21 Procurement Strategy and Commercial Issues

21.1 Section Overview

- So far, this SOC has considered only technical options with a view to identifying the route and technology solution that best meets the objectives and needs of the DRD. However, when a preferred technical solution has been selected, further consideration will have to be given as to the most appropriate method of procuring and funding this solution.

- This section provides overview of the options that the DRD have available regarding the various procurement structures and the commercial issues linked to these structures. This section describes how a Public Private Partnership / Private Finance Initiative (PPP/PFI) arrangement would work in the context of the Belfast Rapid Transit Network.

- This section concludes that private sector involvement in the project will enhance the commercial benefits available to the DRD. The Public Transport Reform initiative, when, complete is likely to ensure that competition for contracts. Each of these structures transfers a different level of risk to the private sector.

- Recent precedent in Europe has shown that PPP/PFI is likely to deliver Value for Money if LRT is the selected technical solution. However, if BRT is selected, procurement of the design, construction and maintenance is likely to be most efficient through conventional means, with short-term operating contracts offered to the most economically advantageous private sector bid (including Translink).

21.2 Introduction

The decisions that are taken regarding route and design will have a significant impact on the method of procurement of the infrastructure and the availability of funding for that solution. Therefore, it is imperative that the procurement options are considered only when a technical solution has been identified that meets the objectives of the DRD. DRD should also take into account the option of combining EWAY, CITI and WWAY as a joint scheme to increase the procurement/funding options available.

21.3 Overview of PPP/PFI

The BMTP states that it is envisaged that procurement of the rapid transit scheme will be considered under the Private Finance Initiative. The key objective of procuring a project under a PPP/PFI arrangement is to secure increased value for money over conventional procurement by transferring risk to the private sector. The optimal allocation of project risks lies at the heart of the rationale for Public Private Partnerships.

Under conventional public sector procurement, risks are not explicitly priced into infrastructure procurement contracts; and responsibilities and incentives may not be placed with the party best able to manage them. The result is that project risks may not be rigorously managed, resulting in cost inefficiencies or asset deterioration.

The PPP/PFI process seeks to overcome these issues through the following means:

- **Whole of life costing***:* Under conventional procurement the public sector is not incentivised to manage the costs of assets over their useful lives to the same degree as a PPP/PFI contract, with a consequence that essential maintenance expenditure may be deferred. Under PPP/PFI, minimum whole of life costing can be achieved;
- **Performance related payments***:* The PPP/PFI payment mechanism links Government payments to the level of performance specified in the contract;
- **Innovation***:* The PPP/PFI procurement model specifies outputs, rather than inputs. This allows the maximum scope for private sector innovation to the benefit of the project; and
- **Transfer of risk***:* The Government can make an assessment of the optimal level of risk transfer, weighing the advantages against the risk premium sought by the private sector to achieve overall best value for money for the project (i.e. minimize risk-adjusted whole of life cost to Government).

The assessment as to whether PPP/PFI procurement or conventional procurement offers the most value for money should be considered in line with guidance issued by HM treasury in November 2006. At programme level (SOC stage) the guidance states that, if the Project is demonstrably viable, achievable and desirable when considered under PPP procurement, its benefits should be considered in greater detail. An assessment of the appropriateness of the Belfast Rapid Transit scheme being procured under PPP/PFI is presented in detail in Section 23.

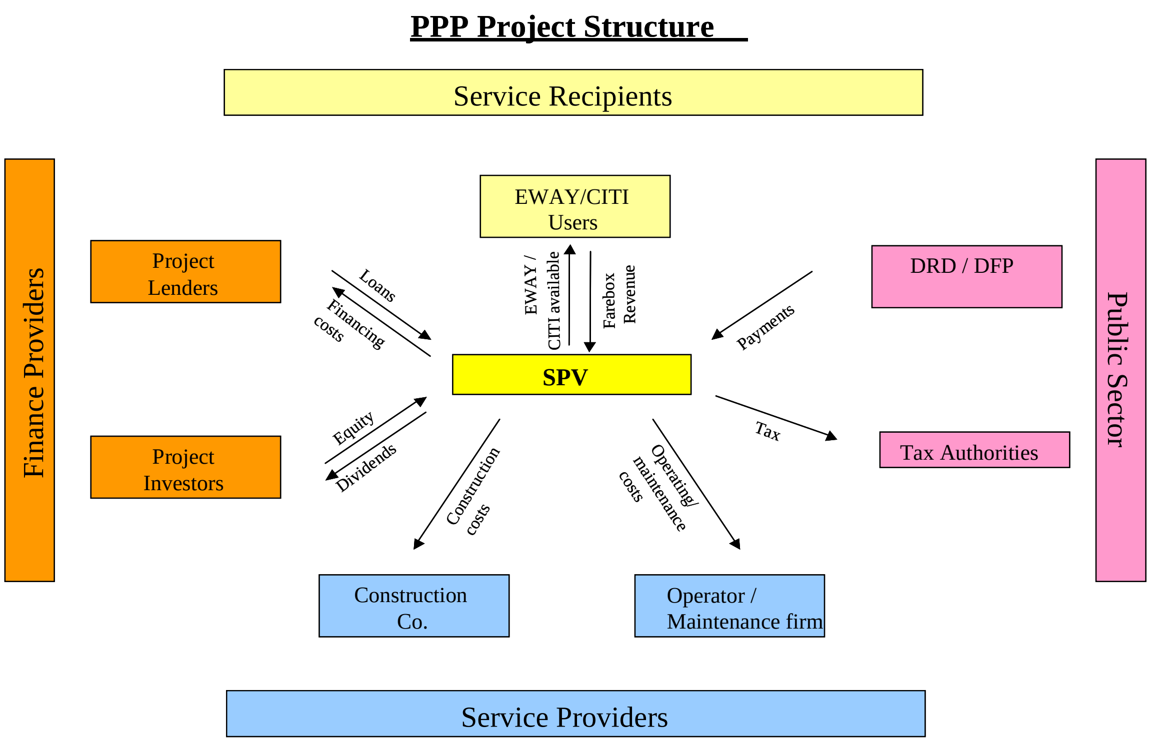
21.4 Commercial Structure of PPP/PFI

There are a number of commercial PPP/PFI structures which should be considered for the Belfast Rapid Transit scheme. Each model presents a different allocation of project elements (and their related risks) between the public and private sector. These elements fall into five categories: infrastructure design, construction, maintenance, service operation and finance.

In accordance with international practice, the commercial/financing structures discussed below assign the design and build components of the infrastructure development process to the private sector. Responsibility for the maintenance of the project over the life of the concession is also with the Design-Build party as this best achieves whole-of-life risk transfer to the private sector. As a consequence the main difference between the structures considered below relates to the treatment of the operation of the Rapid Transit schemes and the source of finance.

21.5 Design-Build-Finance-Operate-Maintain (DBFOM)

The structure of a DBFOM commercial/financing structure is outlined below:



As illustrated above, the DBFOM commercial/financing structure would involve DRD contracting with a single private entity, most likely a special purpose vehicle (SPV) created for the project, to finance, develop and maintain the rapid transit system infrastructure and operate a service over it for a specified concession term. The SPV would raise capital on its own balance sheet and develop the infrastructure through design-build contracts.

Over the life of the concession, DRD would make regularly scheduled payments to the SPV for services, which together with passenger fare revenue would be sufficient to meet: operating and ongoing maintenance expenses; debt interest and scheduled principal amortisation; and various reserve requirements such as those for debt service and renewals and replacements. Any excess of revenues over expenditure would flow to the owners of the SPV as a return on equity.

Please note that for the purpose of simplicity the diagram above shows that passenger fare revenue is assigned to the SPV. However, analysis should be carried out to assess the benefits against the drawbacks of transferring rights to farebox revenue to the operator as opposed to the DRD retaining the income.

21.6 Design-Build-Finance-Maintain (DBFM)

The DBFM structure would involve the same infrastructure development process as the DBFOM described above except with operations contracted separately in that an SPV would raise capital, and enter into subcontracts for design-build construction and maintenance. DRD would either operate the rapid transit services itself or enter into a contract with a private entity to operate the services for a specified period, not necessarily the same as that of the SPV contract. In fact, a much shorter operating arrangement, such as five to fifteen years, would be probably desirable and might be required under the proposed European Communities regulation on public service contracts in public transport.

Over the life of the SPV contract, DRD would make to the SPV regularly scheduled payments for the availability of infrastructure, which would be sufficient to meet maintenance expenses; debt interest and scheduled principal amortisation; and various reserve requirements such as those for debt service and renewals and replacements.

In order to ensure that the SPV is sufficiently incentivised to maintain the infrastructure to an appropriate standard, deductions would be made from the scheduled payments for incidents of unavailability or delays to services caused by the SPV's poor performance. This structure is similar that employed by the DRD via Roads Service for the M1/Westlink upgrade PPP Project.

21.7 Design-Build-(Operate)-Maintain (DB(O)M)

The DBOM or DBM commercial/financing structure would involve the same process of contracting out to private entities the design-build construction, maintenance, and operations functions discussed in the other models with one key exception: the private partners would not raise any capital for the project, but would receive the proceeds of debt that had been raised by a public sector entity, possibly, but not necessarily, DRD.

The financing could be structured in a variety of ways depending on HM Treasury fiscal policy considerations. Funding may be available from DRD's existing allocation enhanced by income from developer contributions (discussed in Section 22) or funding from the DRD's ISNI allocation.

21.8 Ownership of Farebox Revenue

Under a structure where the operation of the Rapid Transit trams/buses is the responsibility of the private sector contractor, a key decision that will have to be taken is whether to pass the demand risk to the contractor over the course of the PPP concession. The concept of transferring long-term demand risk is not new in transport projects. For example, the highway schemes that were procured under PPP in the Republic of Ireland transferred demand for the road tolls to the private sector contractor and this has been perceived as a successful method for delivering value for money to the Irish National Roads Authority.

In order to pass this risk to the private sector whilst maximising the value for money to DRD, bids will have to be sought from the private sector in which the bidders must predict the level of demand from passengers of the rapid transit scheme. Therefore, if all other costs are equal, the most aggressive bid in terms of demand is likely to be the bid that is successful in winning the concession. However, if that demand is not realised as the concession progresses, the contractor will not meet the intended return for the project. Therefore, this arrangement presents a significant risk for potential bidders.

In addition, if farebox revenue is to be used by the private SPV or Operator to meet expenses and to repay debt then that party will expect to have substantial control over fare levels or to be held harmless should the Government adopt policies which have a detrimental impact on the revenue stream. Where regulation of fares is contemplated, any change in the regulatory regime after the commencement of the concession will result in compensation.

As well as compensation being sought for instances where the Government instigates fares policies (for example a fares freeze), any change in the service regulatory or competitive environment will be likely to have to have the same result. There are two scenarios under which a private sector operator may seek compensation:

i) Firstly, a concession holder taking the revenue risk will want compensation over parallel or "competing" services i.e. they will want to protect themselves from abstraction by other conventional bus services etc;

ii) Secondly, if there is any change in the fundamental regulatory regime. For example if there was deregulation or part deregulation in Northern Ireland that would have the effect that other operators could set up in competition, the a concessionaire would expect some protective or compensatory measure over this within the concession agreement.

Recent Rapid Transit projects in the UK have indicated that there is little appetite for long-term demand risk from private sector bidders currently. There have been a number of Rapid Transit projects in the UK where the lack of demand for the service led the contractor to breach its funding covenants. This means that potential bidders are likely to either a) add a significant premium to the bid price for accepting long-term demand risk; or b) not place a bid for the project at all, thereby reducing the competitive tension available for the project. Both these outcomes will lead to a reduction in the Value for Money for the DRD which will mean that the case for passing long-term demand risk to the private sector contractors will be difficult to make on an economic basis.

It is likely that the Value for Money of the operation of the rapid transit system will be enhanced only if a separate short-term contract is procured. The appetite for this type of contract is likely to be significantly greater and can be set up exclusive of any design, build of maintain contract, PPP or otherwise. However, the current institutional arrangements within Northern Ireland may prove an obstacle to the introduction of competition for the operation of the services. This is described further in Section 21.9 below.

21.9 Public Transport Reform Initiative

In 2002, DRD established the Public Transport Reform team which commenced a consultation process on "A New Start for Public Transport in Northern Ireland". This consultation recognised that the scale of investment needed to deliver the RTS was unlikely to be provided by public expenditure alone and that private sector involvement will be a key element of implementing the strategy. However, it went on to state that current institutional arrangements may be an obstacle to greater improvement of the private sector.

This consultation is currently still on-going but the initial findings were set out within the "Future of Public Transport Services in Northern Ireland – Change Programme" document. The recommendations within this document include a reform of the institutional arrangements for transport delivery away from the current situation where Translink has a near monopoly on scheduled services. The document recommends an arrangement whereby financial support will be provided through service contracts under which payment is only made for a defined quantity and quality of service and that contracts should be arranged through a new Public Transport Authority. This revised structure will mean that independent, private sector operators will be provided the opportunity to bid against Translink for the opportunity to operate the services.

The key objective of this reform is to introduce an increased level of competition for Public Transport Services in Northern Ireland in order to enhance the Value for Money of the services to DRD. This objective is consistent with any one of the structures described above. In summary, if the recommendations of the Public Transport Reform Initiative are accepted, the operation of the Rapid Transit system will have to be procured on a competitive basis. The Public Transport Reform team are currently developing the proposed details of these policies with the NI Executive. It is likely that the outcome of these reforms will be finalised while the review of the Rapid Transit proposals progresses.

21.10 Private Finance

Under the DBFO or DBFOM structures described above, private sector finance is used to fund the capital development. Various forms of private finance investment could be used on the Belfast Rapid Transit Scheme and the competition inherent within the PPP/PFI procurement route will incentivise bidders to seek the most efficient financing solutions to include within their bid. Common sources of finance for PPP/PFI projects include the following:

- **Commercial bank debt** is available and offers a very flexible form of finance. Bank debt would typically be arranged or underwritten by one or more lead institutions and then syndicated into the wider banking market. Pricing depends on the specific project risk profile. Commercial bank debt is typically borrowed on a floating basis and interest rate risk mitigated by swapping a proportion of the debt into fixed rate.
- **Bond financing** may offer benefits over commercial bank debt in terms of maturity, index-linking, and price. However, Bond financing can be less flexible than commercial bank debt. The relative benefits of bank and bond financing are likely to be explored in detail by bidders during the bid process, but DRD should be aware of the benefits and drawbacks of this option.
- **The European Investment Bank** (EIB) can provide significant amounts of funding (typically 50% of debt funding) at very long maturities and attractive pricing for projects which meet its criteria. If the EIB is prepared to lend to the project, it will make its terms available equally to all bidders, and hence the initiative in first approaching EIB usually lies with the procuring authority. The EIB also provides support through the Joint European Support for Sustainable Investment in City Areas (JESSICA) initiative. Through this initiative, the EIB in conjunction with the European Commission and the Council of Europe Development Bank provide loans, equity or guarantees (but not grants) to private sector operators through Urban Development Funds to support PPP's and other projects investing in the urban context.
- **Equity** will be committed at a minimum level determined by debt providers and potentially by DRD, in order to ensure that the SPV is incentivised to perform and carries an appropriate level of financial risk. The equity cushion required by lenders will depend on the project risk profile.

The terms available from external financiers for debt funding for the project will depend on the level of risk transfer within the proposed contract. Typically, for PPP projects that follow the Standardisation of PFI Contracts (SOPC) guidance issued by HM Treasury the bidders will be able to fund 90% of the capital costs through external senior debt. However, this will be reduced where more risk is transferred to the private sector contractor.

21.11 Regional Transportation Strategy

The Regional Transportation Strategy (RTS) sets out three areas of public transport development that are believed to have the greatest potential for private sector funding[21]. One of the three areas mentioned is rapid transit.

The RTS estimates that PPP/PFI should be able to enhance the affordability of expenditure on all public transport infrastructure by a total of £150m over the period of the RTS (2002 to 2012) of which £60m was from the Rapid Transit schemes. The RTS includes a total cost of £100m for commencement of a rapid transit network for which PPP/PFI payments would amount to £40m over the 10 year RTS period (hence achieving affordability savings of £60m). The EWAY scheme is the only scheme mentioned (by route description) for contribution during the RTS period although the 4 radial corridors identified for Rapid Transit within the Belfast Metropolitan Area Plan (BMAP) are illustrated. However, the RTS was drafted in 2002 and there may be more or less appetite from the private sector than was envisaged within RTS. Therefore, the viability of PPP/PFI should be considered again within the Outline Business Case for EWAY/CITI/WWAY.

21.12 Rapid transit schemes that have closed under PPP/PFI

There have been numerous rapid transit schemes worldwide which have been procured under a PPP/PFI arrangement. The table below shows how some of these schemes have been funded and, where possible, the source and amount of this funding.

Name of Scheme BRT/LRT	Country	Description	Value	Funding source and amount	
DLR Woolwich Arsenal Extension	England	Extension of DLR City Airport route under the Thames to Woolwich Arsenal. DBM project.	£162m	Debt - EIB loan - Term loan (RBS) - Equity Bridge loan - Change of law facility Equity - AMEC - RBS	 £100m £215m £2m £12m £12m
Nottingham Express Transit (1st phase)	England	Tram scheme	£241m	Debt (DKW / ABN Amro / Berliner Bank) Equity Grants	 £200m
Edinburgh Tram Project	Scotland	Develop light-rail line	£308m	Unknown	Unknown
Jerusalem Red Line	Israel	BOT project to develop light-rail line	£241m	State contribution Debt (Bank Hapoalim / Bank Leumi) - Medium-term loan - Long-term loan Equity (City Pass consortium)	€245m €280m €100m €175m
Seville Metro Line	Spain	DBFO of 19km line	£308m	Local authority (via EIB guarantee facility) Debt (Local banks)	c €50m c €200m

[21] Section 6.4.6, Regional Transportation Strategy for Northern Ireland 2002 - 2012

Name of Scheme BRT/LRT	Country	Description	Value	Funding source and amount	
Malaga Metro	Spain	DBFO of 2 lines (13.6km)	£277m	Debt (EIB)	€260m
Madrid Light Rail (T2 and T3)	Spain	BOT of light rail line (7.8km) with 12 stations.	£205m	Debt (Ahorro Corporación / BBVA / Santander) - Senior term loan - Liquidity facility - VAT facility Equity (OHL-led consortium)	 €521m €45m €18m c. €146m
Florence Light Rail Project	Italy	DBFO of light rail network with 2 lines (9km and 4.5km).	£203m	Debt - Underwritten by Calyon/MPS - Underwritten by I-SpA - Refinancing facility (I-SpA) Equity (RATP-led consortium)	 €118.5m €50m €61m €7m
Tenerife Light Rail Project	Spain		£149m	Debt (BBVA) Public contributions (Regional Government and concession awarder)	€132m c. €136m
Brisbane Airport Rail Link	Australia	8.5km line linking airport to city and Gold Coast	£89m	Debt Equity	€100m €30m
Richmond/Airport/ Vancouver Rapid Transit Project	Canada	DBFOM of 19.5km line with 18 stations	£780m	Sale of Park & Ride facility Province of British Colombia	€64m €41m
Minimetro Perugia	Italy	BFM of new metro line	£48m	Debt (DEPFA)	€18m
Barcelona Light Rail project	Spain	DBFO	£188m	Debt (SG / Banco Sabadell)	Unknown

Other Light Rail projects which are currently in pre-approval stage within the UK include:

- Newcastle Metro Upgrade Project;
- Glasgow Light Rail;
- Stratford International Extension;

- DLR Barking Reach Extension;
- TfL Tramlink Extensions Proposals;
- The Cross River Tram Scheme; and
- West London tram Project.

Light rail projects on hold in the UK at present include the extension to the Midland Metro service and Phase 3 of Manchester Metrolink.

It should be noted that all the schemes detailed in the table above involve light rail as opposed to Bus Rapid Transit (BRT). The financing arrangements for all the BRT schemes that are currently in operation in the UK are examined in section 23.7

21.13 Conclusion

This section has demonstrated that there are a number of structures available to DRD for the transfer of risk under PPP/PFI procurement. The issues with regard to structuring a Rapid Transit scheme under a PPP arrangement on which the DRD will need to make a decision are as follows:

- Whether or not to transfer operational control of the Rapid Transit system to the private sector contractor;
- If operational control is passed to the contractor, should the risk of demand (and hence revenue) for the service also be transferred; and
- Should the contractor be asked to finance the construction of the infrastructure itself.

Recent indications from the Rapid Transit schemes that have been procured under PPP within the UK have suggested that the current appetite for long-term operational/demand risk from PPP contractors is low. This is due to the uncertainties in forecasting the demand for Rapid Transit systems over the 25-30 year period. Therefore, it is likely that setting up a separate contract for the operation of the infrastructure will produce a better value for money solution. However, in order to confirm the level of interest a detailed formal market sounding exercise should be undertaken at the next stage of the appraisal process which should inform the DRD of the likely interest from the private sector.

It should also be borne in mind that all Rapid Transit schemes that have previously been procured under PPP/PFI around the world are LRT schemes. This is because the size of the capital investment required for light rail schemes as well as the greater maintenance requirements means that there is a high level of interest from the private sector for these contracts. This, in turn, means that authorities can demonstrate that value for money can be achieved through the presence of a high level of competition for LRT schemes.

However, no BRT scheme has yet been procured under PPP/PFI in the UK because the maintenance service requirements are generally not large enough to demonstrate the value for money of using a concession agreement to finance the construction of the infrastructure over conventional procurement. The forecast maintenance costs shown in the options appraisal within this Report demonstrate that this is likely to be the case for the Belfast Rapid Transit scheme if a bus based route is selected as the preferred option. Also, the maintenance requirements of BRT infrastructure are not generally considered sufficiently separable to the existing highway maintenance to justify a separate contract to the existing highway maintenance contract. If this is found to be the case for the Belfast Rapid Transit scheme, it is likely that conventional procurement of the infrastructure with a series of short-term contracts procured for the operation of the vehicles. This is provided the recommendations of the Public Transport Reform Change Programme are implemented prior to the Rapid Transit infrastructure becoming operational.

Section 23 provides a programme level assessment of the potential value for money benefit of procuring the EWAY, CITI and WWAY schemes under PPP.