



PUBLIC PRIVATE PARTNERSHIP FOR TRANSPORT PROJECTS

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Abstract:

In all developed and developing countries of the world, government spending on transport infrastructure has declined significantly in the past few years due to fiscal constraints. However, the role of public private partnership cannot be overemphasised. Also, large infrastructure projects often present great opportunities for the public and private sectors to work together. Public and private partnership have become a key component to the development of transport infrastructures. This paper examines public private partnership and provides a framework in which it can be developed. It reviewed and analysed public private partnership on transport projects and identified past weaknesses and failures, and above all looking at the big picture.

Keywords: public, private, partnership, transport project, infrastructures

1. Introduction

Public-private partnership (PPP) according to European Commission (2005), refer to *“forms of cooperation between public authorities and businesses, with aim of carrying out infrastructure projects or providing services to the public”*. In other word, PPP should not be seen as privatisation by osmosis, but as a reliable alliance in which each party has distinct and well-defined role. However, government spending on infrastructure have declined significantly in the last few years due to fiscal constraints. Private and public sector have become a key component in the development of infrastructure. Large infrastructure projects often present great opportunities for the public and private sectors to work together. In any large infrastructure investment such as railways, harbours, airports, power distribution, water supply and sanitation services, and toll-roads, there is likely to be a significant public sector interest. If the public sector is prepared to divert some of its interest and it makes financial sense for the private sector to invest, there is scope to develop a partnership.

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The PPP is therefore not a magical recipe for the creation of resources and markets. On the other hand, it's a mean of achieving an overall optimum by working a balance between competition and cooperation and by providing for not only construction, but also maintenance and operations. However, the lack of funding for maintenance results in poor resource allocation (that is, through the desire to secure over-investment during the initial stage at the expense of optimisation of the overall cost) and damage to the existing assets. Similarly, the lack of funding for infrastructure operations hinder efforts to improve the used made of infrastructure (that is, will reduce the need of the new infrastructure) by improving both the management of traffic on the infrastructure and the efficiency of the service suppliers using such infrastructure.

Therefore, Public-private partnership (PPP) neither imply nor exclude either the private ownership of infrastructure. In contrast there can be no PPP without risk-sharing and an approach that takes the overall account of the infrastructure and services in a transparent and stable contract drawn up within the framework of stable, appropriate and respected legislation.

The objective of this paper are:

- To find out the role Private sector could play in PPP.
- To examine how PPP investments should be use to boost he provision, operations and maintenance of transactions infrastructure.
- To review and develop a framework for PPP.

2. Background

The steady growth of private sector participation in infrastructure since the eighties appears to show a process during which a novel approach needed some time to take roots and a substantial amount of learning experience had to develop for new initiatives to unfold. Progress, however, has been limited due the frequent political reluctance to give up control of infrastructure assets which had been in public hands for a long period of time. In addition, with this reluctance, had been compounded by the existence of other institutional factors such as:

- The absence of matured regulatory frameworks, that will help to prevent the appearance of monopoly situations and political backlash.
- An unstable sector policy environment coupled with unclear path to recourse if problems ever arose.

These factors have often led to protracted tendering and negotiation processes, which had undermined the credibility of some public-private partnership (PPP) initiatives. Overall, they have raised policy risk and widen the mismatch between the degrees of project risks as perceived by the public private sectors. A report prepared by the World Bank for the East Asia highlights this mismatch as basis reasons for protracted negotiations and frustrations between the public and private partners. Government tends to perceive much lower risks than do sponsors and lenders in the private sector leading to terms-of-reference (contracts), a regulatory and policy framework not conducive to the expansion of PPP initiatives. The lack of clarity about government's objectives and

commitments often adds those factors. In all, the conditions set for the private participation are often too cumbersome to comply with, require a complex decision-making process, and imply a high level of risk. The World Bank estimates that in the developing countries the annual demand for infrastructure (roads, rail transport, urban transport, ports, water, sanitation, telecommunications and energy) exceeds US\$1 trillion including about US\$250 billion for the new rehabilitation investment. According to World Bank sources, private sector participation has multiplied by about ten between 1990 and 1996. However, private capital flows to provide less than 15% of the estimate demand, and then only a relatively small number of middle-income countries (mainly, Argentina, Brazil, Mexico and Malaysia), plus China and India are the recipient of those flows. About 140 of 166 developing countries (that is, almost 85% of them) attract only 5% of the flows. Of the international flows for the transport of investment in developing countries, about 75% came from official developments agencies, while 25% came from the private sources. Even for the US, the percentage mounted to about 47%, in the Netherlands, 46%, in Japan, 14%, in France, 13%, and in Germany, about 9%. The private involvement is also often concentrated in the air, port, rail sub-sectors. Urban and transport infrastructure continue to from private sector involvement. In the road sector, the emphasis has been on private participation, on capital funding. Table 1, show the distribution of potential private infrastructure projects and of the actual investments by region for the year 1996.

Table 1. Potential vs. Actual Investment in Private Infrastructure Projects by Region, 1996.

Region	Potential number of projects	Estimated cost (US\$ billion)	Already financed (US\$ billion)	Potential / Actual
East Asia / Pacific	709	534,7	185,6	2,9
OECD Europe	320	165,4	156,6	1,1
Latin America	409	91,5	58,5	1,6
USA / Canada	229	44,7	31,1	1,4
South Asia	335	146,5	6,3	23,5
Middle East / North Africa	67	23,3	4,7	5,0
C & E Europe	70	62,8	3,5	17,9
Former Soviet Union	94	137,2	2,6	53,8
Africa	78	8,0	1,2	6,7
Total	2,311	1,214,1	450,1	112,7

Source: World Bank Private Infrastructure Database and FIAS, World Bank Group.

The table highlights the substantial gap that needs to be covered to meet the potential worldwide needs for investments in infrastructure. Leaving aside the most extreme figure for the former Soviet Union, the ratio of potential to actual investments is about 2.5, reflecting a gap that can only be met if resources can be trapped from the private funds and additional charges are collected from transport users. In all, the overall picture is one where the current financial resources are not sufficient and a combination

of approaches must be explored and implemented in order to try to reduce the above-mentioned gap.

3. Clarification of terms and concepts

3.1. Definition of private-public partnership

Public-private partnership in the simplest sense is the co-operation between the public and private sector interests in the completion of a project. Yet it's sufficiently vague to convey the aspirations of those involved, namely politicians who think they have found a way of by-passing financial constraints, government officials who would readily see themselves as the head of a new type of enterprise, and private groups would like to think that they have found the magic word that will open the door into a new markets and at the same time confer upon them the gravitas of the heads of public services, of citizen enterprises.

In the broadest sense of the term it would be fair to say a public-private partnership is rule as soon as government sign a contract with private economic agents. In a narrower sense a public-private partnership maybe said to exist if: The private partnership ensures an overall approach as part of general contract work. The partnership can then be developed through the inclusion of guarantees regarding performance and prices, and by extending the contract to include the management of operating activities. The main features of a public-private partnership are therefore, first and foremost, the overall coverage provided by the private partner and the degree of autonomy enjoy by the latter. The most advanced stage of a partnership is that of a concession in which the concession holder is responsible for both the construction and operation of the infrastructure. The importance of the operation stage is frequently underestimated. The private partnership ensures an overall approach as part of general contract of work. At a conference held in London on 24 February 1998, European Commission Neil Kinnock emphasised that the most important word in the term public-private partnership was last one: partnership.

3.2. The risks

In public funding, it is interesting to note that that risk analysis is an area that has been neglected for many years. However, risk analysis is a fundamental feature of any public-private partnership. Risks may be broken down into five categories:

- *Political and legal risks:* Such risks encompass not only the possible change in the political regime, or even government policy, or unstable legal framework and refusal of government to meet contractual obligations.
- *Unpredictable forces:* Such risks are unpredictable and unavoidable and may take many forms such as natural disaster, social unrest, acts of war, etc.
- *Technical risks relating to construction and operation:* These risks are associated not only construction but also maintenance and operation: failure to complete construction of the works, suspension of the service, failure to meet deadlines, cost overruns, etc.

- *Economic and financial risks:* These risks arise from uncertainty over growth in the economy, inflation rates and exchange rates (that is problems relating to currency conversion and transfers abroad are more of a political nature).
- *Commercial risks:* Commercial risks are the combined of tariffs and traffic level. The first factor, tariffs is subject to political risks, namely the pressure of the public opinion. The second factor, tariffs levels, is difficult to control: Firstly, there is a correlation between tariffs and traffic levels; secondly, the more links there are in a network, the greater the risks that a new segment may simply “cannibalise” the existing network; thirdly, the number of users in the road sector is high and in many and in many cases these users can choose between several options with the result that, unlikely the situation with regard to infrastructure in the rail. The final profit and losses account is therefore only partly an outcome of the commercial risks.

3.3. Sources of funding

In any economy, investment is simply voluntary or forced savings plus the balance of payments. No-one has as yet found any magic solution. Only two economic agents can bear the final cost investment, on the one hand the taxpayers and on the other hand the beneficiaries. The beneficiaries are primarily those users who can afford to pay tolls or specific taxes on usage or vehicle ownership, but also include indirect beneficiaries. The use of tolls therefore consists in drawing users into a customer/supplier relationship. There are three channels through which these resources are put in place: public funding, private capital, public and private borrowing. It needs to be borne in mind that borrowing is not a definitive resource and is no means typical of private funding. One of the major problems with infrastructure funding is the way in which the payment of funding instalments is adapted to funding needs. Due to the distinctive nature of infrastructure, effort must be made to secure long-term sources of funding. The maturity of loans is an even more determining factor than the rate of interest. Moreover, a long-term “concession” significantly lowers the risks.

3.4. Infrastructure and services

The civil works required to build transport infrastructure exhibit a number of distinctive characteristics. They are capital-intensive (that is to say the turn over compared to on investment is low); they are standardised prototypes (that is, even though there is a degree of standardisation, each civil work is unique) which have long lead time. Infrastructure has a lengthy service life. While the usual design assumption is that infrastructure will have a lifetime of 30 to 70 years, in practice the actual service life is much longer. Consequently, although the return on investment will be referred, it is highly probable that actually will be a return on investment on the economic level and the fact that the tolls don't cover all the benefits to the users (e.g the users of the a civil work in competition with the one for which a concession has been awarded) mean that in most cases the financial profitability (i.e. the profits derived from the income from charges levied on the users) is outweighed by the economic and social benefits (i.e. the

benefits in terms of the costs and advantages with regard to the community). It therefore follows that many infrastructure projects which offer positive economic and social benefits cannot break even. The above analysis of infrastructure characteristics is highly simplistic. However, it would seem that they are often neglected, which can lead to financial disaster, the tradition of funding infrastructure out of the public purse simply means that such disasters are not reported explicitly.

The supply of certain services such as public transport, and notably rail transport, may also require major long-term investment in a fairly similar nature to that required for infrastructure.

In contrast, the services associated with infrastructure in the strict sense of the term and facilities dedicated to such services (i.e. traffic management activities and services to users such as information, routing, surveillance, etc.) have a such shorter lifetime and in many cases may even be treated as emerging technologies.

3.5. Work concessions and service concession

Work concession may be broken down into a civil works concession and a service concession. The party awarded a concession for construction of a civil work in the strict sense of term substantially makes that work available to the operator of a service concession. Holder of a concession to build a civil work runs a major risk that is commensurate with the scale of the investment. In contrast, the risks run by the holder of a service concession are much smaller in scope. Lastly, it should be noted that the remuneration of the concession holder for the civil work closely depends on the quality of the operator. The concession holder for the civil work will therefore in most cases wish to be act as operator too.

4. Setting up a public-private partnership

4.1. The need to be realistic

It is worth recalling that although contracts, provided they are properly balanced, can offer benefits to all parties, in far too many cases the public authorities would seem to think that the concession is a means of obtaining something for nothing. They must be realistic. The private sector can only become involved in a project if the expected remuneration is commensurate with the level of risk. This means that in the case of a closely bound public-private partnership, project must be financially viable either by reducing the share of the cost borne by the private sector or by reducing the risk to which the latter is exposed.

Disregarding the economic constraints and believing that simple declarations are enough to ensure the viability of a project. In a market economy, users have freedom of choice. It is this very freedom of choice that explains the trend in the share of rail in the modal split. In mature market economy, in which individuals can choose between several options to meet their needs.

4.2. Risk-sharing

The risks entailed in a given project vary according to how far the project has advanced. All the risks entailed in a project must be analysed as closely as possible before the project is started. Each risk must be assessed by the party who will be taking that risk. Moreover, the dictate of efficiency and fairness requires that the risks must be taken by those who will benefit the most from the operation or whose job is to assess risks. However, with regard to infrastructure, even in countries where management functions are customarily delegated and where the private sector is called upon to contribute, the risks have in fact largely been borne by the public sector.

4.3. Setting up autonomous entities - (Public-private partnership)

There are a number of advantages to using an autonomous entity rather than a government body to supply services, whether that entity is public, quasi-public or private. The first argument is in favour of such an approach and it makes it possible to increase the funding available for investment by calling on private capital markets (although a government agency could also call on capital markets by issuing bonds on future income from civil work). A more convincing argument is that a private company would be able to design, build and operate an infrastructure more efficiently because it can work on a time-scale that is longer than an annual budget and can operate more flexibly by taking account of the overall cost and by optimising investment, maintenance and management of operations. The autonomous entity doesn't have to be private in order to be effective. The most important points are stringent accounting practices, a high public profile and know-how. It is this same concern to identify responsibilities and offer incentives that provides the basis for policies regarding contractual arrangements between administrative departments that certain countries have adopted.

4.4. Role of the public authorities

4.4.1. Planning

It is the responsibility of the public authorities to draw up master plans for the development of transport services and infrastructure. They must do this through forward-planning and by taking account of the economy and social benefits of the projects.

4.4.2. Regulation

While reference to the market economy modified the traditional role of the authorities, it also somewhat paradoxically, broadened this role. The public sector must commit itself fully to its role as regulator which it must keep completely separate from that of the operator. The role of the regulator is currently buried under administrative bureaucracy and is often confused with that of the operator. In some cases (mainly to be seen in the rail sector), the regulator is held captive by the agent, the operator under his supervision. What is needed therefore is not less intervention by the State, but better and different forms of intervention. This will require clarification of the role played by different actors within the administrative, if not the political system. Decisions must be taken according

to transport policy objectives; the other considerations are merely the constraints that need to be taken into account. The predominant role played by financial department leads to inefficiencies, particularly in view of the fact that such departments have no strategy, at least not in the transport sector, and are driven by the desire for power, on the other hand, and very short-term considerations on the other hand. Problems arising from relations between central administration and regional administrations, on the one hand, and from differences between their various remits (spatial development, environment, transport, etc.) on the other may also lead to completion delays and cost overruns.

4.4.3. Safeguards

The public authorities are the guardian of public safety and the environment and must, if a concession is awarded, protect the public against the risks of abuse of a dominant position while at the same time according to the “concession holder” a satisfactory rate of return. In addition, the authorities may intervene in an activist manner, for example to ensure social and spatial solidarity or in the pursuit of industrial policy, but to do this they must use market-instruments. Tariffs are the preferred medium for such intervention, even though in many cases it could justifiably be argued that it would be more efficient to provide direct assistance to disadvantaged social categories or communities rather than equalizing tariffs. The imperatives of social solidarity, territorial development and cohesion are objectives in their own right, but an infrastructure policy is simply one means among others and must be subordinated to certain constraints. Lastly, lateral effects such as the impact on employment must not be neglected but under no circumstances should be a determining factor. It would be irrational, to say the least, to build infrastructure which have a particularly long lifetime and which requires particularly lengthy periods of preparation in order to provide a short-term boost to economy. The advantage (or rather the least disadvantage) to road, from this standpoint, is the management and operation of roads does not generate the type of deficits found in other sectors. As a general rule, it is not advisable to use infrastructure investment primarily as an instrument for fine-tuning the economy. The investment must basically be planned over the long term as part of a master plan or transport development plan.

4.4.4. Financial facilitation

The authorities act as financial facilitators, a role that must be dispensable, who provide an expectable level of financial profitability fitted to the risks borne (if the social and economic profitability is higher than the financial one because the concession-holder cannot capture the whole social and economic benefits generated) and who ensure projects actually get off the ground, given the large sums of money are inevitably required in the early stages of the projects. The main criteria for investment must be the economic and social benefits which will improve the welfare of society. Because of positive externalities, the economic and social benefits often outweigh the financial profitability. The private sector, however, can only fund projects that are financially profitable. Public-private partnership must therefore be financially viable or must be made to financially

viable. The public sector may make it worthwhile for private enterprises to fund projects by reducing costs. Such assistance may take the form of:

- construction of infrastructure to accompany the project (in the case of Channel Tunnel, the cost of such infrastructure has the same magnitude as that of tunnel itself);
- subsidies (or reimbursable loans) during the construction stage;
- periodic payments over a given period of time (which may or may not be reimbursable);
- acquisition of a share of the equity by the public sector.

Procedures must be drawn up on a case-by-case basis. The only form of aid to be excluded is that of balancing subsidies, determined on the basis of the results observed, which transfers all the risks to the public sector. As a general rule, any guarantee that is too broad is to be avoided. Lastly, it is advisable to give priority to cash advances and to transfer repayments into special fund. Government support can take the form of association in an existing project, that is to say using the income from an existing infrastructure to contribute to the financial of a new structure. This system has been used to build bridge links (for example, the Second Severn Crossing, Dartford Bridge, the Second Bridge over the Tagus). It has also been used on a larger scale to develop the highway networks in Italy and France by using cross-subsidies between former and new infrastructure within the same concession holder company. This is also the strategy adopted by New York and New Jersey Port.

4.4.5. Legal and political facilitation

The public authorities must put in place a clear and stable frame of reference that is sufficiently transparent for the private partner. This is notably the case for technical standards, taxation and the setting toll levels. Private investors can only take the risks that they are able to control and predict with a reasonable degree of accuracy. Political risks are by no means readily predictable, even in Europe, and in a supranational guarantee system would encourage individual government to respect to their commitments. Lastly, legal safeguards must be provided with regard to the adjudication of any conflicts. Arbitration may be the solution for the conflicts that may arise between franchiser and the holder; nevertheless, intervention by the third parties may lead to substantial instability.

4.5. Reducing the bureaucracy involved in funding infrastructure management

To refer to Max Weber, the major problem with capitalism is not the source of capital, but the development of capitalist mentality. In order to further the search for the optimum use of resources and the best service, three basic steps must be taken:

- Specify the precise responsibilities of different levels of government and the operators (public or private) involved.
- Encourage users to acquire a sense of responsibility and to “own” infrastructure in their own minds, firstly by listening to what they have to say and then ensuring users are properly represented (beyond the level of the traditional lobbies).

- Improve efficiency of operators by reviewing their performance, by fostering peer imitation and bench-marking and by developing quality assurance programmes.

These actions must be seen as a privatisation (which do not exclude in fact), and word “commercialisation” that is often used not be misinterpreted: the commercialisation is that of the management tools deployed and not the objectives. As European Commissioner, Neil Kinnock, emphasised on the 24 August 1998, “public-private partnership should not be seen as a sort of subtle form of privatisation by osmosis but as a genuine alliance in which each side has its own distinct and well-defined role”. Clearly there are a number of political, if not ideological, choices that need to be made, but as Hegel noted in his *Elements of the Philosophy of Right*, the clarification of contracts and an adequate study of their different types must be founded, not on external circumstances, but on the intrinsic characteristics of the contract.

4.6. The contract

4.6.1. Contents of the contract

The rules of the game in the public-private partnership are set out in a concession contract. In order to create a partnership, the private and public sector should be able to trust each other, the risks must be shared out equitably and the imperative of profitability must be met. In addition, the public sector must be prepared to abandon an approach based on *ad hoc* intervention and to play the role of regulator within a pre-determined framework. In particular, the public sector must not yield to the temptation to consider the tolls remunerating the concession holder as a controlled price or, even worse, as tax income; The public authorities must put in place a clear and stable framework that is sufficient transparent to the private partner. This is notably the case for technical standards (which must focus more on results than on means), taxation (which must not involve solely with respect to the sector) and the setting of tolls levels. It must be recalled that a franchise bears no resemblance whatsoever to a public works contract. It is the basis for a long-term partnership in which the quality of the services supplied to the third parties is paramount. Considerable flexibility is required to ensure that actors can adapt to an evolving situation and to facilitate the emergence of innovative ideas.

Furthermore, it might justifiably to asked whether the performance bond requirement doesn't simply add to the costs, particularly during the initial stages of the project when funding requirements are greatest. It is likely that the contract itself, given its duration and the scale of the investment, may well offer an intrinsic performance security in that all that is takes. In the event of failure to meet objectives, for the private partner to incur significant losses and the work completed up to that point revert to the public partner (whose support must at all times remain significantly lower that the expenditure already committed). Flexibility and adaptability must not mean a hand-off approach. The value of such a contract will be determined not only by the willingness of the public authorities to meet their commitments made to them are adhered to. Failure to do this would undoubtedly lead to criticism by the public over profits going to the private sector while borne to the taxpayers.

4.6.2. Structure of contract

Alongside the contract between the authority awarding the concession and the concession holder are a number of other contracts (that may interrelate to the main contract between the authority awarding the concession and concession holder) linking the concession holder to public works enterprises, lending banks and ultimately the operating company. Some of the associated risks may be wholly or partially covered by the third parties, insurance companies, international financial institutions, etc. Contractual structure of a public-private partnership.

4.6.3. Signing the contract

Customary selection criteria and guarantees therefore have little meaning. Depending upon whether the concession is for services (for which the usual tendering procedures are a suitable means organising competition for the market, in cases where operator subsequently benefits if not from a monopoly, then at least from substantial market power which will limit from the market) or for construction work and operating activities, the nature of the problem will be radically different. In the latter case, the necessary lengthy term of the contract, and the degree of freedom that must be given to the concession holder, call for a cooperation which is somewhat antinomic to elementary of competition. In addition, contracts must necessarily be “incomplete” (“complete” in a manner that is artificially reassuring) and transaction costs (despite being restricted, to a certain extent, by the comprehensiveness of the contract) will be increased by the complexity of relations and the duration of such relations. The last is that of the role played by the public works contractors (and bank to the extent that they act as suppliers of consultancy and financial services). Experience shows that these are the companies that provide the bulk of the driving force behind major infrastructure projects.

It also needs to be bear in mind that risks-sharing doesn't take the form of acquisition of a shareholding, as in the case, for example, of a lump-sum for a project. While it may more efficient to treat design, construction and operation as a coherent whole doing will increase the risk a blurring of the respective role of supplier and customer. Two approaches are possible: contractors may be barred from acquiring a shareholding in the concession holder in order to avoid any conflicts of interest; or conversely, they may be required to retain a significant shareholding over a substantial period of time to ensure that they bear the consequences of any reverse in the concession holder's fortunes. It should stressed that public works contractors are a powerful force with regard to development since that is how they aim to create markets. This would therefore imply that there is completion for the award of a concession but not for the award of the contracts needed to operate that concession (EU legislation authorised it for the civil works contracts). Lastly, establishing a partnership requires a dialogue between the entity granting the concession and the concession holder (what the European Commission called a “competition dialogue” in its communication of 11 March 1998), while the quality of bids can be significantly improved through the payment of compensation to unsuccessful bidders and by keeping the number of prequalified bidders relatively low (between two and five in the case of recent awards in Hungary,

Greece and United Kingdom). An excessively high number of pre-qualified candidates increases the transaction costs and may lower the quality of bids. Furthermore, it should be recalled that the concession is not a short-term contract but a long-term partnership whose cost may be borne by the authority granting the concession (in case of tolls); this is an additional reason to refrain from slavish application of the bidding principle (the example of Oresund would seem to bear this out since there were at least five prequalified bidder for each lots; however, Orsundkonsortiet is a state-owned company and the bidding round was for the award of works contracts and not a concession).

5. Irish public-private partnerships (PPPs) on transport projects

Irish Government's approach to the provision of new public transport infrastructure is that any proposal should be examined in the first instance for its potential as a PPP. The first such projects that have been confirmed as PPPs are in the area of railways in the Dublin region:

- the operation of the first two lines of LUAS (Dublin Light Rail System) and the contract was awarded to Connex on 13 May 2002.
- the provision of a new metro service (approx. 70 km) and
- additional LUAS line (approx. 45 km).

Additional potential projects in the public sector are currently being evaluated for their appropriateness as PPPs and concurrently, a framework document on PPPs and their application in the rail sector has been developed by the Department of Public Enterprise and their consultants. While the merits of each project will determine its PPP definition. As part of the implementation strategy, the Railway Procurement Agency which was established 28 December 2001, acts as the public sector client for rail-based Irish public-private partnerships ((PPPs).

5.1. The Transport (Railway Infrastructure) Act 2001

The transport (Railway Infrastructure) Act 2001 is relevant to PPPs in Ireland because it facilitates private sector participation in the development of the rail sector in Ireland. The Act established the Railway Procurement Agency (RPA), which is an independent statutory public body with responsibility for procuring new light rail infrastructure and services through public private partnerships, a joint venture as determined by the Minister for Transport. Current projects of the Agency include: implementation of LUAS light rail project, the procurement of the Dublin metro project and the development of an integrated ticketing system for Dublin.

5.2. Structuring PPP Transport Projects

A public-private partnership (PPP) constitutes a sustained collaborative effort b the public sector (such as the Railway Procurement Agency in case of Ireland) and private sector such as Connex in which each partner shares in the design of a transport project, contribute a portion of the financial, managerial and technical recourses needed to design and execute that project, and partially shoulder the risks and obtain the benefits that the

project creates. Managerial control rests with the public sector (Railway Procurement Agency). PPP initiatives are usually appropriate when:

- the public sector which to maintain a degree of control over certain assets;
- the public sector must contribute with resources or guarantees to make project 'bankable';
- the implementation and timing of future project investments is uncertain (for instance due to undetermined commercial prospects); and
- a publicly owned, commercially-oriented entity wishes to participate in the project for commercial reasons.

In the case of transport infrastructure, due to its public nature, projects must often comply with regulations established by public authorities in order to address environmental, safety and sometimes, social considerations. Then, the public sector must become involved because a purely privately-funded project would tend to maximise revenues to a level below the optimal dictated by the maximisation of economic development. A trade-off is then often present in the case of transport projects when the financial rate of return is below the market rate for private funds, and some form of public support is required to make project feasible. The financial rate of return may be improved by way of additional user charges, but then the economic rate of return may be affected negatively and a would have to be found.

Transport is a service which if under-provided may adversely affect certain sector of the society and prevent economic development. Furthermore, transport projects often require lump investments and, once implemented, represent large sunk costs. That is why, transport infrastructure can't often be seen as a simple private good. In the design and development of a transport project, three main stakeholders are involved:

- transport users (who are part of a large group of the society as a whole and of the taxpayers);
- the government (that is, public sector); and
- the private sponsors or providers (to which, other actors, like lenders, are related).

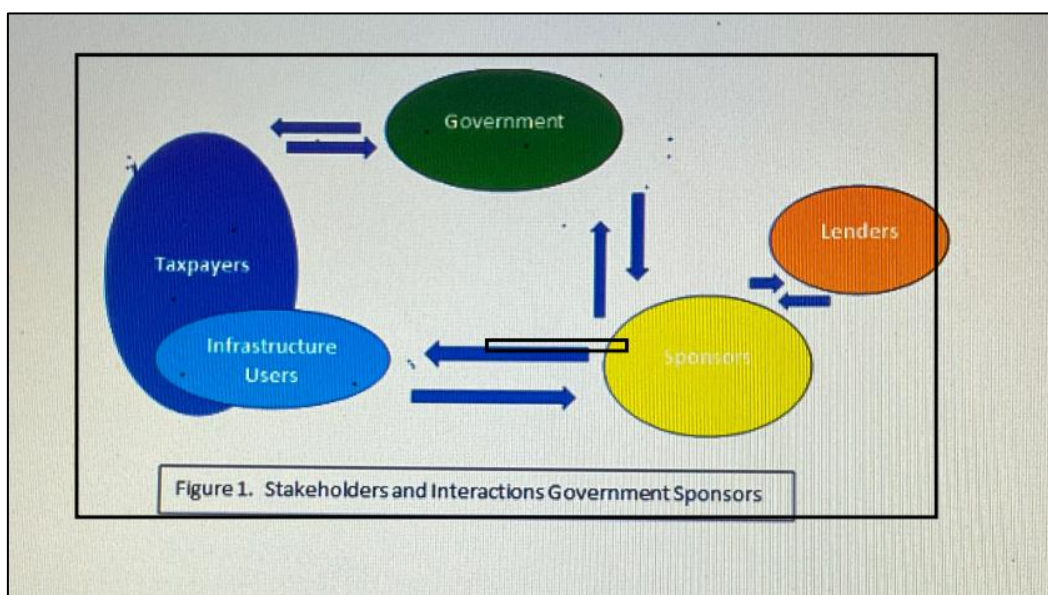


Figure 1 shows the interactions among stakeholders. The government makes possible the provision of a service to the users and receives in exchange the political support of the society and taxes. The Government regulates the actions of the sponsors and may provide capital guarantees for the development and operation of the transport infrastructure. In exchange, the sponsors comply with the contract and agreed performance and assumed certain risks. And the sponsors provide the infrastructure to the users with a given level of service and for it the users pay tolls or other charges. Finally, the sponsors receive loans from lenders and pay them according to a debt service payment schedule. Two circles of opposite directions are in action, and their respective elements must be properly compensated.

These interactions and the public nature of transport infrastructure must be kept into account the process of structuring PPP projects, with the analysis, assessment definition of the following key considerations:

- need, level and form government support;
- ultimate fiscal impact of project;
- distribution of benefits among those affected by, or have stake in the project;
- risks of the estimated economic and financial benefits; and
- performance indicators of the measurement of the future achievement of objectives and the application of the proper corrective actions.

6. Recommendations and Conclusions

The following recommendations and conclusions provide a framework in which to develop public-private partnerships (PPPs) and should be taken into account when drawing up proposals for PPPs:

1. Obtain political and popular support for using PPPs by:
 - preparing transport development strategies;
 - initiating a debate on public infrastructure and services provision and financing;
2. Involve the appropriate private sector actors early in the process and discuss the following options with them, especially in sharing of risks and responsibilities:
 - project design;
 - ways of achieving low-cost solutions;
3. Ensure that the needed regulations and procedures are in place so that PPPs can work and including:
 - competitive procurement procedures, especially transparency and flexibility;
 - provision of a stable and clear-cut legal and fiscal framework;
 - regulation potential conflicts of interest;
 - possibilities for private sector involvement in tolling (if required);
 - support of and appropriate training for government officials;
4. Build on the experience gained in previous PPPs projects in different countries.
5. Set up projects with clear ownership management structures and divisions of responsibilities:
 - by negotiating with the private sector partners;

- by contract which are clear and agreed;
 - by an efficient and transparent allocation of and rewards;
6. Undertake some trial/pilots projects and learn by doing;
 7. Continue to exchange experiences on the results of PPPs, but the successes and failures.
 8. A PPPs approach should be adopted for Dublin Light Rail (LUAS) project.
 9. Private sector operators should be invited to bid for the franchise to operate LUAS Lines A, B and C.

Finally, we should ask the Committee of Deputies to facilitate a continuing exchange of experience on this subject to report back in due course.

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Conflict of Interest Statement

The authors declare no conflicts of interests.

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