

PUBLIC-PRIVATE PARTNERSHIPS IN E-GOVERNMENT: KNOWLEDGE MAP

AN *infoDev* PUBLICATION PREPARED BY:

The Institute for Public-Private Partnerships

June 2009



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Development Program

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Acronyms and Abbreviations

B2B	Business-to-Business	IFC	International Finance Corporation
B2C	Business-to-Consumer	IMF	International Monetary Fund
BOO	Build-Own-Operate	ISP	Internet Service Provider
BOOT	Build-Own-Operate-Transfer	IT	Information Technology
BOT	Build-Operate-Transfer	ITES	Information Technology-Enabled Services
CAPEX	Capital Expenditure	JV	Joint Venture
CCO	Contract Compliance Office	KBE	Knowledge-Based Economy
CDC	Commerce Dot Com	KPI	Key Performance Indicator
CIO	Chief Information Officer	LGU	Local Government Unit
CMB	Citizens Migration Board	MCIT	Ministry of Communication and Information Technology
DBFO	Design-Build-Finance-Operate	MSC	Multimedia Super Corridor
E-Government	Electronic-Government	PDF	Project Development Facility
EPU	Economic Planning Unit	PFF	Project Finance Facility
eSeva	Electronic Service	PFI	Private Finance Initiative
FIRR	Financial Internal Rate of Return	PPP	Public-Private Partnership
FOREX	Foreign Exchange	PSC	Public Sector Comparator
FS	Feasibility Study	RFP	Request for Proposal
G2B	Government-to-Business	RFQ	Request for Qualification
G2C	Government-to-Citizen	SOE	State-Owned Enterprise
G2G	Government-to-Government	SPV	Special Purpose Vehicle
IA	Implementing Agency	VFM	Value for Money
ICT	Information and Communications Technology		

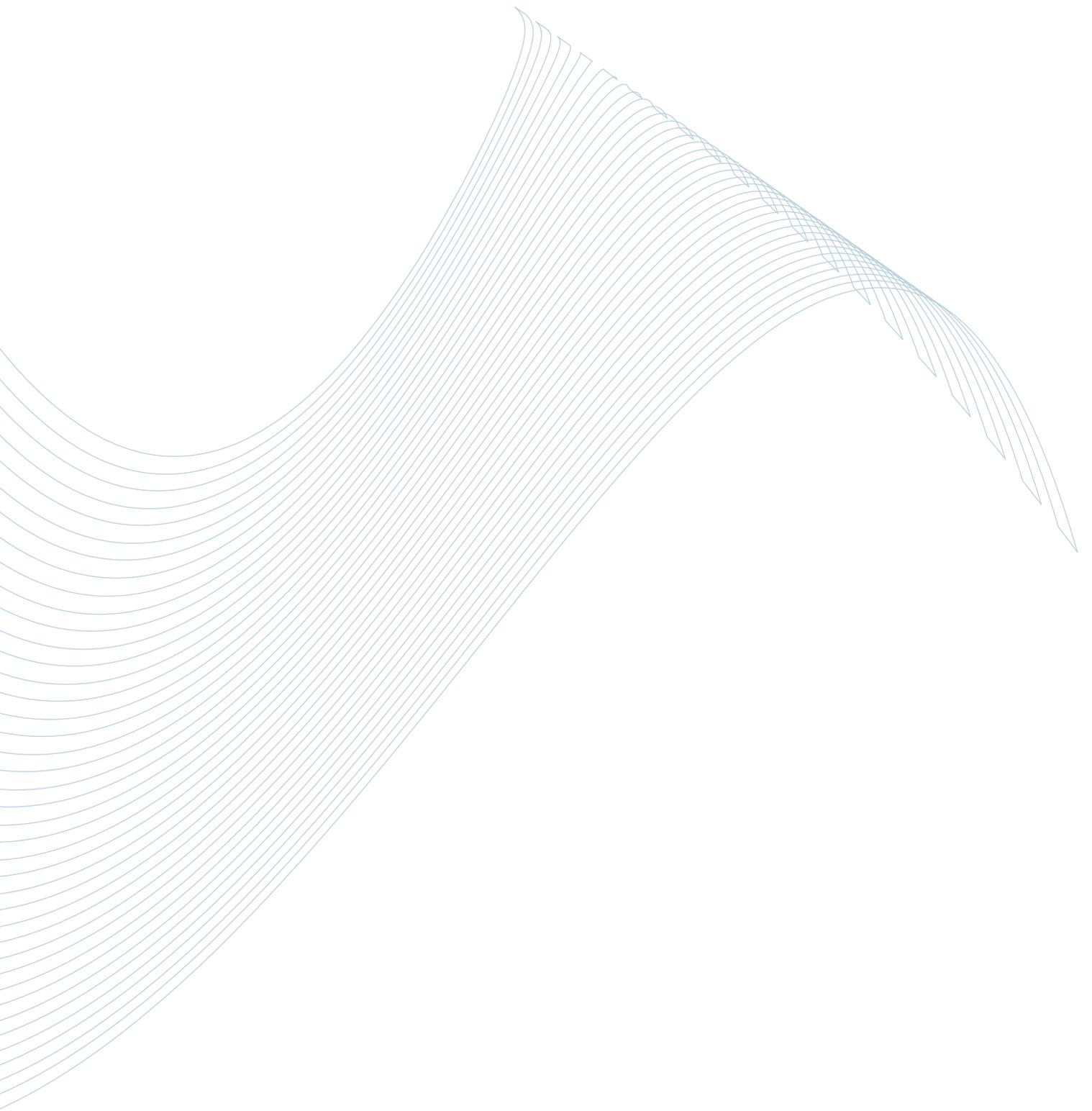


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The last few years have seen considerable research and applications in the areas of Public-Private Partnerships (PPPs) and electronic-government (e-government). Rather than attempting to redefine these areas, or considering them as two distinct paradigms, the authoring of this Knowledge Map (KM) and its accompanying Handbook is an effort to bring a certain degree of convergence, and see whether PPPs are, or can be, effective instruments for e-government initiatives in a country.

The increasing emphasis on e-government is often directly attributed to the fact that the use and application of Information and Communication Technologies (ICT) are now commonly accepted as powerful engines for economic growth. As governments embrace ICT as a means to accelerate the development process this also becomes foremost in the reforms agenda, and in their delivery of services to citizens, businesses, civil society organizations, and other government agencies.

The extensive experience and knowledge currently available allows us to focus on the various dimensions of e-government and the specificities that invariably need to be taken into account at the national, sub-national, local, and district levels. Similarly, there is also the need to understand the key aspects that play a significant role in the effectiveness and indeed the appropriateness of PPPs in such scenarios. This KM and the Handbook help identify such specificities, and highlight the importance of policies, programs, services, and instruments that may facilitate the engagement of the private sector into areas that were hitherto the domain of the government.

PPPs and e-government are complex exercises, which must encompass a variety of issues covering many

areas such as infrastructure, applications, institutions, people, and policies. While it is important to understand the nuances of each concept, it might help to recognize the fact that PPPs are often the chosen path when the objectives are to ease the financial constraints on the government while at the same time increase its efficiency and effectiveness. For this reason, PPPs are all the more important in the context of the current financial crisis. However, it should also be noted that optimal benefits can only be derived when good governance, transparency, and political commitment are coupled with the existence of appropriate policy, legal, regulatory, and institutional frameworks, and adequate local capacity (institutional, human, and financial) before such PPP programs and strategies can be translated into action.

This KM and Handbook should not be viewed as a prescription of best practices. They should be used as guides, and lessons should be learned, in terms of how the good practices and experiences can be replicated or applied while undertaking a PPP initiative in e-government. This KM is designed as a guide on the questions of, Why?, What?, and Where?, while the Handbook answers the question of, How?, to implement PPP projects in e-government.

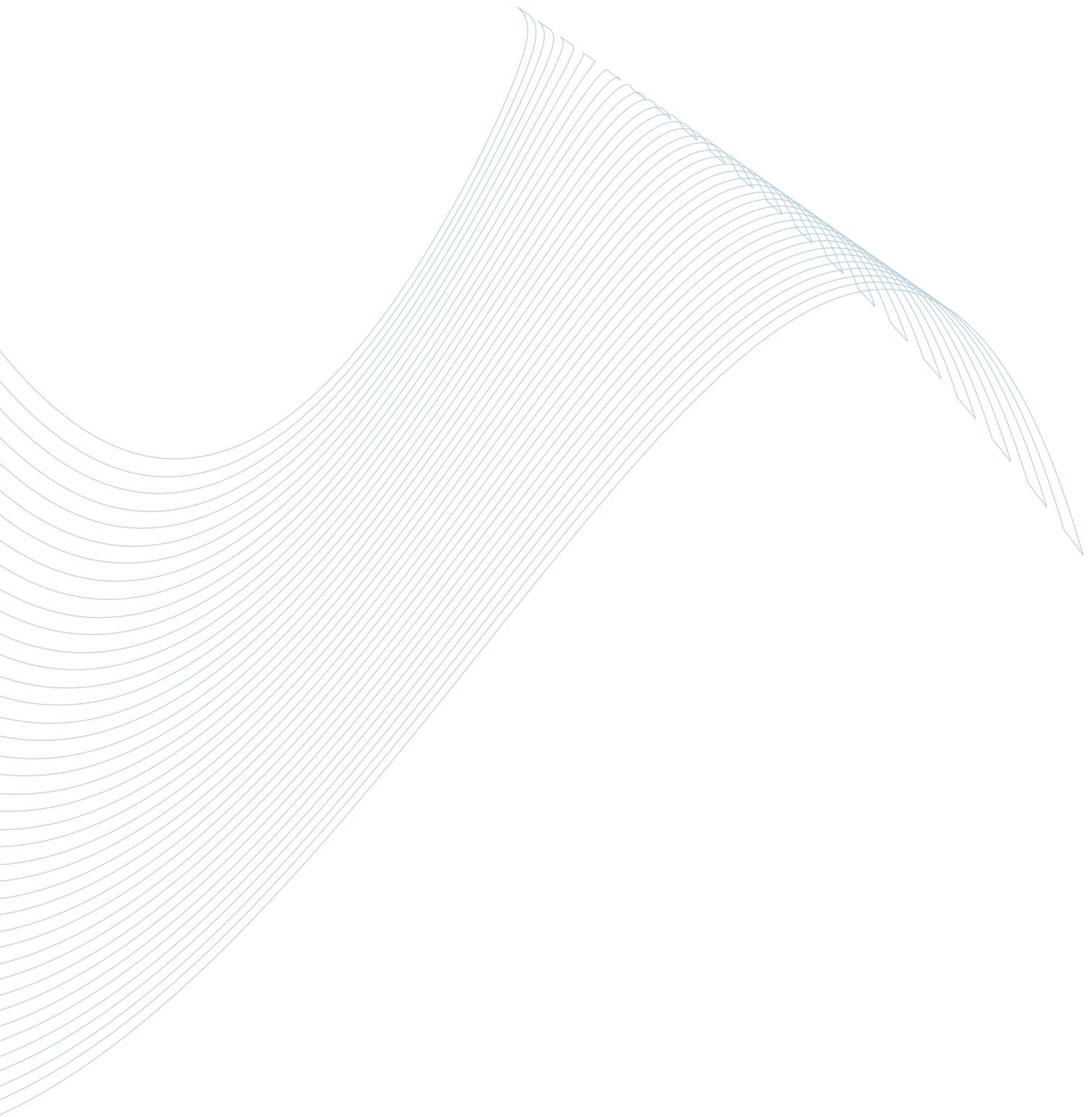
We anticipate that the KM and Handbook will be valuable resources for policymakers and practitioners across the world. Besides helping to address the needs in developing countries, they are also relevant for middle income as well as developed countries since they draw upon a broad spectrum of programs and experiences across a wide range of sectors in a number of countries.

infoDev would like to acknowledge the contribution of the Institute for Public-Private Partnerships (IP3) in delivering this KM and Handbook.

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Introduction to the Knowledge Map

Purpose

This “Public-Private Partnerships in E-Government: Knowledge Map” is designed to be an introductory guide to PPPs for public officials responsible for e-government initiatives. It is for those who are seeking to enhance the quality, efficiency, and affordability of those initiatives by employing PPPs.

Context

The Knowledge Map (KM) is part of a broader *infoDev* initiative to expand the scope of e-government applications in all aspects of government services. The Knowledge Map contains extensive links to reference materials, and guidelines for contributing to the growing body of knowledge about e-government.

The idea for this Knowledge Map was born out of the recognition that while governments have been successfully employing PPP models in other sectors such as water, energy and transportation, their application to the ICT and e-government sector is relatively new. Furthermore, given that the technological know-how required for most e-government initiatives lies primarily with the private sector, especially in emerging economies, learning how to appropriately leverage that know-how is essential to ensuring the success of e-government.

Outline

The Knowledge Map is divided into fourteen (14) topics that address the essential characteristics of PPP. Each topic raises key questions or issues and then addresses them with:

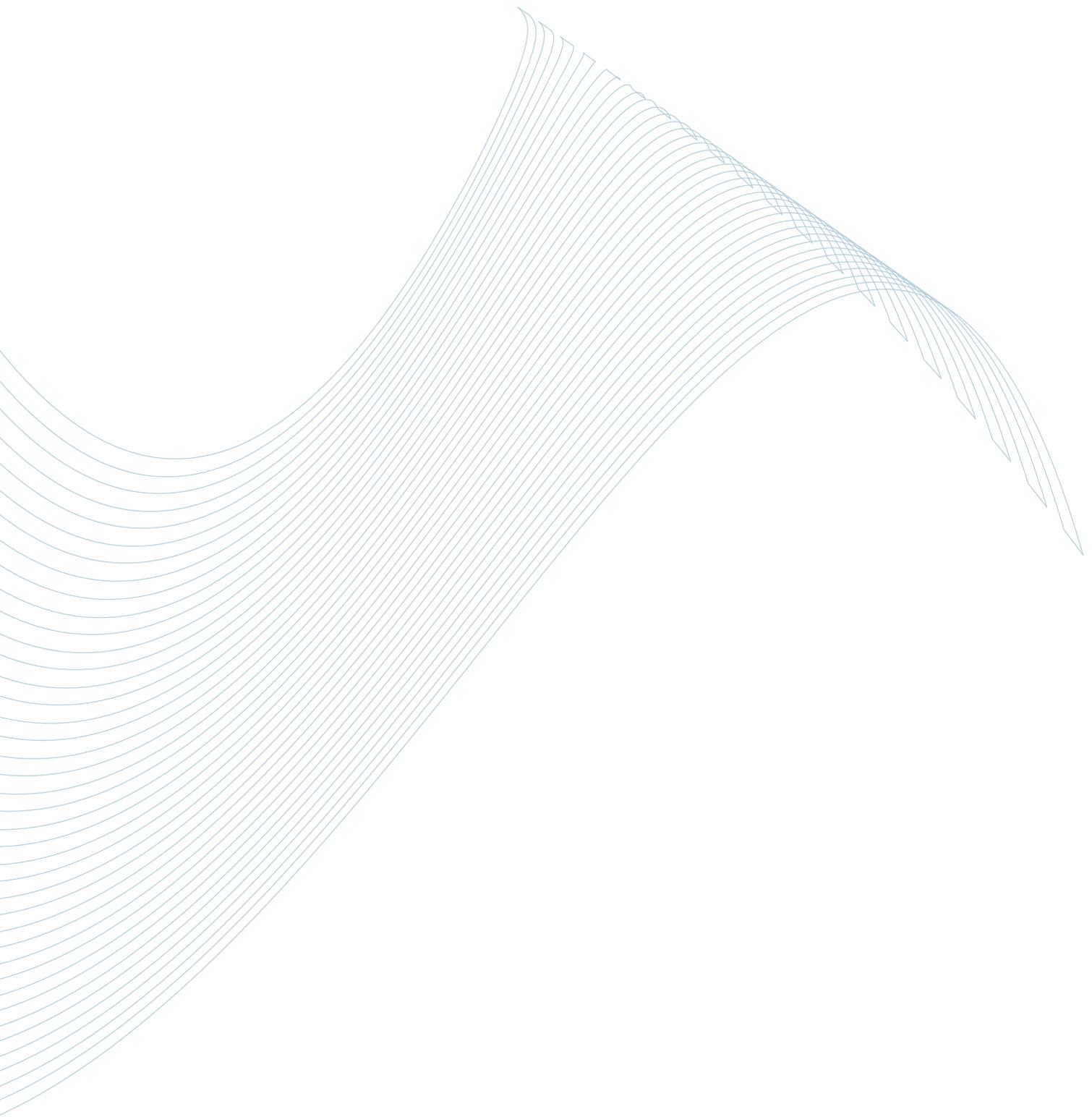
What do we mean by E-Government?

The World Bank defines e-government as “the use of information and communications technologies by governments to enhance the range and quality of information and services provided to citizens, businesses, civil society organizations, and other government agencies in an efficient, cost-effective and convenient manner, making government processes more transparent and accountable and strengthening democracy.”

- Concise thought pieces that provide analysis,
- Case studies that illustrate key concepts and,
- Resources for users that want more detailed information.

These fourteen topics on frequently asked questions about PPP and e-government are enhanced by two sections compiling selected practical case studies and useful resources readily available to users of this Knowledge Map.

This Knowledge Map is designed for online use, so that readers can access the links and searchable database of resources. The Knowledge Map also serves as the basis for a separate Handbook for PPP’s in e-government. While the Knowledge Map answers the **Why?**, **What?** and **Where?** about PPP’s in e-government, the Handbook serves as a User’s Guide and answers the **How?** to implement PPP projects in e-government.



What is a PPP and What is its Rationale?

Simply stated, public-private partnerships (PPP's) are contracts between a private sector entity and a government body that call for the private partner to deliver a desired service and assume the associated risks. The government is relieved of the financial and administrative burden of providing the service, but retains an important role in regulating and monitoring the performance of the private partner.

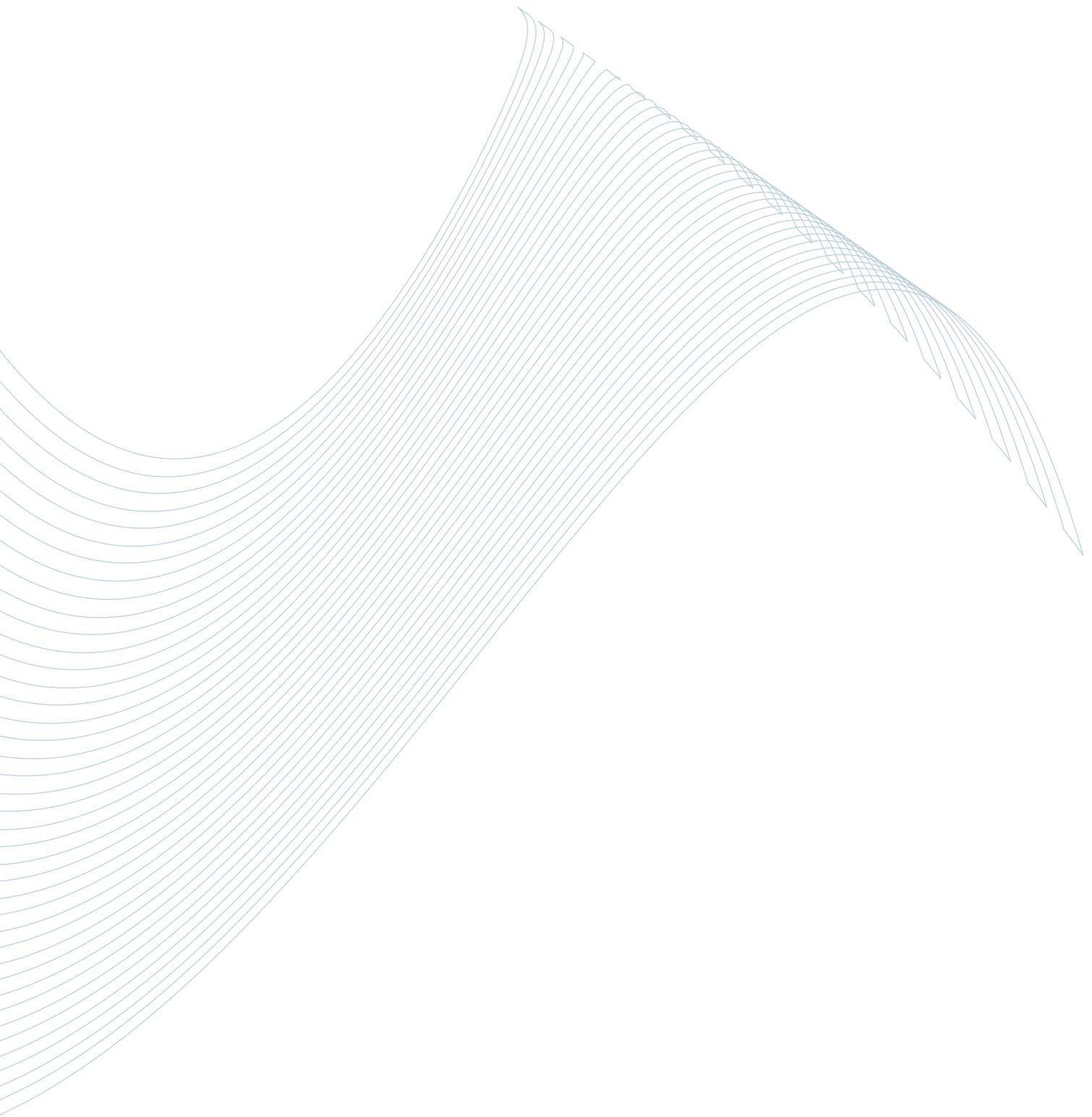
The popularity of PPP arose initially out of government need for financing to meet increasing demand for expansion and rehabilitation of physical infrastructure such as roads, energy facilities, and water and sanitation networks. Employing PPP as a tool for meeting its obligations to citizens, governments have been able to avail themselves of state of the art technology and private sector expertise, while avoiding excessive strains on already limited budgets. Citizens enjoy improved service delivery without large tax increases, and sometimes with decreased user fees, and economic growth flourishes in sectors seeking to compete for lucrative PPP contracts. While the experience with infrastructure PPP has been varied, public and private partners alike have learned from early infrastructure PPPs. The model continues to gain acceptance, and is rapidly expanding in to all areas of public life, including ICT resources and e-government.

Case Study

- **Egypt's ICT and E-Government Program** – The goal of the Egypt's ICT and e-government program is to create a national information society. The Government of Egypt has adopted PPP as the main driver for the majority of the program's implementation. The following are some components of the program that have been implemented through PPP:
 - *Subscription Free Internet*: went public in January 2002 offering access to the Internet for the price of a local phone call. Internet use increased from 1 million users to 5 million users six months later. Private ISPs install remote access server equipment at local exchanges, and Telecom Egypt configures a Free Internet number to cover the region. Users have no interface with the ISP, no subscription or set-up fees, but simply pay for the services as part of their regular Telecom Egypt telephone bill.
 - *Smart Village* – Egypt's **Smart Village** project is a technology park that was designed to remove obstacles to ICT firms investing in the Egypt's ICT sector. Within two years of its inauguration in 2005, the Smart Village hosts a growing number of IT companies including multinationals, local and regional enterprises, start-ups, training centers and the Ministry of Information and Communication Technology (MCIT). The project is a PPP between the MCIT and a private consortium. Under the partnership, the MCIT provided 300 acres of land, or 20% of the cost, and the private investors financed the remaining 80%.

Resources

- "E-Government Services and Public-Private Partnerships Modeling," by Thomas White, The Institute for Public-Private Partnerships, http://www.ip3.org/pub/publication2002_019.htm.
- Knowledge Services for Private Sector Development, by Rapid Response/World Bank. Numerous links to articles, papers, and websites dealing with PPP. <http://rru.worldbank.org>
- National Council for Public-Private Partnerships, www.ncppp.org
- Canadian Council for Public-Private Partnerships, www.pppcouncil.ca



Why Should Governments Consider PPP as a Tool to Promote E-Government?

E-government and ICT projects are natural candidates for PPP. When assessing projects, one has to ask first: could the private sector finance the capital investment required to design, install, and operate an e-government or ICT Project? If so, would that be preferable to the public sector financing and operating the system, thus freeing up public sector resources for projects that have higher social returns? And second: would the private sector be able to manage and operate an e-government or ICT project, under government supervision or regulation, more efficiently than the government? If so, how can the government get the highest number of competitive bids so that PPP's in e-government and ICT represent a best value and a technical innovation?

In most countries, the rationale to undertake e-government and ICT are compelling. All levels of government require modernization, new technologies, better efficiency, and improved services for citizens and customers. However, many of the upgrades and modernization required is not only capital intensive and expensive, but is also complex to manage and outside of the scope and skill-set of most government agencies. By having the private sector perform an e-government or ICT service, *on behalf of*, the government, a potential “win-win” solution can be realized where the private sector financed and operates a system, the government is in a better position to “ensure” effective delivery of the service, and the customer/citizen is receiving a higher quality service and is engaged more constructively in customer interfaces with the public sector.

Case Study

- **South African Department of Labour Stakeholder Interface** – As part of the South African National Treasury PPP program, with assistance from the Treasury's PPP Unit, the department of Labour endeavored to improve its

interface with stakeholders. An e-government system was conceptualized, in which retirees could go online and access the status of their retirement accounts, employees could access information about their benefits and pay grades, the general public could access information regarding labor laws and regulations, and job seekers could access job listing databases to search for new employment. The system needed to be interactive, so that stakeholders could submit forms and information, in addition to receiving forms and information.

Through a competitive tender process, Siemens was selected to design, build, and operate the new e-government system via a PPP methodology. The budget for the Department of Labour under the old system became the budget for the new Internet-based system. The selection of the service provider was based on which bidder would deliver the most services at the highest quality, within the budget provided. This selection methodology reflected a basic principle of PPP, which is value for money.

Although outsourcing arrangements have raised resistance among civil service workers in other countries, like the local government units in the United Kingdom, there was no such resistance among civil service workers in the department of Labor. The new e-government system expanded the department's service provision activities, thereby keeping present workers employed, in more productive tasks, rather than keeping the existing level of service provision and making existing employees redundant by doing the outsourcing.

The following is a replica of the South African department of Labour e-government portal that resulted from the Siemens PPP contract. It provides one point of access to numerous services that previously were only accessible via

Figure 1. South African Department of Labour e-Government Portal



Source: www.labor.gov.za

in-person visits to department offices. This system greatly facilitates consumer access to the departments many services.

Resources

- E-Government in the Asia Pacific Region: An Assessment of Issues and Strategies; includes discussion on how PPP contributes to sustainability of e-government. Page 17. <http://www.apdip.net/resources/governance/egovernance-government/APDIP-eGovPaper-Subhash.pdf>
- Public-Private Partnership Opportunities in E-Government, November 2002, study commissioned by the Government of Australia to examine PPP options for e-government. http://www.agimo.gov.au/_data/assets/file/19014/PPP.pdf
- E-government Observatory – Section of the IDABC Website that documents news, fact sheets, and best practices from e-government initiatives throughout Europe. Includes examples of e-government PPP projects. <http://ec.europa.eu/idabc/en/chapter/140>

What are the Forms and Models for PPP Projects?

The literature on PPP forms and models is vast, and the terms used to describe each form vary slightly. All sources would agree, however, that the forms of PPP are characterized by the increasing degree to which responsibilities and risk are turned over from the public to the private sector. The table below briefly summarizes PPP models and their characteristics.

The following are brief descriptions of each type of PPP model.

Service Contracts, or Outsourcing

Service contracts are legally binding agreements between a government authority and a private

partner to perform specific, usually non-core tasks. Examples include government agencies such as, utilities, ministries, and municipal offices that contract out for website design and management, capacity building, janitorial services, billing and tariff collection, or security services. These are usually short-term contracts and avail government of private sector expertise. They save time and money spent on non-core services.

Management Contracts

Management contracts transfer responsibility for the operation and maintenance of government-owned entities to the private sector. Asset ownership and commercial risk remains with the government, while management control and authority are transferred to

TABLE 1. *Distinguishing Characteristics of Common PPP Models*

Type of Contract	Duration (years)	What the Private Contractor Receives	Nature of Private Contractor Performance	Examples
Service Contract (outsourcing)	1–3	Fee from government for performing a non-core service	Definitive, often technical type of service	Website design and management, ICT Capacity Building
Management Contract	3–8	Fee from government for the service and a performance-based incentive	Manage the operation of a government service	Call center staffing; Seat Management , Parking enforcement, regional water supply management
Lease	8–15	All revenues, fees or charges from consumers for the provision of the service; the service provider rents the facility from government	Manage, operate, repair, and maintain, and maybe invest in, a service to specified standards and outputs	Land for ICT Infrastructure Development, Online property registries , Existing airport or port facilities
BOO & BOOT	15–25	The government mostly pays the service provider on a unit basis	Construct and operate, to specified standards, the facilities necessary for service provision	ICT Infrastructure; e-procurement systems; e-business portals ; Network of Kiosks
Concession	15–30	All revenues from consumers service provision; the service provider pays a concession fee to the government and may assume existing debt	Manage, operate, repair, maintain and invest in public service infrastructure to specified standards	Telecom operations and expansion, New airport or seaport facilities, Toll road or bridge

a private partner, which applies its expertise to improve management systems and practices. Compensation may be in the form of a fixed fee, as in the case of a fixed fee management contract, or may be linked to performance indicators.

- **Case Study – Seat Management for ICT Services:** The State of Virginia in the United States employs seat management contracts for many of its government offices. Seat management is a method of coordinating all the computer workstations in an organization by overseeing the installation, operation, maintenance of hardware and software at each workstation, and help desk support. The State pays a private operator a fixed fee for the service. The private contractor has the incentive to manage the operation, as efficiently as possible, while the State saves on the expense of actually purchasing computer equipment. The Internal Revenue Service in the United States is currently planning to release RFPs for seat management.

Leases

There are two primary ways in which lease agreements function. The private sector builds an asset and leases it to the State for operation. Alternatively, the private sector operates an asset owned by the State and pays the State rent, collecting fees from end users. While the latter is common in physical infrastructure PPP projects such as water and sanitation utility operations, the former is most common and most appropriate for e-government initiatives. In this case, the private sector may retain the rights to the technology developed, and sell or lease that technology to other clients, government or private, or the government may purchase the technology outright and lease the technology to other government agencies. It is preferable for the private partner to maintain rights to the technology, as this keeps the government focused on its core functions, leaving development and commercialization of the ICT technology in the hands of private firms.

- **Case Study – Service New Brunswick:** Service New Brunswick (SNB) in Canada offers e-government services to citizens by uniting property assessment and registries, government services, and geographic information infrastruc-

ture into a single point of entry via a website (www.snb.ca), toll-free call centers, and 36 service centers across the province. SNB is run as a public-private partnership with CGI Group Inc., a private ICT consulting firm. It operates on a commercial basis, ensuring that the private partner invests in the system and expands the system to include more government services. The private contractor retains commercialization rights for any technology developed.

BOT and Variants

Build-operate-transfer (BOT), build-own-operate (BOO), build-own-operate-transfer (BOOT), design-building-finance-operate (DBFO) and similar arrangements are contracts specifically designed for new projects or investments in facilities that require extensive rehabilitation. Under such arrangements, the private partner typically designs, constructs and operates facilities for a limited period from 15 to 30 years, after which all rights or title to the assets are relinquished to the government. Under a build-operate-own (BOO) contract, the assets remain indefinitely with the private partner. The government will typically pay the BOT partner at a price calculated over the life of the contract to cover its construction and operating costs, and provide a reasonable return.

- **Case Study – Poucatempo Citizen Service Centers:** Poucatempo, meaning “little time”, is a program of the State of Sao Paulo in Brazil, where citizen service centers have been developed through partnership with two private companies, AMD and Intel. These centers are located in public places such as shopping malls, and have revolutionized Brazil’s tax system.
- **Case Study – Bangalore One (B1):** Inspired by the success of Andhra Pradesh’s Electronic Service Project (eSeva), B1 is a PPP between the State of Karnataka in India and a private consortium of CMS Computers Ltd. and Ram Informatics. Its goal is to provide a one-stop shop via public center kiosks for all Government-to-Business (G2B) and Government-to-Citizen (G2C) services in the state. The government staff responsible for providing services prior to B1 were redeployed into the service of B1 when the project began. The private operator will be paid a

fixed fee for each transaction carried out. UTI Bank is also providing financing by paying the salary of 200 kiosk employees. The bank expects to make up the costs out of the one-day float it gets to hold on the cash collected. <http://www.karnataka.com/govt/bangaloreone.shtml>

Concessions

Under a concession, the private partner, or “Concessionaire”, bears the overall responsibility for the services, including operation, maintenance, and management, as well as capital investments. The fixed assets either remain the property of the public authority or revert to public ownership at the end of the concession period. The main advantage of a concession is that it passes full responsibility for operations, maintenance, rehabilitation, renewal, and service expansion to the private partner and creates incentives for efficiency in all activities. Therefore, concessions are an attractive option where large investments are required.

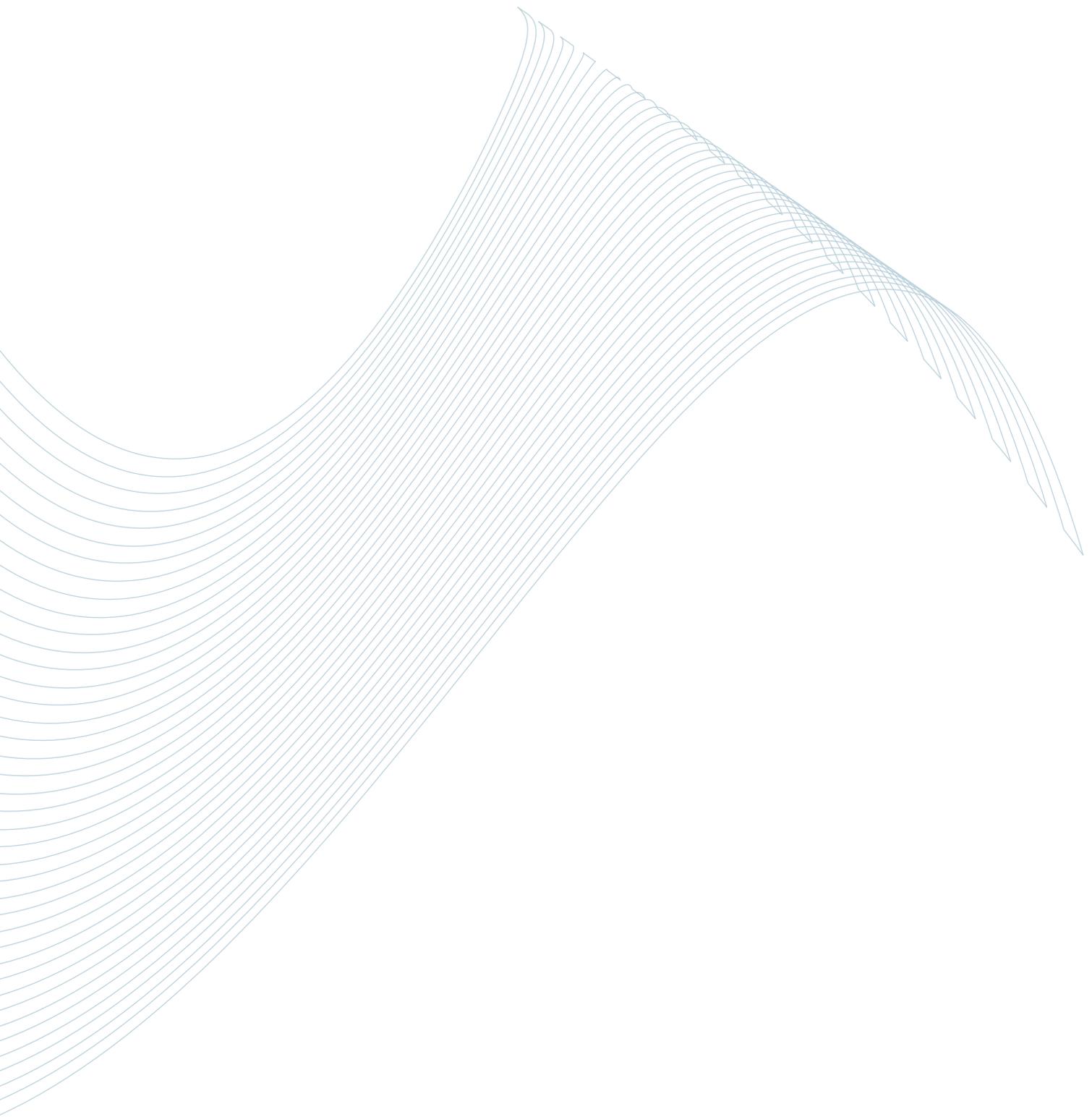
- **Case Study – Estonia Rural Connectivity:** Estonia has one of the highest degrees of connectivity in Europe and ranks among the top 20 countries worldwide for teledensity. This is the result of the tremendous focus placed on the development of a core network infrastructure and provision of access to the general population. Through a concession agreement with the

Estonian Telephone Company, the company helped to ensure connectivity in rural and scarcely populated areas in return for lucrative urban contracts. The government is actively extending connectivity throughout the nation. By 2002, Estonia had approximately 300 public Internet access points providing free email and Internet access. These points also serve as e-government access points where citizens can conduct the majority of their transactions with the public administration.

E-government PPPs must include partnerships for management and expansion of existing ICT infrastructure such as improving mobile technology, and expanding ICT services to rural areas. Without a wide-spread ICT technology, e-government encourages the risk to be limited to wealthier urban populations and thus widen the digital divide.

Resources

- “A P3 Primer: Why Are Countries Interested in P3?” Jonathan Loew and Matthew Hensley, the Institute for Public-Private Partnerships, 2002. <http://www.ip3.org/pub/publication002.htm>
- “Public Good Through Public-Private Partnership,” J. Satyanarayana, National Institute for Smart Government, 2004. http://www.nisg.org/docs_pdfs_ppts/ppts/Public%20Private%20Partnership%20--%20Feb%202004.pps.



What Are the Potential Applications of PPP at All Levels of Government?

In many countries ICT and e-government is a national level function, where “command and control” of the economy is still highly centralized, like Egypt, or where the economy and the market for ICT and e-government are too small for true economies of scale, like Jamaica, Barbados, Gambia. The reality is that, in just about every country, there are various jurisdictions and or “spheres” of government where e-government PPP’s can flourish, be it the national, regional, or municipal level.

National

At the national level, a range of e-government PPPs are possible including national undertaking by national agencies such as the Defense department (IT systems), Internal Revenue Agencies, (e-filing and computerization), Procurement Agencies, (e-Procurement), and the like. It is estimated that governments can save billions of dollars at the national level by outsourcing or divesting certain national agency functions or services to the private sector via PPP’s.

Sub-national

At the sub-national level, including state, regional, local, a number of PPP projects are viable in the ICT and e-government field. In fact, many innovative projects have been undertaken at the local level which have “liberated” funding from traditional tax sources and moved the financing of municipal services “off balance sheet” whilst improving efficiency. Examples include local issuance of drivers’ licenses and other motor vehicle services, voting, property registration, utility services, emissions controls, education, and parks and recreation. In countries where service delivery is delegated substantially down to the local level, there are

literally billions of dollars of potential transactions and cost savings, if the capacity existed, to implement e-government and ICT projects effectively.

Case Studies:

- **Online Tax Filing in Chile – The Internal Revenue Service of the Government of Chile** began offering online tax filing services in 1999. In its initial year, only 5 percent of taxpayers used the online services. By 2005, however, the IRS reported that more than 95 percent of taxpayers declared income and taxes online. This remarkable rate of online use suggests that the system is accessible to the public and very easy to use. Initially, one of the biggest barriers to providing the service was public Internet access. The IRS established a national public-private network of more than 880 centers, providing up to 3,000 connectivity points. Taxpayers were able to complete their online tax filings from these centers either free of charge or for a nominal cost, with the help of trained staff.
- **Singapore eCitizen Portal** – The Singapore eCitizen Portal (www.ecitizen.gov.sg) is a good example of a “one-stop shop” e-government website, providing citizens with access to a very wide range of fully online services. Launched in 1999, the portal is owned by the Ministry of Finance and managed by the *Infocomm Development Authority of Singapore (IDA)*. While not a “textbook example” of an e-government PPP, the IDA functions much like a private partner to a PPP as it is government by a Board of Directors largely comprised of heads of major private sector firms operating in Singapore.
- **US State Government Web Portals** – Each of the State Governments in the United States has an online website for citizens to access government services. TexasOnline (www.texasonline.com) was named the best State e-government

site in the Nation, in a 2006 study conducted by Brown University. TexasOnline is a PPP between the Texas department of Information Resources and a private partner, BearingPoint. The PPP contract allows for various options for funding; charging subscription fees to some government agencies, and allowing other agencies to offer their services free on the portal. The latter provide services that serve the public good or whose services are traditionally offered at no cost to the public. After BearingPoint recouped its initial setup costs, the state of Texas began to share in the revenue generated by subscriptions to the portal. Reports indicate that by 2004, TexasOnline had generated \$1 billion in revenue for the state and was processing one million transactions per month.

- **Andhra Pradesh IT Corridor** – An IT corridor in Andhra Pradesh, where the government, motivated by a need for more IT infrastructure, provides a rebate on the cost of government land to IT and ITES companies. <http://www.expresscomputeronline.com/20030428/infra09.shtml>

Resources

- “Global E-Government, 2006,” Darrell M. West, Brown University, 2006, <http://www.insidepolitics.org/egovt06int.pdf>
- “Public-Private Partnerships and the Role of State and Federal Legislation in Wireless Municipal Networks,” by Andrea Tapia, Matt Stone, Carleen Maitland, 33rd Research Conference on Communication, Information and Internet Policy, Paper 6269. http://web.si.umich.edu/tprc/papers/2005/431/TPRC_Tapia_Stone_Maitland.pdf
- “TexasOnline Passes \$1B Mark,” *Austin Business Journal*, April 26, 2004.
- “Public-Private Partnerships, E-Government, and Privacy,” by Jim Dempsey, Center for Democracy and Technology, Washington, DC, 2006.
- “Public Private Partnership Projects in Germany: A Survey of Current Projects at Federal, Land, and Municipal Level,” Deutsches Institut für Urbanistik, 2006. <http://www.difu.de/english/occasional/06ppp.pdf>
- “Building Local E-Government through Public-Private Partnerships,” *Information Technology in Developing Countries*, Vol. 15, No. 2, November 2005. <http://www.iimahd.ernet.in/egov/ifip/nov2005/article7.htm>

What are the Key Policy Objectives and Issues in PPP?

The Broader Policy Objectives of Governance Reform within which PPPs Occur

In order for Public-Private Partnerships in e-government to be successful, they must be firmly rooted within an overall policy framework of reform for the delivery of public services and the administration of government. On their own, PPPs can help improve the efficiency of a specific public service or governmental administrative procedure, but unless PPPs occur within the context of an overall policy framework that supports broader reforms, beyond just improved efficiency in one specific service or procedure, the goals and objectives of PPPs in E-Government will remain limited.

PPPs can realize these objectives best when they are part of an overall policy framework of reform in the delivery of public services and the management of governmental administrative procedures. Key elements of these policy frameworks should include:

- Government ministries that focus on policy-making and planning, but that delegate operational decision-making to public contracting agencies, their Boards and their managers;
- Regulation & performance monitoring of these public contracting agencies and any private service providers (PPPs) that is done by an independent regulatory body, or by a dedicated contract compliance office (CCO);
- Ownership of a sector's underlying, long-term assets by a public contracting agency, utility, parastatal, or asset holding company, which is responsible for service delivery or contracting with private companies, through PPPs, for the delivery of these services;
- Operation of public assets and networks, and the delivery of public services by private contractors

through transparent, competitively-procured PPPs.

PPPs therefore, are one important part of a much-broader framework to separate or un-bundle key roles of governance: planning & policy-making; regulation & performance monitoring; ownership of assets and contracting for their operations & management, and; the operation and management of those services and procedures. Without a dedicated effort to realize these broader policy objectives, PPPs can add processing capacity and delivery capacity, but they will likely be unable to contribute significantly to improving efficiency, productivity, performance, and quality throughout the sector.

Appropriate Policy Objectives of PPPs in E-Government

The policy objectives of PPPs in e-government could include:

- *Improved efficiency* in the delivery of public services or the performance of public administrative procedures;
- *Expanded access* to public services and to public information;
- *Greater transparency & reduced corruption* through improved access to public information;
- *Improved quality of service* by both measuring and achieving key performance indicators;
- *Reduced costs* in the delivery of public services or the execution of public administrative procedures;
- *The transfer of key risks* away from the public sector's limited resources and onto the private party that can best manage them;
- *Maximizing Value for Money* through reduced costs and lower risks to the public sector;
- *Improved competitiveness* of the overall governance and economic framework;

- *Improved commercial performance* in the delivery of public services and execution of public administration, such as achieving levels of cost-recovery specific performance indicators;
- *Transfer of technology* and improved capacity of the public sector to better manage public services and administrative procedures

Pitfalls to Avoid: Inappropriate Policy Objectives for PPPs

PPPs in e-government should not be viewed a simply a new source of money from the private sector, who can somehow afford to provide services that the government is unable to perform or provide. While many PPPs do entail new investments by private contractors, either the government or the public will still need to repay the costs of those investments through the prices or tariffs set in the PPP contract. Nor are PPPs capable of taking proposed public projects, services, and procedures that are determined to be technically, economically, environmentally, and socially unfeasible and to somehow make them viable. Rather, PPPs are a focused decision about what is the best *means* to deliver services and procedures. Any projects for which PPP approaches are being considered should be projects that are already established as clear priorities for the government; projects that are already technically, economically, environmentally, and socially feasible.

Case Studies

- **Malaysia's Multimedia Super Corridor (MSC)** – As the centerpiece of the government's plan to transform the basis of its economic competitiveness from manufacturing to a knowledge-based economy (KBE), in 1996 the Government of Malaysia announced the plan to develop a new world-class MSC. Encompassing an area 50 km long by 15 km wide, the new MSC stretches from the Petronas Towers in the north of the new, modern Kuala Lumpur City Center to the new Kuala Lumpur International Airport (KLIA) in the south. It includes the two new Greenfield cities of Putrajaya, the national

government's new administrative capital, and Cyberjaya, a new city created especially to attract private international multimedia, communications, technology, and knowledge-based firms. Supporting the new mega-project was the government's electronic governance policy, which sought to transform the relationship between the government and its citizens according to new, indigenous, non-Western models of development. As with its past infrastructure mega-projects, the Government of Malaysia relied heavily on partnerships with the private sector to: (1) develop and invest in the MSC in order to create the new KBE, and (2) provide the infrastructure, and operate the applications and services of the new e-government program. The case illustrates a number of successes in being able to attract private investments and PPPs in e-government.

Resources

- **Malaysia Office of the Prime Minister Economic Planning Unit** – The entity responsible for planning and implementing PPP in Malaysia including many innovative ICT and e-government schemes. For a look at the EPU and their many program and initiatives, check out www.epu.jpm.my
- **The Electronic Procurement System of the Government of Malaysia** – Malaysia is a world leader in e-government, especially e-procurement. Established as a PPP the e-procurement system or “e-perolehan” has transacted thousands of projects and resulted in significant costs savings. Check out this unique website to learn more at home.eperolehan.com
- **Partnerships Victoria Policy (2000)** – This is a concise and well-articulated example of a sound statement of the policy objectives of PPPs across a range of sectors, including information & communications technology and e-government-related services. The policy covers key objectives in value for money, protecting the public interest, risk allocation, and public sector accountability. [http://www.partnerships.vic.gov.au/CA25708500035EB6/WebObj/Policy/\\$File/Policy.pdf](http://www.partnerships.vic.gov.au/CA25708500035EB6/WebObj/Policy/$File/Policy.pdf)

What are the Key Legal and Regulatory Pre-requisites for PPP in E-Government?

International experience has proven that a well-designed PPP enabling environment includes a legal and regulatory framework that clearly articulates government policy on PPP in e-government. Specifically, there are critical legal and regulatory prerequisites that are usually in place in robust e-government PPP programs at any level of government. These include:

- PPP Laws
- PPP Central Body
- PPP Guidelines
- Financial Instruments
- Contract Compliance and Dispute Resolution Procedures
- Asset Ownership Guidelines
- Labor Laws
- Tax Laws
- Digital Signature Laws
- Sector Regulations
- Independent Regulator
- Competition Law
- Stakeholder Consultation

The following section includes a brief discussion of each of these legal and regulatory prerequisites.

PPP Laws

All forms of PPP, from the most capital intensive to the least capital intensive are usually covered under a “Law on Concessions”. While it used to be common that each sector would have its own law on PPP or concessions, most countries are increasingly establishing multi-sector concession laws or “umbrella” legislation to harmonize the key legal issues in PPP across sectors. At a minimum, a concession law will clearly establish what sectors are eligible for PPP, the form of eligibility, eligible PPP approaches, the rights and obligations of the parties, how projects are approved, limits to

ownership, financial requirements, public roles and responsibilities, and dispute resolution responsibilities.

PPP Central Body

Many PPP frameworks include a coordinating body, often created by law, to manage PPP transactions. The PPP Central Body or “PPP Unit” generally serves as the focal point to spearhead the PPP process either across sectors or even within a specific sector or city.

In **Ireland** and in **South Africa**, PPP Units were established within the finance ministries, and their function is to ensure that local and provincial governments receive assistance in planning and implementing PPP as required in the Public Financial Management Acts. In the United Kingdom, the Private Finance Initiative or PFI was a form of centralized PPP Unit. The PFI started as a government program, became a policy instrument, and eventually, was privatized and converted into a non-profit entity responsible for guiding the PPP process into a more mature phase of development.

The role and functions of PPP Units is discussed in greater detail in Section 8.

PPP Guidelines

Establishing guidelines on how PPP arrangements are planned, approved, and awarded creates a predictable environment in which private partners are willing to engage. The **South African National Treasury Public-Private Partnership Unit** is a good example of how PPPs have been enabled through clearly established guidelines. Below are some of the fundamental areas where standardized guidelines

have served governments in effectively carrying out e-government PPP projects:

- *Project Identification* – Potential e-government PPP projects are best identified by the government agency that will be responsible for implementation. For example, if the department of Transportation needs an electronic system for managing its employee payroll, the department itself must express this need rather than rely on any central PPP body for project identification.
- *Project Prioritization* – Given that there will likely be needs for more than one e-government PPP project, there must be a process for determining which are priorities vis-à-vis available government resources and already established government policies.
- *Project Feasibility Studies* – Once potential projects have been identified and prioritized, there should be clear guidelines for carrying out project feasibility analysis.
- *Project Approval* – Once a project has been determined to be financially and technically feasible, there must be clear guidelines that determine which government department or agency will approve the project's readiness for the procurement stage.
- *Project Procurement Guidelines* – These guidelines must include standardized bidding documents, procedures for announcing the project for public tender, transparent procedures for evaluating private sector bids, and methods for contract award, including specified time frames for project mobilization.

Financial Instruments

Governments have developed some helpful financial instruments to assist them in making good decisions about what PPP projects to pursue and to attract private partners to those deals.

- *Public Sector Comparator (PSC)* – The PSC is a method used to calculate the “in house” costs to government of preparing and delivering a service. Knowledge of such costs is essential when determining whether or not to pursue a PPP project, and determine if the project represents a good value for money. The PSC is

used to varying degrees by PPP units worldwide. The **Canadian Council for Public-Private Partnerships** has published helpful guidelines for determining how and when to employ the PSC. To download these guidelines, click here. http://strategis.ic.gc.ca/epic/internet/inpupr-bdpr.nsf/en/h_qz01557e.html.

Partnerships Victoria (Australia) has published similar guidelines which are available **here**.

- *Value for Money Framework* – The Value for Money Framework, employed by the Government of Queensland in Australia, applies to all infrastructure projects over \$100 million over the life of the asset. It encourages discipline such as focusing on outputs, understanding whole of life costing, identifying risks and appropriately allocating these risks to the party best able to manage them. It provides a rigorous and transparent analytical framework to ensure the government obtains the best value for money. http://www.coordinatorgeneral.qld.gov.au/pp_partnerships/policy_value.shtm

While it is true that a poorly prepared PPP project can present an enormous cost to government, some PPP practitioners have noted that elaborate systems that measure value for money risk becoming overly bureaucratic and regulatory, and could stifle project preparation and deal flow.

- *Sovereign Guarantees* – Sometimes national governments will offer sovereign guarantees to reduce public sector financial support and ensure payment to the private operator or lender in a PPP project, in case of government default on contractual obligations or in case of a natural disaster, or a financial crisis such as a severe currency devaluation. Governments have felt that such guarantees were necessary to secure private sector financing for projects where the borrowing sub-national entity is not itself credit worthy, but where the investment is badly needed. However, experience has shown that such guarantees often expose governments to unnecessary levels of risk. So many have established only limited circumstances in which sovereign guarantees will be offered in PPP Projects. There are two criteria to look for when determining if a sovereign guarantee is appropriate: (1) Does a long-term evaluation of the borrowing entity's performance indicate that it will be able to recoup its costs? (2) Does the

project involve long-term financing, such as loan terms of more than 10 years, with risks that are difficult for the market to assess due to its unique character?

For further reading on the topic of sovereign guarantees, please refer to the World Bank's website on **Sub-sovereign and Municipal Finance**. The IMF has also published **Guidelines for Public Debt Management**.

Contract Compliance and Dispute Resolution Procedures

From the moment a contract is awarded, it is vital that the government and the appropriate regulatory bodies ensure compliance with the terms of the contract and the prevailing laws and regulations. This can be done in two ways: regulation by contract, meaning the contract is the dominant document that states the key terms and conditions, or regulation by decree or statute, often done under a regulatory body. The contract or regulatory decrees must also state what the dispute resolution procedures will be. PPP Monitoring and Evaluation is discussed in greater detail in Section 14 of this Knowledge Map.

Asset Ownership

Typically with PPP public and private sectors join to design, build or rehabilitate, finance and operate new or improved facilities, such as schools, hospitals, toll roads and power generation plants. Over the life of the project, usually 25–30 years, the private financier owns the asset and the private operator receives periodic payments for asset operation. At the end of the contract, the assets revert to public ownership.

In the case of e-government, where assets are likely to be ICT infrastructure or systems with great potential for roll-out to clients other than government, there are needs for some allowance for asset ownership by the private partner during and after the end of its contract with the private sector.

Labor Laws

In some environments, PPP can result in the displacement of public sector employees. Another concern of many public employees is maintenance of seniority, pensions, wages, benefits and collective bargaining rights. Governments worldwide struggle with how to address labor concerns when introducing PPP. While labor laws differ from country to country, a few basic strategies are available to alleviate labor opposition to PPP. First, carefully implemented stakeholder consultation policies that involve labor organizations from the start of PPP initiatives are essential. Second, there may be room to revise labor laws themselves that make them more amenable to functioning within the auspices of a PPP arrangement. For example, in some countries, public officials who leave public service to work for a private employer are often prohibited from maintaining their position in public employee pension funds. In the case of a PPP where government employees are transferred to private employers, often performing the same public service, prohibiting their participation in the pension scheme generates unnecessary opposition to the PPP. The solution is to change the labor laws and allow them to remain in the pension fund.

Tax Laws

Tax laws can be drafted or amended to create an incentive based enabling environment for PPP. For example, in the US education sector, a major tax bill passed in 2000 opened up tax-exempt bonds to private investors seeking to build and lease public education facilities. Prior to this bill, access to these bonds was limited to state and local governments. In the e-government sector, tax laws can be amended to reduce import and duty taxes on computer, server, and other Internet-based hardware as well as encourage greater investments in technology based solutions for improved service delivery and “partnerships” with government.

Digital Signature Laws

Some e-government PPP projects will require the use of digital signatures (define), while others will not. In this case, the government must have a digital

signature law on record that gives digital signatures the same level of trust and assurance as the hand-written ones.

- **Case Study – Estonia National ID Card:** PPP Models can be used to design and implement a digital signature and identity program, as in Estonia. Estonia's National ID Card scheme is managed by a PPP between the Citizens Migration Board (CMB) and two private partners: SK, a joint-venture company, and TRUB Baltic AS. The CMB issues the identity cards to citizens, SK manages the associated electronic services, and TRUB Baltic AS manufactures the card. The PPP is governed by Estonia's Digital Signatures Act.

Such regulations, however, can be burdensome to governments, and should not be seen as prerequisites for either PPP or e-government.

Sector Regulations

Each sector is governed by its own regulations, rules, and procedures. Most countries are moving either to sector specific or multi-sector regulation. Across countries, there is no clear best approach, and each country must select the institutional strategy that best meets its own bureaucratic context, as well as the ambitions of its e-government policy. In general, it is not advisable to create an entirely new unit, such as a specialized e-government PPP unit, if it can be avoided (it adds to public sector overhead costs)—especially if a capable cross-sector PPP unit, such as within a Ministry of Finance, already exists.

Independent Regulator

The presence of an independent regulator is an important component of the PPP framework. While regulatory structures vary from country to country, there are four key elements of a regulatory framework that is open and conducive to PPP transactions in any sector:

- **Independence:** In order for any regulatory body to be truly effective, it must be free to make decisions without undue interference from outside

parties. Processes and rules governing the selection of regulators must be transparent and demonstrate the body's independence from special interest groups.

- **Transparency:** The mandate of the regulatory body and its processes should be clearly specified in all pertinent legislation. Additionally, there should be clear procedures for the publication and explanation of all decisions made by the regulators.
- **Accountability:** A well-established and publicized public participation process and an accessible appeals process will provide a system of checks and balances ensuring that the regulatory body fulfills its mandate. It is especially important that the courts have the authority to determine the merits of appeals so that the regulatory body will not be bogged down with unnecessary litigation.
- **Consistency:** All regulatory decisions should be consistent with the regulatory body's goals and purposes and applied in a consistent fashion to clearly demonstrate its goals and principles. This consistency will reduce regulatory uncertainty and ensure that, when any change in method is required, it can be accomplished in a manner that is acceptable to all parties.

In some countries, PPP programs and transactions are developed ahead of the establishment of regulatory bodies. While not ideal, that need not be fatal. What is key, in this instance, is to ensure that the PPP documents and contracts used in the bidding stages reflect the forms and standards of regulation that one contemplates using in the future. In short, it is important to establish a suitable regulatory regime within the body of the contract. While this is not a substitute for an independent regulatory body and policy, sector by sector, it is a starting point in the process of establishing sound and mature regulatory institutions that are consistent and complementary with the PPP framework.

Competition Law

Competition Laws drive market structure. Most ICT and e-government PPP's are either a result of competition law or policy that "unbundled" the market for services or they are a result of an

inadequate existing ICT or governance sector where e-government PPP's are in response to customer demand.

Stakeholder Consultation

Another key component of a solid regulatory framework for PPP in e-government is a system for consultation with stakeholders prior to and during project implementation. Governments around the world are increasingly recognizing that the need to understand and engage stakeholders in the process of a public sector reform in order to build support for change and to ensure long term sustainability. Stakeholder consultation is a particularly important element of any PPP program, and the following often results from good consultation programs:

- Increased demand responsiveness of public services.
- Growing support for reform among key constituents.
- Improved coordination between various branches of the public sector.
- Stakeholders who are prepared for the changes that will come about as a result of PPP.

In practice, targeted, customized stakeholder consultation is often seen as cost prohibitive by governments, and the result is that consultation and communication is often undertaken in a cursory manner if at all.

Case Studies

- **South African Public Financial Management Act and PPP Framework** – The Public Financial Management Act, issued in 1999, regulates all national and provincial level PPPs in South Africa. This act also established the National Treasury PPP Unit and has issued a PPP manual and standardized guidelines for government departments to be followed throughout the PPP project life cycle.
- **Philippines BOT Law** – Act 6957 of the Government of the Philippines, often referred to as the BOT Law, spells out the policy and

regulatory framework for the participation of private sector entities in the development of infrastructure projects and the provision of services that are normally the responsibility of the government.

Resources

- Managing Digital Identities and Signatures through Public/Private Partnership, Cybertrust, 2005. http://www.cybertrust.com/media/case_studies/cybertrust_cs_easton.pdf
- UNCITRAL Model Legislative Guide on Privately Financed Infrastructure Projects, 2003. <http://www.uncitral.org/pdf/english/texts/procureml/pfip/modell/annex1-e.pdf>
- “Is the Public Sector Comparator Right for Developing Countries, James Leigland and Chris Shugart, *Gridlines*, Note No. 4, April 2006. <http://www.ppiaf.org/Gridlines/4africa.pdf>
- “Champion the Philippine BOT Law,” Coordinating Council for Private Sector Participation, The Institute for Public-Private Partnerships, 2001. <http://www.ip3.org/pub/publication014.htm>
- Guidelines for Using the Public Sector Comparator, Government of Canada, http://strategis.ic.gc.ca/epic/internet/inpupr-bdpr.nsf/en/h_qz01557e.html
- “Value for Money Framework,” Government of Queensland, Australia http://www.coordinatorgeneral.qld.gov.au/pp_partnerships/policy_value.shtm
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- “A Strategic Framework for Consultation and Communication,” Kathleen Slattery, Institute for Public-Private Partnerships, 2002, http://www.ip3.org/pub/publication2002_009.htm
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Business Review, 2004. <http://www.constructionchannel.net/Ashley/CBR%20Magazine/Construction%20Business%20Review/Ashley/Public-Private%20Partnerships.htm>

- “New Tax Law Boosts School Construction with Public-Private Partnerships,” Ronald D. Utt, The Heritage Foundation, Aug 2001. <http://www.heritage.org/Research/Taxes/BG1463.cfm>
- South African Public Financial Management Act, 1999, <http://www.treasury.gov.za/legislation/acts/pfma/default.htm>.
- The Philippines BOT Law, 1993, <http://www.botcenter.gov.ph/botlaw/index.htm>.
- Partnerships Victoria Guidelines for Employing the Public Sector Comparator <http://www.partnerships.vic.gov.au/CA25708500035EB6/0/E4C501A76F826D77CA2570C0001B45EA?OpenDocument>.
- “Digital Signatures Act,” Government of Estonia – http://www.esis.ee/legislation/digital_signatures_act.pdf

What are the Institutional Roles and Responsibilities in PPP Projects?

Importance of Institutional Frameworks

Institutionalizing PPP can arguably be the determining factor in the success of PPP projects. As with any major policy change or initiative, governments must have an institutional strategy to ensure that the change takes place. Simply stated, PPP does not just happen. ESD Services Limited, a private joint venture (JV) company, did not approach the Government of Hong Kong and offer to design **ESDlife**, a web portal for government services. Rather, the Government of Hong Kong recognized a need to offer its services online, saw that the private sector was best equipped to design and operate the portal, and most importantly, availed itself of its institutional resources in managing PPP contracts. Private investors do not just come to governments ready to invest (except in the case of unsolicited bids), but rather willingly partner with governments where a clearly identified pathway for institutional collaboration has been established. This is true for any PPP, be it in e-government or in solid waste collection.

There are two main themes to consider when discussing institutional roles in PPP projects. First, there is the role of independent or departmental PPP institutions in supporting the development and implementation of projects. Second, there is the role of the public institution involved in a PPP project, and how it must manage its transition from service provision to contracting monitoring.

PPP Institutions

The best way to define clear institutional roles and responsibilities for PPP is to form a designated department or task force within government. In the case of national level PPP's, the Ministry of Finance is the best place for such a department, as its

placement clearly communicates to local government and to private investors the national government's commitment to private sector partnerships. Examples of these departments or PPP units are found worldwide. They range from national level PPP units, such as Ireland's **Central PPP Policy Unit** and South Africa's **National Treasury PPP Unit** to provincial level agencies such as **Partnerships Victoria** in Australia, and the **Gujarat Infrastructure Development Board** in India.

Function of PPP Units

While individual operating policies in PPP units varies from country to country, they serve to answer three main questions:

- Is the project affordable?
- Is the project a priority for the government?
- How can the project be implemented?

Project Affordability – The PPP Unit, either through its staff or through independent contractors will conduct financial pre-feasibility analysis, and financial feasibility studies to determine if the project is economically viable.

Project Prioritization – Once a government department proposes a PPP project, the PPP Unit will liaise with other departments and/or the Ministry of Finance to determine if the project is an overall priority for government. For example, the department of Transportation may see a need for a highway investment project, but the PPP Unit has the responsibility of evaluating that need along with other investment needs in the department of Health or Education. The PPP Unit has the benefit of an “arms length” perspective.

Project Support – The PPP Unit serves as a center of expertise for all government departments in

identifying, structuring, and implementing viable PPP projects, including deal flow, capacity building.

- **Case Study – Irish Central PPP Policy Unit:** The Government of Ireland established the Central PPP Policy unit to lead, drive, and coordinate the nation's PPP process. Its key function is to develop the legislative framework, technical and policy guidance to support the PPP process and disseminate best practice in PPP. Dedicated units with responsibility for individual sectors are established in key departments of State. Government departments are generally expected to drive the process in their respective sectors, having regard to the guidelines on the process and the need for requisite sanctions from the department of Finance. In July 2005, the Minister for Finance announced a new initiative to support PPP projects by setting up a single specialized "Centre of Expertise" to be located in the **National Development Finance Agency (NDFA)**. It will be responsible for the procurement of all new PPP projects in the central government area, with the exception of roads and rail where existing arrangements with the NRA and RPA will continue.

The Central PPP Unit chairs two key groups which are crucial to the effective management of the PPP process: An Inter Departmental Group on PPPs representing all public service sectors, whose role is to bring together key decision makers to ensure that there is coherence and consistency across the public service in developing partnership arrangements with the private sector; and a Public/Private Informal Advisory Group on PPPs which includes representatives of employers organizations (IBEC), the Trade Union Congress (ICTU), the construction and engineering sectors (the CIF).

- **Case Study – South African National Treasury PPP Unit:** The South Africa PPP Unit oversees the development and implementation of PPP projects, and serves as a center of knowledge on capacity building to stimulate their use and improve their quality. The CEO of the PPP Unit notes that since the establishment of the unit, the PPP 'deal flow' has increased to the extent that private investment in public infrastructure through PPPs, has tripled from 6 billion ZAR between 1999 and 2004 to a projected ZAR 18 billion from 2005 to 2008.
- **Case Study – Philippines BOT Center:** The Build-Operate-Transfer (BOT) Center of the

Philippines department of Trade and Industry was created via the BOT Law to coordinate and monitor BOT projects and to guide government agencies and Local Government Units (LGUs) in the preparation, development, and monitoring of BOT projects. Its main role is to identify financial, technical, institutional, and contractual solutions to help government agencies make BOT Projects work. In addition to having specialized groups within the BOT center for transport and environmental infrastructure, the Information and Communication Technology Projects Group (ICTPG) oversees PPP projects in the IT sector. One specific e-government initiative spearheaded by the ICTPG was the development of the Generic Information Systems Strategic Plan to boost the Philippine LGU's ability to develop and package ICT Projects for PPP financing and implementation.

Alternatives to PPP Units

Are PPP Units necessary to ensuring successful PPP processes? Given that that one rationale for PPP is to lessen bureaucratic red tape in the delivery of public services, we have to agree that while PPP units are indeed useful, they are not prerequisites to successful PPPs. In Australia, for example, the Sydney Water Corporation identifies and prioritizes its need for major infrastructure projects, and recommends whether or not PPP financing and implementation vehicles are required. These recommendations are forwarded to the Board of Sydney Water for careful review. If the project requires major investment, it is usually reviewed by the Cabinet, and is subject to a financial veto by the New South Wales State Treasury responsible for maintaining the State's credit rating. This system is effective in quantifying and minimizing direct state risk.

How the role of public sector institutions changes in a PPP environment

When PPP is used as a policy tool, the traditional role of the government agencies that previously was directly providing the service must change.

Figure 2. Traditional Public and Private Sector Roles without PPP

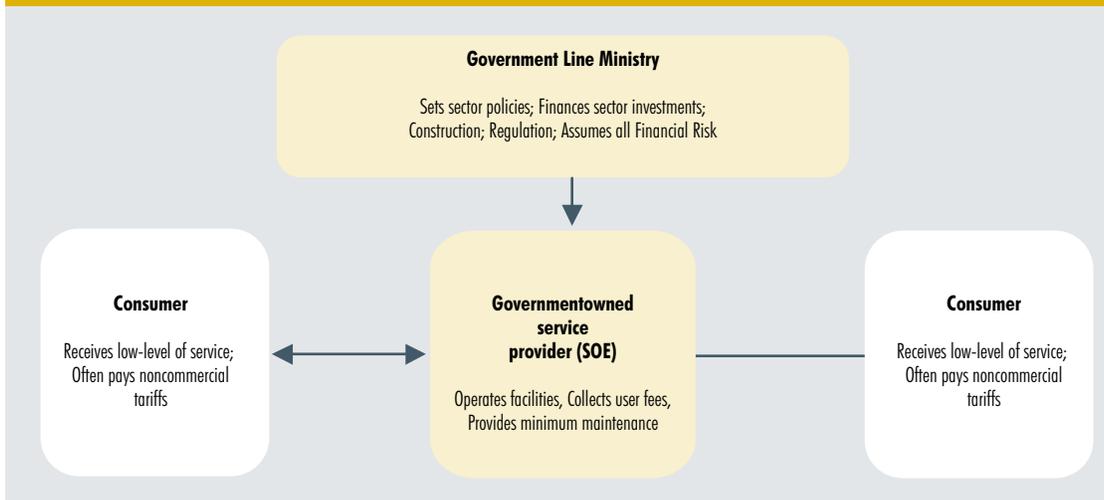
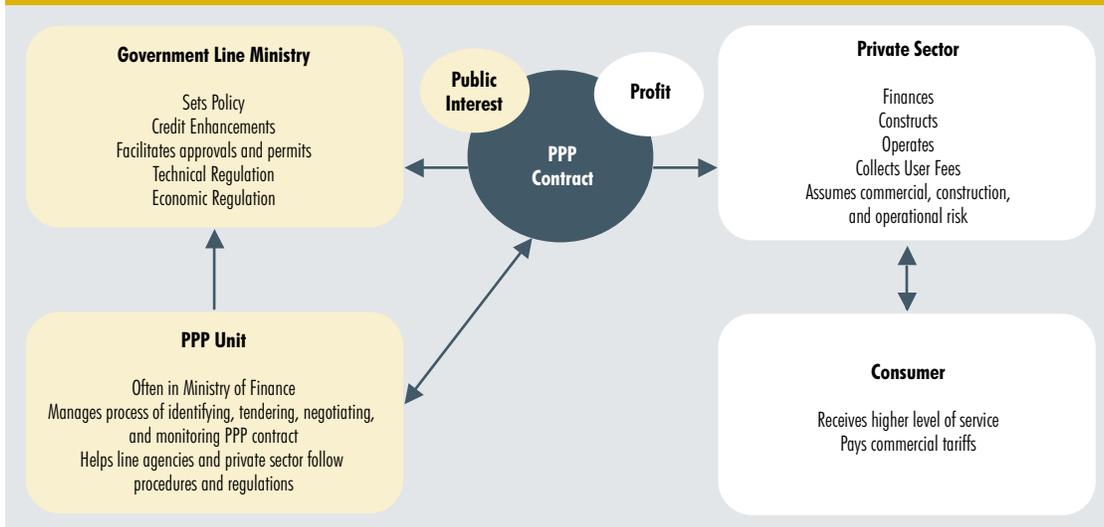


Figure 3. Changed Public and Private Roles in a PPP Environment



Moreover, the role of the private sector also changes from limited involvement in service delivery, to full partner in service delivery assuming all the associated financial and management risk. Figures 2 and 3 illustrate this change.

In conclusion, with the introduction of PPP, a government goes from being the direct provider and financier of the service, to overseeing the delivery of a service at a higher standard of quality. The financial risk is also transferred to the private provider. This is the major changing role.

Case Study

- **Service@Swansea** – This is a PPP between the Swansea City Council in the UK and a private partner, Capgemini. The goal of the first phase of the PPP, known as Resource@Swansea, was to reduce duplication and paperwork by upgrading and harmonizing the software used for the Council’s payroll, finance, HR, and procurement services. A second phase, under consideration as of November 2006, would include a call center and face-to-face contact center, as well as a website to handle customer inquiries. Under the scheme, more than 50% of the Council’s IT employees were transferred to the private partner for the implementation of the city’s e-government program. The contract provision that allowed the transfer of staff prompted an eight-week strike by the Council’s IT staff in August 2004 before the contract was officially signed in December 2005. For details on this PPP, see <http://www.swansea.gov.uk>.

Resources

- Public-Private Partnership Units: Are they needed and what should they do? An online discussion moderated by PPP specialists among PPP practitioners worldwide. <http://rru.worldbank.org/Discussions/topics/topic76.aspx>
- “Championing the Philippine BOT Law,” by the Coordinating Council for Private Sector Participation, *PPP News*, The Institute for Public-Private Partnership, 2001. <http://www.ip3.org/pub/publication014.htm>
- “Locking Private Sector Participation into Infrastructure Development in the Philippines,” Noel Kintanar, Lourdes Baclagon, Rodolpho Azanaz, Jr., and Rina Alzate, *Transport and Communications Bulletin for Asia and the Pacific*, No. 72, 2003. http://www.unescap.org/ttdw/Publications/TPTS_pubs/bulletin72/bulletin72_ch2.pdf
- South Africa National Treasury PPP Unit – www.ppp.gov.za
- Irish Central PPP Policy Unit – www.ppp.gov.ie

What are the Major Political Constraints and Challenges to PPP?

As with any shift in government policy or practice, a number of stakeholder groups will inevitably resist to change. Employing PPP models for government service delivery is certainly no exception. PPPs have frequently been the impetus for major political and social resistance. The following are several of the most common constraints or challenges to PPP.

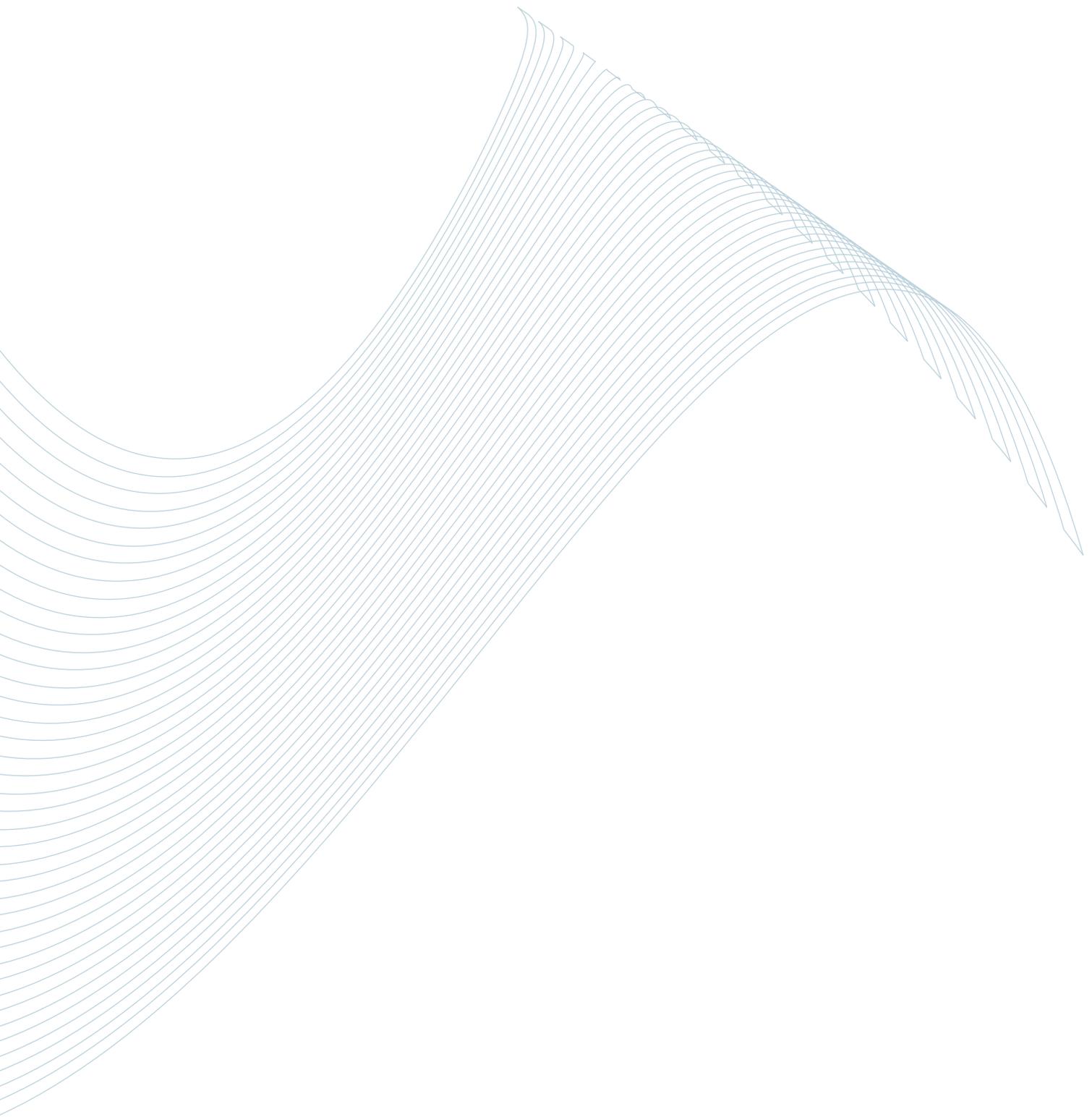
- *Perceived Misuse of Taxpayer Money* – When a private operator is introduced into public services, there is often the risk that the public will perceive that tax-payer money is transferred to profit-driven enterprises.
- *Private Profits in Exchange for Service Quality* – Often the public perception is that the only way the private operator can make a profit in PPP projects is by cutting corners in service quality. Past failures in large-scale PPP infrastructure projects cast a shadow on current PPP initiatives in other sectors.
- *Past Failures in Technology Investments* – Past public expenditures in technology have not always yielded expected results. In these cases, the public criticizes the waste of money, and become wary of supporting other major investments in ICT or e-government.
- *Political Elections Cycle* – If PPP projects are proposed and debated during an election year, the changes that a PPP project is likely to bring to the lives of different stakeholder groups might be exaggerated, or downplayed, by political candidates seeking to garner support for their campaign.
- *Lack of capacity to develop and manage PPP* – It is possible to have political will to support PPP, but no skills in government to further them. In this situation, it is extremely useful to establish a designated PPP Unit within government, and invest in the training of its staff.
- *Lack of a Public Spokesperson* – e-government PPPs do not have the ‘champions’ that more traditional PPPs have had. There is not always an easily identified stakeholder group, such as utility customers, doctors, or parents of school children, to work with in the early planning stages of a PPP initiative.
- *Lack of local private ICT industry* – Many emerging market countries lack private ICT industries that are sufficiently developed to partner with the government on e-government PPP projects.

Case Studies

- **National Institute for Smart Government (NISG)** – One method for mitigating some of the challenges of PPP in e-government is to establish a designated organization to facilitate the process. For example, the NISG in India is a non-profit organization set up under a PPP model to facilitate the application of public and private resources in e-governance in architecture, consultancy, and training. www.nisg.org
- **E-Authentication Federation** – A PPP in the US that will enable citizens, businesses and government employees to access online government services using log-in IDs issued by trusted third-parties, both within and outside the government.

Resources

- “The Politics of Public-Private Partnerships,” Flinders, M., 2005, British Journal of Politics and International Relations.
- “What are Public-Private Partnerships,” BBC News, 2003. <http://news.bbc.co.uk/1/hi/uk/1518523.stm>
- “Public-Private Partnerships; an Incomplete Contract Approach,” John Bennett and Elisabetta Iossa, Economic and Social Research Council, 2006.
- E-Authentication Federation – <http://www.fmcsa.dot.gov/eauth/federation/>



How do you Identify and Structure Feasible PPP Projects?

Carefully following the stages of the PPP Project Life Cycle is key to identifying and structuring feasible PPP projects, including distinguishing appropriate business models for operators and key considerations for governments. The stages of the PPP Project Life Cycle are as follows:

- **Project Identification** – the Project Sponsor, which is the government body that proposes the project, identifies and prioritizes its list of potential PPP projects.
- **Project Development** – with assistance from the PPP Unit, the Project Sponsor conducts research and analysis to determine financial and economic feasibility.
- **Project Assessment** – the PPP Unit assesses the proposed project's feasibility, and the Project Sponsor conducts a “market sounding” to gauge investor interest.
- **Project Structuring** – the PPP Unit assists the Project Sponsor in structuring the risk allocation, contractual relationships, and financing arrangements.
- **Project Procurement** – with assistance from the PPP Unit, the Project Sponsor conducts fair, open, and competitive procurement via RFQ and RFP.
- **Contract Management** – the Project Sponsor conducts contract negotiations and, with assistance from the Regulator, implements monitoring and enforcement.

At the **Project Identification** stage, the project sponsor performs the analysis outlined in Figure 4. The output of this process is the “Indicative Implementation Plan” that is shared with the PPP Unit, which then uses the plan to decide whether or not PPP Unit assistance is warranted. If assistance is warranted, then the unit will assist the project sponsor with the project development, which is the next stage in the PPP Project Life Cycle.

In practice, project sponsors in many countries do not conduct the activities described in the **chart above** with the necessary level of analysis and due diligence, to consistently deliver potential PPP projects of good quality. Accordingly, most PPP programs place a heavy emphasis on technical assistance to project sponsors at the project identification level so that they will be better able to generate “bankable quality deal flow.” Much of such technical assistance is focused on business basics, because the government officials involved in procurement have traditionally focused on engineering and contracting, rather than on the business analysis required for PPP projects.

At the **project development** stage, the feasibility analysis begins with a compilation and a basic updating of all previous studies, to create a pre-feasibility study. If the pre-feasibility study indicates probable financial and economic viability, then the project sponsors will move forward into a feasibility study, for which new research and analysis will be required to build on the results of the pre-feasibility study.

At the **project assessment** stage, the results of the feasibility study are evaluated and the key inputs to the financial projections are manipulated to generate a sensitivity analysis. Key financial ratios will be evaluated. Realistic time frames and costs for concluding all necessary land acquisition, environmental clearances, extraction permits, etc. will be put into procurement documents and shared with prospective Bidders.

At the **project structuring** stage, the results of the “market sounding” will be used to structure the contractual relationships, risk allocation, and financing design. The output of this stage is the draft concession agreement, which will be shared with the bidders to inform them of the probable contractual obligations of the parties.

Figure 4. *Project Identification Analysis Process* *



Source: Partnerships Queensland

In the **project procurement** stage, a lot of information is received from the bidders, both in their technical proposals and in their financial proposals that will give the project sponsors considerable feedback on their feasibility analysis. Because PPP procurement is focused on service delivery rather than the engineering specifications of traditional procurement, the private sector innovation is enabled and the project sponsors can use the various approaches the bidders propose to achieve the service delivery in order to fine-tune the feasibility analysis.

In the **contract management** phase, which begins with the contract negotiations, the project sponsors will get further feedback from the Bidders. The focus of the feasibility analysis, at this stage, will be on risk allocation and further refinement of the mechanisms by which the parties will manage their allocated risks in the contract.

Identifying Appropriate Business Models

Business models for operators can vary considerably depending on the nature of the service delivery. Independent Power Producer (IPP) and oil/gas pipeline projects tend to give the operator virtual carte blanche as regards where the facilities will be located, which technologies to use, how the Facilities will be maintained, etc. Such is the case because the government is simply the buyer of the outputs. At the other extreme, there are projects such as railways, in which the operator is usually given considerable freedom as regards freight traffic, but is subjected to a complex array of price, quality, and

scheduling requirements as regards to passenger traffic. In the middle of the range of contracting modalities, would be an e-government system in which the government provides the backbone, and its private sector partners provide the services that consumers will access via the backbone and its links. Table 2 illustrates the spectrum of business models for PPP projects.

Case Study

- **Hong Kong Smart I.D. Card** – A private sector partner provides user interface and software. It also provides consumers with electronic access to

TABLE 2. *Business Models for PPP Projects**

PSP Option	Service Contract	Management Contract	Lease Contract	Build-Operate-Transfer (BOT)	Concession Contract
Financing investments	Public sector	Public sector	Public sector	Private sector	Private sector
Financing working capital	Public sector	Public sector	Private sector	Private sector	Private sector
Contractual relations with retail customers	Public sector	Private sector (on behalf of public sector)	Private sector	Public sector	Private sector
Private-sector responsibility and autonomy	Low	Low	Low to medium	Medium to high	High
Need for private capital	Low	Low	Low	High	High
Financial risk for private sector	Low	Low	Low to medium	High	High
Duration of contract/license	6 months – 2 years	3–5 years	5–15 years	15–30 years	20–30 years
Ownership	Public sector	Public sector	Public sector	Private then public sector	Public sector
Management	Mainly public sector	Private sector	Private sector	Private sector	Private sector
Setting retail tariffs	Public sector	Public sector	Contract and regulator	Public sector	Contract and regulator
Collecting retail tariffs	Public sector	Private sector	Private sector	Public sector	Private sector
Main objective of PSP	Improve operating efficiency	Improve technical efficiency	Improve technical efficiency	Mobilize private capital and/or expertise	Mobilize private capital and/or expertise

Source: The Institute for Public-Private Partnerships

a wide variety of government services, such as national identity cards, driver's licenses, business licenses. This case gives guidance regarding important issues that arise regarding the trade offs between user convenience, user information privacy, and inter-departmental government dynamics when using PPP to develop an e-government system focusing on G2C and G2G.

More details on this case can be obtained from the first link provided below.

Resources

- ESDlife – <http://whs.esdlife.com/eng/default.asp?referer=govhk>
- E-Government Resource Center – the Victoria Government's repository of e-government initiatives and international research, <http://www.egov.vic.gov.au>.
- "Closing the Infrastructure Gap: The Role of Public-Private Partnerships," William Edgars and Tom Startup, Deloitte Research, 2006. http://www.deloitte.com/dtt/cda/doc/content/ca_en_fas_infrastructure_gap_mar07.pdf

What are the Financial Challenges and Constraints in PPP Projects?

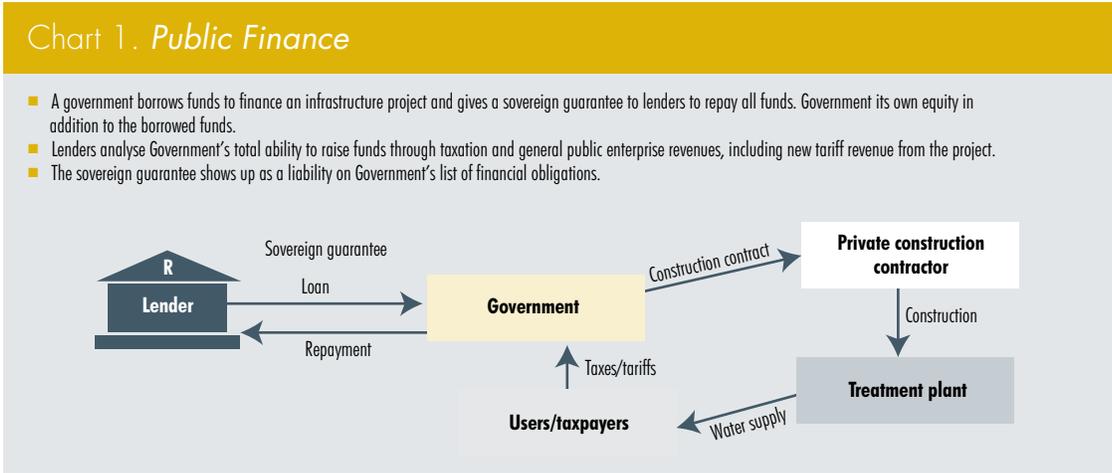
Overview of PPP Project Finance

In order to understand the payment mechanisms, reasonable returns, and financial incentive schemes for PPPs, it is necessary to first understand the components of a PPP's project finance structure. There are three components: (1) public finance; (2) corporate finance; and (3) project finance. In theory, PPP projects should be fully financed via project finance but in practice the financing is nearly always a blend of the three methods.

In **public finance**, as Chart 1 below illustrates, there is direct lending to the project, or there is a government guarantee provided to the private sector lenders, or a combination of the two. Direct lending to the project can be problematic if it involves the on-lending of funds borrowed from donors by the government, because there are always charges levied by the intermediary, usually either the Ministry of

Finance or the Central Bank, or both. These charges can raise the cost of borrowing by the project to levels associated with private sector lending. Sovereign guarantees can also be problematic, as those are contingent liabilities that the ministry of finance should be accounting for via a debt or risk management unit, with associated line items in the national budget reflecting the unit's statistical estimate of the probability the guarantee will be called.

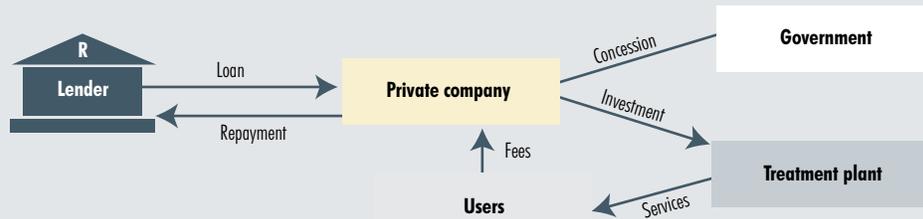
Recording the statistical estimate of calls on sovereign guarantees creates expense line items in the National Budget, so there is a real cost to using such guarantees. Investment is another form of government financial participation in the PPP project. It is quite common in PPP infrastructure projects for government, to purchase the land required for the project, that represents an investment of public funds. In a PPP project, the public partner is entitled to returns on equity just like the private partner.



Source: South African PPP Unit

Chart 2. Corporate Finance

- A private company borrows funds to construct a new treatment facility and guarantees to repay lenders from its available operating income and its base of assets.
- The company may choose to contribute its own equity as well.
- In performing credit analysis, lenders look at the company's total income from operations, its stock of assets, and its existing liabilities.
- The loan shows up as a liability on the company's balance sheet ("Mining the Corporate Balance Sheet").



Source: South African PPP Unit

The **corporate finance** component (Chart 2) of a PPP Project involves providing the lender(s) with recourse to the Borrower's, or if the Borrower is a new Special Purpose Vehicle (SPV) company that has been established to become the operator then, both the Borrower's and the Borrower's Parent Company's, assets to secure loan repayment.

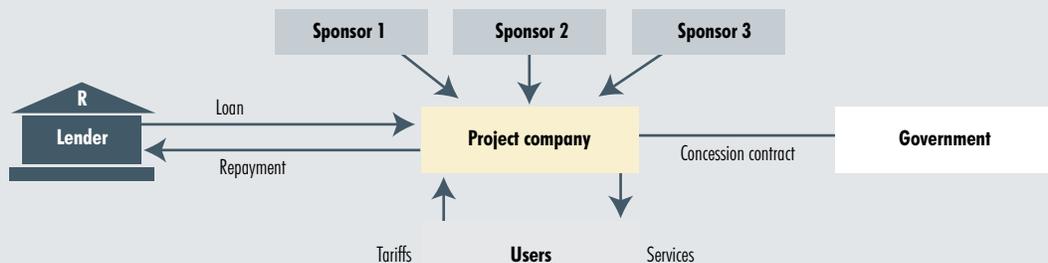
While the Corporate Finance component of PPP Project Finance provides lenders with a broader asset base and a revenue stream from which loan repay-

ment can be secured, there is additional risk to the Lender. The future asset values and revenues of the borrower's parent company depend on factors other than the financial viability of the project. The parent company may have multiple product lines and multiple layers of management to manage those lines, thereby creating a wider range of risks for the lender.

The **Project Finance** component (Chart 3) of PPP Project Finance can be either "non recourse" or "limited recourse" financing, which means the

Chart 3. Project Finance

- A team or consortium of private firms establish a new project company to build, own and operate a specific infrastructure project. The new project company is capitalised with equity contributions from each of the sponsors.
- The project company borrows funds from lenders. The lenders look to the projected future revenue stream generated by the project and the project company's assets to repay all loans.
- The host country government does not provide a financial guarantee to lenders; sponsoring firms provide limited guarantees. "Off-Balance-Sheet" financing.



Source: South African PPP Unit

lender's access to the assets and revenue streams of the borrower and/or its parent company is entirely or partially limited. Funds to repay the loan are supposed to come entirely or partially from the project.

Although the non-recourse or limited-recourse feature of project finance limits the lenders' access to the borrower and/or parent company assets and revenues. It also limits the array of risks that the lenders have to consider in making the loan. The project has one group of services and one management team, so if the lender can be comfortable with the service provision risks and is confident of the Project's management team, then the decision to make the loan might be easier than it would under a corporate finance scenario.

PPP projects are usually financed through a blend of corporate finance and project finance. The borrower's parent company, or financial sponsors, if there is more than one legal entity supporting the Project finance effort, provides the lender with partial loan repayment guarantees. For it/them, this represents the "off-balance-sheet" financing.

Payment Mechanisms

There are a wide variety of payment mechanisms in PPP Project Finance. Loans can be either senior debt, in which the loan payments must be made regardless of the financial performance of the project, or they can be subordinated debt, in which case, the loan payments have to be made to the extent that the project earnings and profits are realized.

Sometimes, potential equity investors will make available "quasi-equity" in the form of loans that can be converted into equity at the option of the lender. In such cases, when the investors approve, the borrower may give them equity in lieu of loan payments. It is common practice, in "loan workout" situations, to offer debt-to-equity exchanges, even if the loans were not originally structured as convertible debt.

It is also common practice to provide lenders with "step-in rights" via which they may intercept certain categories of revenues to cover debt service, or seize assets that they will sell in order to cover the debt

service, or even take over the project in event of default.

Reasonable Returns

There are two kinds of returns: debt returns and equity returns. They are both measured by performing discounted cash flow (DCA) analysis using a discount rate equal to the weighted average cost of capital (WACC). The DCA analysis will reveal the financial internal rate of return (FIRR) for both debt and equity.

What is "reasonable" is a matter of negotiation, but generally the reasonable rate of return on debt is the interest rate offered by the lender. The reasonable rate of return on equity is an estimate of what the investors in the host country, in the relevant sector usually expect in order to be willing to invest their equity, and partially a matter of negotiation in agreeing what tariffs will be allowed and what levels of operations and maintenance will be required in order to meet the service delivery standards in the concession contract. In such negotiations, the operator and the government will agree on an equity FIRR and then during the concession period there will be periodic financial audits to see if that FIRR is being realized. If it is lower than agreed, then the government might offer a higher tariff or a longer concession period. If it is higher than agreed, then the government might indicate a concern that operations and maintenance costs are too low, because the operator is not properly maintaining the Facilities, or seek to reduce the authorized tariff.

Incentives for Investors

Traditionally, governments have offered "investment incentive" schemes that focused on tax holidays, tax exemptions, labor training grants, import duties exemptions, subsidized land and/or buildings provision. The global experience has been that such direct incentives do not materially impact the decisions of potential investors and lenders. The sole exception is the investment tax credit, in which investors get a tax credit equal to a percentage of the costs of plant and equipment, purchased and

installed for the project. Accordingly, such direct incentives are not generally considered advisable.

The most effective incentive for any project, including PPP projects, is to provide the investors, lenders, and operators with a “level playing field” in which they have access to timely, effective, and equitable resolution of contract disputes, and in which they have equal access to capital, permits, licenses, raw materials, labor, and other key inputs vis-à-vis other players in the market. In order to create such a level playing field, governments must remove distortions in the economy by removing monopolies, minimizing economic interventions, and providing mechanisms for fair and transparent dispute resolution.

PPP Funding Facilities

There are two kinds of PPP funding facilities. The first is a **project development facility (PDF)**, which is a pool of money, usually donor grant funded with possibly some contribution from the government. A Trustee, reporting to a Board that is financially and politically independent from the government, manages the money. It has a fiduciary role to ensure that the funds are expended in accordance with donors and government procurement rules and in accordance with the relevant grant agreements.

A PDF hires independent consultants upon request from the PPP unit, to conduct feasibility analysis of PPP projects. The reports produced are usually pre-feasibility studies and feasibility studies. Often, there is a cost-sharing arrangement between the PDF and the project sponsors, the government agency that proposes the PPP project, as opposed to Financial Sponsors, which are members of the finance consortium, whereby the cost of the consulting services is shared at different ratios depending on the stage of the project in the PPP project cycle.

Some PDF-type organizations are formed as stand-alone entities, i.e. not tied to any PPP Unit. There are numerous such facilities and they provide PDF-type assistance to a broad spectrum of potential PPP projects. The funding for such stand-alone facilities is usually provided by donor

grants, in some cases with contributions from governments. The International Finance Corporation (IFC) participates in many such facilities (see Table 3), along with a wide array of bilateral donors. One example of an IFC supported PDF is the **Private Enterprise Partnership (PEP) Southeast Europe Infrastructure**, formerly known as the Balkans Bid Facility. In practice, such facilities usually focus on small and medium scale enterprises, as opposed to the large and costly infrastructure projects that tend to dominate the portfolios of PPP Units.

The other kind of facility is a **PPP project finance facility (PFF)**. Such PDF-type organizations facilitate the financing of PPP projects by channeling debt and equity funds raised from donors and governments into financing consortia that they help organizing to finance the PPP projects. Examples of such facilities are the **Private Infrastructure Investment Center of Korea (PICKO)**, the **BOT Center (Philippines)**, the **Bureau of Infrastructure Investment of Sri Lanka (BOI)**, the **Infrastructure Investment Facilitation Center of Bangladesh (IIFC)**, and another IIFC organization being organized in India by the ministry of finance. In all cases, public sector finance is leveraged with private sector finance, in many cases the public sector support providing a credit enhancement function for project debt securities. These PDF-type facilities are not necessarily associated with a PPP Unit.

Case Study

- **Philippines BOT Center Project Development Facility:** The Project Development Facility (PDF) is a revolving loan facility administered by the BOT Center, formerly the Coordinating Council for Private Sector Participation (CCPSP), to assist the Philippine Government Implementing Agencies (IA's) and Local Government Units (LGU's) for PPP project pre-investment activities. The PDF was designed as a loan rather than a grant facility to promote sustainability of the fund and ensure greater commitment on the part of IA's and LGU's to successfully tender proposed projects. Figure 5 describes the process by which IA's and LGU's access and reimburse the PDF.

TABLE 3. IFC Supported Project Development Facilities

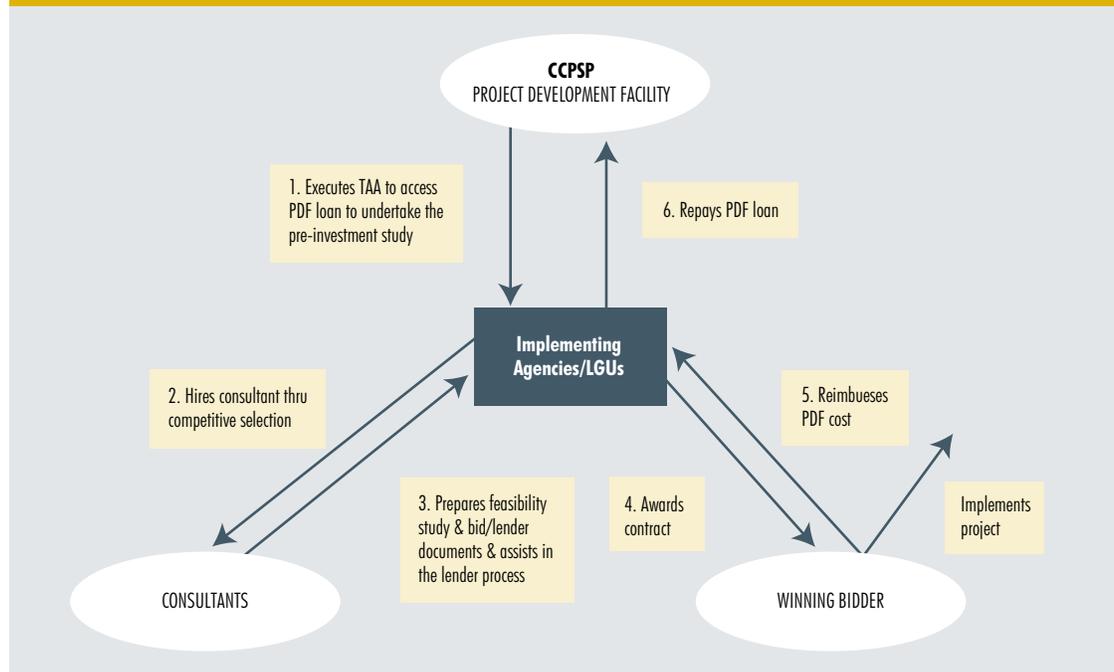
PDF Name	Overview	Website
China Project Development Facility (CPDF)	Coverage: Sichuan Province, Southwest China. Established in 2001. Provides enterprise level support, capacity building, and business enabling environment assistance.	www.cpdf.org
Latin America & the Caribbean Facility	Coverage: Bolivia, Honduras, Nicaragua, Peru. Established in 2003. Focuses on sectors with high potential for export, facilitates SME access to finance, supports linkage programs, and improves the business enabling environment.	http://www.ifc.org/ifcext/lac.nsf/Content/SMEfacility
Mekong Private Sector Development Facility (MPDF)	Coverage: Cambodia, Lao PDR, Vietnam. Established in 1996. Provides company advisory assistance and develops business support services.	—
Private Enterprise Partnership (PEP)	Coverage: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Mongolia, Russian Federation, Tajikistan, Ukraine, and Uzbekistan. Established in 2000. Promotes private sector investment and support for SME growth, and improves the business enabling environment.	http://www.ifc.org/pep
Private Enterprise Partnership for Africa (PEP-Africa)	Coverage: Sub-Saharan Africa. Established in 1986. Provides business advisory and enterprise support services.	—
Private Enterprise Partnership for the Middle East & North Africa (PEP-MENA)	Coverage: Afghanistan, Algeria, Bahrain, Arab Republic of Egypt, Islamic Republic of Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Pakistan, Saudi Arabia, Syrian Arab Republic, Tunisia, United Arab Emirates, West Bank and Gaza, Republic of Yemen. Established in 2004 by combining the North Africa Enterprise Development facility and the Private Enterprise Partnership for the Middle East. The new facility focuses on improving the business enabling and regulatory environment, strengthening the financial sector, harnessing the growth of small and medium size enterprises and their support services such as business organizations and consulting firms, helping restructure and privatize state-owned enterprises, and developing viable private sector and public-private partnership projects, especially in infrastructure.	—
Pacific Enterprise Development Facility (PEDF)	Coverage: Pacific Islands, Papua New Guinea and Timor-Leste. Established in 1990. The primary activity of PEDF is to facilitate and support best practice in the design and delivery of business support services to the private sector in the Pacific region with a particular focus on small to medium enterprises. PEDF works with institutions, organizations and associations on capacity building and strengthening in a wide range of areas across industry sectors and financial markets.	—
Program for Eastern Indonesia SME Assistance (PENSA)	Coverage: Eastern Indonesia: Kalimantan, Sulawesi, Bali, East Nusa Tenggara. Established in 2003. It improves access to finance, the business enabling environment, develop sustainable supply chain and provide linkages in the agribusiness, oil, gas and mining, handicraft industries.	http://www.ifc.org/pensa
South Asia Enterprise Development Facility (SEDF)	Coverage: Nepal, Bangladesh, Bhutan, Northeastern India. Established in 2002. Improves access to finance, access to business development services, and the business enabling environment.	http://www.sedf.org/
Private Enterprise Partnership Southeast Europe	Coverage: Albania, Bosnia and Herzegovina, FYR Macedonia, Serbia and Montenegro. Established in 2000. Provides investment and capacity-building services and improves the business-enabling environment.	http://www.ifc.org/ifcext/pepse.nsf/Content/PEPSEL_Home

Source: www.ifc.org

Further reading on PPP funding facilities can be found at the PEP Southeast Europe website. In addition, an international survey of PPP funding

facilities is available for download at http://pdf.usaid.gov/pdf_docs/PNACY218.pdf.

Figure 5. Operation of the Philippines Project Development Facility



Source: Philippines BOT Center <http://www.botcenter.gov.ph/pdf/PDF3.htm>

Case Study

- Germany's Initiative D-21** – Initiative D-21 is the largest e-government PPP in Europe, with hundreds of private partners providing value-added services over an ICT platform. The project financing modalities for network build-out, maintenance, and operation; government inter-agency coordination utilized a wide array of PPP modalities. Privacy and information sharing issues were substantial, dealing with the trade-off of convenience and confidentiality. Substantial financial participation was obtained from the European Commission. There was extensive exploration of G2G, G2C, G2B, B2B, and B2C dynamics, system regulatory issues and modalities, and improved service delivery for government.

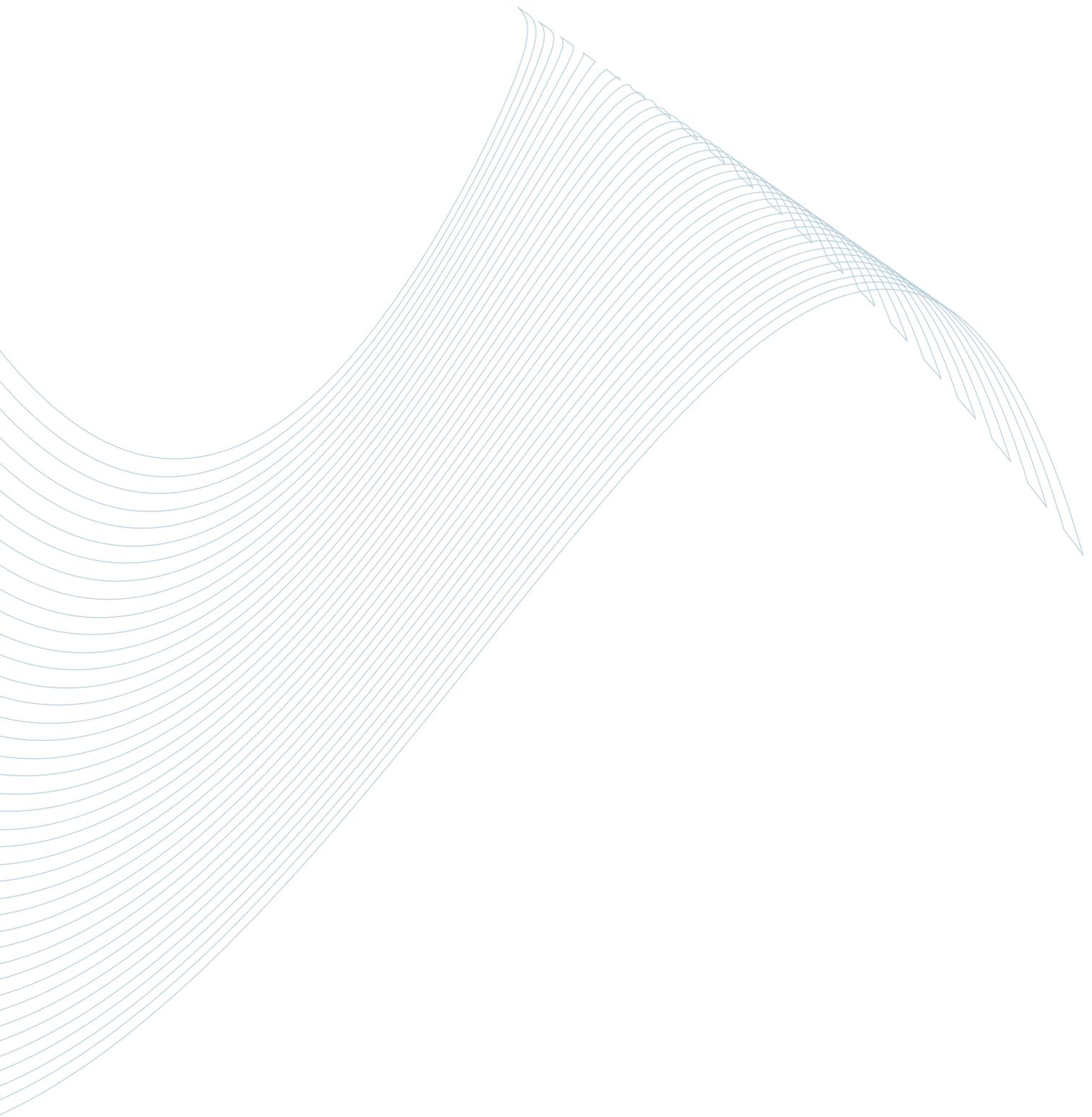
The backbone for the system, actually a system of data interchange points on the Internet, was developed using European

Commission funds in combination with investment by the Government of Germany. This reduced the level of investment that the private service providers would have to make, thereby enabling them to achieve agreed rates of return on their investments from revenue-sharing arrangements relating to the service provision. In organizing the financing for this massive project, extensive negotiations were held with prospective private sector service providers, focusing on the following : (a) what should be the agreed equity financial internal rate of return; (b) what service standards, both quantity and quality, should be required of the operator; (c) what will be the mechanisms for generating and processing of revenues from consumers; and (d) what should be the government's participation in the revenue stream.

More details on this case can be obtained from the project website, www.initiative21.de.

Resources:

- Germany's Initiative D-21 – <http://www.initiatives21.de>
- Partnerships UK – <http://www.partnershipsuk.org.uk>
- Private Enterprise Partnership for Southeast Europe – www.bidfacility.com
- “Project Development Facilities: A Survey of International Experience,” USAID, Booz, Allen & Hamilton, 2002, http://pdf.usaid.gov/pdf_docs/PNACY218.pdf.



What are the Major Risks in PPP Projects and How are they Managed?

Introduction and Risk Sharing

Because a PPP is a partnership, the process of determining which partner will be tasked with managing each of the categories of risk reveals key issues and challenges. In the **price and quantity of services** that are projected over the concession period are essential inputs to the financial projections, so those are a good starting point in risk analysis.

- **Price** should be determined by market factors to the extent possible. In order to protect consumers from being exploited by the service provider, it is common for a PPP project to have some degree of monopoly in the contract, to enable the private party to recover its investment at an agreed rate of return, governments often regulate prices. If there is no price regulation, then the price represents a pure commercial risk that is borne entirely by the private partner. If there is price regulation, then the government must accept some of the price risk.
- **Quantity** is estimated by demand projections. Such projections are notorious for their lack of reliability; it is not unusual for the demand to be realized at levels up to 75% over/under projected levels. Quantity of demand is generally considered to be a commercial risk, but in many cases, governments have control over factors that can directly impact the quantity of the demand. For example, a toll traffic volume can decline precipitously if the government widens the parallel, toll-free road. In structuring PPP transactions, quantity of demand should be treated as a commercial risk, therefore borne by the private partner, but the Contract must clearly define how much compensation, and what form of compensation, the government must pay the private partner in the event that the government commits an act that adversely impacts the quantity of demand.

Categories of Risk

PPP is a very popular mechanism for developing electronic infrastructure, such as e-government projects; transport infrastructure such as airports, seaports, and railways; public works infrastructure such as roads, toll roads, bridges, and public utilities, such as telecom, electricity, and water; and buildings. Such projects usually have a long **construction period**, and construction delays and cost overruns are a persistent and recurring problem in PPP infrastructure projects.

Generally, the **construction period risk** is allocated to the private party, which is usually required to provide a bond to ensure that, if it experiences delays and/or cost overruns in construction beyond a certain point, then the government can liquidate the bond to cover its costs associated with such delays and/or cost overruns. In the contract, however, things under the reasonable control of the public partner, which can potentially have adverse impacts on construction period risk, such as environmental clearances, land acquisition, notice to proceed, certificate of operational worthiness, are identified in the contract as risks allocated at least partially to the government, as represented by the contracting authority. This means that if the government fails to perform, it must then compensate the private party for losses incurred as a result of such failure.

The next key category of risk that needs to be assessed and allocated is the **operations and maintenance (O&M)** risk. The private partner must conduct a sufficient O&M to enable the facilities to deliver the required levels of quantity and quality of service. There has to be a section of the contract in which O&M requirements are clearly defined, with their associated engineering specifications. Normally, the sector regulator inspects the facilities at periodic intervals to ensure compliance. In many cases, the

Figure 6. Risk Allocation Process

	Step Description	Outcome
Preliminary Risk Identification	Identification of the principle risks associated with the design, construction and operation of an infrastructure project.	Preliminary list of risks
Preliminary Risk Allocation	Formation of an initial view as to whether the Contracting Authority or the Contractor is likely to be best able to manage each risk. Risks are then either allocated to the Contracting Authority, the Contractor, or identified as risks to be shared.	Preliminary risk allocation
Qualitative Risk Assessment	Qualitative assessment of the potential significance or impact of each risk. The results of the qualitative assessment are combined with the list of risks and the risk allocation to provide a preliminary risk matrix for the project. A risk management plan is prepared for those risks that are to be retained by the Contracting Authority.	Preliminary risk matrix Risk management plan
Preliminary Risk Quantification	Preliminary assessment of the monetary value of the most significant risks identified in the preliminary risk matrix. The monetary value of the most significant risks transferred to the Contractor is included in the Financial Comparator.	Risk adjusted Financial Comparator

Source: Partnerships Queensland

regulator will delegate the inspection role to the executing agency, which is the government body that is tasked with executing the activities required of the contracting agency in the contract.

The O&M risk is normally allocated to the private partner. Such risk is particularly important to the government when there are assets that have been consigned to the concessionaire for provision of the services. A common example is a railway track, for which the operator is provided a right of way, and for which it pays the government a track access charge. In the Contract, the concessionaire will be required to perform all reasonable and necessary O&M on these assets, so that, at the end of the concession period, they can be returned to the government in their original condition, less normal wear and tear.

Quality of service risk is covered to some degree by O&M requirements, to the extent that quality of service is dependent on the quality of the facilities. But in PPP projects, it is essential to keep the focus on the outputs. How the Concessionaire delivers the outputs is its responsibility. Output Specifications are a key component to any PPP project.

The categories above are the key areas of risk that have to be assessed and allocated for PPP projects.

There are, of course, many other kinds of risks but the above are the most significant except for projects involving cross-border finance. **Financing risk** includes not only the risk that the financing source will fail to perform, but also the risk that the operator will default on its loan payments and the lender will use step-in rights to take over the project. In the case of cross-border finance, Currency risk can play a major role in determining the success or failure of the project. This applies not only to the risk that comes with borrowing hard currency when the revenues of the project are local currency, but also the risk that the government will not have sufficient foreign exchange reserves to meet its obligations under a contract denominated in hard currency. Contracts should be in local currency, as well as borrowings, so that any currency risk can be minimized.

Roles and Responsibilities

The **roles and responsibilities** of the parties to a PPP contract are:

- **Bidder** – this is the private legal entity or consortium that submitted a bid and was awarded the concession;

- **Contracting Authority (CA)** – this is the government body that has the legal authority to execute the concession agreement on behalf of the government;
- **Executing Agency (EA)** – this is the government body that is tasked with performing all of the obligations of the government under the Agreement;
- **Regulator** – there always has to be a regulator that will oversee the contract and protect the interests of all parties to the contract as well as consumers; and
- **Third Parties** – if any third parties are bound by any provisions of the contract then those parties should execute the agreement.

Care must be taken in confirming that the contracting authority may legally bind other government agencies that might be involved in the contract and service provision. This is a weak area in many PPP Contracts, for example a ministry of public works agrees to acquire all land necessary for the project, but in practice the funds for such purchases have to come from the ministry of finance. If the ministry of finance is not going to be a signatory to the agreement, then the contracting agency should be required to produce a letter of commitment from the ministry of finance for the land purchases.

Key Issues and Challenges

The above-described synopsis of roles, responsibilities, and risk sharing provides some insight into how one can manage **key issues and challenges** often faced in PPP projects. A brief summary of such issues and challenges is provided below:

- Because PPP projects are essentially business joint ventures, and government officials are more familiar with traditional procurement than with business, it can be difficult for the government to assemble a **contract negotiations** team that will be able to handle the virtual “army” of lawyers, accountants, and highly skilled negotiators that the private sector will mobilize for large projects. This creates a necessity for extensive consultant assistance to protect the government’s interests.
- To protect the public interest, **ownership** of the “backbone” or “basic assets” or “platform” is

often kept with the government, such as telecoms fiber optic backbone, airport runways and taxiways, and internet-based platform for e-gov. Although the focus of PPP is on service delivery and not ownership, the government might want to retain ownership, or have a transfer of ownership at the end of the concession period, to protect the public interest.

- **Tariff regulation** is a recurring area of complexity in PPP projects. The mandate of the government is to protect the consumer, but this conflicts with the private sector operator’s need who wants to have prices to fluctuate in accordance with market forces. This dichotomy makes the presence of a politically and financially independent regulator particularly important in PPP projects. Unless tariff regulation is conducted by an independent regulator, future disputes between the parties regarding tariffs and tariff adjustments are likely to occur.
- **Subsidies** are an area of concern in PPP projects. The government’s mandate is to protect the consumer by ensuring the availability of “basic services” for low-income groups, and this mandate conflicts with the PPP project’s goal of profitability. Subsidies are required when the government requires the operator to provide such services to low-income groups, like railway passenger traffic. Yet governments often find that they are unable to make such subsidy payments and then disputes arise.
- There is a continuing issue of **response time** in PPP projects. While the private operator can respond quickly to changes, the government is usually less able to be responsive in a timely manner. Because of this, disputes often arise in PPP projects over a government delay in making a tariff adjustment or in issuing a permit, while the market forces necessitating such acts have already occurred.

Case Studies

- **A Failed PPP – South Africa Golaganang E-Government for Development:** Golaganang, meaning ‘come together’, was a PPP between the South African Government and private sector IT firms. It was initiated in 2002 to provide public service employees with an affordable computer bundle including PC, operating system,

software, Internet connectivity, warranty and computer skills training. The goal was to increase digital literacy among public servants and consequently better public service delivery. While the initial project hailed a prescription of shared risk, the private operator later insisted on government guarantees to cover commercial risk. Unable to offer such guarantees, the DPSA sought alternative options for continuing the project, but no financially viable options were found. Assessments of the project determined that its failure was due to trust without due diligence. Too much weight was placed on partnership, resulting in a misunderstanding of where the financing was coming from.

- **India MCA 21** – Originally named DCA 21, this case includes a number of sub-cases that illustrate the various modalities of PPP for e-government, including: (1) community-level programs in which the community provides the basic infrastructure and provides some user interfaces, while the private sector provides additional user interfaces on a for-profit basis; (2) issuing licenses to the private sector for BOOT fiber optic systems for which the operator can generate profits by selling excess bandwidth, for high-speed data transfer, not used by government; (3) government providing the ICT backbone while the PPP is used to bring the private sector for customer interface and B2C transactions; and (4) different kinds of revenue generation with modalities for revenue sharing between the government and the private partners.

This PPP project was designed to solve many processes required for government approvals, such as formation of a new company, for which owners had to obtain multiple permits from multiple ministries. The volume of new business applications was so high that, in each ministry,

there was a long waiting period while the overloaded public official processed the applications. This problem was exacerbated by the increasingly decentralized nature of the Indian Government. Consumers had to deal with multiple levels of government, in addition to multiple agencies, at each level. The result was continually increasing dissatisfaction among stakeholders regarding a perceived lack of responsiveness on the part of the government, and increasing corruption at all levels as private parties offered more and more financial incentives to government officials to put their applications “on the top of the pile.” This project, therefore, is an excellent example of how PPP can be used to improve public sector service delivery and reduce commercial risk on the part of consumers, while reducing political risk for the government.

More details on this case can be obtained from <http://www.mca.gov.in/>.

Resources

- Ministry of Company Affairs India – MCA 21 initiative for e-government, <http://www.mca.gov.in/>
- e-Procurement.gov.in – Comprehensive e-infrastructure of the Government of India allowing for eProcurement, eTendering, eSelling, and eAuctions, <http://www.eprocurement.gov.in>
- Irish Central PPP Policy Unit – www.ppp.gov.ie
- “(Not) Providing Computers for all South African Civil Servants,” Alan Levin, E-Government for Development, Success/Failure Case Study No. 26 <http://www.egov4dev.org/golaganang.htm#title>

What are the Best Practices in Tendering, Evaluating, and Negotiating PPP Transactions?

Tendering and evaluation of PPP projects include the usual project appraisal activities of research and analysis to prepare pre-feasibility studies and feasibility studies. But for PPP projects several distinct sequential steps should be followed:

- **Affordability:** (a) Conduct consumer demand, affordability, and willingness to pay surveys to determine whether the tariff rates required for the project to be financially viable are acceptable and affordable to people who will be the consumers of the services provided by the project; and (b) perform a review of budget resources for government's projected share of costs in the project; if there are not sufficient resources in the current budget, determine whether the required amount can be put into the next fiscal budget.
- **Risk Allocation:** Does the proposed PPP project appropriately transfer risk to the private sector, and does the resulting risk allocation matrix appropriately match each category of risk with the partner best able to manage that kind of risk? The general principle is that the public sector partner manages political risks while the private sector partner manages commercial risks. In practice, there are always a few categories of risk that the partners must share, like tariff risk, which fluctuates based on both commercial demand/supply factors and political factors.
- **Value for Money:** The proposed PPP project must give the government more value for money than it would get if it did the project without a private sector partner. It will be necessary to develop a "base case" scenario, in which the cost of doing the project with no private partner is estimated. Then, a "public sector comparator" is calculated to give a figure that can be compared to the cost of doing the project with a private sector partner. In the final stage of selecting which partner to accept, the financial proposals will be evaluated and ranked largely on this value for money criterion.

As the PPP project moves through the tender/bid process, the 3-stage appraisal criteria described above are applied in the following manner:

1. **Request for Qualifications (RFQ):** The tender/bid process begins with the RFQ, unless the requirement is consulting services, in which case the process begins with a Request for Expressions of Interest, and within the RFQ information about the project must be presented. At this stage, the pre-feasibility study must have been completed, so that such information can be provided, and the **affordability** test must have been passed. Usually, a PPP Unit performs this test, and provides guidance to the project sponsor regarding the tender/bid process.
2. **Request for Proposals:** While the submissions in response to the RFQ are being received and evaluated, the project sponsor, the government body proposing the PPP project, should develop the pre-feasibility study into a full feasibility study. At the same time, the PPP unit should be completing its **risk allocation** review, the result of which should be a draft contract, or Draft Concession Agreement, revealing the proposed allocation of contractual obligations between the partners. The results of the feasibility study should be included, in summary form, in the Request for Proposals (RFP) along with a disclaimer that the project sponsor, or the Contracting Authority that will execute the Contract, does not represent or warrant that any of the information is accurate, and that proposed private partners must conduct their own due diligence.
3. **Bidder Selection:** After the technical proposals have been evaluated and scored the financial proposals will be opened. The information contained in the financial proposals will enable the tender committee to make its selection, and will also enable the PPP unit to determine which proposal offers the government the best **value for money**, for the amount of financial resources

the government must contribute to the PPP project, and which bidder offers the most benefits in return for such contribution. The interpretation of “benefits” can include both financial and economic benefits, usually expressed in terms of service delivery.

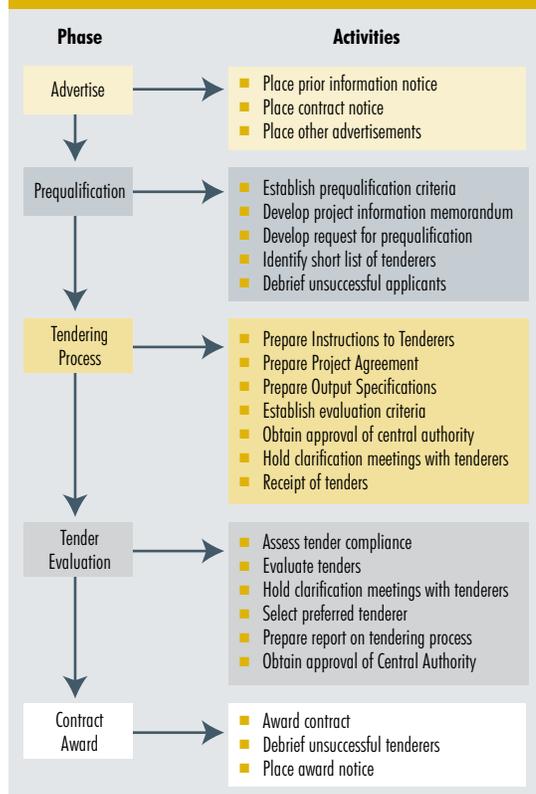
4. **Negotiation** begins after the preferred bidder is selected via the process described above. The focus is the draft contract, or Concession Agreement, that was included in the RFP. The government should take care to ensure that members of the negotiation committee have experience in PPP transactions and understand the **business aspects of the project**. This requires skills that are not usually found in negotiation committees for standard project procurement. Non-PPP projects do not carry the complex business partnership aspects of a PPP project, in particular the risk allocation that is a cornerstone of PPP transactions.

The focus of the contract negotiations for PPP projects is **Service Delivery Standards**, in terms of both quantity and quality of service, which represent an essential part of the contract. In traditional procurement, the focus is on getting what the government wants to buy, at the lowest price and the least risk necessary. In PPP procurement, the focus is on getting the highest quantity and quality of service for consumers, within the budget that the government has allocated for the project. Value for money, rather than cost savings, should be the primary objective of contract negotiations.

Case Studies

- **South Africa Department of Labour ICT:** This case illustrates the cost savings and improved service delivery of government services when PPP is used to bring ICT technology into a previously hard copy environment. G2C, G2B, and G2G modalities are identified and explored regarding the increased convenience for Citizens, profit options for business, and intra-governmental information-sharing dynamics. The case also illustrates the impact of a PPP structure for labor mobility and improved access to employment opportunities, along with online skills training for career advancement.

Figure 7. PPP Project Evaluation and Tendering Process



Source: The World Bank

Labor represents one of the most daunting challenges for government IT systems. The array of retirement systems requires tracking personnel job histories. The public service systems require easy access by prospective employees to the application process, and its related testing processes. It requires tracking current employee histories and their qualifications for advancement. Labor IT systems include the highly complex payment of salaries and bonuses, and vacation or sick time accrued. By contracting out service provision to the private sector, this project enabled the Government of South Africa to provide prospective and current employees with quick and easy access to information, forms, tests, pay records, time-off records, and credential records necessary to manage their careers. More details on this case can be obtained from www.labour.gov.za

- **FedBid.com** – A private company specializing in web-based reverse auctions that allow governments to obtain supplies at lower costs while spending less manpower on negotiating complex contracts and finding vendors.
- **Controversy in PPP – Bulgaria E-Government Procurement Process:** In August of 2004, the Government of Bulgaria awarded private IT firm HP a contract to design the country's e-government system. The contract was awarded amidst controversy that the projects tendering process was biased. The Bulgarian Association of Information Technology launched a formal complaint claiming that the evaluation criteria in the tender package were written in such a way

that only one company, HP, would be a qualified bidder. This case is an example of controversy in e-government PPP due to perceived lack of transparency in the procurement process. E-Gov News, Monday, September 4, 2006. <http://www.egovnews.org/?s=public-private&paged=2>

Resources

- South African Department of Labour – <http://www.labour.gov.za>
- South African Department of Treasury – <http://www.treasury.gov.za>



What are the Lessons Learned in Monitoring PPP Agreements?

Contract monitoring procedures are components of a successful PPP project. Contracting agencies and regulatory bodies must be vigilant in monitoring the technical and financial requirements of all PPP projects to ensure appropriate performance and mitigate stakeholder complaints. A government considering PPP models for e-government projects should bear in mind the following:

- *Contract design is the most important part of contract compliance.* A poorly designed contract will be difficult to enforce, leaving the government, consumers, and the private partner open to unnecessary risk. Clearly established guidelines for PPP arrangements are a critical component to the legal framework.
- *Contracts must contain the necessary contract monitoring clauses.* Specifically, the contract should clearly articulate: how the technical performance of the private partner will be evaluated; procedures for collecting, managing, and reporting data for internal and external (like media, constituents) use; scenarios under which tariffs, if applicable, may be raised.
- *Contracts should clearly specify who is responsible for monitoring.* A good e-government PPP contract identifies the individual, department, or agency with oversight responsibilities so that the private partner...knows who to talk to...about when any issues or challenges in project implementation arise. Many governments choose to set up a contract-monitoring unit (CMU) for large-scale PPP projects.
- *Contracts must include dispute resolution procedures.* Dispute resolution procedures define the context under which contracts can be renegotiated, under which the government or private sector can default on the agreement, such as “force majeure”, and what third party body will arbitrate, in the event that disputes cannot be resolved between the private partner and the government contracting agency.

Case Studies

- **Austria’s ADONIS: A Failed E-Government PPP** – In early 2002, the federal Government of Austria initiated a PPP project for the establishment of ADONIS (Austrian Digital Operating Network for Integrated Services), a nationwide security radio network for the police, fire brigade, ambulance and army. Designed as a BOOT model, the private partners would invest in the system, and recover capital expenditure costs through charges paid by the network users. Various implementation problems led to its collapse in June 2003. Among these were (1) a failure to secure the estimated number of commercial users, whose participation was required to make the project commercially viable and affordable, resulting in significant fee increases; (2) technical difficulties that led a major partner, the Austrian Red Cross organization, to threaten not to join the project; (3) growing number of negative media reports about the project; and (4) hostile and accusatory communications between public and private partners.
- **India’s eSeva: Lessons from a Successful E-Government PPP** – eSeva is a system of Rural IT centers in India developed and staffed by private contractors where citizens can access government and commercial services, such as utility payments, land titling, marriage registration, Western Union, in one location. Often highlighted as a good e-government example, the success of this project is attributed to a few key factors: (1) it had a political champion in government that ensured stakeholder support and availability of public funds; (2) solid technical design of the IT infrastructure; (3) use of the PPP model for financing and implementation of the project. Challenges of the PPP project included: (1) weak enforcement of a poorly designed service contract; (2) difficulty in

supervising rural centers; (3) variation in quality of service center managers, (4) instability in tenure of directors (5 directors in a period of 4 years).

Resources

- Six Guiding Principles to Achieve Sustainable PPP Arrangements, by Cledan Mandri-Perrott, http://www.ip3.org/pub/2005_publication_002.htm.
- “Public-Private Partnerships: Public Affairs Management in the Twilight Zone of Public and Private Sector,” ADONIS Case Study, Gerhard Hammerschmid, IFSAM VIIIth World Congress, 2006. http://www.ctw-congress.de/ifsam/download/track_4/pap00344.pdf
- “Lessons of PPP in the Austrian ICT and E-Government Sector,” Gerhard K. Wagener, Austrian Private Association for the Information Industry. www.global-ict.mincom.gov.az/presentations/24.ppt
- “What Went Wrong: Lessons from Cochabamba, Manila, Buenos Aires, and Atlanta,” Kathleen Slattery, *Privatization Review*, The Reason Public Policy Institute, 2003. <http://www.rppi.org/apr2003/whatwentwrong.html>
- “E-Government,” Patricia Pascual, UNDP-APDIP, 2003. <http://www.apdip.net/publications/iesprimers/eprimer-egov.pdf>
- One Stop Shop for Electronic Delivery of Services: Role of Public-Private Partnership, Subhash Bhatnagar, Indian Institute of Management, <http://www.iimabd.ernet.in/~subhash/pdfs/OneStopShopForElectronicDeliveryJun2005.pdf>.
- Effectively Managing Professional Service Contracts: 12 Best Practices, Sandra Fisher, Michael Wasserman, and Paige Wolf, IBM Center for the Business of Government, 2006. <http://www.businessofgovernment.com/pdfs/FisherReport.pdf>

What are the Gaps in our Knowledge of PPP in E-Government?

This Knowledge Map is an attempt to document “what we know” about Public-Private Partnerships in e-government. However, PPP in e-government is still a new trend, and there are knowledge “gaps” in the field. Below is a brief summary of these knowledge “gaps”, the developments that are working to bridge those gaps, and an overview of what has worked, and not worked thus far.

Knowledge Gaps

- *Case Studies are not well documented:* E-Government is relatively new, and the use of PPP for e-government is even newer, leaving inadequate time to assess whether or not the e-government PPP initiatives have been “successful.” For example, the useful website, E-government News (www.egovnews.org), which includes reports on e-government projects launched through PPP models, has only been operational since January 2006.
- *PPP and E-Government Dialogue is not Harmonized* – There are a growing number of initiatives and websites that attempt to document best practices and lessons learned in PPP and also in e-government. There is not a specific source that discusses highlights in the application of PPP to e-government.
- *Didactic material on PPP in E-Government is sparse:* While there are countless articles, websites, and projects dedicated to dispersing excellent didactic material on public-private partnerships, their application is largely confined to the physical infrastructure sectors.
- *Many officials and specialists involved in the e-government and ICT sectors are unfamiliar with the potential role of the private sector in general, and the use of PPP as a risk-sharing tool in particular.* Most of these individuals have limited experience with the economic and financial aspects of “unbundling” a public service via private investment, management, and technology.

What Has Worked

- *Citizen Service Centers* – In areas where the Internet coverage in households is low, government service centers or kiosks have been successful e-government PPP applications. Here, citizens have been able to access the Internet to carry out several citizens to government transactions such as vehicle registration, utility bills, business licensing, from a centrally located service center staffed by professional ICT specialists.
- *E-Portals* – Online portals that offer access to government services, as well as private sector commercial services, in one location have been successful in markets where the Internet coverage is high, and widely available. Success of these portals is also dependent on a high-level of Internet security and the user comfort with online financial transactions, as well as a history of contracting out key government functions to the private sector.
- *ICT Infrastructure Development PPPs* – PPPs that involve a transfer of government physical land or infrastructure to the private sector for the purpose of building or improving ICT assets like IT parks, telephony, have been successful in developed and emerging market, where a significant portion of the population is technologically literate and where the country can support large influxes of ICT businesses. Moreover, these types of e-government PPPs are only possible if the government is already experienced in PPP selection, procurement, and monitoring.

...and What Has Not

It is difficult to assess what has not worked in e-government PPP given that they are not widely documented or published.

- *Capital Intensive Projects that are not pilot-tested*
 - Projects, such as a network of citizen service centers/kiosks, cover a large area, and require large investment in computer hardware and human resources. If these services have not been piloted in a small region, the roll-out to the entire project area is more likely to be fraught with high, unsustainable costs.

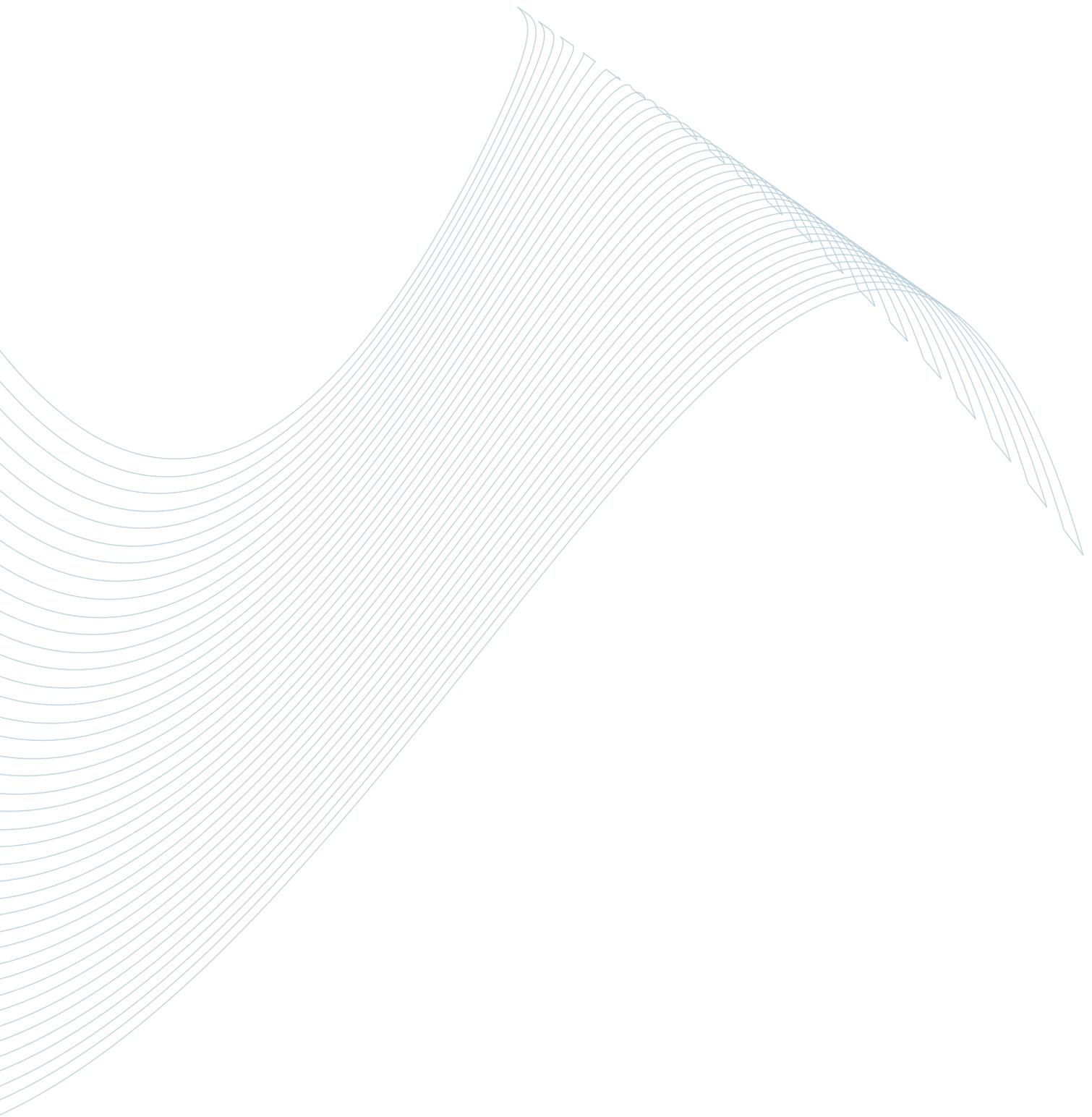
Positive Developments in Bridging the Knowledge Gap

- *Benchmarking Initiative* – The European e-Business Support Network (EBSN) is a developing initiative of the EU to benchmark policy initiatives that support e-business. The network is meant to inform policy makers about successful initiatives in ICT and e-business promotion. The lessons-learned from the benchmarking initiative will be invaluable to governments seeking to implement e-government programs through partnership with the private sector.

Case Studies

The following case studies are developed in the body of the Knowledge Map. Click on the links below to go directly to each case study. It is important to note that each case study was developed within a given context for the purpose of illustrating a specific subject in the Knowledge Map. Therefore, the details included in each case study are not meant to be exhaustive.

- **Andhra Pradesh IT Corridor**
- **Austria's ADONIS: A Failed E-Government PPP**
- **Bangalore One (B1)**
- **Egypt's ICT and E-Government Program**
- **Controversy in PPP—Bulgaria E-Government Procurement Process**
- **E-Authentication Federation**
- **Estonia National ID Card**
- **Estonia Rural Connectivity**
- **FedBid.com**
- **Germany's Initiative D-21**
- **Hong Kong Smart I.D. Card**
- **India MCA 21**
- **India's eSeva: Lessons from a Successful E-Government PPP**
- **Irish Central PPP Policy Unit**
- **Malaysia's Multimedia Super Corridor**
- **National Institute for Smart Government (NISG)**
- **Online Tax Filing in Chile**
- **Philippines BOT Center**
- **Philippines BOT Center Project Development Facility**
- **Philippines BOT Law**
- **Poucatempo Citizen Service Centers**
- **Seat Management for ICT Services**
- **Service New Brunswick**
- **Service@Swansea**
- **Singapore eCitizen Portal**
- **South Africa Department of Labour ICT**
- **South Africa Golanang E-Government for Development**
- **South African Department of Labour Stakeholder Interface**
- **South African National Treasury PPP Unit**
- **South African Public Financial Management Act and PPP Framework**
- **US State Government Web Portals**



Resources and Links

The following is a list of all of the resources listed in the body of the Knowledge Map, including online publications, government PPP organizations worldwide, and other websites with a large compilation of PPP related information.

Online Publications

- “A P3 Primer: Why Are Countries Interested in P3?” Jonathan Loew and Matthew Hensley, The Institute for Public-Private Partnerships, 2002. <http://www.ip3.org/pub/publication002.htm>
- “A Strategic Framework for Consultation and Communication,” Kathleen Slattery, The Institute for Public-Private Partnerships, 2002. http://www.ip3.org/pub/publication2002_009.htm
- “Building Local E-Government through Public-Private Partnerships,” *Information Technology in Developing Countries*, Vol. 15, No. 2, November 2005. <http://www.iimahd.ernet.in/egov/ifip/nov2005/article7.htm>
- “Champion the Philippine BOT Law,” Coordinating Council for Private Sector Participation, The Institute for Public-Private Partnerships, 2001, <http://www.ip3.org/pub/publication014.htm>
- “Closing the Infrastructure Gap: The Role of Public-Private Partnerships,” William Edgars and Tom Startup, Deloitte Research, 2006. http://www.deloitte.com/dtt/cda/doc/content/ca_en_fas_infrastructure_gap_mar07.pdf
- “Digital Signatures Act,” Government of Estonia – http://www.esis.ee/legislation/digital_signatures_act.pdf
- “Effectively Managing Professional Service Contracts: 12 Best Practices,” Sandra Fisher, Michael Wasserman, and Paige Wolf, IBM Center for the Business of Government, 2006. <http://www.businessofgovernment.com/pdfs/FisherReport.pdf>
- “E-Government Services and Public-Private Partnerships Modeling,” by Thomas White, The Institute for Public-Private Partnerships, http://www.ip3.org/pub/publication2002_019.htm.
- “E-Government,” Patricia Pascual, UNDP-APDIP, 2003. <http://www.apdip.net/publications/iespprimers/eprimer-egov.pdf>
- “Global E-Government, 2006,” Darrell M. West, Brown University, 2006, <http://www.insidepolitics.org/egovt06int.pdf>.
- “Guidelines for Public Debt Management, Inter-national Finance Corporation,” <http://www.imf.org/external/np/mfdl/pdebt/2003/eng/am/index.htm>
- “Guidelines for Using the Public Sector Comparator,” Government of Canada, http://strategis.ic.gc.ca/epic/internet/inpupr-bdpr.nsf/en/h_qz01557e.html
- “Guidelines for Employing the Public Sector Comparator,” Partnerships Victoria <http://www.partnerships.vic.gov.au/CA25708500035EB6/0/E4C501A76F826D77CA2570C0001B45EA?OpenDocument>.
- “Is the Public Sector Comparator Right for Developing Countries, James Leigland and Chris Shugart, *Gridlines*, Note No. 4, April 2006. <http://www.ppiaf.org/Gridlines/4africa.pdf>.
- “Lessons of PPP in the Austrian ICT and E-Government Sector,” Gerhard K. Wagener, Austrian Private Association for the Information Industry. www.global-ict.mincom.gov.az/presentations/24.ppt
- “Locking Private Sector Participation into Infrastructure Development in the Philippines,” Noel Kintanar, Lourdes Baclagon, Rodolpho Azanaz, Jr., and Rina Alzate, *Transport and Communications Bulletin for Asia and the Pacific*, No. 72, 2003. http://www.unescap.org/ttdw/Publications/TPTS_pubs/bulletin72/bulletin72_ch2.pdf
- “Managing Digital Identities and Signatures through Public/Private Partnership,” Cybertrust,

2005. http://www.cybertrust.com/medial/case_studies/cybertrust_cs_easton.pdf
- “New Tax Law Boosts School Construction with Public-Private Partnerships,” Ronald D. Utt, The Heritage Foundation, Aug 2001. <http://www.heritage.org/Research/Taxes/BG1463.cfm>
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Government PPP Institutions

- Canadian Council for Public-Private Partnerships, www.pppcouncil.ca
- Irish Central PPP Policy Unit – www.ppp.gov.ie
- Malaysia Office of the Prime Minister Economic Planning Unit – The entity responsible for planning and implementing PPP in Malaysia including many innovative ICT and E-GOV schemes. www.epu.jpm.my
- Partnerships UK – <http://www.partnershipsuk.org.uk/>
- South Africa National Treasury PPP Unit – www.ppp.gov.za

Websites

- E-Authentication Federation – <http://www.fmcsa.dot.gov/eauth/federation/>
- E-government Observatory – Section of the IDABC Website that documents news, fact sheets, and best practices from e-government initiatives throughout Europe. Includes examples

of e-government PPP projects. <http://ec.europa.eu/idabc/en/chapter/140>

- E-Government Resource Center – the Victoria Government’s repository of e-government initiatives and international research, <http://www.egov.vic.gov.au>.
- e-Procurement.gov.in – Comprehensive e-infrastructure of the Government of India allowing for eProcurement, eTendering, eSelling, and eAuctions, <http://www.eprocurement.gov.in>
- ESDLife – <http://www.esd.gov.hk/home/eng/default.asp>
- Germany’s Initiative D21 – <http://www.initiated21.de>
- Knowledge Services for Private Sector Development, by Rapid Response/World Bank. Numerous links to articles, papers, and websites dealing with PPP. <http://rru.worldbank.org>
- Ministry of Company Affairs India – MCA 21 initiative for e-government, <http://www.mca.gov.in/>
- National Council for Public-Private Partnerships, www.ncppp.org
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