The Termination of the PFI Contract for the National Physical Laboratory

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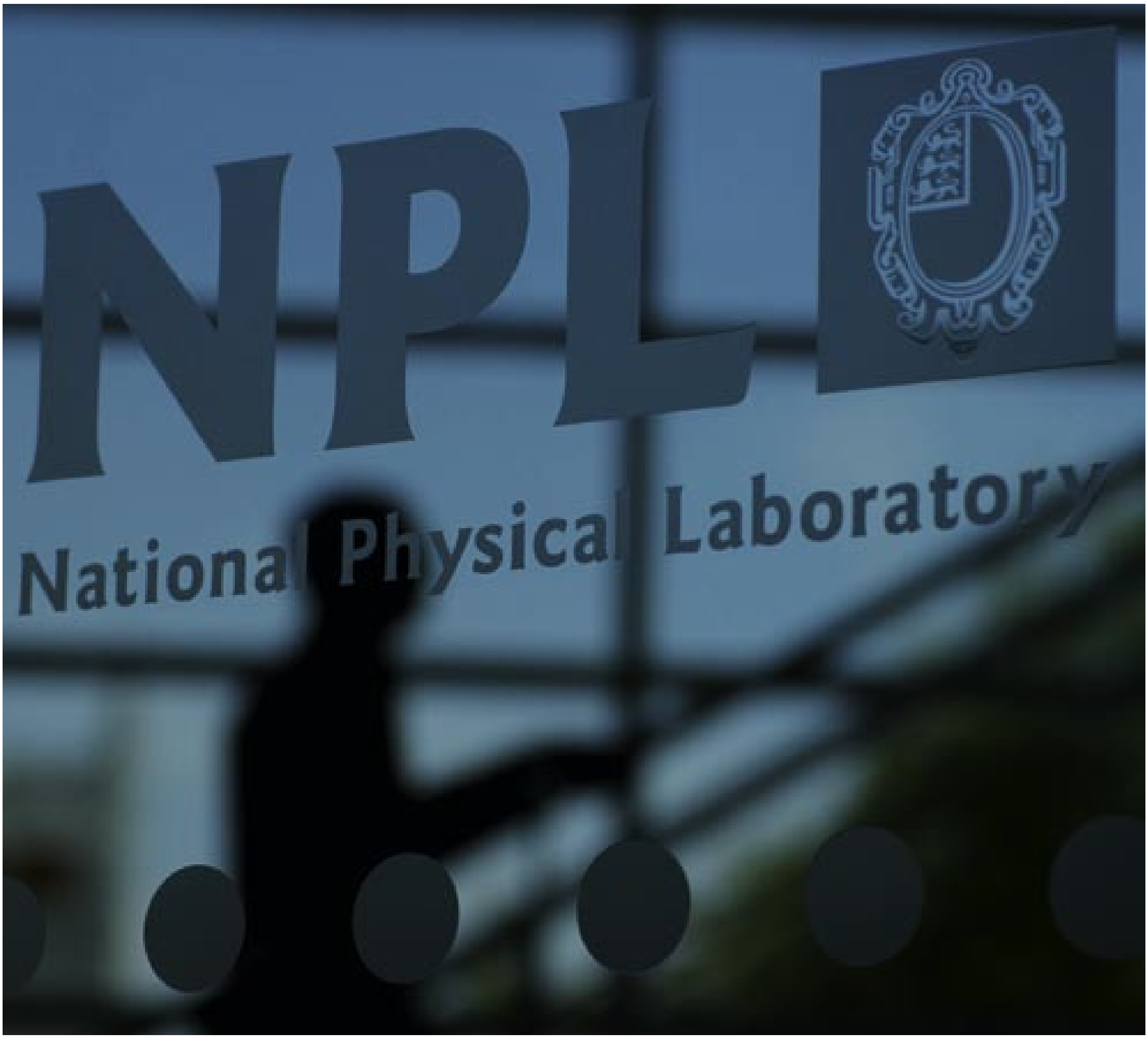
EXECUTIVE SUMMARY



1 The National Physical Laboratory (NPL) is one of the world's leading laboratories working on the measurement of physical properties such as time, length and mass. It sits at the pinnacle of the UK's National Measurement System for which the Department of Trade and Industry (the Department) is responsible.

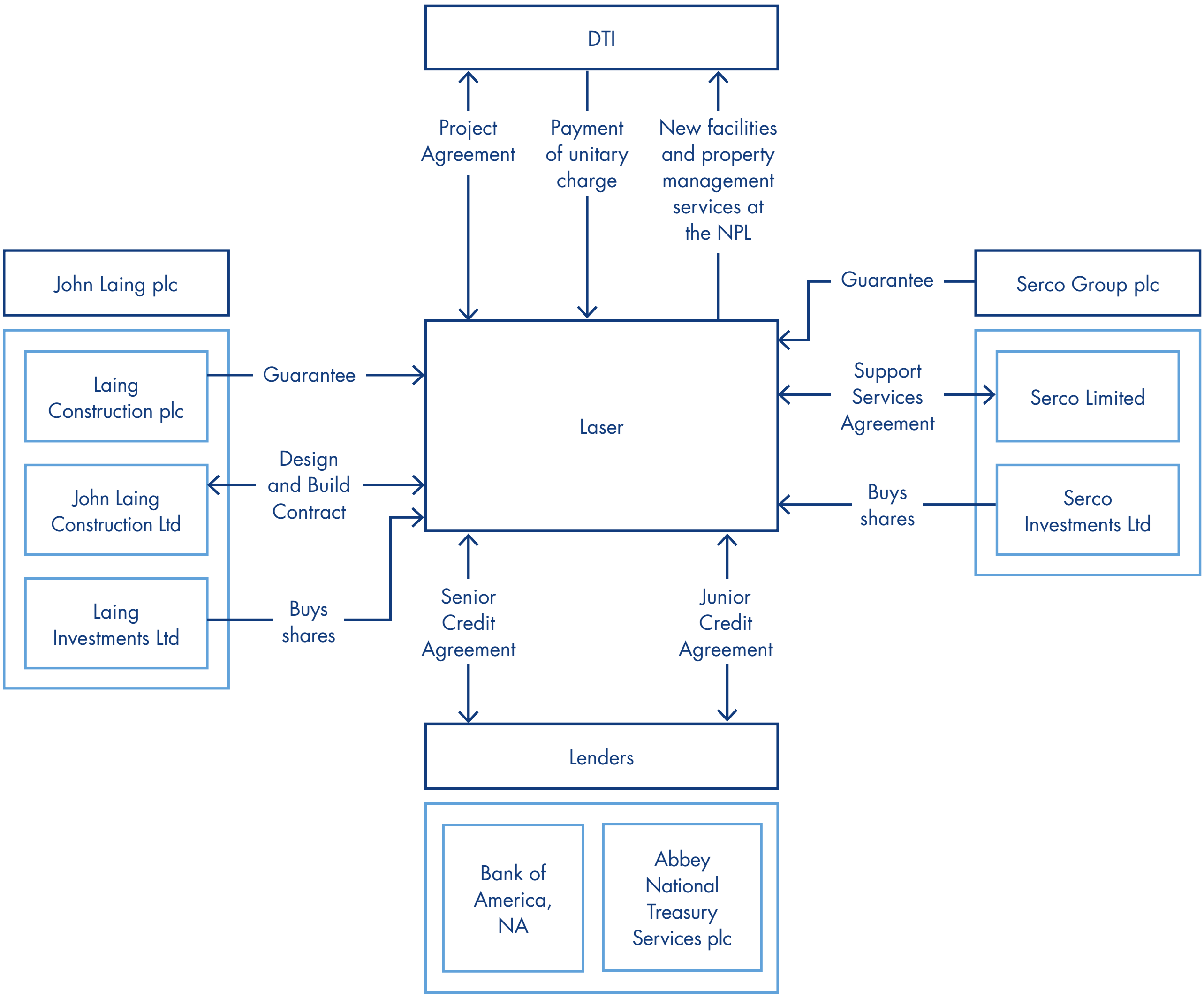
2 On 31 July 1998, the Department and Laser, a special purpose company jointly owned by Serco Group plc and John Laing plc, signed a 25-year long, Private Finance Initiative (PFI) contract. Under the contract Laser would build and manage new facilities for the NPL, comprising 16 linked modules, containing over 400 laboratories, and replacing many existing buildings. The planned cost of the new buildings was approximately £96 million,[1,2] financed mainly by loans from Bank of America, NA; and Abbey National Treasury Services plc (the Lenders) **(Figure 1 overleaf)**. The Department would pay Laser a unitary charge, of £11.5 million (1998 prices) a year once the new buildings were ready. The charge would be increased annually by a factor based on the increase in retail prices. At the end of the contract, the charge would cease and ownership of the buildings would pass to the Department.

3 The project suffered considerable construction delays and difficulties in achieving the specification for some parts of the buildings. These difficulties delayed the realisation of benefits associated with the new buildings, although mitigating action protected the quality of the scientific research conducted in the existing facilities. In December 2004, the Department and Laser agreed to terminate the PFI contract. The Department paid Laser £75 million for its interest in the new buildings, took over responsibility for completing some outstanding building works, and its liability to pay the unitary charge ceased. Laser passed the payment in full to the Lenders and is currently being wound up.

4 This was the first termination of a major PFI contract involving serious non-performance. We examined the Department's handling of the project and the lessons that might apply to other PFI projects. This report examines the problems that led to the termination, why these problems arose, how the Department managed them and the value for money consequences of the termination. Appendix 1 sets out our methodology.

1 All figures quoted in this report are cash except where otherwise stated.
2 The figure includes the fixed price for the design and construction of the new facilities, fees for construction advisers, capital expenditure in preparation for the provision of facilities management services and debt interest payments during the construction period.

1 Principal relationships between the parties



Source: National Audit Office and the Department

The parties agreed to terminate the PFI contract

5 Laser's shareholders divided the main contracts between them. Laser awarded John Laing plc's subsidiary, John Laing Construction Limited (JLC Ltd), a fixed price contract to design and build the new facilities (Figure 1). Serco Limited, a subsidiary of Serco Group plc, entered into a contract with Laser to manage the completed facilities (Figure 1).

6 Laser and JLC Ltd designed the main facilities around 13 construction phases, with completion spread from October 1999 to March 2001.[3] This approach was intended to provide Laser with early cash flow from the Department's payment of the unitary charge for completed phases.

7 Problems in constructing the new facilities delayed completion of all the phases by between seven and 46 months. Problems stemming from JLC Ltd's designs for achieving stringent temperature and/or stringent sub-audible noise controls in 30 key laboratories were particularly intractable. Problems with eight of these laboratories have still to be fully resolved.

8 Initially, the fixed price design and build contract with JLC Ltd protected Laser from increases in construction costs, and compensated it for lost revenue resulting from the delays. However, Laser lost this protection in November 2001, when John Laing plc sold JLC Ltd, took on responsibility for the contract with Laser, and concluded a Supplemental Deed with Laser which replaced JLC Ltd's obligation to construct facilities that met the Department's performance specification with one of completing an agreed list of work. The Department was not party to the deed and registered its objection to it. Laser considers that the Supplemental Deed protected the project from a larger downside that would have materialised if John Laing plc had pulled out of the project.

9 When it signed the Supplemental Deed, John Laing plc was in serious financial difficulties and needed to satisfy its bankers that it had put a limit on its losses on the contract. However, the Supplemental Deed exposed Laser to the full financial impact of any further construction problems and delays. When these materialised, they sapped Laser's financial strength so much that, in July 2004, Laser recognised that it could not complete the project. In Laser's view, the key problem was the financially open ended obligation to solve design issues with the eight laboratories that had to meet the most stringent sub-audible noise requirements. Laser therefore proposed a negotiated, early termination. After negotiations, the Department and Laser signed the termination agreement in December 2004.

The parties could have reduced project risks

10 The fundamental reason for the termination was that the original private sector design of the new buildings was deficient. The Department had concerns with the design at several stages during the project. During the procurement, the Department considered that Laser would overcome the Department's concerns and so did not insist on Laser demonstrating that its design could work. Following the award of the contract, the Department did not seek to resolve its concerns by imposing a design solution on Laser because the Department wished to ensure that responsibility for delivering satisfactory performance remained unambiguously with the private sector. The Department expected Laser and its contractors to recognise that their best interests were served by resolving concerns about the design, and would be able to act accordingly. The Department also aimed to avoid costs to the taxpayer and, initially, keep the value of the buildings off its balance sheet.

3 A fourteenth construction phase covered construction of car parks and other ancillary works, with a planned completion date of September 2001.

11 However, the private sector parties also missed opportunities to reduce project risk. Laser did not prove key features of JLC Ltd's design before construction commenced. JLC Ltd was slow to heed concerns expressed by the Department's expert advisers and the Independent Certifier. Also, although Serco Group plc stood to lose its investment in Laser, it was unable to persuade JLC Ltd to make changes when problems materialised.

12 Notwithstanding the obligation on JLC Ltd under the design and build contract to comply with Laser's obligations under the PFI contract, the payment schedule in the design and build contract reimbursed JLC Ltd mainly for making progress with building work rather than showing that the completed buildings met the specification. As a result, by autumn 2001, Laser had already paid JLC Ltd £76 million of a fixed price of £82 million, although only 9 out of the 16 modules were finished and John Laing plc estimated that completing the facilities would cost at least a further £45 million. John Laing plc told us that it had seriously underestimated the cost of constructing the buildings and lost £67 million on the contract, and at least a further £12 million of losses were borne by its sub-contractors.

The Department protected its position as problems grew

13 Following the signing of the contract in 1998, the Department retained a team to manage its residual responsibilities at the NPL. As a result, when Laser and JLC Ltd found that they were in trouble, the Department already had in place a project team that included staff and advisers with experience of the project. As the problems increased, the Department engaged additional technical and legal advisers to support and direct the team.

14 JLC Ltd's approach to the project became more adversarial as its problems mounted. The Department strove to avoid compromising its contractual position. It was prepared to accept lower performance requirements providing the relaxations did not compromise scientific research. Prudently in the circumstances, the Department refrained from requesting changes to the specification, and so avoided obscuring Laser's design responsibilities. Despite being of the view that some construction phases had been wrongly certified as complete, the Department paid the required unitary charge in full, adhering to legal advice that it was under an obligation to do so, pending overturning of the Independent Certifier's completion certificates by adjudication. Also, the Department's ability to sustain leading scientific research in the pre-contract, existing laboratories effectively avoided supply side pressures in the provision of laboratory space.

15 At least three times from 2001 onwards, the Department considered terminating the contract on the basis of default by Laser. However, each time, the Department was advised that there was a risk that to do so would expose it to a claim for damages. The Department was also concerned that it might not be able to find another contractor to take on the project.

Ultimately, the termination sum should be value for money

16 The Department based its strategy for negotiating the agreed termination sum on its estimate of Laser's contractual entitlement in the event of termination on the grounds of Laser's default. These provisions took account of the projected cost to the Department of completing the facilities. The estimate took the form of a range of likely outcomes, due to uncertainty in some parts of the calculation. The agreed termination sum, £75 million, was near the lower end of the range.

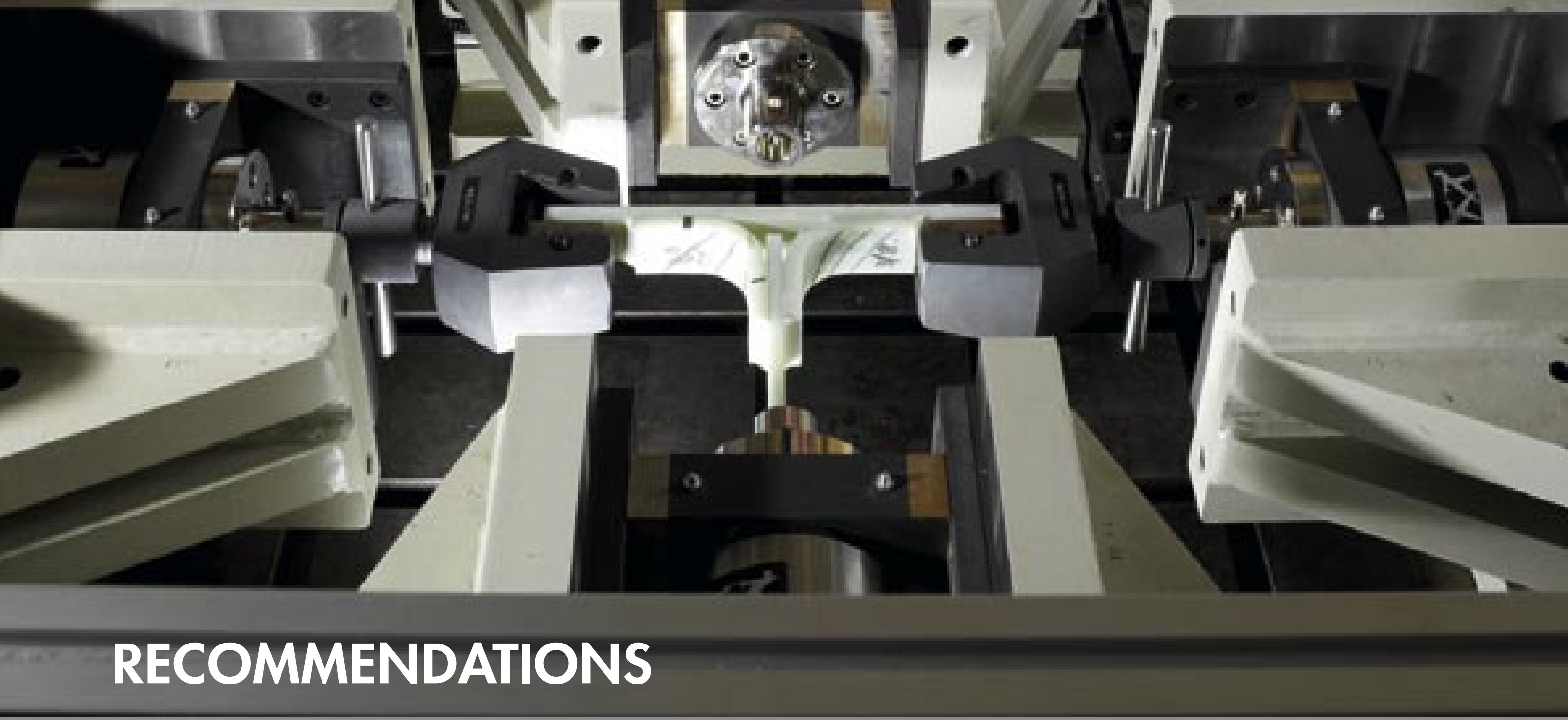
17 The Department expects substantially to complete the facilities in March 2007 and within a budget of £18 million. So far progress with the remedial and outstanding works is on schedule and within budget.

18 Up to and including the termination, the Department's investment in the new facilities was about £122 million (March 2005 prices). In return, the Department secured an asset that, for its 2004-05 accounts, was valued at £85 million and for which all but eight of more than 400 laboratories should be capable of being made to meet its specification in full. The private sector reported a loss of at least £100 million **(Figure 2)**.

2 The private sector reported a loss of at least £100 million

	Investment in the new buildings (£ millions at 2005 prices)	Value of the new buildings (£ millions at 2005 prices)	
The Department	122	Value of the new buildings on a depreciated replacement cost basis	85
The private sector	**Investment in the project (£ millions)**	**Principal outcomes (£ millions)**	
The equity investors	4	Full equity lost. No dividends received	(4)
The Lenders (loans)	85	£67 million left to repay loans from the termination sum (£75 million) after deducting the cost to break agreements that hedged movements in interest rates (£8 million)	(18)
Sub-contractors (JLC Ltd)	not available	£67 million loss on the design and build contract plus £12 million suffered by other parties in the supply chain	(79)
Total private sector investment	**>89**	**Total private sector loss**	**(101)**

Source: National Audit Office



RECOMMENDATIONS

19 The contractor failed to deliver the project to the time and quality required. However, the contract and the way it was managed by the Department were effective in transferring design and construction risk to the private sector. This has meant that, while the public sector has lost some of the benefits from the use of the buildings, it has not borne the full cost of making good deficiencies in them. We conclude that the Department did not achieve full value for money in the short to medium term, but did protect its downside position.

20 The NPL project was an early PFI contract. Some lessons that can be drawn from this project have already been captured in guidance published since the contract was signed in mid-1998. There are, however, new lessons to be learnt, and older ones to be reinforced about awarding and managing a fixed-price contract involving a high degree of technical complexity. We make the following recommendations:

a Technically challenging requirements – To reduce the risk that the Contractor will fail to deliver the required performance, the procurement process for technically challenging requirements should require bidders to demonstrate convincingly that they can satisfy the performance obligations, for example by constructing prototypes.

b Risk management – Before signing the contract, the Authority should assess the main ways in which the project could go wrong and use this assessment (a) to see whether more needs to be done to reduce risks and (b) confirm that the contract provides adequate incentives for all parties to avoid problems, or cure them if they occur.

c Risk management – Following the award of the PFI contract, the Department benefited from retaining staff on the project with detailed knowledge of the NPL and the contract. The Authority should retain access to a core of key personnel during the initial post-contract stage of the contract, until the Contractor has begun to deliver the services successfully.

d Risk management – The concept of partnering can help the public and private sectors to find solutions to issues where they are working together over an extended period. However, the Authority should be prepared to set limits on its partnering role when the Contractor's continued poor performance seriously jeopardises the successful delivery of the project, and, where necessary, re-establish any rights that may have been eroded through its dealings with the Contractor and avoid actions that will inadvertently transfer risk back to the Authority.




e Risk management – Under normal circumstances, issuing variations in good time is sensible, for example to avoid the cost of installing equipment that would otherwise need to be changed at a later date. But this project demonstrates that refraining from issuing variations, which would have changed the nature of the works, helped the Department successfully avoid counter claims that it shared responsibility for the poor performance of the new facilities.

f Risk management – Banks may prove reluctant to step in when projects are in difficulties, especially when the physical asset is technically complex or in some other way novel. The Authority should therefore not assume banks' step-in rights are sufficient to ensure that the private sector will deliver the contracted services.

g Risk management – The Authority should ensure that the payment regimes between the Contractor and its sub-contractors are structured so that the amount left to be earned by a sub-contractor for completing a contract exceeds its cost of doing so.

h Risk management – As part of its risk planning, the Authority should prepare fallbacks/contingency arrangements so that it is not forced to compromise its contractual position in order to maintain services.

i Termination – Terminating a contract for reasons of an alleged default by the Contractor is unlikely to be straightforward. Reliance on the threat of termination alone is therefore not an adequate substitute for effective arrangements that confirm, before the contract is signed, that the Contractor can meet its obligations.

j Termination – If the Authority wants to consider a termination involving default by a Contractor that is a special purpose company, it should consider taking advice on the market value of the Contractor's debt to inform its strategy for negotiating the termination sum.