London Underground

Are the Public Private Partnerships likely to work successfully?

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL
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summary

The London Underground's three novel Public Private Partnerships (PPPs) aim to modernise the Tube. Are they likely to work successfully?

Three PPPs

1 In recent decades, London Underground (LUL) has experienced difficulties in delivering modern services for the Tube. LUL's ability to provide better infrastructure was constrained by the uneven flow of subsidy from the Treasury (due to differing success in its requests for funding at each annual spending review), which meant that long term maintenance and renewal programmes were disrupted. The effects of the funding constraint were compounded by significant cost overruns on the Central Line upgrade and the Jubilee Line Extension project (in excess of 30 per cent in each case), each completed in the 1990s, and a number of other smaller renewal programmes.[1]

2 Between December 2002 and April 2003, LUL signed three 30 year Public Private Partnership contracts (PPPs) with private sector organisations Metronet and Tube Lines. The PPPs are a joint public-private approach aimed at overcoming LUL's historical problems in financing and managing the Tube infrastructure. LUL retains the ultimate ownership and responsibility for the daily operation of trains and stations, and for safety, while the private sector partners are expected to maintain and renew infrastructure including the trains, stations, track and signalling, in a whole life manner. Using a 6 per cent discount rate, London Underground evaluated the net present value of all three PPPs over 30 years at £15.7 billion (with a value of £9.7 billion at 2002-03 prices over the first 7½ years). The Department for Transport (the Department) has agreed a stable funding regime under which it makes annual grant payments to Transport for London (TfL) to cover LUL's service charge payments, subject to ongoing monitoring and review.

Tube - Key facts

- First section opened in 1863
- 3 million passenger journeys per weekday
- 67.7 million train kilometres driven in 2003-04

3 At contract signature, Metronet and Tube Lines acquired three separate infrastructure companies (Infracos), previously wholly owned subsidiaries of LUL, covering all 12 London Underground lines, as follows:

- BCV Infraco - Bakerloo, Central, Victoria and Waterloo & City lines (run by Metronet);
- JNP Infraco - Jubilee, Northern and Piccadilly lines (run by Tube Lines); and
- SSL Infraco - District, Circle, Metropolitan, Hammersmith & City and East London lines (run by Metronet).

See **Figure 1** - Who's Who? for an understanding of the responsibilities of the key parties and how they interact with one another

Novel features

4 The PPPs are novel in a number of respects:

- The responsibility split between infrastructure and operations does not exist in any other major metro system, and has been employed in few rail systems outside the UK;
- The mechanisms to incentivise Infraco performance are more complex than those used for the vast majority of other transport systems; and
- There is a built-in periodic review mechanism that enables the parties to respecify requirements within the PPP scope and reprice the deals every 7½ years, and possibly before in certain limited circumstances.

an early assessment of the PPPs

1 *See London Underground: Final Assessment Report, February 2002; and Jubilee Line Extension Project: Post Implementation Review, Department for Transport, September 2002.*

ARE THE PPP'S LIKELY TO IMPROVE THE TUBE?

Are they likely to work successfully?

5 The NAO has to date produced two other reports about the PPPs. The first, *The financial analysis for the London Underground Public Private Partnerships*[2], found that the initial financial analysis, on its own, offered useful but incomplete insights about value for money. The key findings of our further report, *London Underground PPP: Were they good deals?*[3] *are:*

- The complexity of the PPPs resulted from the scale of the work required, the decision to have output based contracts, and limited knowledge of the condition of less accessible infrastructure;
- There is only limited assurance that the price is reasonable, reflecting the complexity of the PPPs and some uncertainty about the eventual price, but any price revisions have to meet tests of economy and efficiency and greater price certainty would have resulted in a higher price;
- The process of negotiating the PPPs took longer than expected and was costly, but on a scale consistent with the overall deal size and complexity; and
- The deals offer an improved prospect of upgraded infrastructure, compared to LUL's pre-1997 investment regime, and remedial work, that proved greater than anticipated, has been spread over a longer period than originally intended.

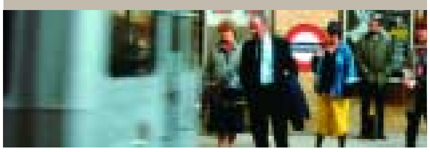
6 This report examines whether these deals are likely to work successfully in practice given the PPPs that were selected. To understand this we decided to undertake an early assessment of the PPPs, as they now stand, based around the following questions: i) are performance outcomes likely to improve?; ii) are the key success factors in place for the partnerships to work?; iii) are there any constraints to the success of the PPPs?

POTENTIAL FOR IMPROVEMENT, IF IMPORTANT TESTS ARE MET

A | PERFORMANCE OUTCOMES

The PPPs have the potential to deliver improvements for passengers

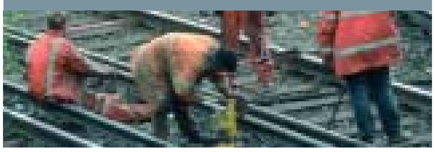
7 The Infracos have contracted to improve the Tube through better day-to-day performance, meeting asset condition benchmarks, asset replacement and renewal. To date, performance against benchmarks is mixed, while it will take time and good information to determine whether performance will improve to meet the full range of customer-facing contractual benchmarks. There are financial bonuses and abatements as incentives for the Infracos to deliver better performance and enable them to make significant returns on their investments, but with possible limitations in their impact.



B | SUCCESS FACTORS

Many are in place, but important tests ahead

8 In general, the deal is clearly specified and understood, and the parties are building a good partnership - which the government expects to be the most effective way to improve the Tube and, therefore, service to passengers.[4] The management of ageing assets poses serious challenges for the Infracos and it is unclear yet whether the oversight mechanisms provided for in the contracts enable LUL to deliver the outcomes to the public that are promised in the contracts. Effective contract management by all parties is essential for the full partnership benefits to be achieved.



C | CONSTRAINTS

There are limits to what the signed deals can achieve

9 The 30-year contracts are reviewed by the parties, with the assistance of an independent Arbiter (if called upon), every 7½ years but possibly before then. Therefore it is intended that the price and scope of the deals could change. Amongst other considerations, a repricing is subject to the Department agreeing to adjust the annual grant it pays to TfL for the running of the Tube. Additionally, some Tube services are provided outside the PPPs through separate PFI contracts which bring delivery and financial risks to the PPP itself. Finally, the Mayor's transport strategy for London, and the Department for Transport's actions on rail and roads in the south east will also indirectly impact upon Tube operations.

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2 *HC54, Session 2000-2001, December 2000.*

3 *HC 645, Session 2004-05, June 2004.*

4 *See Were they good deals?, HC 645, Session 2004-05, June 2004, paragraphs 1.6 - 1.19 on PPP option appraisal.*

1 | Tube PPPs: Who's who?

The Tube began operations 140 years ago, initially under private ownership. From 1948 to 2002, the Tube was run exclusively by the public sector. With the signing of PPP contracts in December 2002 and April 2003, two new private sector players became involved in managing London Underground - Tube Lines and Metronet. The diagram opposite shows the relationships and interactions between the main parties involved with the PPPs.

Who runs the PPPs?

The PPPs are run through a partnership between four organisations - LUL, which is responsible for train operations and is in charge of train drivers and station staff, and the three infrastructure companies - Infraco JNP, Infraco BCV and Infraco SSL responsible for infrastructure maintenance, replacement and upgrade on specific lines and stations, as shown in the diagram opposite.

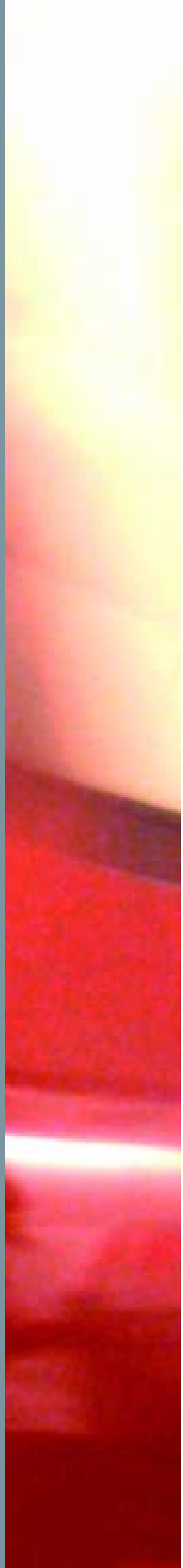
Who pays for the PPPs?

The Department for Transport provides Transport for London (TfL) with an annual grant for the Tube of some £1 billion - £1.1 billion. TfL has responsibility for London's transport system, including the Tube. LUL also receives income from passenger fares and pays the Infracos an Infrastructure Service Charge, which varies depending on performance *(see section A4)*.

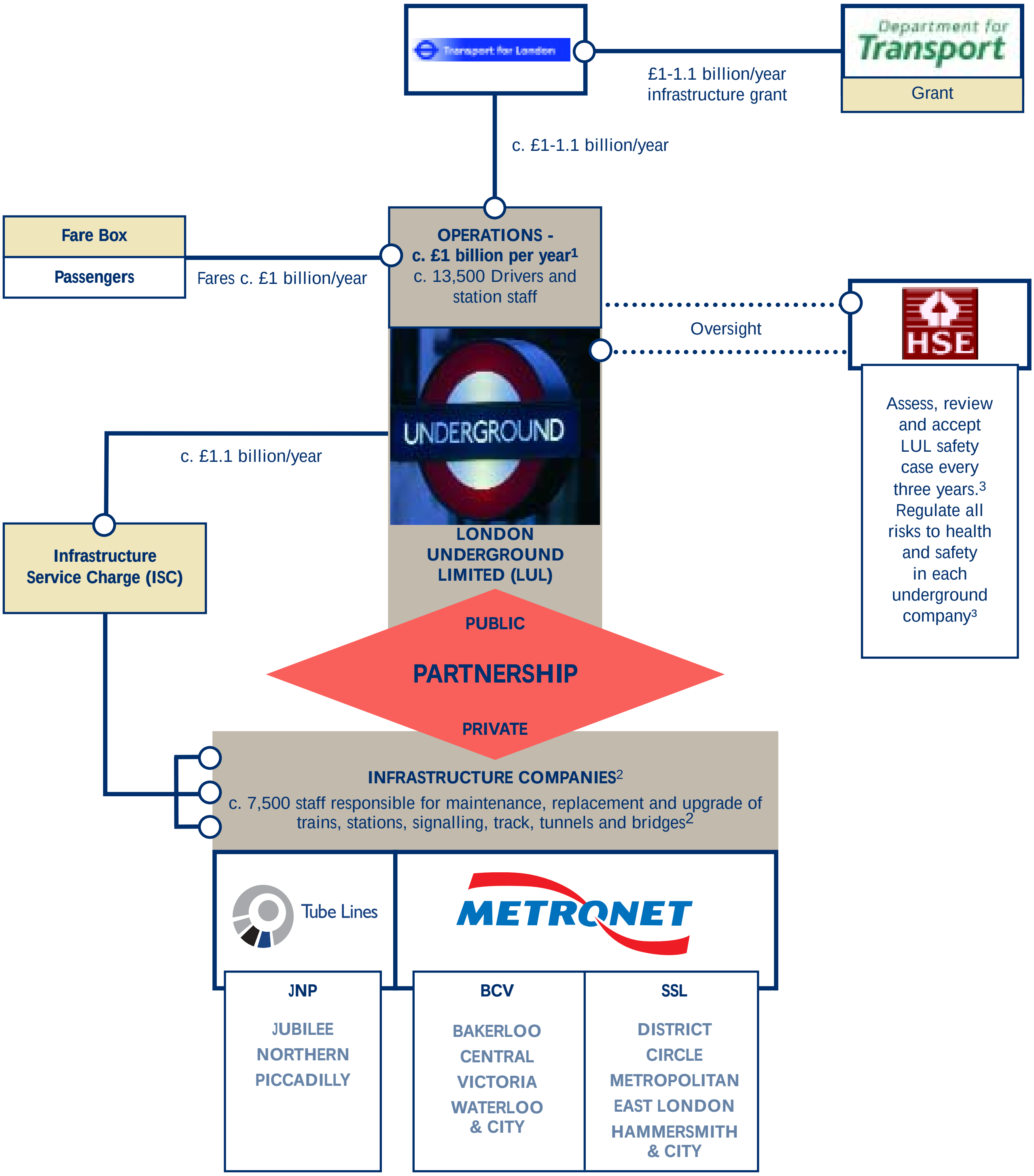
Who oversees the PPPs?

The Department oversees the grant it pays to TfL for the Tube *(see B2)*, and TfL passes on the grant to LUL and monitors the effectiveness of LUL and the Infracos in running the PPPs.

Safety on the Tube is LUL's responsibility. As a train operator, LUL is required to present a three year safety case to the Health and Safety Executive (HSE). Under the PPP contracts, each Infraco must present a contractual safety case to London Underground. These take a very similar form to the safety case required by the HSE.



Tube operations and infrastructure are run through a partnership between four parties - LUL and three private infrastructure companies. They are paid through a combination of grant and farebox revenue (also see text on facing page).



NOTES

1 All monetary amounts are the most recent annual figures.

2 A Partnership Director, nominated by LUL, sits on all three infraco boards.

3 Each Infraco is required, under the PPP agreement, to present a contractual safety case to LUL.

Source: National Audit Office, derived from PPP documentation

recommendations

Whether the PPPs will deliver real benefits to passengers, and provide appropriate returns on investment, will be determined over the 30 year life of the contracts. However, there are already lessons – one year into the contracts - to be learned about deal preparation, customer needs and expectations, accountability, contract and relationship management, deal oversight, and change management.

Deal preparation

1 | Setting up a performance regime

The success of the PPPs depends to a large extent on the development of an effective performance incentive regime, which is challenging. It is therefore sensible, where possible and as in this case, to have a period of trial operation (or shadow running) to review arrangements and iron out problems. Typically, not all aspects of a regime can be fully tested ahead of time, and ongoing review is desirable. Within the Tube PPP framework, a review is anticipated at the 7½ year mark.

> In introducing new performance regimes, departments should ensure that they take as full account as possible of the effectiveness of different PFI/PPP performance regimes up front. Departments should also conduct ongoing reviews of the effectiveness of the regime, including an independent audit at least one year in, on which basis changes should be made to the regime where possible. (Report reference: A1-A4 and B3)

2 | Clarity of interfaces with other contracts

LUL has a number of PFI contracts and has retained financial and delivery interface risks as between the PPPs and PFIs.

> Parties setting up PPPs should take existing arrangements with third parties into account to make deals as effective as possible, with incentives to ensure smooth interfaces with existing contracts. Where this has not occurred, or is not practicable, the parties should identify the scope for remedial action as soon as possible. In this PPP, LUL and the Infracos must work together to ensure interfaces are managed successfully (Report reference: B2; C2)

Understanding customer needs and managing expectations

3 | Understanding customer needs

The key indicators of the PPP performance – availability, ambience and capability – were developed to reflect outcomes of importance to passengers. LUL collects information on the performance of the network, and uses customer surveys to establish passengers' perceptions of services, to measure PPP performance directly and for wider information and business management.

> Public sector partners should develop a "whole service" understanding of the impact of the PPPs by developing or extending the scope of user surveys to ask customers whether the quality of service is meeting their expectations, and take the appropriate action in response. These surveys, which need to be used with care in tracking performance – because, for example, perceptions can change slowly and be perverse - ought to be used in performance measurement where practicable. (Report reference: A1-A4)

4 | Managing customer expectations

LUL is spending some £1 billion per year on the Tube's infrastructure. This has raised passenger expectations about service quality, yet most significant capability enhancements are not expected to happen until between 2007 and 2013.

> Public bodies entering into PPPs should make clear to stakeholders – as best they can – the constraints on delivering service improvements, which in this case include previous underinvestment, affordability considerations, and alignment with other investments. (Report reference: Summary, (A1 and C1-C3)

Accountability

5 | Ensuring accountability to taxpayers

On all PPP deals, it is important that taxpayers can obtain regular and accurate information about what their money is delivering.

In this case, LUL should continue to publish clear, publicly accessible PPP contract performance outcomes information for each four week period on its website, and should consider an independent audit of this data every year to verify its accuracy. (Report reference: B4)

Contract and partnership management

6 | Developing a culture of partnership

In most instances of infrastructure problems, the parties work together quickly, and without rancour to reach operational and financial solutions. This is especially important when partners are faced with unforeseen events, such as the "extraordinary storm" of snow – an exceptional bad weather event - in January 2003.

The parties must ensure that early co-operative working becomes embedded as the way of doing things throughout the life of the contracts through various actions, such as working together to rapidly determine the root cause of problems and to determine joint solutions. (Report reference: B2)

7 | Ensuring clear attribution of risk

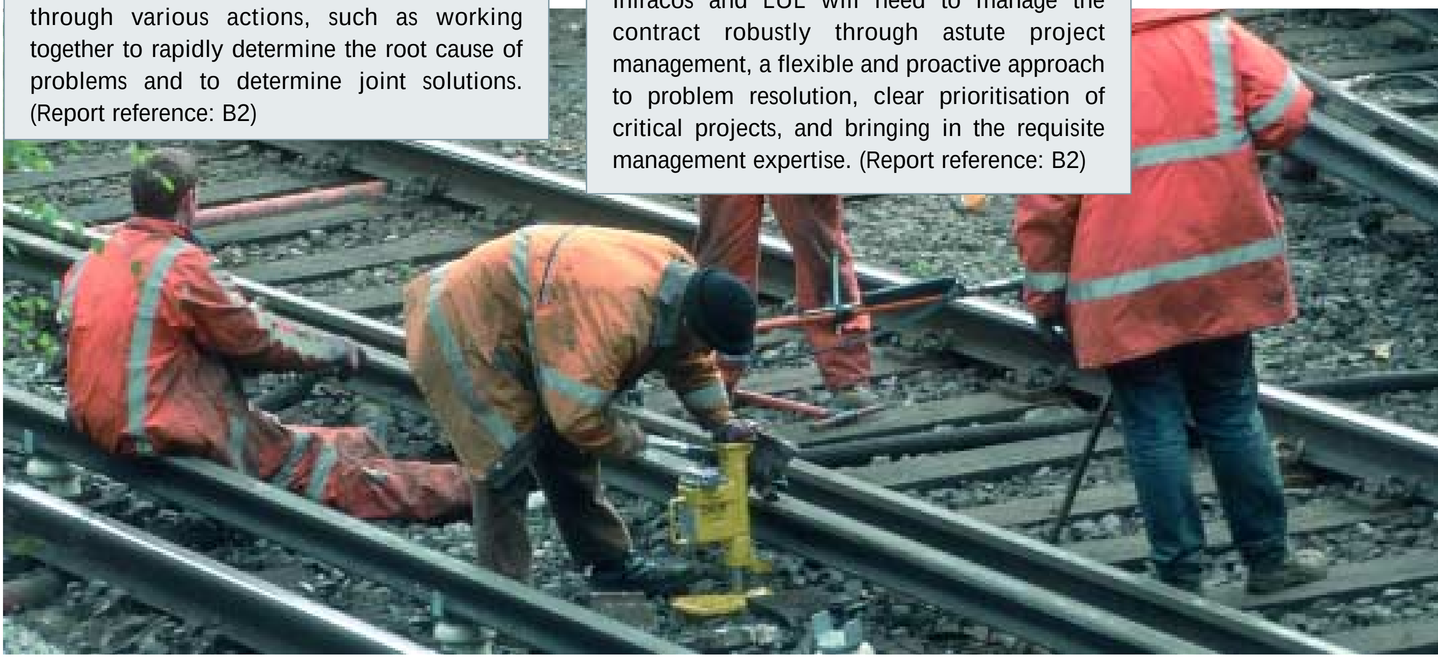
While the PPP parties are typically working together to reach swift operational and financial solutions to issues, sometimes financial resolution can take months as in the Piccadilly Line example described in Case example 6 and more generally some £14.4 million pounds of fault attribution for 2003/04 still subject to negotiation in late May 2004.

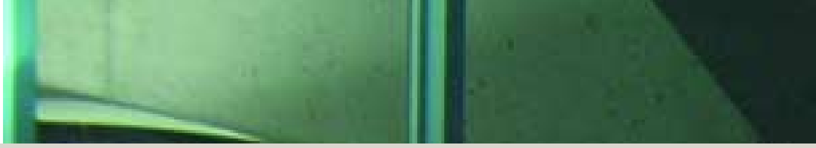
Partnership means not pursuing contractual disputes that have little merit from an outside perspective. The partners to this contract should take steps to ensure that lengthy processes to reach financial resolution continues to be the exception rather than the rule, and LUL should resolve difficulties in ways that incentivise rapid action to remedy asset condition without unduly prejudicing its financial position. (Report reference: A4; B3)

8 | Effective contract management

The effectiveness of the PPP, like that of any large contract, will depend on the parties' ability to manage the contracts effectively to deliver the expected outcomes. This will require not only an understanding of the contracts, but also developing and honing a number of key skills within both the Infraco and LUL to ensure delivery.

To deliver the expected contract outcomes, the Infracos and LUL will need to manage the contract robustly through astute project management, a flexible and proactive approach to problem resolution, clear prioritisation of critical projects, and bringing in the requisite management expertise. (Report reference: B2)





recommendations

Deal oversight

9 | Partnership Director

The introduction of a Partnership Director, nominated by Transport for London and with the same duties as other independent non-executive directors, should help foster good communications and trust between the parties. She also has a duty of care to passenger safety.

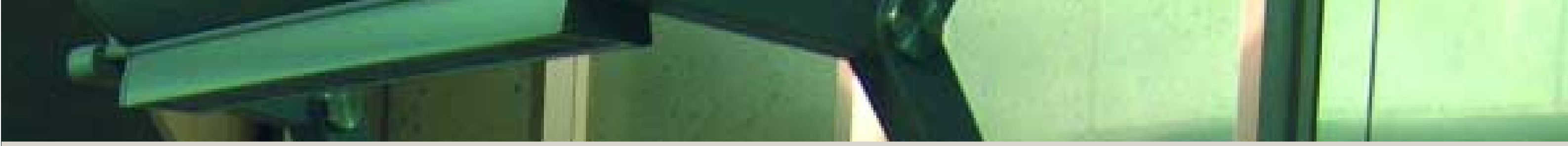
> The role of the Partnership Director should be reviewed by LUL on a regular basis. LUL should propose changes to the Shareholder's agreement that sets out the post and its functions as necessary. (Report reference: B4)

10 | Risk management

London Underground and the Department will need to follow good practice in risk management in dealing with the risk of developments relating to the PPPs that may increase central government liabilities. They should ensure that their risk management plans and processes include the full cycle of proactive activities: risk identification, evaluation of the probability and impact of risks, risk mitigation, monitoring and review.[5] LUL currently has arrangements in place for identifying and mitigating risks, particularly arising from PFI/PPP interfaces.

> The Department should avoid a complete "hands off" approach to oversight, while recognising that the partners must have freedom to deliver their responsibilities under the contract. (Report reference: B4)

5 *See previous NAO reports such as Risk Management: The Nuclear Liabilities of British Energy, HC 264, Session 2003-04, 6 February 2004, and Risk Management Assessment Framework, HM Treasury, June 2003.*



Change management

11 | Managing scope changes ahead of 7½ year Periodic review

The PPP contracts are intended to incentivise the Infracos to deliver the works necessary to meet the obligations described in the contracts. But they also allow LUL the option to require an Infraco to deliver a range of additional works for which the Infraco – or possibly an alternative provider in the case of a major enhancement - is entitled to payment. LUL is finding that some additional works are more costly than they anticipated, and that the market for alternative providers is limited.

> It is sensible that the contracts allow for possible scope changes, but LUL must maintain its knowledge base and benchmark the private Infraco proposals to check that they offer additional works at a fair price. More generally, Departments should ensure that the review mechanisms in PFI/PPP deals secure the commitment of the private sector to its long term responsibilities. (Report reference: B2 and C1)

12 | Preparing for 7½ year Periodic review

A service procurer needs a good knowledge of the supply market to assess the value for money of future work. This is hard given limited suppliers, and possible reduced transparency on Metronet's side, where major suppliers are part of the consortium. LUL report that initial information to date from the Infracos is inconsistent and, in some cases, inadequate.

> If partnership is to work, LUL needs to be given accurate, consistent, and regular information from each Infraco. The level of detail about disaggregated costs should be no less than during the original PPP bid evaluation stage to permit sound judgement about whether the re-pricing at 7½ year review represents good value for money. (Report reference: A3.4; C1)