages of the four main groupings of PPP relationships. It also provides suggested sectoral applications

Table 3

Advantages and Disadvantages of PPP Relationships

PPP Type	Main Features	Application	Strengths	Weaknesses
Contracting	Contract with private party to design build public facility. Facility is financed and owned by public sector. Key driver is the transfer of design and construction risk.	Suited to capital projects with small operating requirement. Suited to capital projects where the public sector wishes to retain operating responsibility.	Transfer of design and construction risk. Potential to accelerate construction programme.	Possible conflict between planning and environmental considerations. May increase operational risk. Commissioning stage is critical. Limited incentive for whole life costing approach to design. Does not attract private finance.
BOT	Contract with a private sector contractor to design, build and operate a public facility for a defined period, after which the facility is handed back to the public sector. The facility is financed by the public sector and remains in public ownership throughout the contract. Key driver is the transfer of operating risk in addition to design and construction risk.	Suited to projects that involve a significant operating content. Particularly suited to water and waste projects.	Transfer of design, construction and operating risk. Potential to accelerate construction. Risk transfer provides incentive for adoption of whole life costing approach. Promotes private sector innovation and improved value for money. Improved quality of operation and maintenance. Contracts can be holistic. Government able to focus on core public sector responsibilities.	Possible conflict between planning and environmental considerations. Contracts are more complex and tendering process can take longer. Contract management and performance monitoring systems required. Cost of re-entering the business if operator proves unsatisfactory. Does not attract private finance and commits public sector to providing long term finance.
DBFO	Contract with a private party to design, build, operate and finance a facility for a defined period, after which the facility reverts to the public sector. The facility is owned by the private sector for the contract period and it recovers costs through public subvention. Key driver is the utilisation of private finance and transfer of design, construction and operating risk. Variant forms involve different combinations of the principal responsibilities.	Suited to projects that involve a significant operating content. Particularly suited to roads, water and waste projects.	As for BOT plus: Attracts private sector finance. Attracts debt finance discipline. Delivers more predictable and consistent cost profile. Greater potential for accelerated construction programme. Increased risk transfer provides greater incentive for private sector contractor to adopt a whole life costing approach to design.	Possible conflict between planning and environmental considerations. Contracts can be more complex and tendering process can take longer than for BOT. Contract management and performance monitoring systems required. Cost of re-entering the business if operator proves unsatisfactory. Funding guarantees may be required. Change management system required.
Concession	As for DBFO except private party recovers costs from user charges. Key driver is the Polluter Pays Principle and utilising private finance and transferring design, construction and operating risk.	Suited to projects that provide an opportunity for the introduction of user charging. Particularly suited to roads, water (non-domestic) and waste projects.	As for DBFO plus: Facilitates implementation of the Polluter Pays Principle. Increases level of demand risk transfer Encourages generation of third party revenue.	As for DBFO plus: May not be politically acceptable. Requires effective management of alternatives/substitutes.

Table 4 summarizes the ability of the PPP structures to meet a range of desirable performance indicators. The various PPP structures are arranged in increasing order of private participation from top to bottom on the table. It can be seen that as private sector participation increases, so too does the potential for achieving a wide variety of infrastructure goals. However, it also needs to be recognized that greater private sector participation in infrastructure development also brings with it increased implementation constraints, particularly when private investment is involved. These constraints may well become further complicated when Commission grant funding is involved.

PPP involving private investment provides the potential to achieve all the cost and operational efficiencies associated with the BOT approach. In addition, the benefits leveraging and accelerated project implementation are also added. As such, investment partnerships have the potential to deliver maximum benefits to the public sector. However, these arrangements also introduce legal and regulatory concerns, and require sophisticated management on the part of the government to insure that its requirements are met. Therefore, in order to justify the considerable effort involved in resolving such issues, investment partnerships are often best suited to larger and more costly projects.

Table 4
The Effectiveness of Alternative PPP Structures

	Improved Service	Enhanced Operational Efficiency	Enhanced Risk Sharing	Life Cycle Costing	Accelerated Implement-ation	Leveraging of Public Funds	Implement-ation Constraints
Private Outsourcing							
Service Contracts	Possible	Yes	No	No	No	No	Low
Management Contracts	Yes	Yes	No	No	No	No	Moderate
Leasing	Possible	Yes	Some	Possible	No	No	Moderate
Integrated Private Development							
BOT	Yes	Yes	Some	Yes	-	-	High
Private Investment							
DBFO Concessions	Yes	Yes	Yes	Yes	Yes	Yes	Very High

Source: European Commission, “Guidelines for Successful Public-Private Partnerships”

Chapter 5 Advisory Services Provided by Consulting Engineers

5.1 Introduction

PFI, therefore, offers a consultant the opportunity to utilise all its services to work with construction companies and facilities management companies for the duration of the concession period, with most of the work concentrated at the design stage (both pre and post Financial Close).

Regardless of the success of the bidding process, PFI projects present a consultant with a marketing opportunity to promote his/her firm not only to the Client but also the other team members within the Private Sector SPV (Special Purpose Vehicle) consortium. This may give rise to other opportunities outside the PFI arena, by working with contractors, architects, healthcare trusts, Defence Ministries, police authorities and the judiciary. The work of technical consultants, in those contexts therefore, is often rearranged before and after the financial closing and during the project period.

5.2 Services Provided in each Process of PFI Concession

5.2.1 Before and After the Financial Close

The services provided by the consulting engineers are design services either to the bidding consortia or to the design and build contractor post Financial Close.

During the bidding stage the SPV consortium (or a member thereof) is likely to be the Client. The role at this stage is to provide advice and outline designs for bidding purposes. If the bid is successful and the project proceeds to Financial Close, the Design and Build Contractor is then likely to become the Client. The role then becomes one to complete the design of the project for the Contractor. This may on the face of it appear to be the same employer (e.g. "ACME Construction"), but the legal identity is likely to be different.

5.2.2 During the Concession Period

Monitoring Design Effects

PFI offers the consultant the opportunity to design buildings which minimise whole life cycle costing. This lowers maintenance and operating costs and, hence, maximises revenue for the SPV. However, there has been limited research into quantifying the effect of these designs.

As a service, the consultant could work with Clients and SPVs to generate a whole life cycle model which is sensitive enough to inform design decisions and also to monitor energy savings for the life of a PFI scheme with the data provided by the Client/SPV. The consultant would profit from selling such information to other Clients and SPVs. Clients could use the data to evaluate options in terms of efficiency and whole life costing and SPVs to strengthen their bids.

Facilities Management

Facilities management resources could be a significant source of income over the duration of the concession period. This covers property management, facility planning, interior layout and design and Information Technology. This is a market with considerable potential.

New Build and Refurbishment

There is generally no contractual agreement between the consultant and the Design and Build contractor/FM provider for future work following Practical Completion. During the concession period, there could be further requirements for new build and refurbishment. This is likely to involve traditional procurement procedures, eliminating the financial risks associated with the PFI bidding process.

The consultant should therefore consider calling on designers during the bid process and as part of the resolution of their professional appointment and negotiating contracts with the Design and Build contractor and facilities managers following Financial Close. As designers, their inherent knowledge of the facilities should prove to be an advantage.

5.3 Services Provided in each Structure of PFI

5.3.1 Strategic Advice to SPV Consortium (Private Sector)

The consultant should continually gain experience of all aspects of PFI projects across a range of sectors. This knowledge can then be used to provide strategic advice to the SPV on preparing a successful bid. This could incorporate a review of the output specification, advice on the Client's requirements, presentation skills, and management of the bid to reduce financial exposure for all team members and to establish contractual arrangements across the whole process.

In general, the consultant's role is to provide design advice to the SPV. However, opportunities for future work are not limited to this area, and include a Client advisory role, monitoring, future design work and facilities management. Consultant groups who have a proven track record in the relevant sectors can provide strategic advice to SPVs who have limited knowledge of PFI procedures.

5.3.2 Client Advisor to Client (Public Sector)

A Client Advisor is employed by the Client if there is not enough capability in-house to provide strategic advice, to prepare an output specification or to technically review the SPVs bids. This work is low risk compared to working for an SPV and there is minimal financial exposure. It would also provide the consultant with the opportunity to build a working relationship with the Client.

The Client will select Client Advisors both on their merit in the engineering field and previous PFI experience generally through the OJEC process. The consultant should promote to Clients the PFI experience, with emphasis on their knowledge of design, whole life-cycle costing, value for money and the strategic process.

5.3.3 Technical Advice to Funders/Banks

At Preferred Bidder stage the Funding Agencies often require an independent review of the Due Diligence proposals by the SPV. Technical advisors review the quality and conformity of the bid in terms of finance, design, whole life cycle costing and facilities management resources. There is minimal financial exposure for such technical advisors as they are generally paid directly by the funders and banks on a time charge basis.

The selection of advisors by the funding agencies is not normally dependent on previous PFI experience, although it is considered an advantage. The funding agencies will employ technical advisors on their track record within the design field and, hence, further opportunities exist for consultants experienced in PFI.

Chapter 6 Risk Considerations for Consultants

6.1 Introduction

The risks inherent in providing consultancy services in relation to PFI projects vary as much with the role adopted as with the nature of the activities undertaken.

Post Financial Close in terms of bidding costs, the SPV relies on the consultant's advice on programme, slippage and building contracts obligations. These risks can be controlled with well-defined contracts between the consultant, the SPV and Design and Build Contractor to provide guaranteed income.

6.2 Risks of the Consultants

It could be argued that the provision of a traditional consultancy service is little affected by the PFI procurement method. An appointment to provide a design is not affected – at least in theory – by the nature of the Client. The brief may change, as too may the level of fee, but these are issues with which consultants are generally well versed.

Particular concerns can arise where consultants are retained at the initial stages of PFI projects to provide forecasts – whether of people, vehicles, demands for commodities, etc. – on which future income streams and other similar financial dynamics are based. It is important that any such forecasts are subject to sensible caveats and are not seen as being guarantees of future income.

Consultants should also be cautious when acting as independent certifier for project financiers. An independent certification is not a guarantee that all is well and there is a danger of inadvertently accepting a significant liability in exchange for a modest fee.

Working with contractors as design sub-consultants is seen to be a more risky activity than the consultant's traditional role as Client advisor. There have been a number of PI claims where contractors have looked to recover cost overrun, etc., from their design sub-consultants. Whether the cost/income pressures attached to PFI projects, in particular, serve to exacerbate this trend, only time will tell.

In situations where consultants undertake work as part of a PFI tender bid – return for the promise of future fees and/or an equity stake in the SPV if the bid is successful – there is a clear commercial exposure if the bid is ultimately unsuccessful. Given the complexities and costs associated with the PFI bidding process, this commercial exposure can be significant. After financial close, it is likely that the employer of the consultant will change from the bidder to the design and construct contractor. This potentially introduces a risk, as any agreement to pay fees that may have been reached with the SPV may not be binding for the contractor. In such situations disputes could occur as to who is responsible for fees incurred pre- and post- Financial Close.

6.3 Risk in the Special Purpose Vehicle (SPV)

Consultants may take a small (and usually passive) equity stake in the SPV involved in the PFI project on which they are working. In these circumstances the consultant is taking a risk as to the future viability of the SPV. If the project operates successfully, dividends can be expected. Ultimately, the SPV may be "floated" thus providing a potential exit route for the original shareholders. Equally, however, if the project runs into operational difficulties, the initial equity input may be lost, and shareholders may be called upon to make fresh capital injections, etc.

For most consultants, taking an equity stake in PFI SPVs is not an easy decision to make. Substantial amounts of capital can be tied up for considerable periods of time, with limited exit routes and no guarantee of future dividends. Only the very largest consultants can consider taking equity stakes and even for those consultants there is a limit to the number of projects in which capital can be committed in this way.

In circumstances where consultants do have an equity involvement in SPV, it is still normal practice for a formal consultancy agreement to be put in place between the SPV company and the consultant concerned. The consultant's own insurances – in particular Professional Indemnity – should cover the obligations contained within the consultancy appointment. However, given the equity stake, the consultant should look to ensure that the SPV has in place a raft of insurances in its own name covering its assets, income stream and liabilities.

Although a formal consultancy appointment is the usually adopted route, it may not always be appropriate. Certain types of PFI projects – particularly those whose focus is more in relation to maintenance – lend themselves to a

more integrated approach, whereby the SPV retains, manages and insures more risk rather than acting as a "shell" company looking to pass risk and liability contractually on to other parties. Here it is important to holistically evaluate, manage and, where possible, insure the risks are with the SPV rather than its component parts.

The evaluation of risk in the context of PFI projects is complex, particularly as the ongoing cash stream during the operational phases is of critical importance in both repaying the initial project loads and generating dividends for the shareholders of the SPV. Any delay in triggering or subsequent interruption of service payment could threaten the viability of the SPV, particularly in the absence of insurance protection.

As a general point, risk should be allocated to those best able to manage it. With financially free-standing projects, banks and public sector Clients are often extremely risk averse as their arms-length relationship with the project as a whole leaves them poorly positioned to manage risk.

6.4 Risks Prior to Financial Close

Financial Risks

The procurement of projects by PFI will be subject to the laws in effect in each particular country. Because PFI projects in the UK relate to the procurement of public projects and services, they are subject to EU procurement law. Under EU Directives enacted into English law by a series of Regulations, every publicly procured Works or Services contract above a certain financial threshold must be open to EU-wide competition. There are three prescribed procurement procedures:

- Open
- Restricted
- Negotiated

The Negotiated procedure is only to be used in exceptional circumstances; for example, where sufficiently precise specifications cannot be drawn up or overall pricing is not possible to allow the use of the Open or Restricted procedures. The complexity of PFI projects means that the bidding SPVs can only really be selected by detailed discussions of each bidder's design solution to optimise the delivery of the public sector's output specifications and ensure that the solution is within the Client's affordability ceiling. Therefore the Negotiated procedure is generally accepted as being the most appropriate route for PFI schemes.

The Negotiated procedure does not require the Client to follow any particular negotiating process. The only requirement is that at least three bidders are invited to negotiate. Typically, eight bidders are selected to submit outline proposals with three or four being selected to negotiate. This varies from authority to authority. This is whittled down to two bidders who are required to submit Best And Final Offers (BAFO). Eventually the Client selects a preferred bidder with which to negotiate before achieving Financial Close.

The Client stipulates its requirements in the form of output specifications. The bidders demonstrate how their design solution can optimize the delivery of the Client's requirements. The staged bidding process therefore requires bidders to submit increasingly detailed levels of design in order to achieve price certainty. It has been known for the Client to request full design at the Best and Final Offer stage. This is an excessive risk which is normally refused by the consultant. However, it is common practice to have to produce fairly detailed designs prior to Financial Close, perhaps equivalent to RIBA Stage E. The extent to which the Client is prepared to take the final bidders "to the wire" at the BAFO stage is unpredictable, but there is an increasing awareness among the public sector and Government that there is a need to keep bidders' costs down to reasonable levels.

Bidding costs of the SPV consortia are generally not reimbursable by the Client, just as they would not be in any other procurement competition. During the bidding phase, the consultant will generally be acting as advisor to the bidding SPV. Therefore the SPV may be reluctant to pay for design services provided by the consultant prior to Financial Close on the basis that the work of all bidding parties is at risk. Although the sums of money committed by consultants may be small in comparison to the whole project bid costs, they represent a significant commercial risk for most consultants. It is normal practice for the consultant to negotiate a fee for each stage of the work up to financial closure.

Consultants have to appreciate that there are risks associated with helping SPVs achieve financial closure, especially if these studies are to be carried out at a discounted rate plus a success fee. If financial closure is not achieved or the

bid is unsuccessful, it could result in profit dilution if a consultant commits too heavily to PFI contracts. It is therefore important to select partnerships carefully and to build a mutual trust with the SPV. Consultants must decide the percentage of practice turnover that they feel safe to commit to PFI projects in any particular year, bearing in mind that achievement of financial closure can often take up to two years.

Copyright & Confidentiality

Because the work done prior to Financial Close is generally done at risk (or reduced fee), the importance of copyright is heightened. The retention of copyright is a powerful tool for future bargaining and for ensuring involvement in future stages of the project. Copyright needs to be carefully guarded and not given away to the SPV, particularly during the bidding stages.

Similarly and equally importantly is the need for confidentiality. During the bidding phase, each bidder is required to submit to the Client in-depth proposals of how the Client's output specifications can be met. This may require the generation of innovative and unique solutions, possibly containing significant elements of intellectual property. It is therefore imperative that the design (and other information) is kept confidential among the bidding consortium. Equally, the Client should have an obligation to ensure that the information supplied by the SPV is confidential. Divulging information to rival bidding consortia would be extremely damaging to the consortium's bid.

Discussions and Recommendations

The motivation of individual consultants to bid for PFI work is a matter for each consultant. It is not within the remit of this report to dictate any strategy. However, the following points are offered for consideration:

- If PFI work is not pursued then the consultant is limiting the opportunities available in the public sector. In some countries, approximately 25percent of public projects are likely to be procured by the PFI. The importance of the PFI is increased in countries where private sector development is small or subject to recessionary pressure.
- There must be a limit to the number of projects that a consultant can bid for on reduced or delayed fee. A sum of money could be allocated specifically to prepare PFI bids. Consideration could perhaps be given to a central allocated fund.
- Should consultants only ally themselves with particular players in the PFI process rather than pursue speculative bids? A review of the costs and success rates of more speculative bids should be carried out to ensure that partners are compatible.
- When setting the level of fees for each phase, the consultant and others involved in the PFI process should be fully aware that "good design is at the heart of PFI" (ref. 3.2); and also that the consultant may be required to take increased risks. Therefore the consultant should be properly compensated on each count.
- It must be remembered that even gratuitously given advice creates a potential liability for negligent advice.

6.5 Risks Post-Financial Close

Previously Agreed Fees

As discussed in 5.3, after Financial Close has been reached it is likely that the employer of the consultant will change from the bidder to the Design and Build Contractor.

This potentially introduces a risk because any agreement to pay fees that may have been reached with the SPV may not be binding for the Design and Build Contractor. It is not suggested that there is a significant risk that all liability for payment would be denied by the parties. However, there is a potential for dispute (as in novation of contract) about the quantum of fees agreed for pre and post Financial Close services and which entity is to bear those costs.

Design Obligations

As illustrated earlier, the perceived benefit of the PFI is the focus on the efficient provision of services over a long period rather than the construction of a fixed asset. This brings into focus:

- Functionality (although this may be stipulated by the Client).

- Long-term maintenance costs of the building.
- Operating costs of the building.
- Flexibility of the asset.
- Efficient use of space.
- Latent defects and the *Availability* of the services.
- Buildability to keep down capital costs and therefore lending requirements.

This presents challenges and opportunities beyond those which might be apparent on traditionally procured projects.

The British Government Treasury Task Force has produced a series of Technical Notes to provide practical guidance on key issues relating to PFI. Number 7 in the series is entitled "*How to Achieve Design Quality in PFI Projects.*"

The Technical Note is directed primarily at the public sector whose task it is to specify the output requirements and to procure the new facility. It does, of course, provide valuable advice for those seeking to bid for PFI concessions. The note highlights key reasons why good design is at the heart of PFI.

- Competitive Capital Costs.
- Functionality – optimisation of the operation of the facility, leading to increases in the productivity of the staff.
- Reduction in Whole Life Costs – includes factors such as easier cleaning access.
- Service Enhancement – clean and well-lit public service facilities which make staff and customers feel valued and respected.
- Wider Social & Environmental Benefits – e.g. reduction in waste and emissions.

These factors clearly have a significant impact on the long-term viability of a PFI project. Solutions to these factors therefore represent a good opportunity to develop innovative ideas and be part of a winning bid. These factors are no doubt taken into account in all consultant design commissions, perhaps only on a subconscious basis in some cases. However, the performance of the whole design concept over a 25-year service period is so fundamental to a PFI enterprise that it warrants becoming a conscious part of the design process.

If providing an innovative and cost effective design solution can create opportunities for consultants, it must also carry risks. Failure to provide a design solution that does not take into account the particular emphasis of the PFI product could result in liabilities. For example, if a design brief calls for "an economic solution" it needs to be considered that this may impose a greater duty of care than would otherwise be the case on a traditional project and what the implications are for the design solution. The PFI is still in its early stages and the robustness of long-term cash flows is unlikely to be tested for some time. But as the market matures and attention is more closely paid to long-term costs and financial returns, will designs come under greater scrutiny? The importance of economies in design, while widely talked about now, will be increased as real money issues arise in future years. This need not be a problem for consultants but serves to reinforce the need for consideration of the wider implications of the design process in a PFI project.

Recommendations

- A review of the design process is required to see that those undertaking a design for a PFI project are aware of the PFI process and the different factors that may be brought to bear.
- All projects must have clearly defined Client Output Specifications and Functionality requirements. Clarification of requirement and constraints should be sought where appropriate.
- The fact that good design is at the heart of PFI emphasises the need for the consultant to be properly reimbursed for services both during the pre-Financial Close phase as well as the post-Financial Close phase.

6.6 Risks during Building Contract Phase

The Design and Build Contract

The project concession period starts at the time of Financial Close. The revenue from providing the services to the Client does not flow to the SPV until availabilit*y* has been achieved. Consequently the lengths of the design and construction phases are critical to the economic viability of the SPV. The greatest part of the concession period is spent in repaying the capital debt and interest to the banks. It is only in the last few years that the revenue from the services accrues wholly to the SPV. Therefore any delay in the construction period can have serious implications for project viability.

As discussed previously, much of the risk during the construction phase lies with the construction contractor. The building contract carries considerably more risk for the contractor than a traditional Design and Build contract. A FIDIC form of contract may be used but is likely to be modified from the standard form. The relief that a contractor has under a PFI construction contract will be substantially less than under a FIDIC Design and Build form. For example, the contractor is likely to have to carry the risks arising from unforeseen ground conditions, adverse weather conditions and changes in the law, unless specifically excluded. These events would all entitle the contractor to additional time and money under traditional contracts. In addition, the contractor is likely to carry the risk of many events that would be classed as Force Majeur events in the FIDIC form. In the event that the availability of the services is delayed due to one of the reasons above, the building contractor under such provisions may carry that risk and would have to service the debt to the banks on behalf of the SPV. This is in addition to carrying its own overheads and additional works costs arising from the delays. The contractor is only entitled to relief under three headings:

- Compensation Events: An example is the variation of the output requirements by the public sector. This event entitles the building contractor to additional time and money under the building contract.
- Relief Events: Examples are fuel shortages, strikes etc. These do not entitle the contractor to any further time or money under the building contract but do have the effect of extending the time by which the contractors must achieve Availability without risking termination of the contract. The contractor either has to service the debt during the delay or accelerate to meet Availability dates at his/her own cost.
- Force Majeur: These are catastrophic events which prevent performance of the contract; e.g. war, nuclear contamination. If such an event occurs, the parties may agree to terminate the contract.

How does this affect the consultant? Consultants need to be aware of "pass through" clauses in their agreements which incorporate the provisions of the building contract into the appointment. For example, a Relief Event that results in delay to the project which had been passed through to the consultant under the appointment would require the consultant to take any measures to accelerate at his own expense.

Similarly events which are entirely at the contractor's risk could also be at the consultant's risk (e.g. redesign of below-ground works due to unforeseen ground conditions) if they have been "passed through." If the Consultant has carried out an assessment of the ground conditions on behalf of the contractor and the assessment turned out to be wrong, the contractor would have to service the debt for delays and may seek recompense from the consultant. Because the risk of ground conditions is passed wholly onto the contractor, there can never be any argument that the ground conditions were not foreseeable and therefore the risk cannot be passed back to the employer.

Because of the fast-track nature of PFI projects and the potential for a high quantum of damages should the project be delayed, the risks to the consultant for late or incorrect design information is increased. Late issue of information from the consultant to the contractor, which results in the contractor finishing late and having to service the debt, could lead to an action by the contractor against the consultant. This could include the contractor's overheads and delays incurred to follow on Service Contractors, liquidated damages plus the interest on the SPV's debt. This could readily exceed the quantum of damages for delays that might arise on a traditional contract.

Recommendations

- A careful review of the appointment is required with particular attention to the "pass through" conditions which incorporate the requirements of the building contract.
- Staff working on PFI projects needs to be aware of the additional risks that contractors (and therefore potentially consultants) have under PFI construction contracts.

- Particular care is to be taken in interpretation of ground conditions; investigations should be far more comprehensive than under standard contracts.
- Close control of the design programme and issue of information is essential.
- The consultant should resist “pass through” conditions over which he has no control. Consultant’s fee and time program should be set at levels which allow for comprehensive risk management processes to be incorporated at all phases.
- An integrated insurers programme should be put in place so that, to as large an extent as possible, the unavailability risk is passed to insurers.

6.7 Risks after Practical Completion and before Availability

Risk of Delays

Under a traditional construction contract, the contractor's liability for delays ends at certification of Practical Completion. Under a PFI contract, the contractor is responsible for ensuring that Availability is achieved. There may be some considerable time between Practical Completion of the construction works and the Availability of the services when the revenue streams start. This period encompasses such things as installation of equipment and putting facilities management resources into place. These are things that are not normally within the control of the Contractor but in the absence of other parties willing (or able) to do so, it is the Contractor who takes the risk. If the consultant has an ongoing obligation to provide advice post-Practical Completion there will be liability for delays in reaching Availability.

The Consultant must be clear as to when the responsibility to provide services to the Design and Build Contractor will end. The Limitation Period (i.e. 12 years under a Deed) may start to run from a later date than Practical Completion of the building works.

Recommendation

- Check the scope of services as to when involvement in the Project ceases.
- Check when the Limitation Period is deemed to start.

6.8 Risks during the Operation of the Facility

Non Availability of the Services

As discussed previously, the SPV receives revenue from the Client based on the Availability of the services. If the facility is unavailable there is a complex set of agreements in the Concession Agreement to calculate the deduction in the revenue streams; for example, if a hospital operating theatre is unusable due to a latent defect in the ventilation system during the concession period. The SPV clearly carries the risk of non-Availability during the concession period and highlights why good design and maintenance are at the heart of a PFI project.

If the non-Availability can be linked to the default of the designer, the designer may be at risk of being held liable at least in part for the lost revenue streams plus the repair costs. The loss of revenue streams is a more tangible loss to the SPV than the loss of facilities in a more traditionally run private sector operation, the quantum of which may prove more difficult to ascertain.

Because the whole concept of PFI is linked to Availability of the services, doubt has been expressed that any design obligation can be qualified by the duty to exercise reasonable skill and care. Such a qualification runs contrary to the whole philosophy of PFI. The logic is that if the facility is not *Available*, the Client does not pay, regardless of whether the SPV is deemed to have exercised reasonable skill and care or not. This is the risk that the SPV takes on under its concession agreement and it is possible that it could be handed down to the building contractors and ultimately the designers. It is possible that even if there is an express obligation to exercise reasonable skill and care in the design, the liability for non-*Availability* puts the obligation closer to that of providing a facility that is fit for its purpose. This may create difficulties with consultant Professional Indemnity Policies.

Whether PFI type projects automatically imply a fitness for purpose obligation is a moot point, but one which may come to be considered in future years. It is a question that consultants and their professional indemnity insurers will have to deal with.

Recommendation

- It is of utmost importance to check the appointment for absolute obligations and to check the pass-through obligations under the building contract. Check with the insurers if in doubt.
- Furthermore, the consultant's fee and program must be set at levels which allow for comprehensive risk management processes, as such processes will be in the best interest of the SPV and the Client, as well as the consultant.

6.9 Conclusions

The Private Finance Initiative is an important and growing market for the procurement of construction works. At present the PFI is generally applied to very large projects due to the very high bidding and legal costs involved in structuring the team. Government initiatives to streamline the process will lead to projects of smaller value being procured under the PFI. Consultants are likely to experience a corresponding increase in PFI-related work, particularly in the Local Government and Education, and Medical market sectors.

At present the involvement is limited to provision of design services to the SPVs or the Design and Build Contractors. This introduces additional commercial, technical and legal pressures to the process. The recommendations contained in the sections of this report highlight a number of areas that should be considered by the design teams undertaking designs for the PFI.

Conversely, the importance of good design in the PFI product is paramount and therefore represents real opportunities for highly professional consultants to bring value to the private sector teams. This should be a powerful marketing tool in securing participation on bidding teams. However, there are no long-term benefits to a consultant as there is no continued participation in the process. This could be addressed by the consultant taking an equity stake in the SPV, but this requires a robust balance sheet and a different attitude to risk taking.

Chapter 7 Aspects of Insurance

7.1 Introduction

Risk is an adverse effect on a stated objective. It has a potential likelihood of occurrence and a certain level of harm if it does arise.

Individual parties can clearly identify their own objectives and therefore have their own views of their risks in the project. Insurance only plays a part in the management of risk.

Individual parties in PFI projects have their own unique objectives which generally do not align with others. Consequently there are few shared objectives giving rise to few shared risks. The corollary is that when a risk does arise it can have severe adverse effects on those who are not contracted to manage it.

For example a contractor appointed on a costs plus basis does not suffer any risk of future cost in use. On the other hand, costs in use will be the single most significant risk to the future operator of the facility. However, the operator may not have any influence over the contractor's design.

Underpinning PFI procurement are two fundamental agreements, both of which involve the single Project Company [ProCo].

The first is the Project Agreement between ProCo and the government/sponsoring body. This defines the project requirements of the sponsoring bodies and the basis of remuneration of the concession agreement once the project is handed over and the facility is in use. The time at which the completed construction is practically complete and ready for handover to the sponsoring body is commonly known as its 'availability.'

The second is the Funding Agreement which stipulates the basis on which ProCo can draw down funds to pay for the construction costs and to reward the equity stakeholders along with the basis for re-paying the loans during the management of the concession agreement.

An agreement under which ProCo can transfer the Funders' and Sponsors' risks is the construction contract established between the ProCo and the contractor appointed to construct the facility. This agreement may also spawn other agreements between contractor and sub-contractor/professional advisors, further passing down the Funders' and Sponsors' risks. The further down the contractual chain the risk is passed, the more difficult it is for the Funders and Sponsors to establish how, and by whom, their risks are being managed.

However ProCo is a single purpose commercial vehicle with no assets other than the promise of remuneration under the Project Agreement which will also provide the means of securing the resources needed to repay the loans under the Funding Agreement. Moreover, the contracting parties to whom ProCo has passed the management of risk will not have the necessary capital or disposable assets themselves to cover the liabilities accepted in the contract.

In the absence of such adequate resources the insurance provisions in PFI have to support and facilitate the management of the risks of the Funders, the Project Sponsors and the Project Company.

The underlying objective is for the insurance market to take as much of the Funders' and Sponsors' risks as the market can stand. However, there is no guarantee that the insurance market will underwrite PFI project risks in the future if they feel that they have exposed themselves to unsustainable returns on the risks in the past.

Higher premiums may make insuring PFI risks in this way uncommercial leading to risk adverse Funders leaving the market.

7.2 Insurance Strategy

In lending to ProCo for the construction of the project, the Funders will charge interest and the capital and interest will be paid off over the period of the concession agreement. There will be a specific time at which the repayments will commence. To protect the interests of the Funders this date has to be a fixed date. If the repayments were to commence solely on availability, and availability was subject to the completion of the construction, there would be no incentive on ProCo to complete the construction by a due date.

The assumption is that the date for repayment would reflect the expected programme date of availability but would be a fixed date such that any overrun would be costly to ProCo. This fixed repayment date therefore acts as an incentive for ProCo to meet the programme as, if availability is delayed, ProCo would be repaying the loan with no remuneration coming in from the concession agreement giving rise to potentially grave economic consequences. However if ProCo failed financially before repayments were made, the Funders would be significantly exposed.

However ProCo is not the party providing availability. That is down to the contractor, so the late delivery of the project by the contractor can create financial risks to ProCo and ProCo would want to ensure that there was some protection for this possibility as ProCo cannot rely on the contractor complying with its contractual agreement. Inevitably, if the contractor failed financially, delaying availability, ProCo would be repaying the loan under the Funding Agreement before receiving his post-availability payments under the Project Agreement

Moreover, the project sponsor also has the risk that ProCo may not achieve availability and will therefore need to ensure that they too are protected through insurance.

No party can ever totally rely on the insurances taken out by others to protect their interests as they are wholly dependent on the insured complying with their insurance contracts where even a minor breach of the insurance contract could render the insurance provisions worthless.

Any event which can have an adverse effect on the funders'/project sponsors' objectives needs to be assessed, resulting in a complex matrix of insurance with consistent endorsements to allow policies to pass through to the funders and project sponsors on the financial failure of either ProCo or the contractor.

This means that there are two insurance regimes to be placed: one for the benefit of Funding Agreement and the other for the Project Agreement, although the same events are being insured.

However, not all such events are insurable and those that are uninsurable will need to be managed in some other way, perhaps by incentivising the risk manager to minimise the likelihood of the risk event arising. For other uninsurable risks not acceptable to funders, protection can be given through indemnities provided by the project sponsor/government, especially for those events which are partly due to the workings of the project sponsor/government.

For example, taxation. Tax will need to be paid in accordance with the government's (project sponsor's) legislative regime. If that regime is changed by the government through the lifetime of the project (including the concession period) the parties can agree to bear the consequences within certain limits, but anything more than that can be recovered either through additional charging or by an indemnity. [In the UK, VAT is applied at 17.5 percent. If the UK government is the project sponsor and decides for national reasons that VAT is increased to 20 percent, then the contracting parties may agree to absorb the first 2 percent increase in their contract with the government indemnifying them for the additional, non-contractual 0.5 percent.] These kinds of events are called Political Risks.

Other examples of political risks would be the overthrow of a government or even a democratic change in government where the incumbent has a right to terminate the project.

The following tables indicate various types of risks at different stages of the project, where the liability lies, whether they are insurable, and the party best placed to take out the insurance. The likelihood of the event arising or the possible adverse effects have not been quantified as they will be totally dependent on the culture and jurisprudence of the country in which the project is sponsored.

Table 5 identifies those risks arising after the project has been sponsored but before it is finally costed, programmed and given 'financial close' by the sponsoring government.

Table 6 identifies the risks during construction prior to availability.

Table 7 identifies the risks in use, post availability.

Note: In simple terms "Force Majeure" is often considered to be an event adversely affecting all parties over which all parties have no control. This changes with each particular circumstance and it is recommended that "Force Majeure" events are properly identified and described in both the Funding and Project Agreements as well as in the construction and subsequent contracts.

Table 5
PRE CONSTRUCTION RISKS

	Primary Risk Bearer	Insurance Position	Notes
POLITICAL			
Non Ratification	ProCo	Insurable	No exposure to lenders as ratification is condition precedent to first payment.
Licence revocation	Sponsor	Not Insurable	Indemnified by Government.
Nationalisation	Sponsor	Not Insurable	
Private pressure groups	ProCo/Sponsor	Not Insurable	
Change in Legislation	Sponsor	Not Insurable	Contract renegotiable.
Breach of Central/Local Authority Requirements	ProCo	Not Insurable	
DEFECTIVE TITLE OF LAND	ProCo	Insurable	Assume risk investigations already carried out.
PHYSICAL LOSS OF SITE (e.g. subsidence)	ProCo	Partly insurable if sudden/unforeseen	
ENVIRONMENTAL			
Archaeological	ProCo	Insurable	
Governmental restrictions	ProCo	Not Insurable	
Pre-existing Contamination	ProCo	Not Insurable	Assume full site investigation already done.
FAILURE / DELAY TO SECURE FUNDING	ProCo	Not Insurable	Condition precedent to agreeing contracts.
KEY PERSONNEL			
Death	ProCo/Funders	Insurable	Can be risk managed EL Risk Insured.
Injury	ProCo/Funders	Insurable	
Illness	ProCo/Funders	Insurable	Can be risk managed.
Actual or threatened disease	ProCo/Funders	Insurable	Can be risk managed.
Kidnap/Ransom	ProCo/Funders	Insurable	Can be risk managed.

	Primary Risk Bearer	Insurance Position	Notes
LOSS/DAMAGE TO KEY DOCUMENTS	ProCo	Insurable	
FLUCTUATION IN FACILITY DEMAND	ProCo	Insurable	
INCORRECT ADVICE GIVEN BY FUNDERS' OWN CONSULTANTS	Funders	Insurable	Need for PI cover.
INFIDELITY OF ProCo EMPLOYEES	ProCo	Insurable	
DESIGN ERRORS OR OMISSIONS	ProCo	Insurable	PI cover.
DIRECTORS & OFFICERS	ProCo	Insurable	
THIRD PARTY PROPERTY DAMAGE OR BODILY INJURY CAUSED BY ProCo	ProCo/Funders	Partly Insurable	

Table 6
CONSTRUCTION RISK

	ProCo	Insurable	Joint and several liabilities of partners not insurable.
LOSS/DAMAGE AT KEY SUPPLIERS PREMISES and CONSEQUENCES THEREOF	ProCo	Insurable	
INSOLVENCY OF KEY SUPPLIERS/ SUB-CONTRACTORS	ProCo	Insurable	
LOSS/DAMAGE TO ITEMS DURING TRANSITS – MARINE ON LANE (UK)	ProCo ProCo	Insurable Insurable	
CONSEQUENTIAL LOSSES FOLLOWING MARINE CARGO LOSSES	ProCo	Insurable	
INDUSTRIAL ACTION			
ProCo Personnel – Damage caused ProCo Personnel – No damage caused Other Personnel – Damage caused Other Personnel – No damage caused	ProCo ProCo ProCo ProCo	Insurance Not Insurable Insurable Not Insurable	Not a Force Majeure event. Not a Force Majeure event. Force Majeure event. Force Majeure event.
LOSS DAMAGE TO WORKS (INCLUDING THE SITE)			
Physical loss/damage other than below	ProCo	Insurable	
Design	ProCo	Only resultant damage insurable	Defective parts uninsured.
Materials	ProCo	As above	As above.
Workmanship	ProCo	As above	As above.
Inventory losses	ProCo	Not Insurable	
War	ProCo	Not Insurable	Force majeure event.
Nuclear	ProCo	No Insurable	Force majeure event.
Riot/Malicious Damage	ProCo	Insurable	
Wear/tear	ProCo	Partly Insurable	Consequences only can be insured.
Valuable Documents	ProCo	Insurable	
Terrorism	ProCo	Very limited Insurability	
Denial of access	ProCo	Insurable	
Failure of Utilities	ProCo	Insurable	
POLITICAL			
Confiscation	ProCo/Sponsor	Not Insurable	Government action.
Licence revocation	Sponsor	Not Insurable	Possible indemnity.
Change in Legislation	Sponsor	Not Insurable	
Breach of central/local authority requirements	ProCo	Insurable	
Private pressure groups	ProCo	Not Insurable	Risk of delay to availability.

	Primary Risk Bearer	Insurance Position	Notes
Defective title of Assets	ProCo	Insurable	Assume risk investigations already carried out.
ENVIRONMENTAL			
Archaeological	ProCo	Insurable	
Governmental restrictions	ProCo	Not Insurable	
Site Contamination -			
Pre existing	ProCo	Insurable	
Contractor Caused	ProCo	Insurable	
Third Party Caused	ProCo	Insurable	
KEY CONTRACTOR PERSONNEL			
Death	ProCo/ Lenders	Insurable	Employer's liability.
Injury	ProCo/ Lenders	Insurable	
Illness			
Actual or threatened disease	ProCo/ Lenders	Insurable	
Kidnap/Ransom	ProCo/ Lenders	Insurable	
LEGAL LIABILITIES THIRD PARTY BODILY INJURY/PROPERTY DAMAGE			
Damage	ProCo	Insurable	
Consequential Loss	ProCo	Insurable	
Financial Loss	ProCo	Insurable	
EMPLOYERS LIABILITY	All	Insurable	Possible statutory requirement.
CONSEQUENTIAL LOSS FOLLOWING DAMAGE TO WORKS			
Advance Loss of Gross Profit	ProCo/Sponsor	Insurable	
Debt Servicing	ProCo/Sponsor	Insurable	
Increased Cost of working	ProCo/Sponsor	Insurable	
Removal of Debris	ProCo/Sponsor	Insurable	
Fees	ProCo/Sponsor	Insurable	
Inflation on incomplete works	ProCo/Sponsor	Insurable	
Liquidated/ascertained damages	ProCo/Sponsor	Limited insurability	
Late time	ProCo/Sponsor	Insurable	
Inflation of re-construction	ProCo/Sponsor	Insurable	

	Primary Risk Bearer	Insurance Position	Notes
FACILITY DEMAND FLUCTUATION	ProCo/Sponsor	Uninsurable	Min level of usage to be defined.
INFIDELITY/CRIME			
Employee	ProCo	Insurable	
Non-employees	ProCo	Insurable	
LOSS/DAMAGE TO CONTRACTORS PLANT & EQUIPMENT	ProCo/Sponsor	Insurable	
CONSEQUENTIAL LOSS THEREFROM	ProCo/Sponsor	Insurable	
ABNORMAL INFLATION	ProCo/Sponsor	Not Insurable	
UNFORESEEN GROUND CONDITIONS	ProCo/Sponsor	Limited Insurability	Insurance applicable only for resultant damage.
NON DAMAGE FAILURE CAUSED BY			
Design	ProCo/Sponsor	Limited Insurability	PI Insurance only.
Materials	ProCo/Sponsor	Not insurable	
Workmanship	ProCo/Sponsor	Not insurable	
Consequential Losses arising	ProCo/Sponsor	Limited Insurability	PI Insurance and Financial Loss covers only.
THIRD PARTY MOTOR VEHICLE LIABILITY	All	Insurable	ProCo and Contractors.
SUB-CONTRACTOR/CONSULTANT INSOLVENCY	ProCo/Sponsor	Insurable	Bond protection/credit.
INEFFICACY OF TURNKEY CONTRACTOR	ProCo/Sponsor	Not Insurable	

Table 7
OPERATING RISKS

	Primary Risk Bearer	Insurance Position	Comments
POLITICAL			
Confiscation	Sponsor	Not Insurable	Indemnified by Government.
Licence revocation	Sponsor	Not Insurable	Indemnified by Government.
Nationalisation	Sponsor	Not Insurable	
Private pressure groups	ProCo	Not Insurable	
Change in Legislation	Sponsor	Not Insurable	Contract renegotiable.
Breach of Central/Local Authority Requirements	ProCo	Not Insurable	
DEFECTIVE TITLE OF LAND	ProCo	Insurable	
CHANGES IN TAX REGIME	ProCo	Not Insurable	Possible Government Indemnity.
INCREASES IN TAXATION	ProCo	Not Insurable	(as above).
INFIDELITY/CRIME			
Operators employees	ProCo	Insurable	
INDUSTRIAL ACTION			
Operator employees	ProCo	Partly Insurable	Physical damage covered.
External	ProCo	Partly Insurable	Physical damage covered.
THIRD PARTY PROPERTY DAMAGE/BODILY INJURY	ProCo	Insurable	Operator responsible for own negligence.
KEY OWNER PERSONNEL			
Death	ProCo/Funders	Insurable	Employers' liability.
Injury	ProCo/Funders	Insurable	Employers' liability.
Illness	ProCo/Funders	Insurable	Employers' liability.
Actual or threatened disease	ProCo/Funders	Insurable	Employers' liability.
Kidnap/Ransom	ProCo/Funders	Insurable	Employers' liability.

	Primary Risk Bearer	Insurance Position	Notes
ABNORMAL INFLATION	ProCo/Sponsor	Not Insurable	Possible Government Indemnity.
UTILITIES FAILURE dedicated	ProCo	Insurable	
Supplied	ProCo	Insurable	
DENIAL OF ACCESS	ProCo	Insurable	
THIRD PARTY MOTOR VEHICLE LIABILITY	All	Insurable	
LOSS/DAMAGE TO ASSETS (Excluding Defects)			
An 'all risks' event	ProCo	Insurable	
Riot/malicious damage	ProCo	Insurable	
Terrorism	ProCo	Very limited Insurance	
An excluded event	ProCo	Uninsurable	
Negligence of ProCo	ProCo/Funder	Insurable to extent of policy	
CONSEQUENTIAL LOSSES ARISING FROM THE ABOVE	ProCo/Funder	Insurable (except excluded perils)	Physical Damage only.
INSOLVENCY OF ProCo PARTNER	ProCo	Insurable	Expense?
LATENT DEFECT CAUSING DAMAGE			
Design	ProCo	Partly insurable under latent defects Policy	Contractor may be liable and covered under Project Insurance/ product liability.
Materials	ProCo		
Workmanship	ProCo		
LATENT DEFECT NOT CAUSING DAMAGE			
Design	ProCo	Partly insurable under latent defects Policy	Risk manageable - Guarantees - PI policies - PI Comp. Op. cover.
Materials	ProCo		
Workmanship	ProCo		
CLAIMS BY SHAREHOLDERS OF OWNER COMPANIES	ProCo	Insurable	D&O Liability

	Primary Risk Bearer	Insurance Position	Notes
CONSEQUENTIAL LOSS FOLLOWING DAMAGE AT SUPPLIERS	ProCo	Insurable	Named suppliers only.
ACTUAL OR THREATENED DISEASE CONSEQUENTIAL LOSSES ARISING – INCLUDING ADDITIONAL COST OF WORKING	ProCo/Sponsor ProCo/Sponsor	Insurable Insurable	 Building Insurance extension.
INADEQUATE MAINTENANCE	ProCo	Uninsurable	
WEAR AND TEAR	ProCo	Uninsurable	Consequential damage insurable.

APPENDIXES

APPENDIX-1

The Situation in South Africa

A1.1 Introduction

Since the election of the democratic government of South Africa in 1994, much has changed in the form of national and local government. Governmental structures which were previously kept apart have, over time and through transition, merged, or have been reshaped and demarcated along new boundaries, with the current form coming into place towards the end of 2000.

Today there are three spheres (tiers) of government in South Africa: national, provincial (State) and local (municipalities). Local government has three forms: the metros (the bigger cities), local municipalities and district municipalities, which have a coordinating function of the local municipalities outside the metros.

Background

Until 1999, and particularly during the period of transition, a vacuum existed on how local government especially could engage with the private sector other than the traditional forms of project-based contracts. In the absence of guidelines and enabling legislation, unsolicited bids by the private sector, to satisfy opportunities presented by the need for public infrastructure, could not be dealt with in an orderly and structured manner. Hence, frustrations arose from both the public and the private sectors. In the meantime, legislation was developed for all public entities, i.e. organs of state, and including also municipalities (local government). The Public Finance Management Act (PFMA) is applicable to national and provincial government, as well as all other public entities such as parastatals and state-owned enterprises such as the national railways, electricity generator and distributor, ports and harbour authorities, national roads agency, etc. If any of these bodies would want to enter into a public/private partnership (PPP) to provide infrastructure through a PFI, they would need to do this in conformance with the PFMA.

In order to facilitate the PPPs in whatever form (whether concessions, management contracts, etc.) the National Treasury has introduced a Public Private Partnership Manual which consists of practice notes issued in terms of the PFMA. This manual was compiled after careful consideration of the technical notes produced by the British Government Treasury, duly amended for local circumstances, e.g. black economic empowerment and others. The document is an impressive tome issued in modules totalling approximately 300 pages and can be downloaded from www.treasury.gov.za. It is extremely detailed and provides an almost step-by-step guide for putting PPPs or PFIs in place.

With regard to municipalities, these are governed by the Municipal Finance Management Act (MFMA), and the formation of PPPs or the establishment of PFIs is a bit more torturous. A municipality wishing to include the private sector in the delivery of services (especially water, sanitation and solid waste management) would also need to take into consideration the requirements of the Municipal Systems Act (MSA), which sets out the process to be followed before “an external mechanism” can be considered for the provision of a particular municipal service or part thereof. The prescribed processes, when read together with, for instance, the Water Services Act, make the choice of private sector involvement only possible after all “internal mechanisms” and public sector options have been considered first. (It may help to understand that the trade unions and their ally, the SA Communist Party (SACP), are ideologically against the involvement of the private sector in what they see as public sector functions. Although government policy is to encourage the use of Municipal Service Partnerships (MSP), especially partnerships which include the private sector, it needs to keep a fine balance, as the trade unions and the SACP are its alliance partners from the days of the struggle against apartheid and during election campaigns – interesting times ahead indeed!). Many MSPs in the form of PPPs are, however, already in place or in the process of being formed. These could be BOOTs for water supply, wastewater treatment and landfill sites for solid waste, through to water meter reading and provision and management of a municipal vehicle fleet. A Green Paper (a forerunner to a Bill of Parliament) on MSPs has been published.

A detailed list of PPPs which have been established or for which Treasury has officially been notified, is provided on the website www.ppp.gov.za. This website also offers subscription to a quarterly newsletter on developments with regard to PPPs in South Africa.

Survey by South African Association of Consulting Engineers (SAACE)

In order to gauge the experiences of consulting engineers in South Africa with PPPs, a ten-point survey was circulated by the Directorate of the SAACE to all principals of member firms by e-mail. A copy of the notice is provided in Appendix A. Thirteen meaningful responses were received and these are tabulated as shown in Appendix B.

In summary:

Question 1: In how many bids have you participated/been successful?

The respondents have participated or are participating in approximately 50 successful PPPs, with the value of the capital expenditure varying from less than US$1 million to over US$150 million per project.

Question 2: What was your role?

Most often the role has been as technical design consultant, but sometimes also as transaction advisor. On six occasions the consulting engineer was also an equity provider/risk taker on the PPP.

Question 3: What was the main reason for going the PPP route?

The reasons for going along the PPP route vary considerably, but the main ones appear to be that the public sector wanted to speed up project implementation and/or that the public sector did not have the expertise and management capacity to implement and/or to operate the project efficiently. Only in a minority of cases was the main reason for going the PPP route that the private sector could provide the service at a lower cost, or that the private sector came up with an innovative techno-economic solution.

Question 4: How many of these PPPs will be successful for the public sector, and how many for the private sector?

The respondents anticipated that by far the greatest majority of all PPPs would in the end turn out to be successful for both the public and the private sector.

Question 5: What were the key success factors?

- Good relationships
- Clear goals & payment criteria
- Political will
- Champions in both sectors
- Viable project
- Mutual trust & respect
- Upfront agreement on all aspects
- Competent professional advisors

Question 6: What were the key learning points?

- Allow contingencies for delays & changes
- Compensation for losing bidders
- Define scope of work & timescales more clearly
- More specific goals by public sector
- Only one client department
- Facility deterioration from due diligence till handover
- EIA to be procured by public sector
- Public sector representative to be part of adjudication process

Question 7: What are the top "must-do's"…..?

- Proper planning
- Define scope of work clearly
- Regular, structured communication
- Involve funding agent fully
- Get project finance and legal framework right
- Risk assessment for all parties
- Public sector committed to cooperation
- Must be a win-win for all

…..and "no-no's"

- Too many competing bidders
- Poorly defined scope of work
- Unrealistic deadlines
- Inadequate QA

- Don't do unsolicited bids
- Don't be too greedy
- Keep politics out
- Allowing public sector manager to drive process

.

Question 8: Please comment on the efficiency of the process.

In general the respondents felt that the process can be streamlined. Whereas the technical solutions are relatively straightforward, the legal and financial issues often proved very time-consuming. Where strict time constraints were kept, the process was technically and financially more efficient. Inexperienced private sector partners make the process less efficient.

Question 9: How many investors, contractors and advisors were involved? Who were the big winners and losers?

Teams varied from three representatives to up to 500 professionals being involved at the upper limit. Most processes involved approximately 10-15 professionals.

Generally no big winners or big losers. However the "concessionaires" could be the big winners and the public the losers if prices keep rising. Consultants were often also big losers if they were not careful when entering into agreements. Financiers were probably least exposed to risk.

Question 10: Further comments?

Some cynical comments were expressed regarding the agenda at local government for going the PPP route. Better economies of scale would be achieved by better cooperation between public sector spheres.

Peter Silbernagl
August 2005

A1.A Consulting Engineers on Public/Private Partnerships (Private Finance Initiatives (PFI))

- THIS NOTICE HAS BEEN FORWARDED TO ALL PRINCIPALS OF OUR MEMBER FIRMS -

SAACE Past President Peter Silbernagl, serves on a FIDIC Task Group which has been asked by the FIDIC Business Practices Committee to compile a guideline for Consulting Engineers on Public/Private Partnerships or as it is more generically called, Private Finance Initiatives (PFI) in public sector infrastructure.

In order to assist in this process a number of countries have been requested to give feedback as to the type of PPS's in operation and also to give the Task Team a sense of what works, what does not and lessons that have been learnt in the process.

The questionnaire is set out below, all you have to do is complete and forward to Peter Silbernagl at peters@pdna.co.za .

FIDIC BUSINESS PRACTICES COMMITTEE: TASK TEAM ON PPP'S: QUESTIONNAIRE

1.	A.	In how many PPP bids have you participated or are you currently engaged (any role):
	B.	In how many are/have you been on the successful team? Please give a short description of each successful bid/project:
		(Please indicate total value of the transaction)
2.		How often has your role been (state no. of times):
	A.	Technical design consultant:
	B.	Transaction advisor:
	C.	Equity provider/risk taker:
	D.	Public sector advisor:
	E.	Private sector advisor:
	F.	Other role (please elaborate);
		(Note: as you may have played a number of roles on a project, the Totals in 2. need not add up to the Total in 1.)
3.		What was the main reason for going the PPP route? (If more than one reason, please rank.)
	A.	Private sector could provide the service at lower cost:
	B.	Public sector did not have the upfront capital:
	C.	Public sector wanted to speed up project implementation:
	D.	Public sector did not have the expertise and management capacity to implement the project efficiently:
	E.	Public sector did not have the expertise and management capacity to operate the project efficiently:
	F.	Private sector came with an innovative techno-economic proposal:
4.	A.	In your current view, how many of these PPPs will turn out to be a success for the public and the public sector?
	B.	How many do you expect not to be successful for the risk takers, i.e., the private sector?
5.		Generally, what were the key success factors?
6.		What were the key learning points, i.e., what should be done differently next time?
7.	A.	If you were to give advice, what would be the top "must-do's" for any PPP project?
	B.	Likewise, what would you say are the top "no-no's" for any PPP project?
8.		Please comment on the efficiency of the process (technical and financial).
9.		How many investors, contractors and advisors/consultants (not just engineers) are involved on average in a PPP project? Who were the big "winners" and who were the big "losers"?
10.		Any further comments?

FIDIC Task Team on PPPs
Responses to Questionnaire

	Respondents												
Question No.	*01*	*02*	*03*	*04*	*05*	*06*	*07*	*08*	*09*	*10*	*11*	*12*	*13*
1A	11	± 20	11	3 bids	2	5	1	2	1 - Delmas Competent Person OHS Act.	7	1	3	3
1B	5	20 - see original response for details	11 - N3 Cedara to Durban 2nd, R3bn; N4 Platinum 1st, R4bn; N4 Witbank to Ogies conventional, R500k; Durban South / Mondi Water Purification 1st, R20m; N2 East London to Durban, R4bn, to be redone; N1 Superway postponed, R4bn; Gautrain unknown, R10bn; Inner City Jhb Waste / Pikitup corporatisation, R25m; Coega Hazardous Waste Site transaction advisor R100m; Nelson Mandela Metro Waste transaction advisor R20m; Monontsa Pumped Storage R1bn, on hold	2 bids - R1,5m for small works upgrade & operation for 12 months; R3m works upgrade & 5 years operating contract	None	1	1 - DWAF BoTT programme (involving some 120 smaller projects)	1 - TA for a hospital PPP	7 - Ermelo TLC; Breyten TLC; Silobela TLC; Malelane TLC; Hazyview TLC: Competent person OHS Act + facility manager (electricity dist); Eastvaal District Council Facility Management + Competent Person.	None.	1 - Sebokeng / Evaton Leakage Reduction Public Private Partnership.	3 - Transaction adviser for African Electricity Utility Cos.	3, all road infrastructure.
1C (value)	+ R900m capital cost					R850m	R600m	R7m			R5m	Typically USD10m each	Ranging from R1m to R210m
2A	1	18			2	5			Very often	5	1		
2B	7	10	4					1	Regularly	Never	1	3	
2C	0	5							General	Never	1		
2D		5	6					This is same as 2B ?	Often	2	0		
2E	1	5	4						Often	5	0		
2F	2 (independent engineer)	Lender's technical advisor - 2	Environmental advice, occasionally financial & other planning feasibility advice	Technical advisor - motivated for parastatal to enter into contract.			1 - Employer's representative		Mediator in resolving disputes with community structures as well as with Eskom.				3 - Traffic & Transportation Engineer.
3A	2	Same order as questionnaire	1		No	6		Yes	2	N/A	Client is bankrupt & we have completed in 4 months what would otherwise have taken 2 years based on our previous Khayelitsha project.		
3B			4	1	Yes	2		No		Presumably yes	1		1
3C			6	2	Yes	3	1	No		Not sure (we were subconsultants)	1		2
3D	1		4	3	Yes	4	2	No	1 - Qualified certificated engineers very scarce & expensive for full-time employment	Yes	1		
3E			7	4	Yes	5	3	Yes	3 - Qualified certificated engineers very scarce & expensive for full-time employment.	?	1	1	
3F			3		No	1		No	4	N/A	1	2	

	Respondents												
Question No.	*01*	*02*	*03*	*04*	*05*	*06*	*07*	*08*	*09*	*10*	*11*	*12*	*13*
4A	They have been and should all be relatively successful.	95%	Most, but too early to tell	2 of 3 bids successful. 1st was derailed by party politics, 2nd operated until District Mun overrode local Mun until they agreed WSA/WSP role internally. 3 years later DM has still not resolved issue - waterworks barely operational. During hiatus large fire swept through town, could not be fought effectively due to insufficient water available. Where service delivery is genuinely wanted, projects will flourish.	All	3	This project had mixed success.	One	All related to OHS implementation and Construction Regulations and most in case of specialised service delivery.	Depends on how success is measured and achievement of what goals are used to measure success.	As many as we can take on - at the moment we cannot take on any more as our houses are already being used as collateral on this one and will only be released in 5 years.	All 3, but with varying degrees of success.	All
4B		5% (excl. account risk in bid phase)	Unknown		None	2		None	Those for which too low fees are negotiated. Remuneration must relate to compensation to avoid limited service delivery for economic reasons.	None (private sector is only profit driven).	1 - if it is not successful the company will cease to exist.	1	None if agreed and undertaken correctly.
5	Good relationships; Accountability from both sides.	Educated client; viable project; political will, rounded team with necessary expertise; stamina & perseverance.	Close cooperation, champions in both sectors who drove project; EIA procured by govt; flexibility; strategic thinking & planning; Clearly defined & publicised benefits.	All parties understood a problem existed; all parties understood implication of failure; political support from Municipal Manager very strong; party providing operating arm will be respected; operations had immediate positive improvement in quality of service without increase in payment; clear simple model that was cost-effective.		Value engineering, private capital, financially related deadlines.	Committed (unreserved) buy-in by all parties; clearly defined goals; clearly defined payment criteria; good communication between parties.	Well-structured process with competent, professional advisors.	Cooperation from public sector. Public sector not trying to avoid all responsibilities and divert to PPP private partner. Prompt payment for services rendered.	Can't really say.	We were not greedy with the reward component - it is a simple and innovative design - can create huge savings for client. Mutual trust & respect between client & consultant.	Focused management, innovative ideas & engineering, lower construction costs, better revenue recovery, better fiscal discipline.	Upfront agreement on all aspects followed by common objective & cooperation.
6	ProcQS (?) needs to be streamlined	Wherever above key success factors went wrong - don't do it again!	EIA procured by govt; allow contingency for delays; allow contingency for scope changes; Arrange for compensation for losing bidders; existence of capacity in public sector; private sector appetite; substantial public sector role.	Operating condition of plant deteriorated from time of initial inspection, no allowance made for any additional refurbishment costs. No maintenance carried out during contract negotiation period, plant in worse state when taken over than initial refurbishment report showed.		Define initial project timescales better, define scope of work more clearly, implement better contractor QA systems.	Employer's representative team to be appointed to compile contract documentation & be part of adjudication process, not appointed after the event; ER team to be appointed for full duration, but subject to retender midstream; Non-technical (engineering) deliverables to be carefully defined.	Followed Treasury guidelines which are reasonable.	No delays in formal appointments by public sector partner who tends to expect service delivery without a written agreement.	Public sector should be more specific about goals.	We would not involve DBSA next time - wasted 8 months of our time, almost stalled process by failing to provide guarantee when needed after verbally agreeing to funding.	Only 1 boss for management contractor. Never reporting to multiple govt departments.	Public sector engineers need to be taught to think commercially.

	Respondents												
Question No.	01	02	03	04	05	06	07	08	09	10	11	12	13
7A	Proper planning, manage public sector expectations; get project finance & capex correct.	As for Q5	Prefeasibility; EIA to be done early; independence & review of EIA, financial modelling & legal advice; robust economics; strong legal framework; advanced planning; sufficient alternatives.	Ensure all parties know & agree problem; develop cross party politics alliances; cost model to be very detailed; allow for time of takeover cost assessment to be included in tariff.	Less costly	Ensure realistic timescales; make sure scope of work is clearly defined & understood for all roleplayers; ensure proper QA systems in place for designers & contractors; clearly defined agreements between all parties must be finalised before work carried out in each project phase; risk assessment for all parties is extremely important.	Clearly defined and understood objectives / deliverables; regular, well structured communication between decision makers on both sides - esp. where legislative framework changes during implementation; where private sector entity is consortium, "Manager" must have necessary powers to apply sanctions to underperforming consortium members.	Follow Treasury guidelines.	Proper specification and definition of goals % responsibilities of participating parties. Commitment of public sector partner to provide cooperation, and executive management (Councils and Excos) to improve decision making process & commitment.	Don't get involved unless you are going to get paid for the time you waste in an unsuccessful bid. Separate political aims from economic aims & audit bids properly, not just on the face of what is stated in bid documentation. There should be community participation and some skills development component.	Deal with efficient funding agent, have solid contract in place, appoint external auditor for savings.	Get communications straight & ensure clear understanding of each party's roles & responsibilities. Govts often duck responsibilities because of political reasons once contract is signed. Private contractors ten dot be too starry eyed at beginning of contract and fail to ensure that govt adheres to its side, leading to long-term problems and eventually mistrust.	Must be a win-win for all.
7B	Limited (only necessary) involvement from public sector; assuming a PPP is only method of delivering large capital projects.	As for Q5	Too many competing bidders; too many simultaneous PPPs; lack of flexibility & alternatives; EIA procured by private sector; artificial & unrealistic timeframes & deadlines; suboptimised incentivisation of sub teams & sub components		Reduce overheads; be more efficient	Unrealistic design & project timescales imposed by financiers; poorly defined scope of work for any of the technical roleplayers; inadequate QA procedures; consultants must ensure that all risk for projects is devolved to designers, extended work at risk should be avoided.			Interference by public sector councils / top management in day-to-day processes. Public sector partner to avoid changing goalposts in contrast with policy decisions.	Don't get involved with unsolicited bids - too risky. Don't get involved if there is political interference in the bid.	Don't be too greedy (we went for 20% & gave client 80%), set upper limit on reward; don't rely on DBSA even if they tell you they will fund project - may not get act together within 12 months.	Any smell of corruption, indications that govt is using contractor to resolve political problems.	Allowing a public sector engineer / project manager to drive and / or manage the process.
8	Streamline process. Technical side relatively smooth, financial cumbersome. Technical/financial inter-relationship could improve if tech team understand better what financial team is trying to achieve.	Varies from good (SANRAL) to inefficient & laborious (smaller PPPs done under Treasury Regulations).	Much repetition; too much review upon review; aversion to risk to detriment of innovation, flexibility, fitness for use; not as efficient as expected.	A team, which represents all activities the partnership requires, must be established and given authority to develop bid. Buy-in from finance, operations, engineering & CEO obtained & agreements signed by each responsible head of dept.	Not good	Generally we found that process was due to financial & time constraints, both technically & financially efficient and has produced good results.	Public body must have financial admin system that permits debits & credits relating to interim payments to occur logically & efficiently over multiple financial years; payment admin MUST be efficient & prompt (can take up to 9 months - "lost" documentation); interim deliverables must be clearly defined & all paperwork completed and approved before payments are made and guarantees released.	The need for rigorous legal audit & comprehensive contract agreements requires a lot of resources.	Technical process depends on expertise of private sector - should be good unless expertise not appropriate. Avoid appointment of private sector partners who are not really competent in providing service.	Should not be politically driven as opposed to based on sound economic criteria and long term goal achievement, viz. employment creation & economic growth. Process should involve open transparent pre-qualification of bidders at minimum cost to bidders then selected few should be compensated for submitting bids. Technical expertise should be sought to evaluate bids on technical basis without political commissars getting involved in process.	Main problem came when legal team got involved in drafting contract which was funded by MIIU. One-sided, protected client, but we were taking 100% of financial risk. Only through mutual trust & goodwill between client and consultant did process proceed. No problems on technical side. Main financial problem was DBSA refusing to give letter confirming funds available. Standard Bank came to rescue, but 3 directors had to put houses on line to cover R4m loan, company put up additional R1m.	World Bank standard procurement procedures seem to work well. They are a bit cumbersome, but stop all sorts of nonsense.	Both good if they are financially driven by the private sector.

	Respondents												
Question No.	01	02	03	04	05	06	07	08	09	10	11	12	13
9	Extremely large teams / concessionaires = "big winners"	10 - 15	At least 500; engineers often losers - worked for discounted rates at frenetic pace; banks & financiers often winners as they sat with folded arms until risk had all but disappeared; public may be losers if prices keep rising	Our teams varied from 3 representatives to 10 & all internally selected. No big losers or winners, as this would defeat partnership.		At least 15 - 20 parties are involved. Winners probably public sector, investors, contractors, consultants. Losers could be any of the roleplayers, particularly consultants if they are not careful when entering into service agreements.	One investor - State; one prime construction contractor with up to 50 subcontractors & SMMEs; one main design consultant firm with 10 - 15 subconsulting firms; One main social consulting organisation employing some 20 HDCs and HDIs; one operator / operating company. Big winners (finance): prime construction contractor, social consultants. Big winners (deliverables): Beneficiary communities, obtained a lifeline service and temporary work opportunities; local govt, in that service delivery was expedited. Big losers: Local govt - did not make optimum use of facility offered and lost out on free empowerment & capacity building services available; beneficiary communities - local govt not able to operate & maintain services created.	On the TA side no big winners, most of the team ended up paying school fees.		Difficult to say - varies from bid to bid. All the unsuccessful parties were the big losers.	We don't know yet. We can be the only losers if project fails as we are taking 100% of the risk for 20% of the reward.	Directly about 10, indirectly 50. Big winners are both govt & contractor if contract is properly structured. Country benefits from better service & increased access to electricity. Utility benefits by being modernised and employees find they have better opportunities. Properly structured, everyone should win. See original response for more....	Varies with project size.
10	-	-	Fascinating subject - would be interested in being kept informed of progress.				The programme referred to involved working with various tiers of govt, each with its own ivory tower and petty jealousies. Benefits of economies of scale if tiers had cooperated better could have been significant.		No.	Waste of time as govt already knows who they wish to appoint. Bid is just a way of legalising their choice on the face of current public sector expenditure legislation. Political requirements of bids often discourage foreign investors. Why put money in SA when you can invest in other countries without any of the hassles? You can choose who your partners are, not be told who they should be. See original response for more....	PPS offer huge potential for SA, but it is essential they are being done for correct reasons and not quick profit. Few companies are prepared to take on any real risk and seem to think a risk reward project is something where consultant gets reward and risk is taken by financial institution.	One African utility generated USD100m extra within 2 years of MC being signed without a tariff increase.	

APPENDIX-2

The Situation in Japan
- Guidelines on PFI/PPP -

A2.1 The PFI (Private Financing Initiative)

A2.1.1 PFI in Japan

The PFI (Private Financing Initiative) concept is a method of financing that is based on the use of private-sector capital resources and know-how to design, build, maintain, manage and operate public services. The PFI has been promoted in Japan due to the lessening efficiency of infrastructure that was built using earlier public-works projects models. The third sector exists as one means of increasing the efficiency of infrastructure by making use of the vitality of the private sector, but in many cases operations are sullied by back-scratching among bureaucrats and business leaders, and it is hoped that the PFI will eliminate this shortcoming.

As of November 2004, 171 PFI project contracts have been signed in Japan, a breakdown of which is given in Figure 1. By sector, the majority of deals are in construction, while in civil engineering there are only a handful of projects, such as water supply and sewage works, car and bicycle parking facilities, parks, and port facilities. Behind this, many have pointed to the restrictions imposed by laws relating to public facilities management such as road and river laws. The high proportion of educational facilities is attributable to a wholesale conversion to PFI projects in the construction of university facilities.

By region, a large percentage of deals have been made in the Kanto region, home to Tokyo and Kanagawa Prefecture, the governments of which have been at the vanguard of the PFI movement; by contrast, the PFI has not penetrated the rural regions to any great extent thus far.

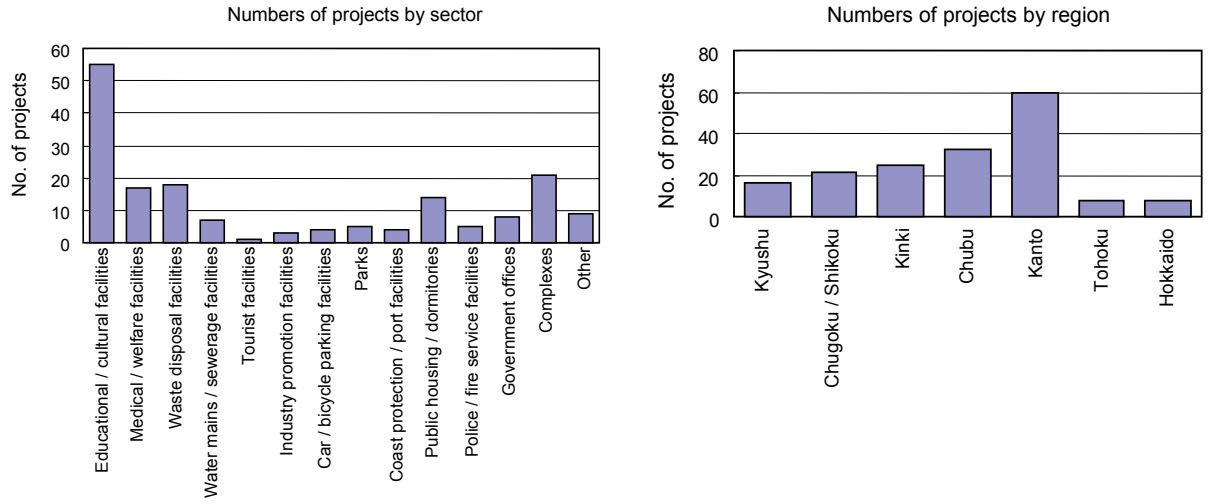


Figure A2-1
Numbers of PFI Projects in Japan

A2.1.2 Establishment of PFI Guidelines

A number of PFI guidelines have been drawn up by the central and local governments of Japan. The following paragraphs provide outlines of the various guidelines that exist and list the salient points contained therein.

(1) National Government Guidelines

The national government guidelines cover PFI projects that are to be implemented by the central government and are in line with the PFI law and "the basic policy regarding projects involving the provision of public facilities and

other related services via the use of private capital and other resources"; they set out the points to be considered during the implementation process. To date, six sets of guidelines have been developed and released.

a) "Guidelines on the PFI Project Process," January 22, 2001

[Outline]

The guidelines provide a step–by-step guide to the processes involved in implementing a PFI project, together with a list of points to consider at each stage of the process.

[Issues covered]

1. Investigating PFI projects, proposals from private-sector contractors
2. Developing and releasing implementation policy, and points to consider in policy development
3. Evaluating / selecting specific projects, releasing selection results, etc., calculating estimates for publicly-financed portions and improving the objectivity and transparency of public service standard evaluations
4. Advertising for, evaluating and selecting private-sector contractors, and releasing selection results, etc.
5. Points to consider when signing contract deals, etc., public disclosure of deals, and specific considerations when the selected contractor is from the third sector
6. Implementing and monitoring projects, etc.
7. Project completion

b) "Guidelines on Risk Allocation for PFI Projects," January 22, 2001

[Outline]

The guidelines set forth points to consider when investigating the allocation of risks involved in a PFI project.

[Issues covered]

1. Basic points to consider in relation to risk allocation, etc.
2. Risk factors and points to consider when investigating the allocation of risk

c) "Guidelines on VFM (Value for Money)," July 27, 2001

[Outline]

The guidelines explain the VFM evaluation process involved in selecting specific projects.

[Issues covered]

1. The basic concept of VFM evaluations
2. Preconditions for PSC (Public Sector Comparator) calculations and calculation methods
3. Preconditions for PFI LCC (Life Cycle Cost) calculations and calculation methods
4. Points to consider when evaluating VFM
5. Evaluating standards for the provision of public services, etc.

d) "Guidelines on Contracts," June 23, 2003

[Outline]

The guidelines outline the major provisions and explain the purport, applicable legislature and points to consider for each of the matters envisioned to be incorporated in the provisions of the majority of PFI contracts, on the basis of the provisions included in the PFI project contracts that have been published in Japan to date.

[Issues covered]

1. Matters relating to projects in their entirety: contract objectives, contract periods, project schedule, project outline, matters relating to the application of contract provisions, etc.
2. Matters relating to facility design and construction work
3. Matters relating to the maintenance, management and operation of facilities
4. Payment, reductions, and revisions of "service costs"
5. Contract completion

e) "Guidelines on Monitoring," June 23, 2003

[Outline]

The guidelines set forth points to consider when investigating the monitoring of PFI projects.

[Issues covered]

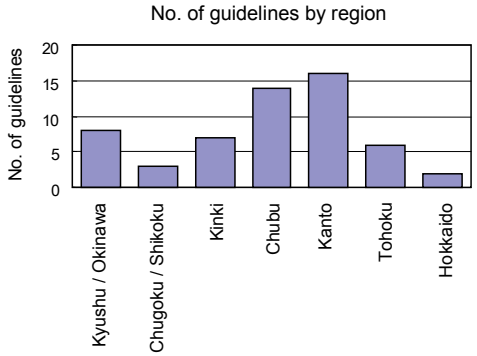
1. The basic concept of monitoring
2. Monitoring methods
3. How to handle incidences of inappropriate public service provision
4. Sound measurement criteria from a monitoring perspective
5. Ascertaining fiscal status

(2) Local Government Guidelines

Local governments throughout the nation are in the process of developing guidelines and to date 54 prefectural and/or municipal governments have produced guides to the PFI process.

By region, the number of guidelines is proportional to the number of projects, thus the Kanto region has the most, followed by the Chubu, Kyushu and Kinki regions, in that order.

By government type, the majority of the guidelines have been drawn up by prefectural governments and more than half of Japan's 47 prefectures have developed PFI guides.



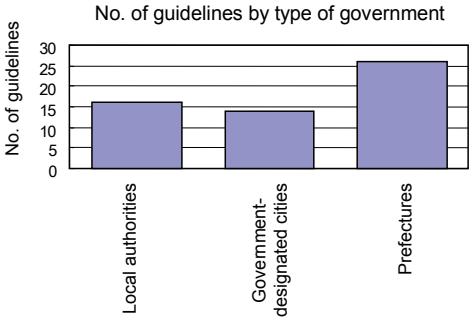
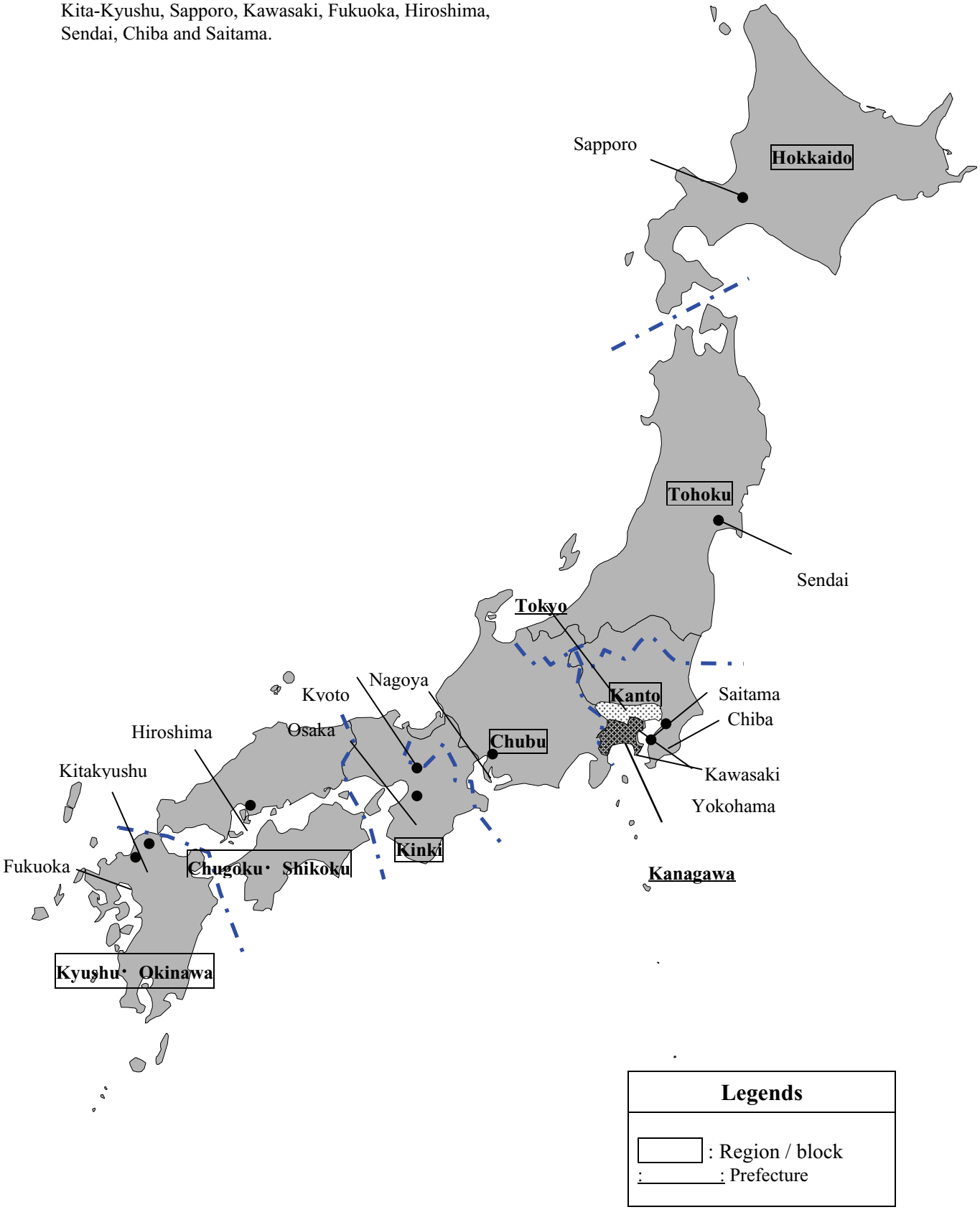


Figure A2-2
Guideline Development at the Local Government Level

A government-designated city refers to "a city with a population of 500,000 or more as designated under government ordinance."
Thirteen cities have been designated to date (December 2004).
Namely: Osaka, Nagoya, Kyoto, Yokohama, Kobe, Kita-Kyushu, Sapporo, Kawasaki, Fukuoka, Hiroshima, Sendai, Chiba and Saitama.



Local government guidelines include a "Basic Policy" or "Basic Guide," which sets forth the PFI concept and the approach of the particular authority to the PFI; many also list details of project procedures. Matters set forth in the Tokyo Metropolitan Government and Kanagawa Prefectural Government guidelines are given below as being representative.

a) "Basic Policy on the PFI in Tokyo," December 21, 2000

1. Approaches to PFI
   Position on the financing of projects under the PFI, the basic PFI process, a comparison with earlier methods, the PFI system in Tokyo, the introduction into specific projects, etc.
2. The PFI Process in Tokyo
   Investigating project financing under the PFI, obtaining approval from the "*Private-Sector Financed Project Review Committee*" to start investigating financing under the PFI, selecting advisors, evaluating VFM, criteria for successful bidder selection, determining bidding methods, releasing implementation policies, fielding questions on the implementation policy, selection and public announcement of PFI projects, selection and notification of a successful bidder, assembly resolutions on contract closure resolutions, etc.
3. Other points to consider on PFI projects
   In connection with regional financing measures: WTO (World Trade Organization) Agreement of Government Procurement, "public facilities" and the PFI, description of central government support for the PFI, etc.

b) "Basic Policy on the PFI in Kanagawa Prefecture,", September 20, 2000

1. Basic thinking on project financing under the PFI
   The effectiveness of using the PFI, a general schedule for implementing the PFI process.

2. Policy on utilizing the PFI
   Position on selecting projects for financing under the PFI, developing implementation policies, selecting specific projects, position on the creation of bidding guides, position on the selection of contractors, position on contract resolutions, central government financing measures, etc., points to consider when promoting a PFI project, division of roles between the PFI project office and the other office (Kanagawa Prefecture), etc.

A2.1.3 Examples of PFI Projects

(1) A project implemented by the national government

1) Project title
   Central Government Building No. 7 Development Project
2) Description
   The design, construction, maintenance, management and operation of a government building.
3) Executing agency — Ministry of Land, Infrastructure & Transport (MLIT), Ministry of Education, Culture, Sports, Science & Technology (MEXT)
4) Location — Kasumigaseki, Chiyoda-ku, Tokyo
5) Cost — Approx. 92.1 billion yen (consumption tax included in contract price)
6) Duration — PFI project: approx. 19 years (July 2003 – 2031 year-end)
   Incidental PFI projects (private profit-making facilities): approx. 30 years (July 2003 – completion date [scheduled as FY2044])
7) Outline of planned facilities
   Number of stories:
   Government building: 33 above ground, 3 below ground
   Public-private building: 38 above ground, 3 below ground
   Total floor area: approx. 250,000m^2 (including privately-owned areas)
   Plot ratio: approx. 950%
   Maximum building height: government building: approx. 165m, public-private building: approx. 178m
8) Format: BTO (Build-Transfer-Operate)
   Service sold to the public sector
9) Implementation schedule

Announcement of implementation policy: June 10, 2002
Selection / announcement of specific project: August 26, 2002
Selection / announcement of private-sector contractor: April 24, 2003
Conclusion of contract / agreement: June 30, 2003
(Scheduled opening: January 4, 2008)

Conceptual drawing of the completed building

(2) A project implemented by a local government

1) Project title

The Museum of Modern Art, Kamakura & Hayama Special Project

2) Description

Construction of a new building, maintenance and management of facilities (new building, the main Kamakura building and the Kamakura annex), museum support operations, maintenance of equipment in the new building

3) Executing agency Kanagawa Prefecture

4) Location New bldg: Sangaoka, Isshiki, Hayama-machi, Miura-gun
Main Kamakura bldg. / Kamakura annex: Yukinoshita, Kamakura City

5) Cost Approx. 12.5 billion yen (Consumption taxes excluded from bid price. Interest rate fluctuations / price fluctuations not included. Further, interest rates may differ from the contract interest rate depending on the terms laid out for bid submission in the official notification of tender.)

6) Duration 32 years (main building: 15 years)
(July 2001 – March 2033; Main Kamakura bldg: March 2016)

7) Outline of planned facilities

New bldg	Lot area: approx. 15,000m^2
	Total floor area: approx. 7,100 m^2
Main Kamakura bldg:	Lot area: approx. 4,200 m^2
	Total floor area: approx. 2,400 m^2
Kamakura annex	Lot area: approx. 5,000 m^2
	Total floor area: approx. 1,600 m^2

8) Method BTO (Build-Transfer-Operate)
Service sold to the public sector

9) Implementation schedule

Announcement of implementation policy: July 28, 2000
Selection / announcement of specific project: September 18, 2000
Selection / announcement of private-sector contractor: April 3, 2001
Conclusion of contract / agreement: July 5, 2001
Open to the public: October 11, 2003

New Bldg. (Hayama)

Main Kamakura Bldg.

A2.2 PPP (Public Private Partnerships)

A2.2.1 Positioning of PPPs in Japan

In the United Kingdom, the birthplace of the PFI concept, the PFI is considered to be one form of public private partnership (PPP). PPPs as stated in this document not only refer to public works projects, such as facilities construction projects, involving private-sector management, outsourcing and privatization, but also to a broader concept of public service provision by the private sector. Moves to establish PPPs as an evolved form of the PFI have become increasingly widespread in Japan recently. However, guidelines have yet to be developed. The PPP concept does not necessarily have a clear position within the system, and in view of the diversity in the content, methods and sectors involved (see Figure 3), the central government has not been able to formulate a working scope for such partnerships.

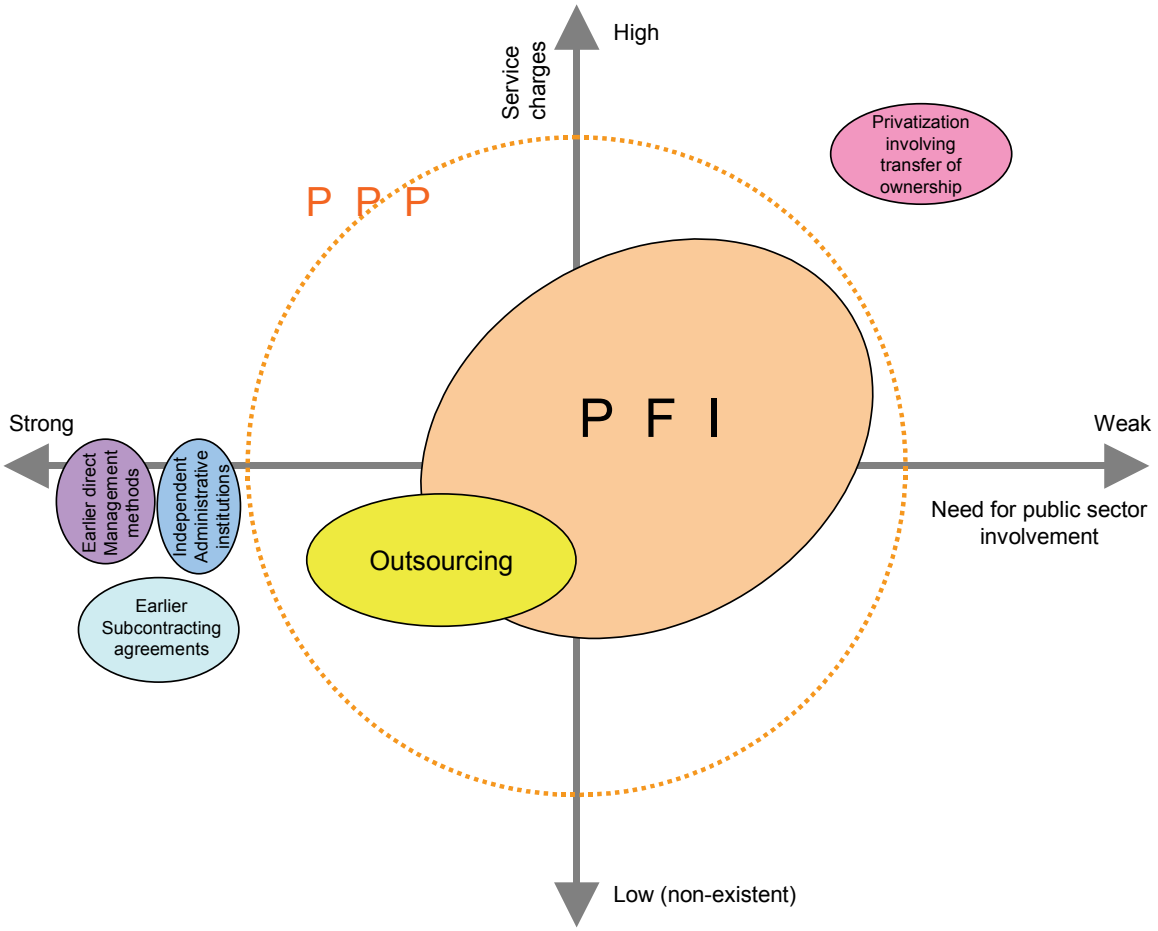


Figure A2-3
The Scope of PPPs

A.2.2.2 Examples of PPPs

1. Private construction, public management - Build-Transfer or Turnkey (US)

With this option, a private-sector enterprise constructs the facility, with the public sector assuming responsibility for its ownership, management and operation upon acquisition. The burden of financing for the construction, management and operation of facilities built under this type of contract is ultimately borne by the public sector.

An example of a private construction, public management build-transfer PPP project:

1) Project title
   Municipal housing / incubator office project
2) Description
   Construction of a building combining commercial facilities, municipal housing and an incubator office as a statutory redevelopment project, with the public sector acquiring the municipal housing and incubator office portion of the building and undertaking its management and operation; in other words, the adoption of the "Build -Transfer" option (private construction, public management).
3) Location: Chuo-dori, Toyama City
4) Official name: Chukyoin Molty
5) Outline of facilities:
   1,269m^2, 10-storey steel-framed reinforced concrete structure, total floor area: 4,914m^2
   [Portion owned (acquired) by the city]
   · 51 municipal apartments (floors 2-9)
   20 for family occupation, 20 for senior citizen occupation, 11 for single occupation
   · Incubator office (2F: 8 rooms)
   · Communal room (3F), other
   [Portion owned (acquired) by the private sector]
   · Commercial facilities (1F), apartment for use of right's holder (10F)
6) Construction costs: 1,997 million yen (of which 349 million yen provided as an urban district redevelopment project subsidy)
7) Opened: September 2002
8) Private enterprise: Machizukuri Toyama, Inc. (est. July 2000)
9) Effects
   The fiscal burden was reduced by executing the project as a private-sector undertaking.
   Standards of municipal housing facilities were improved because the building was constructed as a private-sector facility.

2. Public capital, private management – Subcontracting of management and operation: DBO (Design-Build-Operate)

With this model, funds procurement is undertaken by the local government, but design, construction, and long-term operations are collectively performed by the private-sector contractor. DBO projects are characterized by the fact that they make use of local government ability to procure capital thereby reducing the cost of interest while drawing on the private sectors managerial and technological capabilities to reduce the construction and managerial costs involved.

An example of a public capital, private management DBO PPP project:

1) Project title: General Waste Treatment Facility Project
2) Description
   The development and operation of a new general waste treatment facility for the government-led "Extended Association for Waste Disposal in Nishi Iburi," which comprises the seven municipal districts of Nishi Iburi, including the city of Muroran, Hokkaido. The DBO method (public capital, private investment) was adopted for this project, with the government funding construction of the building (order-led), but its design, construction contracts, management and operation being commissioned en masse to the private sector, i.e. making full use of the advantages of the PFI method. This facility is used for the incineration/melting treatment of burnable trash, and the crushing of non-combustible and bulky trash: general waste collected from the seven municipal districts of Nishi Iburi.
3) Location: Ishikawa-cho, Muroran City, Hokkaido
4) Official name: Nishi Iburi Waste Disposal Facility (Nickname: Melt Tower 21)

5) Outline of facilities: steel-framed / reinforced concrete structure and reinforced concrete structure 1 floor below ground, five floors above ground, total floor area: 11,735m^2
6) Construction costs: Construction: 10,395 million yen (excluding incidental project costs)
   Management & operation: 12,019 million yen (total for full period)
7) Opened: April 2003
8) Private enterprise: Nishi-Iburi Kankyo Co. Ltd.
9) Effects:
   According to provisional government estimates, a 30% reduction as compared to the scenario in which the facility was constructed at public-sector unit prices and operated directly by the local authorities.
   The risks were partially transferred to the private-sector entity, reducing the burden of risk on the local authority.
   The standard of service has improved (making use of the technologies and know-how of the private-sector entity has enabled the facility to be operated stably and smoothly; in response to requests from local residents and businesses, the facility is also operational on Sundays, etc.)
   Facility management and operation is transparent.

APPENDIX-3

The Situation in European Union Countries

A3.1 Introduction

The infrastructure gap and its negative impact on economic growth, job creation and social cohesion in Europe, has been recognised for many years. Across Europe, the need to improve infrastructure, particularly in the transport sector, is seen as a necessary condition to successful economic growth. However, governments have limited financial resources to devote to increased capital expenditure for improving public services and face restrictions on their ability to raise debt, in particular due to adherence to the principles of economic convergence and fiscal restraint enshrined in the Maastricht Treaty.

In order to bridge the growing gap between the cost of the infrastructure needed and the resources available, and to ensure that the infrastructure is delivered as efficiently and cost-effectively as possible, the key question is how to deliver cost-efficient investment. In this context, PPPs are a growing element of public sector procurement across Europe.

A3.2 EU support for PPPs - Role of EU bodies

Different sections of the EU institutions have played a role in the development, promotion and implementation of PPPs to date. These mainly comprise various Directorates-General (DGs) of the European Commission, the European Investment Bank (EIB) and ad hoc organisations or committees which have studied and reported on aspects of PPPs.

The Commission DGs with particular roles in regard to PPPs include:

Internal Market

DG Internal Market is responsible for both the wider public procurement laws of the EU, which impact how PPPs can be developed and procured, and issues the Green Paper on PPP.

Transportation and Energy

DG TREN is responsible for the TEN's programme. This has been the most active area considering PPP within an EU context. Since 2004, DG TREN has operated an informal PPP Exchange Group which brings together officials from other DGs, the EIB and PPP units or centres of excellence from a member of Member States. The Group has been discussing particular issues on how to use PPPs to promote European transport infrastructure in general and TEN-T projects in particular. DG TREN is also the sponsoring DG for the Commission's own substantial PPP project, the Galileo satellite navigation project.

Regional Policy

DG REGIO is responsible for the operation of the Structural and Cohesion Funds of the EU. There has been considerable interest in how PPP structures and approaches can be used alongside EU regional funding arrangements to further the development of European infrastructure and services. In March 2003, DG REGIO published its Guidelines for Successful Public-Private Partnerships followed by its Resources Book on PPP Case Studies in June 2004. The 2003 Guidelines did not attempt to provide a complete methodology or to define policy, but rather to guide practitioners through a set of key issues affecting the development of successful PPP schemes. The Guidelines focused on four key topics:

- ensuring open market access and fair competitions;
- protecting the public interest and maximising value added to citizens;
- defining the optimal level of grant financing both to realise a viable and sustainable project but also to avoid any opportunity for windfall profit from grants;
- assessing the most effective type of PPP for a given project with the appropriate parameters: balanced distribution of risks, appropriate duration, clarity of responsibilities within the various regulatory environments.

Economic and Financial Affairs

DG ECFIN is responsible for ensuring the smooth functioning of the Economic and Monetary Union, including the monitoring of public finances and economic performance. As such, DG ECFIN monitors Member States' compliance with the provision of the Stability and Growth Pact. The Director-General of DF ECGIN is a member of the Board of Directors of the EIB, representing the Commission.

The European Investment Bank (EIB)

The EIB is the only EU institution which has substantial practical experience of PPP projects and their procurement. The EIB has played a major role in the development of the European infrastructure and PPP financing markets and has contributed towards developing good industry practice.

The European Council in October 2003 invited the Commission and the EIB to explore how best to mobilise public and private sector financing support of the growth initiative and to give further consideration as to how to assist the development of PPPs. The EIB's proposals focused on the provision of substantial additional resources, in particular for the TENs, while respecting the EIB underlying principles. The EIB's principle of providing complementarity with other funders (both commercial banks and the capital markets) is maintained in PPP structure. Many EIB loans to PPP Projects are either bank guaranteed or monoline insured either to maturity, or with release once the project has a proven operating record. However, the EIB is also able to lend to PPP projects without third party credit enhancements, where the project is important in the context of its overall policy objectives.

Eligibility for EIB funding is based on the underlying project contributing to one or more of the EIB's objectives, not the fact that it is a PPP. The PPP structure has proved an acceptable one for the EIB to support and the EIB has been a major provider of debt finance to European PPP projects for many years. By mid-June 2005, the EIB had signed loans to the value of 19.5 billion Euros for PPP operations.

The EIB is now lending to PPP projects in Austria, Belgium, Denmark, France, Greece, Germany, Ireland, Italy, Netherlands, Poland, Portugal, Spain, and the UK as well as in non-Member States, e.g. China and South Africa. Most projects are in the transport sector.

The EIB has increasingly been involved in assisting the Commission with a number of development and initiatives such as the European Guarantee instrument. It was represented on the Task Force looking at the accounting treatment for PPPs and is represented on the informal PPP Exchange Group for TENs. The EIB is also used by the EU to provide expert advice regarding individual projects, such as the renegotiation of grant applications where PPPs are involved. However, the EIB's function is to act as the lending bank for the EU and its role is not in itself to develop policy.

A3.3 Legislation

With greater use of the PPP model, more and more countries are establishing dedicated PPP units and/or proposing specific legislative measure to assist PPP procurement. Table A3-1 summarizes the PPP institutional and legislative development by country.

Table A3-1
Summary of PPP institutional development

Member States	PPP Unit	PPP Law	New Member States	PPP Unit	PPP Law
Austria	▲▲▲	-	Cyprus	▲▲	-
Belgium	▲	■■	Czech Republic	▲▲	■■
Denmark	▲▲	-	Estonia	-	■
Finland	-	■	Hungary	▲▲	■
France	▲▲	■■	Latvia	▲▲	■■
Germany	▲▲	-	Lithuania	▲▲	■
Greece	▲	■■	Malta	▲▲	-
Ireland	▲▲▲	■■■	Poland	▲▲	■■■
Italy	▲▲	■	Slovakia	-	-
Luxembourg	-	-	Slovenia	▲▲	■
Netherlands	▲▲▲	-	**Acceding and Candidate Countries**	**PPP Unit**	**PPP Law**
Norway (not EU)	▲	-			
Portugal	▲▲	■■	Bulgaria	▲	■
Spain	-	■■■	Romania	▲▲	■■
Sweden	-	-	Turkey	▲	■■■
UK	▲▲▲	-			

***Legend*:**

▲ : Need for PPP unit identified and some action taken (or only a regional PPP unit existing)
▲▲ : PPP unit in progress (or existing but in a purely consultative capacity)
▲▲▲ : PPP unit existing (actively involved in PPP promotion)
■ : Legislation being proposed
■■ : Comprehensive legislation being drafted / some sector specific legislation in place
■■■ : Comprehensive legislation in place

Source: PriceWaterhouseCoopers "Delivering the PPP promise – A review of PPP issues and activity"

A3.4 The Suitability and Effectiveness of Alternative PPP Structures

A3.4.1 The Suitability to Transport Projects

Some of the most important issues that will influence the selection of a preferred form of PPP for projects in the transport sector are the size and scope of the project, the ability to apply user tolls and the extent of risk transfer required. Major and minor roads schemes or mass transit systems are well suited to traditional design and build contracts, as operating costs in a typical scheme are low when compared to the capital costs of construction.

Traditional procurement contracts are essentially an extension of the existing conventional approach, endeavouring to transfer design and construction risk to the private sector through fixed price contracts. In such instances responsibility for maintaining the infrastructure will remain within the Public sector. In some instances, the construction of, particularly, a major road scheme may be funded in part or in whole by user tolls. For example, bridges and tunnels are particularly suited to user tolling where there is a clear benefit to be gained from choosing the tolled route over a different alternative route. In such circumstances, the public sector must decide whether to transfer responsibility for financing the project and collecting tolls to the private sector contractor.

Different types of PPP contracts are already being implemented in Europe. Toll motorway concession contracts are suitable where the private sector contractor will finance a major road scheme, collect user tolls and bear the risk associated with traffic Guidelines for Successful Public – Private Partnerships demand. BOT contracts are more suitable where the private sector will receive user fees paid by the public sector, but the public sector will finance the project and accept the risk associated with demand. Shadow toll DBFO contracts are likely to be more suitable where the private sector contractor will accept some of the risk associated with traffic demand, but user tolls are not applied. A number of major roads projects have been undertaken in England, Finland, Scotland, Spain and Portugal on this basis and the private sector contractors are paid on the basis of Shadow Tolls. However, there are also a range of disadvantages associated with this approach including the greater level of demand risk retained by the public sector and the fact that as motorists do not pay for the economic cost of infrastructure provision, infrastructure investment may not be rationally allocated.

Minor projects are more suited to traditional design and build contracts and are not likely to be suitable for other forms of PPP unless bundled together into a larger contract with a significant operating element.

A3.4.2 Suitability to Water Projects

Public Private Partnerships have existed in the international water sector for a number of years. For example, private sector concessions for the development and operation of water supply and treatment plants have been common place in France for at least forty years, leading to the growth of the large and diversified French private sector utility companies. The European Union Drinking Water Directive and the Urban Waste Water Directive have resulted in a substantial change in public sector responsibility within the water industry. In order to meet the requirements of the Directives, many countries will have to invest substantial amounts of capital in new water supply and waste water treatment facilities. As a result, countries that have not yet involved the private sector in water supply or waste water treatment are now considering the potential to make use of private sector skills and finance to satisfy the requirements of the Directives.

The considerations that will shape the selection of a preferred form of PPP for projects in the water sector are similar to those in the transport sector and include the size and scope of the project (including its operational content), the ability to apply user charging and the extent of risk transfer required.

The construction of water supply or waste water networks under PPP arrangements is likely to be linked to the level of information available on the extent, composition and performance of existing networks. If information is not sufficient, traditional procurement arrangements may be more suitable. On the other hand, water supply and waste water facilities are likely to be very suited to BOT and DBFO contracts. They may also be suited to Concession contracts where there is an opportunity to introduce user charging. However, water supply and waste water facilities are considered to be less suited to traditional procurement design and build contracts as the public sector would retain the risks associated with operating increasingly complex treatment processes, without having had a role in the design of those processes.

A3.4.3 Suitability to Waste Projects

More recently, the use of PPPs has been stimulated in sectors where there has been a significant increase in the burden of traditional public sector responsibilities and this is particularly true with regard to the disposal of municipal waste. Increasingly, for economic and environmental reasons, public authorities are reducing their reliance on landfill which has been the traditional means of disposing of waste. New methods of waste disposal such as waste-to-energy schemes and recycling plants require substantial investment and specialised technical know-how.

The considerations that will shape the selection of a preferred form of PPP are similar to those for the transport and water sectors and include the size and scope of the project (including operational content), the ability to apply user charging and the extent of risk transfer required. Projects in the waste sector are likely to be very suited to the more developed forms of PPP where a significant amount of operating risk can be transferred to the private sector. In addition, under a Concession contract, the private sector can be asked to finance the project, collect user charges (in accordance with the Polluter Pays principle) and accept the risk associated with waste volumes. This is now being widely applied in the UK.

Table A3-3 summarizes the ability of the PPP structures to meet a range of desirable performance indicators. The various PPP structures are arrayed in increasing order of private participation from top to bottom on the table. It can be seen that as private sector participation increases, so too does the potential for achieving a wide variety of infrastructure goals. However, it also needs to be recognized that greater private sector participation in infrastructure development also brings with it increased implementation constraints, particularly when private investment is involved. These constraints may well become further complicated when Commission grant funding is involved.

Table A3-3
The Effectiveness of Alternative PPP Structures

	Improved Service	Enhanced Operational Efficiency	Enhanced Risk Sharing	Life Cycle Costing	Accelerated Implement-ation	Leveraging of Public Funds	Implement-ation Constraints
Private Outsourcing							
Service Contracts	Possible	Yes	No	No	No	No	Low
Management Contracts	Yes	Yes	No	No	No	No	Moderate
Leasing	Possible	Yes	Some	Possible	No	No	Moderate
Integrated Private Development							
BOT	Yes	Yes	Some	Yes	---	---	High
Private Investment							
DBFO Concessions	Yes	Yes	Yes	Yes	Yes	Yes	Very High

Source：European Commission, "Guidelines for Successful Public-Private Partnerships"

As demonstrated, private outsourcing arrangements have the ability to affect service improvements and gains in operational efficiency. However, their ability to enhance risk sharing or capture more important life cycle costing efficiencies is limited. These latter indicators can be somewhat enhanced with certain types of leases, but the extent to which this is possible depends both upon the required service standards and the duration of the lease agreement. Given that they do not involve private sector capital investment, outsourcing partnerships have no ability to accelerate project implementation or leverage public funds. Therefore these approaches are best suited to situations where improvements in operational efficiency are desired, but where there is little need for major capital improvements.

Like outsourcing, BOT arrangement can enhance both operational and service indicators. In addition they also bring about extensive life cycle cost benefits. Although certain risk elements are shared, pure BOT structures do not involve private investment and therefore cannot be expected to leverage funds.

The BOT approach is appropriate when owners need to embark on new capital projects and hope to achieve greater operational efficiencies. They can also streamline both implementation costs and the implementation process as a whole. BOT projects can prove a useful first step in moving towards future partnerships involving private investment, as they provide the opportunity to demonstrate the types of savings and efficiencies private sector involvement can bring to infrastructure development.

PPPs involving private investment provide the potential to achieve all the cost and operational efficiencies associated with the BOT approach. In addition, the benefits leveraging and accelerated project implementation are also added. As such, investment partnerships have the potential to deliver maximum benefits to the public sector. However, these arrangements also introduce legal and regulatory concerns, and require sophisticated management on the part of the government to insure that its requirements are met. Therefore, in order to justify the considerable effort involved in resolving such issues, investment partnerships are often best suited to larger and more costly projects.

A3.5. PPP Activity

In 2004 and 2005, around 206 PPP deals worth approximately US$52 billion (EUR 42 billion) were closed in the world, of which 152 projects with a value of US$26 billion (EUR 21 billion) were in Europe. From January 1994 to September 2005, it is estimated that PPP deals with a value of approximately US$ 120 billion (EUR 100 billion) closed across Europe. Of these deals, two thirds closed in the UK.

Geographically, the PPP market has remained concentrated. The global spread of PPPs marks a much slower trend than many market participants had hoped. While the UK market has reached a good level of maturity and continues to grow in all sectors, activity in 2004 remained below expectations. However, there is strong deal flow in the pipeline for Spain, Portugal, France, Italy and Germany which suggests that the PPP concept is becoming more established across Europe.

The UK showed substantially more PPP activity than the rest of Europe with 118 deals closed in 2004 and 2005, with the next most active PPP market – Spain – closing 12 deals during same period.

There is a substantial number of PPP Projects in procurement or announced in other EU member states. In Italy, just six deals were closed in 2004 and 2005, but there are at least 18 more projects in procurement and an estimated 40 projects in the pipeline. According to a recent survey by the German Construction Industry Association, 18 PPP deals closed in Germany between autumn 2003 and September 2005. It was estimated that another 79 projects with a combined capital expenditure of approximately EUR 4.8 billion are in procurement or expected in the near future.

While the UK closed the greatest number of PPP deals in 2000-2005, if PPP activity is considered as a percentage of GDP, Portugal has the greatest involvement with PPP relative to its GDP, and countries such as Ireland, Hungary and Greece also show the impact of their major schemes.

Table A3-4 summarizes the introduction of PPPs by EU country and sector. In EU countries, PPPs for roads are more active.

Table A3-4
Summary of PPPs by Country and Sector

	Central Accommodation	Airport	Defence	Housing	Health & Hospitals	IT	Ports	Prisons	Heavy Railway	Light Railway	Roads	Schools	Sports & Leisure	Water & Wastewater
Member States														
Austria	△	△			○	△		△	○		○	△		△
Belgium		○		○					○	△	○	△		○
Denmark	○							△		△	△	○	△	
Finland			△		△				△	△	○	○		△
France	○	△	△		◎		△	○	◎	◎	●	△	○	●
Germany	◎	△	◎		○	○		◎	△	△	◎	●	○	◎
Greece	○	●			△						●		◎	
Ireland	△			◎	○			△		○	●	◎		●
Italy	◎	○		○	●		○	△		◎	●		○	●
Luxembourg		△				○								
Netherlands	○		○	△	△		△	○	◎		◎	◎		◎
Norway (not EU)	△		△		○			△			◎	○	△	
Portugal	△	△		△	○	○	◎	△	△	◎	●	△	●	●
Spain	○	○			◎		●	○	△	○	●	△	△	●
Sweden			△		△				△	◎	△			
UK	●	●	●	●	●	●		●		●	●	●	●	●
New Member States														
Cyprus		○					○				○			○
Czech Republic		△	○	△	△			△	△	△	○	△	△	○
Estonia			△	○	△	△				△	△	○		
Hungary	△	△		◎	○	○		○		△	◎	◎	○	
Latvia	△			△	△			△			△	△		△
Lithuania					△				△	△		△	○	
Malta				△	○	○	△				○	△	○	
Poland	△	△		△			○		△	△	◎		△	◎
Slovakia		△									△			△
Slovenia														◎
Acceding and Candidate Countries														
Bulgaria		○					○				○			○
Romania		△		○	○						◎		○	○
Turkey		◎		△	△				△	△	△			◎

***Legend*:**

● : Substantial number of closed projects
◎ : Many procured projects, some projects are closed
○ : Projects in procurement
△ : Discussions ongoing

Source: PriceWaterhouseCoopers "Delivering the PPP promise - A review of PPP issues and activity"

A3.5.2 TEN-T projects

In 2003, the European Commissioner for Energy and Transport admitted that financing the trans-European network had proved challenging. By September 2003, only 20 percent of the projects identified in the 1996 guidelines had been completed.

A High Level Group led by Karel van Miert was commissioned to draw up a revised list of priority projects. The 29 priority projects were expected to require funding or around EUR 235 billion between 2003 and 2020. More than EUR 110 billion of this related to the original 14 priority projects. Overall, it was estimated that the total cost of all trans-European transport network (TEN-T) projects would be more than EUR 600 billion. The extended list took full account of the planned enlargement of the EU to 25 member states from 1 May 2004.

Table A3-5
TEN-Projects

	Project	Start	Cost (million EUR)
1.	Railway axis		
	- Berlin-Verona/Mirano-Bologna-Napoli-Messina-Palermo-BrennerTunnel	2004	4,312
2.	High-speed railway axis		
	- Paris-Bruxelles/Brusselo-Koln-Amsterdam-London	1996	1,184
3.	High-speed railway axis south-west Europe		
	- Figueras-Perpignan	2004	950
	- Lisboa/Port-Madrid	2006	5,700
4.	High-speed railway axis east		
	- Strasbourg-Appenweier (Kehl Bridge)	2004	50
5.	Betuwe axis	---	---
6.	Railway axis Lyon-Trieste/Koper-Ljubljana-Budapest-Ukrainian border		
	- Mont-Cenis Tunnel	2006	6,100
	- Budapest-Ljubliana-Rail upgrade	2006	760
7.	Motorway axis		
	- Igoumenitsa/Patra-Athina-Sofia-Budapest-Athina-Thessaloniki	1996	1,200
	- Sofia-Kulata	2003	675
8.	Multimodal link Portugal/Spain-rest of Europe	---	---
9.	Conventional rail link Cork-Dublin-Belfast-Larne-Stranraer	Completed	---
10.	Malpensa Airport	Completed	---
11.	Fixed rail/road link between Denmark and Germany	Completed	---
12.	Nordic triangle railway/road axis		
	- Kerava-Vainkkala Rail upgrade	2003	591
	- Malmo and Stockholm Rail tunnels	2004	2,000
13.	UK/Ireland/Benelux road link		
	- Felixstowe-Holyhead/Stranraer-Road	1996	1,346
14.	West Coast main axis	---	---
15.	Galileo (consumer satellite)	2002	3,200
16.	Freight railway axis Sines-Madrid-Paris	---	---
17.	Railway axis		
	- Paris-Stuttgart-Wien-Brastislava-Monchen-Mohldorf-Salzburg Rail upgrade	2003	898
	- Wien-Bratislava Rail upgrade	2004	134
18.	Rhine/Meuse - Main-Danubu inland waterway axis		
	- Wien-Bratislava	2006	180
	- Rhine-Meuse, including Lock Lanaye	2005	504

	Project	Start	Cost (million EUR)
19.	High-Speed axis interoperability on the Iberlan Peninsula-Correder Norte-Noroeste	2001	8,736
20.	Fehmarn Belt railway axis	---	---
21.	Motorways of the sea		
	- Motorways of the Baltic Sea	2004	---
	- Motorways of the sea of western Europe	2004	---
	- Motorways of the sea of south-east Europe	2004	---
	- Motorways of the sea of south-west Europe	2004	---
22.	Railway axis		
	- Athina-Sofia-Budapest-Wien-Praha-Nurnberg/Dresden-Budapest-Sopron-Wine Rail Upgrade	2004	1,318
23.	Railway axis		
	- Gdansk-Warszawa-Brno/Bratislava-Wien-Katowice-Breclav Rail Upgrade	2004	731
	- Katowice-Zilina-Nove Mesto n.v. Rail Upgrade	2002	1,331
24.	Railway axis Lyon/Genova-Brno/Basel-Duisburg-Rotterdam/Antwerpen		
	- Dijon-Mulhouse-Molheim New Rail	2006	2,080
	- Basel-Karlsruhe New Rail	1987	4,235
	- "Iron Rhine": Rheidt-Antwerpen Rail Upgrade	2004	550
25.	Motorway axis Gdansk-Brno/Bratislava-Wien		
	- Brno-Wien	2005	479
26.	Railway/Road axis Ireland/UK/Continental Europe		
	- Cork-Dubrin-Belfast Rail Upgrade	2003	469
	- Crewe-Holyhead Rail Upgrade	2005	120
27.	"Rail Baltica" axis Warsaw-Kaunas-Riga-Tallinn	---	---
28.	"Eurocaprail" on the Brussels-Luxembourg-Strasbourg railway axis	---	---
29.	Railway axis Ionian/Adriatic intermodal corridor	---	---

Source: European Union, http://ec.europa.eu/ten/transport/coordinators/index_en.htm

Note

Appendix-3 refers to the following materials;

- "Delivering the PPP promise – A review of PPP issues and activity," PriceWaterhouseCoopers, 2005
- "Guidelines for Successful Public-Private Partnerships," European Commission, Directorate-General Regional Policy, available at http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf
- EU Trans-European Networks website, http://ec.europa.eu/ten/transport/coordinators/index_en.htm

APPENDIX-4

The Situation in the United Kingdom

A4.1 Introduction

This appendix has been produced as a supplement to the main text which is based on the UK PFI/PPP market. While the content and procedures outlined in the report are still current practice in the UK, this appendix provides the government's rationale for adopting PFI/PPP and showcases examples of projects that have been undertaken using this procurement route.

A4.2 Historical developments

A4.2.1 HM Treasury data

"The Private Finance Initiative (PFI) is a small but important part of the Government's strategy for delivering high quality public services.

In assessing where PFI is appropriate, the Government's approach is based on its commitment to efficiency, equity and accountability and on the Prime Minister's principles of public sector reform. PFI is only used where it can meet these requirements and deliver clear value for money without sacrificing the terms and conditions of staff.

Where these conditions are met, PFI delivers a number of important benefits. By requiring the private sector to put its own capital at risk and to deliver clear levels of service to the public over the long term, PFI helps to deliver high quality public services and ensure that public assets are delivered on time and to budget." - HM Treasury.

Delivering value for money – the Government's commitment to PFI

According to the Treasury, PFI has a strong track record of delivering investment in infrastructure that supports public services on time and on budget. The Treasury states that the Government is committed to the appropriate use of PFI, choosing between PFI and other procurement routes only on the basis of value for money and how the value for money benefits of PFI flow from the long-term focus it brings on whole-life costs, the private sector's risk management expertise incentivised by having private finance at risk, and the certainty for public services it provides of specified outputs being delivered at the cost contracted for. On this basis, the Government introduced measures to reform the assessment of value for money, improve delivery in PFI procurement, and ensure efficiency and flexibility in private finance.

The Government sees PFI continuing to play a small but important role in the overall objective of delivering modernised public services. It will continue to be used only where it can demonstrate value for money and is likely to continue to comprise around 10-15 percent of total investment in public services.

PFI is delivering in operation

As an increasing number of PFI projects enter their operational phase, the Treasury commissioned the most extensive survey of operational projects to date. According to their research, evidence presented showed that PFI is now meeting public service needs across more than 500 operational projects. The Treasury has concluded that:

- Users are satisfied with the services provided by PFI projects, with 79 percent of projects reporting that service standards are delivered always or almost always.
- Public authorities are reporting good overall performance and high levels of satisfaction against the contracted levels of service. Authorities report that the overall performance of 96 percent of projects is at least satisfactory, and that in 89 percent of projects, services are being provided in line with the contract or better.
- The services contracted for are appropriate with 83 percent of projects reporting that their contracts always or almost always accurately specify the services required, with this result getting better the more recent the contract.
- The incentivisation within PFI contracts is working. While payment deductions have been low reflecting the general levels of high performance, almost all projects report satisfactory levels of service after a deduction has been applied, and 72 percent report good or very good performance.

Pursuing areas for further improvement

The evidence gathered by the Treasury indicates areas where improvements can be made to strengthen PFI further. As such they have outlined a document for improvement which includes:

- Proposing measures based on the Government's research to build on the operational and contractual flexibility under PFI, including increased support to public sector managers during this phase of the contract.
- Setting out the measures that the Government is taking to improve the ability of the public sector to understand where PFI is likely to offer better value for money than other procurement routes. This will be achieved by assisting procuring authorities in understanding the value for money of key decisions within a project including strengthening the test for the inclusion of soft services.
- Bolstering the professionalism of PFI procurement to reduce procurement times. While improving, the Government believes that procurement times remain unnecessarily long and is introducing steps to improve the maturity of projects before they are tendered into the market, to reduce unnecessary uncertainty later in the procurement.
- Setting out how local decision making in PFI will be supported by central skills and capabilities and how changes to the existing framework will reinforce this so that approvals are given at the right points in the process.

Table A4-1
Total value of signed PFI projects from the public sector:

DEPARTMENT	No of projects by department	Total capital value by department (£m)
Cabinet Office	2	347.7
Crown Prosecution Service	1	26
Department for Constitutional Affairs	14	371.4
Department for Culture, Media and Sport	13	212.1
Department for Environment, Food and Rural Affairs	14	650.9
Department for Transport	51	21955.6
Department for Education and Skills	144	4111.9
Department of Health	149	6572
Department for Trade and Industry	8	180.8
Department for Work and Pensions	11	1341
Foreign and Commonwealth Office	2	91
HM Treasury	2	189
Home Office	42	1186.8
Ministry of Defence	55	4570.5
Northern Ireland	39	709.4
Office of the Deputy Prime Minister	65	1110.7
Scotland	91	2745.4
Wales	33	555
Office of Government Commerce (OGC)	1	10
HM Revenue and Customs	10	624

The Treasury has predicted that over the next four to five years an additional 200 PFI projects will come on stream worth a total of £26bn. This represents the largest programme of its kind anywhere in the world. The PFI programme will be worth £7-9bn inside the NHS and £1bn per year in school building investment. The next biggest PFI projects will be transport and defence.

A4.2.2 Developments in the market

The secondary PFI market

The secondary PFI market has created a huge opportunity for the consultancy and engineering sector, through offering their services as part of the due diligence process. The largest clients are banks, investment banks, pension funds and stockbrokers who wish to establish the value of the PFI assets and identify the risk profile associated with the acquisition before financial closure. This is a growing market for the consultancy and engineering sector and typically provides them with higher profit margins.

However, concerns have been raised about the level of profit that can be made from PFI deals and the repercussions of these gains. For example, the Darent Valley Hospital Carillion made an investment of £4.1m and in the first six years of operation made returns of four times this amount. Removing the initial investment its profits stand at £11m. Based on this profit level, it sold a one-third stake in the hospital to Barclays. In total it is estimated that between 1999 and 2004 there were 27 such deals with a total consideration of £657.5 million, with the secondary market being driven by the lure of a guaranteed and fairly safe high value income stream.

Returns in the secondary PFI market stand at 9.5-10.5 percent, although some have been as low as 7 percent as demand outstrips the supply of available projects. This compares to 15 percent in the primary market where the risks of initial investment are deemed higher.

It should be noted that a vibrant secondary market for PFI projects is considered by many as being essential to the viability of the primary market as it allows contractors to refinance for further PFI deals.

A4.3 Project Examples

A4.3.1 Examples of construction projects with a capital value of over £250 million

a) Department of Transport

Sub Surface Lines (SSL) - District, Circle, Metropolitan, East London & Hammersmith & City

On 20 March 1998 the Deputy Prime Minister, John Prescott, announced that a Public Private Partnership would be introduced to clear the large investment backlog. The plans involve letting three contracts for the maintenance and upgrading of trains, stations, tracks and civil infrastructure such as tunnels to three privately owned infrastructure companies (Infracos). The Infracos are based upon different line groupings - JNP (Jubilee, Northern and Piccadilly lines), BCV (Bakerloo, Central, Waterloo and City and Victoria lines) and the Sub-Surface lines including the District and Circle, Metropolitan, East London and Hammersmith and City lines. London Underground will remain responsible for safety, signalling, and for running the trains. London Underground is currently negotiating the award of the contract with the preferred bidders and Transport for London. Passengers will benefit from reduced journey times, greater reliability, brighter stations and improved safety and security, and after 30 years, the Government will acquire a fully maintained tube service with no investment backlog. Safety will not be compromised by the PPP.

Financial close:	4 April 2003
Operational from:	4 April 2003
Capital value:	£6139m
Contract Term:	30 years
Consortium:	Metronet

Deep Tube Lines - Jubilee, Northern & Piccadilly Lines (JNP)

On 20 March 1998 the Deputy Prime Minister, John Prescott, announced that a Public Private Partnership would be introduced to clear the large investment backlog. The plans involve letting three contracts for the maintenance and upgrading of trains, stations, tracks and civil infrastructure such as tunnels to three privately owned infrastructure companies (Infracos). The Infracos are based upon different line groupings - JNP (Jubilee, Northern and Piccadilly lines), BCV (Bakerloo, Central, Waterloo and City and Victoria lines) and the Sub-Surface lines including the District and Circle, Metropolitan, East London and Hammersmith and City lines. London Underground will remain responsible for safety, signalling, and for running the trains. London Underground is currently negotiating the award of the contract with the preferred bidders and Transport for London. Passengers will benefit from reduced journey times, greater reliability, brighter stations and improved safety and security, and after 30 years, the Government will acquire a fully maintained tube service with no investment backlog. Safety will not be compromised by the PPP.

Financial close: 31 December 2002
Operational from: 31 December 2002
Capital value: £5484m
Contract Term: 30 years
Consortium: Tube Lines

Deep Tube Lines - Bakerloo, Central & Victoria Lines (BCV)

On 20 March 1998 the Deputy Prime Minister, John Prescott, announced that a Public Private Partnership would be introduced to clear the large investment backlog. The plans involve letting three contracts for the maintenance and upgrading of trains, stations, tracks and civil infrastructure such as tunnels to three privately owned infrastructure companies (Infracos). The Infracos are based upon different line groupings - JNP (Jubilee, Northern and Piccadilly lines), BCV (Bakerloo, Central, Waterloo and City and Victoria lines) and the Sub-Surface lines including the District and Circle, Metropolitan, East London and Hammersmith and City lines. London Underground will remain responsible for safety, signalling, and for running the trains. London Underground is currently negotiating the award of the contract with the preferred bidders and Transport for London. Passengers will benefit from reduced journey times, greater reliability, brighter stations and improved safety and security, and after 30 years, the Government will acquire a fully maintained tube service with no investment backlog. Safety will not be compromised by the PPP.

Financial close: 4 April 2003
Operational from: 4 April 2003
Capital value: £4556m
Contract Term: 30 years
Consortium: Metronet

Birmingham Northern Relief Road (M6 Toll)

The project is to build an entirely new motorway, north and east of Birmingham. The motorway will be 27 miles of dual three-lane carriageway between Junctions 4 and 11 of the M6 and will be the first free-standing UK tolled motorway scheme entirely designed, built, financed and operated by the private sector. The new motorway will provide a reliable, high standard alternative to the heavily congested M6 through the West Midlands. It will also act as a regional distributor to the various existing settlements and developments in the area. The road will be part of the Trans-European Road Network.

Financial close: 1 February 1992
Operational from: 9 December 2003
Capital value: £485m
Contract Term: 53 years
Consortium: Midland Expressway Limited

A13 Thames Gateway

The A13 DBFO project runs from Butcher Row in the west to Wennington in the east and includes the recently constructed bypass section. The project includes improvement schemes such as: Ironbridge to Canning Town; A13/A117 Woolwich Manor Way-Movers Lane Junction; and the A13/A112 Prince Regent Lane Junction Improvement. In July 2000, responsibility for the A13 Thames Gateway project transferred from the Highways Agency to Transport for London. The route is of major importance to industry located along the A13 and is key to improving east-west access to Docklands, the Lower Lea Valley and other parts of East London, and to supporting regeneration in a major part of the Thames Gateway. The A13 will return to the Government after 30 years without requiring major capital maintenance.

Financial close: 12 April 2000
Operational from: 1 September 2004
Capital value: £411m
Contract Term: 30 years
Consortium: Road Management Services

Second Severn Crossing
The project involved the private sector consortium taking over responsibility for the existing tolled crossing and designing and building a new bridge across the Severn River to complement the existing structure. The private sector company maintains and operates both of the crossings. The Second Severn Crossing contract has eased traffic flows across the Severn and will ensure that the Government acquires two fully maintained and debt-free bridges.

Financial close: 29 October 1990
Operational from: 5 June 1996
Capital value: £331m
Contract Term: 30 years
Consortium: Severn River Crossing plc

b) Ministry of Defence

Colchester Garrison
Redevelopment, rebuilding and refurbishment of Colchester Garrison to provide accommodation and associated services (messing, education, storage workshops, etc.)

Financial close: 9 February 2004
Operational from: 1 February 2008
Capital value: £539m
Contract Term: 35 years
Consortium: RMPA Services

MoD Main Building Refurbishment
Project to redevelop MOD Main PFI Building, including temporary decant to other London buildings and ongoing upkeep of Main Building and Old War Office.

Financial close: 5 May 2000
Operational from: 1 July 2004
Capital value: £345m
Contract Term: 30 years
Consortium: Modus

c) Government Communications Headquarters (GCHQ)

GCHQ New Accommodation Project
Provision of new serviced accommodation and IT services on a single site to accommodate GCHQ's Cheltenham headquarters

Financial close: 22 June 2000
Operational from: 3 September 2003
Capital value: £452.1m
Contract Term: 30 years
Consortium: Integrated Accommodation Services

d) Department of Health

University College London Hospitals Site Rationalisation
UCLH is a major teaching hospital providing acute care and cancer services. This project will replace the existing UCLH and Middlesex Hospitals with four main hub sites, which encompass 80 buildings ranging from offices, residential and large acute sites and dental hospitals.

Financial close: 12 July 2000
Operational from: 28 October 2005
Capital value: £422m
Contract Term: 35 years
Consortium: Amec, Balfour Beatty, Interserve

Central Manchester & Manchester Children's Hospitals PFI
This project will relocate the city's Pendlebury and Booth Hall children's hospitals onto a single city centre campus, which they would share with rebuilt facilities for the Manchester Royal Infirmary, St. Mary's Women and Children's Hospital and the Manchester Royal Eye Hospital.

The centrepiece of the campus would be the new central children's hospital, which with 388 permanent beds over three storeys would be the largest paediatric hospital in the UK.

Elsewhere on the campus, the plans include the modernisation of the Royal Manchester Infirmary into a five-storey 758-bed hospital, the transformation of St. Mary's into a 167-bed specialist women's hospital, the refurbishment of the 60-bed Eye hospital and the provision of a new 97-bed mental health unit.

Financial close: 16 December 2004
Operational from: 1 July 2009
Capital value: £414.7m
Contract Term: 38 years
Consortium: Catalyst Healthcare

Coventry & Warwickshire NHS Trust - Coventry New Hospitals Project
The project consolidates the Walsgrave and Coventry and Warwickshire hospitals into a single state of the art development. Due to be completed in 2006, the new building will be five storeys high and a quarter of a mile long. For the first time in Coventry, accident and emergency services will be on the same site as the specialist services, which are often required for emergency patients. This will mean patients requiring emergency care will no longer have to be transferred across the city.

Financial close: 26 November 2002
Operational from: 1 May 2006
Capital value: £378.9m
Contract Term: 39 years
Consortium: Includes Skanska

Derby City General Hospital Acute Services Reconfiguration
Consolidation of Acute Services on Derby City General Hospital site to enable the development of a community facility on the Derby Royal Infirmary site.

Financial close: 12 September 2003
Operational from: 1 May 2008
Capital value: £312.2m
Contract Term: 40 years
Consortium: Includes Skanska, Innisfree

Sherwood Forest Hospitals NHS Trust - Modernisation of Acute Services in Central Nottinghamshire
This project involves the provision of services for an acute hospital. It is envisaged that this will comprise of new wards, diagnostic and treatment centre, women and children's unit, education and training centre, emergency care centre plus clinical support involving mainly new build and associated IM and T infrastructure, together with some refurbishment at the Kings Mill Hospital site.

The contract will also include wards, together with outpatients and support space involving mainly refurbishment and some new build at the Mansfield Community Hospital site together with support services for Kings Mill, Mansfield and Newark Hospitals which are likely to include, but not be necessarily limited to: catering, cleaning, portering, estates, transport, telephony, reception, help desk, waste management, grounds/gardens, linen, security, pest control, car parking, energy, and ward hostess services.

Financial close: 7 November 2005
Operational from: 1 April 2009
Capital value: £296m
Contract Term: 32 years
Consortium: Skanska Innisfree

Newcastle upon Tyne Hospitals NHS Trust - Transforming the Newcastle Hospitals
The Newcastle Hospitals PFI Project is a scheme to rationalise the acute services within the city of Newcastle from three to two sites, relocating the services from Newcastle General, to the Royal Victoria Infirmary (RVI) and Freeman Hospitals.

The PFI project is a predominantly new build with the refurbishment of some existing facilities at the RVI being publicly funded. The Freeman element of the project is entirely new build.

At the Freeman Hospital, a new Cancer and Renal services centre of more than 22,000 square metres in size will be designed and built by the project company.

The Royal Victoria Infirmary scheme of around 70,000 square metres in total, will benefit from a new accident and emergency department – with all the clinical support services such as neurosciences, infectious diseases, traumatic orthopaedics and critical care. Children's services will be integrated into a purpose-built facility adjoining the main development. A clinical support/office block completes the package.

Financial close: 27 April 2005
Operational from: 1 April 2013
Capital value: £295m
Contract Term: 38 years
Consortium: Healthcare Support (Newcastle)

A4.3.2 Examples of projects from other sectors with a lesser capital value

a) The Scottish Executive

Glasgow Schools - Project 2002
The main focus of the project is the complete rationalisation and rebuild/refurbishment of the council's secondary schools.

Glasgow, prior to the project had 39 secondary schools with 50,000 places. With only 29,000 pupils the council is reducing the number of schools to 29 through the closure of 10 and a reduction in places to 32,500. The 29 schools are being overhauled and resources freed through the closures fed through to the remaining schools.

Project 2002 will provide the quality working environments and access to world class IT enabling pupils and teachers to work together, productively and efficiently, to raise standards and maximise the individual potential of every participant. This will entail 11 new schools being built and the refurbishment of 18 existing schools.

Financial close: 26 July 2000
Operational from: 1 April 2001
Capital value: £225m
Contract Term: 30 years
Consortium: 3ED

North Lanarkshire Council - Education 2010
This project represents a major investment in North Lanarkshire Council's educational estate. The private sector partner is responsible for the design, build, finance and operation of services in respect of assets within the Council's educational estate that are required to deliver education, recreation and support services to the community.

The contract will comprise a range of facilities from single school developments to joint campuses in both primary and secondary sectors. The secondary sector projects along with the majority of primary sector projects will be new build construction with the remainder being a combination of refurbishment and new build extensions.

Two secondary schools are to be rebuilt in Coatbridge. Its two Catholic secondary schools are to merge into a new Coatbridge RC Secondary which will have its own community education and resource centre, and sports centre.

One of Airdrie's major secondary schools – Airdrie Academy – will also be rebuilt.

Many of the new primaries were also in the Airdrie and Coatbridge area. Six primary schools and a further 12 primary schools are to be provided over six joint campus facilities. Also, there is potential for three more schools to be constructed.

All schools are expected to be open by 2008 and the local authority has pledged to have all of its 131 schools fully upgraded by 2010.

Financial close: 8 June 2005
Operational from: 1 July 2008
Capital value: £150m
Contract Term: 31 years
Consortium: Transform Schools

Renfrewshire Schools PPP
The project involves the construction of ten new schools, which will comprise six primary and four secondary schools, two community nurseries and a community learning centre.

This will provide state of the art facilities for over 6,000 children located in Paisley, Linwood and Johnstone.

It is expected that the first facility will be completed by the middle of 2006 with the remainder due for completion by December 2007.

Financial close: 22 March 2005
Operational from: 29 January 2008
Capital value: £110m
Contract Term: 32 years
Consortium: Amey, Carillion

b) Department for Education and Skills (England)

Northamptonshire Group Schools Project - 2
The project is to facilitate the schools reorganisation programme in Northampton Town, moving from a three-tier to a two-tier system.

The scheme will provide five new build secondary schools, six new build primary schools and additional 30 extended and refurbished primaries.

The contract includes FM services for 32 years.

Financial close: 22 December 2005
Operational from:
Capital value: £191.3m
Contract Term: 32 years

University of Hertfordshire Sports & Residencies Development
The project will involve the development of student residences and a state of the art sports and leisure facility at the University of Hertfordshire. The £190 million project will provide accommodation for 1,600 students along with extensive sports facilities at its new de Havilland Campus at Hatfield.

The new sports facilities include - a 25 metre eight-lane swimming pool, a main sports hall with 12 badminton courts, an ancillary sports hall with four-lane indoor cricket, two squash courts, a fitness centre and a sports bar with seating for 100. In addition, there will be a refectory with seating for up to 500. The project also includes sports pitches, including a full-size, multi-purpose artificial turf pitch and grass pitches.

Financial close: 6 February 2002
Operational from: 1 September 2003
Capital value: £190m
Contract Term: 30 years

Nottinghamshire 2 - Bassetlaw Phases 1 and 2
The primary aim of this project is to raise standards of teaching and learning and the achievement of all pupils aged 11-18 in Bassetlaw. The barriers to realising this vision for Bassetlaw are real, significant and can only be overcome by a major investment in the educational infrastructure.

This is a two-phase project to transform secondary education in the Bassetlaw district of Nottinghamshire.

The first phase will rebuild three secondary schools and an Area Special School for primary and secondary aged children in the eastern part of the Bassetlaw District.

Phase two will rebuild two secondary schools in the western portion of the District, together with providing two new Post-16 Centres in the towns of Worksop and Retford which will operate in partnership with the Learning & Skills Council and North Nottinghamshire Further Education College.

Also included in the project is the rebuilding of two new Leisure Centres – again located in Worksop and Retford – which are funded by the Bassetlaw District Council separately from the PFI credits awarded to the Nottinghamshire County Council for the new educational facilities.

Financial close: 12 July 2005
Operational from: 29 July 2005
Capital value: £150.9m
Contract Term: 25 years

Leeds City Council - Combined Secondary Schools Project

This scheme will provide five secondary schools and one primary school (including the closure of four secondary schools, the rebuilding of four existing secondary schools, opening a new secondary school on a new site and the rebuild of one existing primary school).

The project comprises two phases. Under the first phase of the work, the consortium will build three 960–1,200-pupil secondary schools with sixth form centres on the sites of the South Leeds, Carr Manor and Primrose Hill high schools. The Primrose Hill site will also house the Shakespeare Primary School.

The second phase will cover the construction of the John Smeaton and Ralph Thoresby high schools, which will both have a capacity of 900 pupils with sixth form centres for an additional 150 pupils.

Financial close:	7 April 2005
Operational from:	1 September 2006
Capital value:	£97.05m
Contract Term:	28.33 years

APPENDIX-5

The Situation in the United States

A5.1 Background

Public-Private Partnerships are not new concept to transportation infrastructure development. Many of the earliest major roadways in the United States were private toll roads. In 1792, the first turnpike was chartered and became known as the Philadelphia and Lancaster Turnpike in Pennsylvania. The boom in turnpike construction resulted in its incorporation around the country.

Over time private involvement in highway infrastructure investment and operation declined as the States and Federal government increased the pace of road construction to increase economic development. The Federal-Aid Highway Act enacted in 1916 required each state to have a State highway agency with engineering professionals to carry out the Federal-Aid highway program. Beginning in the early 1900s, States and the Federal Government have increasingly relied on fuel taxes and other user fees to finance highway construction programs. Proposals for additional toll roads languished, and few additional proposals were seriously considered for many years.

However, in the late 1980s, some States began exploring the potential for the private sector to augment State highway construction programs. About this time, the States also began exploring ways to expedite highway construction while maintaining quality and reducing the impact on the travelling public. Under the auspices of FHWA's SEP-14 (Special Experimental Project 14), created in 1990, the States began to evaluate several potential contracting options, including cost-plus-time bidding, lane rental, and the use of warranties for the specific project features. Some States also began evaluating the use of design-build contracting.

In 1991, ISTEA (Intermodal Surface Transportation Efficiency Act) was enacted, and it permitted the use of tolls to a much greater degree on Federal-aid projects, including allowing Federal-aid to be used to construct new, non-Interstate system toll highways. This expansion of the use of tolls also included a congestion pricing pilot program. For the first time, private entities were allowed to own toll facilities and States were allowed to loan the Federal share of a project's cost to another public agency or private entity constructing the project.

Until recently, the PPP market in the United States was limited to a handful of projects primarily structured to take advantage of the United States tax-exempt financing which has limited or excluded equity participation. However, the market, particularly in the transport sector, has changed significantly in the past few years. The successful sale of the Chicago Skyway to a consortium including Australia's Maquarie and Spain's Cintra for $1.8 billion in late 2004, the Comprehensive Development Agreement for the Trans-Texas Corridor in early 2005, and the sale of the Dulles Greenway to Maquarie in mid 2005, among others, has generated considerable interest in transportation PPPs across the United States. Oregon, Georgia, New Jersey, New York, Virginia and many other states are now taking a serious look at PPPs and launching PPP programs.

A5.2 PPP Legislation

Although a federal system exists in the United States, implementation of PPP is the responsibility of each State. The federal government established the NCPPP (National Council for Public Private Partnership) to support and promote the States' PPP projects.

The PPP legislations are decreed by each State. Twenty-one (21) States and one Territory (Puerto Rico) have enacted statutes as shown in Table A5-1.

Table A5-1
Overview of states with significant Transportation PPP Authority

State	Statue	Comments
AK	ALASKA STAT. §§ 19.75.111, .113, .211, .221, .330, .332, .334, .336, .338, .340, .241, .915, .920, and .980	Authorizes the Knik Arm Bridge and Toll Authority to utilize a PPP to finance, design, construct, operate and maintain the Knik Arm Bridge.
AL	ALA.CODE§§ 23-1-80 to 23-1-95	Authorizes the Alabama DOT and county commissions to establish toll roads, toll bridges, ferries or causeways or allow for their operation by private parties. No express provision regarding the solicitation or acceptance of unsolicited proposals.
AZ	ARIZ. REV. STAT. §§ 28-7701 to 28-7758	Two pilot programs each allow up to two solicited and unsolicited proposals.
CA	CAL STS & HY CODE §§ 143 and 149.7 CAL STS & HY CODE §§149-149.6 CAL STS & HY CODE § 149.7 CAL GOV CODE §§5956-5956.10	AB 1467, enacted by the Governor and Chaptered by the Secretary of State in May 2006, added §§143 and 149.7 to the California Streets and Highways Code.
CO	COLO. REV. STAT. §§ 43-1-1201 to 1209 COLO. REV. STAT. §§ 43-4-801 to 812 COLO. REV. STAT. §§ 43-3-201 to 43-3-416	Allows solicited and unsolicited proposals for PPPs. Created a state-wide tolling enterprise to finance, build, operate and maintain toll highways. Operated as a government-owned business within the Colorado DOT. Provides PPP authority to Colorado DOT for specific projects including turnpikes and HOT lanes.
DE	DEL. CODE ANN. tit. 2, part II, ch. 20, §§ 2001 to 2012	Authorizes solicited and unsolicited proposals for PPP projects, including highways and bridges.
FL	FLA. STAT. ANN. § 334.30 FLA. STAT. ANN. § 334.30; FLA. STAT. ANN. §§ 338.22 through 338.251	Allows Florida DOT to receive or solicit proposals for PPPs. 1953 statute that established the Florida Turnpike Enterprise, which is on an enterprise basis within the Florida DOT.
GA	GA. CODE. ANN. §§ 32-2-78 to 32-2-80	The statute now allows Georgia DOT to both receive and solicit proposals for PPPs. Potential competitors also have 135 days (instead of 90 days) to respond to an unsolicited proposal.
IN	IND. CODE §§8-15; 8-15.5; 8-15.7; and 8-23-7-22 through 25	HB 1008, passed as Public Law 47, authorizes the Indiana Toll Road lease transaction. The legislation also establishes the process for entering into a public-private agreement on I-69 from Indianapolis to Evansville, and specifically prohibits the State from entering into such an agreement for any other road or project without further legislative approval. While similar in scope to the authorization for the Indiana Toll Road lease, there are a number of significant differences in the process for procuring an I-69 agreement. As an example, the I-69 PPA will be administered by INDOT, instead of the Indiana Finance Authority.
LA	LA. REV. STAT. ANN. §§48:2072(C) and (D); 48:2084 through 2084.15	Authorizes "the Louisiana Transportation Authority to pursue public-private partnerships for the construction for certain transportation facilities." Authority may approve unsolicited and solicited proposals.
MD	Md. Code Regs. §11.07.06 MD. TRANSPORTATION CODE ANN. § 8-204 MD PPP Guidance	Maryland does not have a statute expressly authorizing highway PPPs. However, Maryland established a public-private partnership program by regulation. Additionally, according to a 1996 Attorney General opinion referenced in the annotations to this statute, the Maryland Transportation Authority has authority to construct toll roads using certain forms of PPPs.
MN	MINN. STAT. ANN. §§ 160.84 – 160.93	Authorizes solicited and unsolicited PPPs for toll facilities.

		Authorizes HOT lanes.
MO	MO. REV. STAT. §§227.600 through .669 MO. REV. STAT. §§238.300 through .367	Mo. Rev. Stat. §§227.600 through .669, also known as the Missouri Public-Private Partnership Transportation Act, authorizes the Highways and Transportation Commission to form a public-private partnership to use private sector innovation and investment to build a new Missouri River bridge in St. Louis, connecting to Illinois. The authority is limited to the bridge only. The statute does allow private partners to submit unsolicited proposals. The Commission is authorized to enter into interim and comprehensive agreements with a private partner. Mo. Rev. Stat. §§238.300 through .367 creates a special purpose non-profit corporation known as a Transportation Corporation as a vehicle for PPPs. No express provision regarding the solicitation or acceptance of unsolicited proposals.
NV	NEV. REV. STAT. §§ 338.161 to 168	Authorizes public bodies to accept unsolicited proposals to develop, construct, improve, maintain or operate transportation facilities, so long as it serves a public purpose. Toll bridge and toll road projects, however, are prohibited under this statute.
NC	N.C. GEN. STATE. §§ 136-89.180 through 136-89.198	North Carolina Turnpike Authority now authorized to develop, construct, operate and maintain up to nine toll facilities, including a toll bridge. Solicited process only.
OR	OR. REV. STAT. §§ 367.800 to 367.826 OR. REV. STAT. §§ 383.001 to 383.019	Establishes the Oregon Innovative Partnerships Program with detailed guidelines. Allows Oregon DOT to solicit and accept unsolicited PPPs for tollway projects.
PR	9 LEYES P.R. AN. §§ 2001 to 2021	This statute establishes a toll transportation facility authority with broad powers to authorize private participation in public highway projects.
SC	S.C. CODE § 57-3-200 S.C. CODE § 57-5-1310 through 1495	Allows South Carolina DOT to enter into PPPs. Allows DOT to construct and operate turnpike facilities; § 57-5-1330.4 appears to permit SC DOT to use PPPs to develop these facilities. No express provision regarding the solicitation or acceptance of unsolicited proposals.
TX	TX. TRANSP. CODE ANN. Ch. 223 TX. TRANSP. CODE ANN. Ch. 227 TX. TRANSP. CODE ANN. 228 TX. TRANSP. CODE ANN. Ch. 370	Allows TxDOT and Regional Mobility Authorities to accept solicited and unsolicited proposals for PPPs.
UT	UT. CODE ANN. §§63-56-502.5; 72-6-118; and 72-6-201 through 206	SB 80 authorizes the Utah DOT, with approval from the Transportation Commission, to accept solicited and unsolicited proposals for PPPs involving tollway facilities through the use of "tollway development agreements."
VA	VA. CODE ANN. §§ 56-556 to 56-575	Virginia's Public-Private Transportation Act of 1995 authorizes PPPs and was modified during the 2005 legislative session. Allows solicited and unsolicited proposals. Contains detailed guidelines to assist VDOT and other public entities in implementing this programme.
WA	WASH. REV. CODE Ch. 47.29 WASH. REV. CODE Ch. 47.46	New PPP enabling legislation was enacted in May 2005 (as H.B. 1541). In the findings of that legislation, the legislature noted that the public-private transportation initiatives created under Wash. Rev. Code Ch. 47.46 have not met the needs and expectations of the public or private sectors for the development of transportation projects. Under the new statute, the exclusive source of financing for WashDOT projects is state treasurer-issued indebtedness; and no such indebtedness, or expenditures from it, may occur without prior legislative approval. Currently, solicited proposals only, but unsolicited proposals may be accepted after 6/30/07.

A5.3 PPP Options

A5.3.1 Overview

PPPs are contractual agreements, formed between a public agency and private sector entity, which expand on the traditional, private sector role in the delivery of transportation projects. There are many different PPP options, and exact combination of services and responsibilities differs from one application to another. Traditionally, private sector participation in surface transportation projects has been limited to separate planning, design or construction contracts.

The PPP arrangements show the way in which private sector responsibilities can be expanded through the use of partnerships. PPP options expand across a spectrum of increased private responsibilities, and range from transferring tasks normally done- in house to the private sector, to combining typically separate services into a single procurement or having private sector partners assume owner-like roles.

Figure A5-1 depicts how the range of responsibilities shifts from the public sector to the private sector with different PPP options.

Figure A5-1
PPP Options

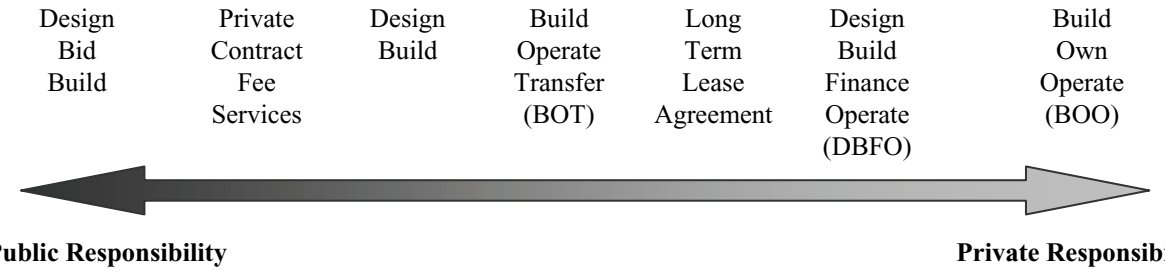


Table A5-2 shows the distribution of roles and responsibilities between the public and private sectors with different PPP options.

Table A5-2
Comparison of Distribution of Roles and Responsibilities among Basic Project Delivery Options

	Own	Conceive	Design	Build	Operate Maintain	Financial Responsibility
Design-Bid-Build	Public	Public	Private by fee contract	Private by fee contract	Public	Public
Private Contract Fee Service	Public	Public or Private by fee contract	Private by fee contract	Private by fee contract	Private by fee contract	Public
Design-Build	Public	Public	Private by fee contract		Public	Public
BOT	Public	Public	Private by fee contract			Public
Long Term Lease Agreement	Public	Public	Public		Private by fee contract	Public
DBFO	Public	Public or Private	Private by fee contract			Public Public/private or Private
BOO	Private	Public or Private	Private by fee contract (concession)			

A5.3.2 Long Time Lease Agreement

Long Term Lease Agreement is a new option of PPP. This PPP model involves the long term lease of existing, publicly-financed toll facilities to a private sector concessionaire for a prescribed concession period during which they have the right to collect tolls on the facility. In exchange, the private partner must operate and maintain the facility and in some cases make improvements to it. The private partner must also pay an upfront concession fee.

Long term leases are procured on a competitive basis, with awards going to the qualified bidder making the most attractive offer to the sponsoring agency. The most important criterion for the award of long term lease concessions generally is the amount of the concession fee. Other criteria may include the length of the concession period and the credit worthiness and professional qualifications of the bidders.

As of autumn 2006, three major long term lease transactions have closed in the United States. This nascent trend began with the 99-year lease of the 7.8 mile Chicago Skyway for a fee of $1.8 billion in January 2005. This was followed by the 99-year lease of the financially troubled 8.8 mile Pocahontas Parkway in Richmond, Virginia for $548 million, and most recently in July 2006 by the 75-year lease of the 167 mile Indiana Toll Road for a fee of $3.85 billion.

The potential benefits of long term lease transactions include:

- Depoliticization of toll setting process by transferring toll setting responsibility to the private sector
- Ability of leases to increase toll revenues generated by existing facilities
- Ability to generate extremely large up-front lease payments that can be used to fund badly needed transportation improvements
- Ability to reduce on going public sector operating, maintenance and capital improvement costs
- Potential to capture private sector operational and maintenance efficiencies

It is notable that to date all private long term lease investors active in the U.S. market are overseas investors. The PPP markets in Europe and Australia in particular are more mature than those in the United States and experienced investors from both continents are actively seeking out new investment opportunities in the United States. This trend has been buoyed by the weakening of the U.S. dollar together with the perception that toll road investments in the U.S. are perceived as less risky than those in developing countries. It also reflects the fact that due to the strong tax incentives that compel the U.S. capital markets to prefer municipal debt, the market for private activity debt is far greater outside the United States.

The prominent role that overseas investors are playing in the emerging U.S. market for toll road PPPs is generating interest in these types of investments among U.S. banks and investment funds. A number of U.S. financial institutions are now in the process of establishing infrastructure investment funds. The new authority provided by SAFETEA-LU to issue tax-exempt private activity bonds for transportation projects should encourage U.S. investors to expand their activity in the domestic toll road market.

A5.4 PPP Case Study

A5.4.1 Chicago Skyway

The Chicago Skyway is the first long term lease of an existing public toll road in the United States. It is a 7.8-mile elevated toll road connecting I-94 (Dan Ryan Expressway) in Chicago to I-90 (Indiana Toll Road) at the Indiana border. The facility includes a 3.5-mile elevated mainline structure crossing the Calumet River. Built in 1958, the Skyway was operated and maintained by the City of Chicago Department of Streets and Sanitation. The facility carried approximately 50,000 vehicles per day in 2005.

In March 2004, the City of Chicago issued a request for qualifications (RFQ) from potential bidders interested in operating the facility on a long-term lease basis in March of 2004. It received 10 responses and in May 2004 invited five groups to prepare proposals. Bids were submitted in October 2004, with the long term awarded to Cintra/Macquarie on October 28, 2004. Cintra/Macquarie bid $1.83 billion for the 99-year concession, 2.6 times as much as the next highest bidder, a French and Canadian group led by Vinci Concessions. Abertis Infraestructures of Spain was the only other bidder, offering $505 million for the lease.

The Skyway Concession Company, LLC (SCC) assumed operations on the Skyway on January 26, 2005. SCC is responsible for all operating and maintenance costs of the Skyway but has the right to all toll and concession revenue. This agreement between SCC and the City of Chicago was the first long term lease of an existing toll road in the United States.

Table A5-2
Summary of Chicago Skyway

Mode	Toll Highway
Location	Chicago, Illinois
PPP Option	Long Term Lease (99 years)
Sponsor	City of Chicago
Cost	$1.83 billion
Status	Refinancing closed in August 2005
Private Operator	Skyway Concession Company, LLC (SCC)
Private Investment Partners	Cintra/Macquarie - Cintra is a part of Grupo Ferrovial, one of the largest infrastructure development companies in Europe with a market capitalization of more than US$8 billion. - - Macquarie Infrastructure Group (Macquarie) is a subsidiary of Macquarie Bank Limited, Australia's largest investment bank, with market capitalization of US $8 billion
Lenders	Original financing: Banco Santander Central Hispano, Calyon, Banco Bilbao Vizcaya Argentaria, Depfa bank syndicated $1.2 billion nine-year non-recourse senior debt to 15 international banks.
Type of Finance	Original financial structure: - Cintra equity: $397 million - Macquarie equity: $485 million - Bank Loans: $948 million (approximately) SSC subsequently refinanced capital structure, which reduced the equity holdings of Cintra and Macquarie to approximately $510 million. Originally financed by European banks, the $1.550 billion refinancing also included Citigroup. $971 million of the refinancing involved capital accretion bonds with a 21-year maturity with an interest rate equivalent to 5.6 percent. There is an additional $439 million in 12-year floating rate notes, and $150 million in subordinated bank debt provided by Banco Bilbao Vizcaya Argentaria and Santander Central Hispano of Spain, together with Calyon of Chicago.
Revenue Sources	Tolls: Up to $2.50 until 2008, $3.00 until 2011, $3.50 until 2013, $4.00 until 2015, $4.50 until 2017, $5.00 starting in 2017 Potential congestion pricing provision

A5.4.2 Indiana Toll Road

In operation since 1956, the Indiana Toll Road (ITR) stretches 157 miles across the northernmost part of Indiana from its border with Ohio to the Illinois state line, where it provides the primary connection to the Chicago Skyway and downtown Chicago. The Indiana Toll Road links the largest cities on the Great Lakes with the Eastern Seaboard. Connections with I-65 and I-69 lead to major destinations in the South and on the Gulf Coast. The facility varies from four to six lanes and in 2005 carried approximately 46,000 vehicles per day on its western end and 25,000 vehicles per day in the east.

For the past 25 years the ITR has been operated by the Indiana Department of Transportation (INDOT). However, even before his inauguration Governor Mitch Daniels discussed the possibility of leasing the road to the private sector and in 2005 he tasked the Indiana Finance Authority (IFA) with the responsibility of exploring the feasibility of leasing the Toll Road to a private entity. IFA engaged Wilbur Smith to prepare revenue analysis and Goldman, Sachs & Co. to provide financial advice.

These assessments led to IFA's release of a Request for Toll Road Concessionaire Proposals on September 28, 2005. Four teams submitted proposals by the October 26 deadline. The lease concession was awarded to ITR Concession Company LLC (ITR) which comprises of an even partnership between Cintra of Spain and Macquarie of Australia. ITR submitted the highest bid of $3.8 billion. Other bidders included a group led by Babcock & Brown bidding $2.84 billion, an all Spanish group bidding $2.52 billion, and Kwame Parker, bidding $1.9 billion. A fifth group led by Abertis of Spain withdrew shortly before the deadline.

ITR lease transaction was contingent upon authorizing legislation. House Enrolled Act 1008 (HEA 1008), popularly known as "Major Moves," was signed into law in late March 2006. On April 12, 2006, ITR and IFA executed the "Indiana Toll Road Concession and Lease Agreement." Pursuant to its terms, IFA agreed to terminate the current lease to the Indiana Department of Transportation. A ten-member board of directors oversees ITR and its operations of the Indiana Toll Road. ITR formally assumed operational responsibility for the Toll Road on June 29, 2006.

Table A5-3
Summary of Indiana Toll Road

Mode	Toll
Location	Northern Indiana
PPP Option	Long Term Lease (75 years)
Sponsor	Indiana Finance Authority (IFA), on behalf of Indiana DOT
Cost	$3.85 billion
Financial Status	Closed
Private Partners	Statewide Mobility Partners Consortium (50% Cintra; 50% Macquarie) - Cintra is a part of Grupo Ferrovial of Spain, one of the largest infrastructure development companies in Europe - - Macquarie Infrastructure Group (MIG) is a subsidiary of Macquarie Bank Limited, Australia's largest investment bank
Project Advisors	State of Indiana financial advisors: Goldman, Sachs & Co. Revenue projections: Wilbur Smith
Lenders	Loans were provided by a collection of seven European banks: Banco Bilbao Vizcaya Argentaria SA, Banco Santander Central Hispano SA, and Caja de Ahorros y Monte de Piedad de Madrid, all of Spain; BNP Paribas of France; DEPFA Bank of Germany; RBS Securities Corporation of Scotland; and Dexia Crédit Local, a Belgian-French bank.
Type of Finance	Cintra Equity: $385 million MIG Equity: $385 million Bank Loans: $3,030 million
Revenue Sources	Tolls

Note

Appendix-5 refers to the following materials:

- US Department of Transportation and Federal Highway Administration website, http://www.fhwa.dot.gov/ppp/
- "Delivering the PPP promise – A review of PPP issues and activity," PriceWaterhouseCoopers, 2005
- "Report to congress on Public-Private Partnerships," United States Department of Transportation, 2004
- "U.S Roads Are Being Built and Run with Other People's Money," *ENR* August 21/28, pp. 24-27, 2006

APPENDIX-6

Further Resources

The following are useful websites and other resources which may assist in engaging better with PFI in its various formats and in different localities and different funders:

A6.1 World Bank: PPIAF

The World Bank has created the Public Private Infrastructure Advisory Facility (PPIAF) (www.ppiaf.org) with the purpose of helping to alleviate poverty and achieving sustainable development through private involvement in infrastructure.

The PPIAF is a new multi-donor technical assistance facility aimed at helping developing countries improve their infrastructure. The PPIAF was launched in 1999 at the joint initiative of the UK and Japanese governments working with the World Bank. It is now owned and directed by over a dozen owners. It has issued many guidelines, two of which are:

- Financing of Private Infrastructure in Africa – A New Approach.
- How to Hire Expert Advice on Private Sector Involvement in Infrastructure.

A6.2 World Bank: GPOBA

The Global Partnership on Output-Based Aid was established in January 2003 by the Department for International Development of the United Kingdom (DfID) and the World Bank. Its purpose is to fund, demonstrate and document output-based aid as an approach to sustainable delivery of basic services to those who can least afford them. Being output-based makes the approach more amenable towards the private sector than the public sector, which may be more input-based. More information is available at www.gpoba.org.

A6.3 United Nations Development Programme

This programme, www.undp.org/pppue, focuses on the opportunity for involving the private sector in the urban environment.

A6.4 Institute for Public-Private Partnership, Washington DC

This Institute, www.ip3.org, concentrates on the provision of training and consultancy work to enable PPPs.

A6.5 US Department of Transportation and Federal Highway Administration

These organizations, www.fhwa.dot.gov/ppp, promote PPPs and establish PPP support systems. They also provide information about PPPs in their website.

A6.6 Article in the "*ENR*"

The article in "ENR," titled "U.S Roads Are Being Built and Run with Other People's Money," August 21/28, 2006, provides comprehensive commentaries on the situation and long view of PPPs in the US. The magazine is available at www.enr.com

A6.7 National Council for Public Private Partnerships, USA

This Council, www.ncppp.org, assists with the provision and management of infrastructure such as water and roads by public private cooperation in the USA.

A6.8 Canadian Council for Public Private Partnerships

www.pppcouncil.ca/partners.

A6.9 EU (European Commission)

The EU Guidelines for PPPs are available at ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf
More information about TEN-T projects can be obtained from ec.europa.eu/ten/transport/coordinators/index_en.htm

A6.10 "Delivering the PPP promise" by PriceWaterhouseCoopers

A review of PPP issues and activity is summarised by PriceWaterhouseCoopers, available at
www.pwc.com/Extweb/onlineforms.nsf/docid/81EB213D818EEC0F852570D8002E26C0

A6.11 ASADC (Southern African Development Community) Banking Association

The SADC countries include Angola, Botswana, Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

The National Business Initiative of South Africa, a regional member of the World Business Council for Sustainable Development, has established the SADC Banking Association to build capacity within the SADC region and has appointed a project manager for building the capacity for public private partnerships in the various countries.

More information regarding the status of environment for PPPs in the SADC countries can be obtained from www.banking.org.za/sadc.

A6.12 Ministry of Finance Singapore

www.mof.gov.sg/policies/attachments/PPP_Handbook_May04-Exec_Summary.pdf

Public Private Partnership Handbook (August 2004). This Handbook reflects the Ministry's view that, quote "Through PPP, the public sector seeks to bring together the expertise and resources of the public and private sectors to provide services to the public at the best value for money.

Fundamentally, with PPP, the public sector will focus on acquiring services at the most cost-effective basis, rather than directly owning and operating assets" and concludes as follows:

PPP's mark an exciting improvement to the way the government delivers public services by tapping more on private sector innovation, resources and capability, outcomes for the public sector, the private sector and the public.

For more information on PPP, please refer to the PPP Handbook, which describes in greater detail:

- How to structure a PPP deal that is beneficial to the public sector, the private sector and members of the public;
- How the PPP procurement process will be conducted; and
- How to build and sustain a collaborative partnership between the public and private sector in a PPP project.