



**Ministry of Defence Private Finance Unit
(MOD PFU)**

Review of MoD PFI Projects in Construction and Operation

Edition: Final

Dated: December 2005

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1. Executive Summary

Introduction

1.1 The PFI operational projects review was initiated by MOD Private Finance Unit (MOD PFU) in August 2005 to assess how Private Finance Initiative (PFI) has performed to date in practice, both in construction and the early years of operation within the MOD. The structure of the review was developed with the National Audit Office (NAO) and Partnerships UK and had the full support of 2nd PUS.

Background

1.2 As at the end of September 2005, MOD had signed a total of 53 transactions labelled PFI projects which secured private sector capital investment of £4.3Bn. A further 12 PFI projects with a total capital value in excess of £4Bn were in procurement at that time. These projects represent a significant proportion of MOD procurement and will play a critical role in delivering the Defence Vision¹.

1.3 The MOD PFU was officially launched in February 2005 with a remit to support privately financed projects in procurement and in operation. Following the development of a structured and robust procurement framework, the MOD PFU has broadened its focus to PFI projects in operation. This review has included all 29 PFI projects signed as at 30 September 2005 that come within the definition of PFI as set out in the HMT document "PFI: Meeting the Investment Challenge". It therefore excludes projects that predominately involved Information Technology and those with a capital value below £20M. The primary objective of the review is to assess the performance of MOD in delivering procurement outcomes through the use of PFI as a procurement tool and to enable the development of best practice going forward.

Key Findings

1.4 The review identified:

- **PFI in the MOD substantially delivers projects on time and within budget.** All 29 projects were delivered on budget. All except three were delivered within two months of the agreed date. For the three projects that did incur delays, contractor failure accounted for the delay in only one project. Circumstances beyond the contractors' control and not related to the PFI procurement delayed the other two;
- **PFI projects in MOD are performing well and are delivering the services required.** All of the project teams surveyed reported that the performance of their PFI project was

¹ <http://www.mod.uk/aboutus/mission.htm>

satisfactory or better. Three quarters of project teams rated the performance of their PFI project as good or very good; and

- **Long term PFI contracts in MOD are flexible enough to accommodate future change and to deliver on a sustained basis.** The review identified that 85% of projects reported that their PFI contracts were suitably flexible to accommodate change and had effective change management mechanisms. There was however, feedback that changes to the contract require extensive effort and are costly.

Other findings

1.5 In addition to the key findings, the review identified the following:

- 41% of PFI project teams reported imposing no performance deductions to date. Of the remaining 59% the level of deductions being imposed amounted in 76% of cases to no more than 1-2% of the unitary charge. This provides further evidence of a satisfactory performance on the part of the private sector contractors in delivering the requirement;
- 90% of PFI project team contract managers felt the performance mechanism supports the effective performance of the contract but some considered that the payment mechanism was unnecessarily complicated and that the effort involved in making deductions was disproportionate to the incentivising impact on the contractor;
- 90% of MOD PFI project teams assessed the working relationship between the public and private sector partners to be good or very good; and
- The review identified that MOD management practices could be improved in terms of allocating the right resources to contract management teams, improving business continuity and improving the process for learning lessons from one project to another.

Best Practice

1.6 Many projects were inevitably commissioned in the early years of the MOD PFI programme before a number of MOD and HMT initiatives to establish and disseminate best practice had been implemented. However, in undertaking the review we noted a number of lessons learnt and examples of best practise. These include:

- The early involvement of the in-service contract manager or his team in the acquisition process improves the through life understanding of the agreement;

- The production of user guides to complement the contract and the payment mechanism improves knowledge levels and business continuity;
- The co-location of MOD and the private sector teams promote a smoother working relationship and a better run contract; and
- The use of a suitable governance structure between the Authority and the private sector partner ensures issues are identified and resolved quickly at the appropriate management level.

Key Points to be Addressed

1.7 The review found that the Department could secure additional procurement outcome benefit by:

- Constructing more effective and simple performance mechanisms;
- Ensuring that in-service contract management teams are appropriately resourced with suitably qualified staff;
- Improving the promotion and adoption of best practice and lessons learnt;
- Supporting teams in carrying out benchmarking and value for money reviews;
- Supporting project teams in managing change; and
- A programme of ongoing operational review.

1.8 The PFU has taken a number of positive steps to overcome some of the difficulties identified by this review by developing a PFI process framework. However, it should be recognised that many of the issues raised would have applied equally to a conventionally procured project. Therefore, many of the lessons identified in this review can, and should, be applied more generally.

Conclusions

1.9 Notwithstanding the difficulties that MOD has previously experienced with the PFI procurement process, the review of MOD PFI projects has provided good evidence that PFI in the MOD has performed very successfully in operation. The review has demonstrated that PFI, as a procurement tool within MOD, has delivered assets on time, to budget and has overwhelmingly met the Department's service delivery expectations. Although, many projects are still in the early years of operation, the good performance of the MOD PFI projects provides a solid case for continuing with the use of PFI to deliver capability to the defence environment where it is appropriate to do so.

2. Introduction

2.1 The PFI operational projects review was initiated by Director MOD PFU in August 2005 to assess how Private Finance Initiative (PFI) has performed in practice, both in construction and the early years of operation within the MOD. The purpose of the review was to take stock of the performance of the PFI programme in MOD to date. In undertaking this internal review, Director MOD PFU had the full support of 2nd PUS and the review was also developed with the support of the National Audit Office (NAO) and Partnerships UK (PUK).

Background

2.2 Since 1996 when the MOD signed its first PFI deal, the MOD has signed a total of 53 PFI transactions with private sector investment of £4.3Bn in terms of capital value. A further 12 PFI projects with a total capital value in excess of £4Bn are in procurement. These projects represent a significant proportion of MOD procurement and will play a critical role if the Defence Vision is to be achieved.

2.3 The MOD Private Finance Unit (MOD PFU) was officially launched in February 2005 with a remit to support privately financed projects in procurement and those projects that have already been signed and were in operation. The initial work of the MOD PFU naturally concentrated on the delivery of those projects in procurement and to embed rigor into the PFI procurement process. As the MOD PFU has now developed a robust PFI procurement framework and is now providing expert support to all privately financed procurement projects, it is now addressing its remit to support projects in operation.

PFI Operational Review Objective

2.4 The primary objective of the review was:

To assess the performance of MOD in delivering procurement outcomes through the use of the PFI as a procurement tool and to enable the development of best practice going forward.

Review Methodology

2.5 The scope of the review was restricted to PFI projects that were currently operational or in the construction phase as at 30th September 2005. PFI policy² states that IT and small capital value projects are not suitable for PFI and as a result these projects were excluded from the interview sample because they would no longer be procured through this route.

2.6 Twenty four of the fifty three signed PFI projects in MOD were found to fall outside the scope of the research, leaving a sample of twenty-nine

² PFI: Meeting the Investment Challenge published by HMT in July 2003 (MTIC)

operational projects covering a wide range of service areas within the defence environment. Annex A lists the PFI projects used as a sample in the review. The interview sample represents 93% by value and 55% by number of all signed Defence PFI projects. Across government the MOD sample represents 9 % by value and 4% by number of all completed PFI projects.

2.7 The review was conducted by gathering information from contract management/monitoring teams of PFI projects through the means of a survey and by the use of structured interviews. The information gathered for the review combined both objective data on the procurement process itself as well as more qualitative data concerning how far the schemes were matching up to the expectations of the MOD project teams.

Constraints

2.8. It was acknowledged at the beginning of the review that one of the constraints of assessing performance would be that most of the projects in the sample were either in the construction phase or in the very early years of contract of a long term commitment typically 15 to 25 years. The average age of PFI projects since contract signature being 4 years and 9 months. Clearly, the responses from the project teams reflected the relative performance of the contract to date and that it is recognised that there is a need to continually monitor performance over the life time of the contract.

2.9 Apart from statistics relating to the delivery to time and to budget and cost of variations, most of the review questions relied on subjective opinions of one or two members of the contract management/monitoring teams. The review did not set out to compare the relative performance of PFI with other procurement routes employed in the department.

3. PFI Projects Delivered To Time and To Budget

3.1 A key performance indicator of the review was to assess how PFI had performed in delivering assets on time. The review found that that 77% of projects (excluding those still in the construction phase) were delivered on time or early. Where there had been delays the review identified that over 88% of all projects were delivered on time or within two months of the agreed delivery date. Only three projects were delivered more than two months late. Of those that were late contractor failure accounted for the delay in only one project. Two others were delayed by circumstances beyond the contractors' control and not related to the PFI procurement.

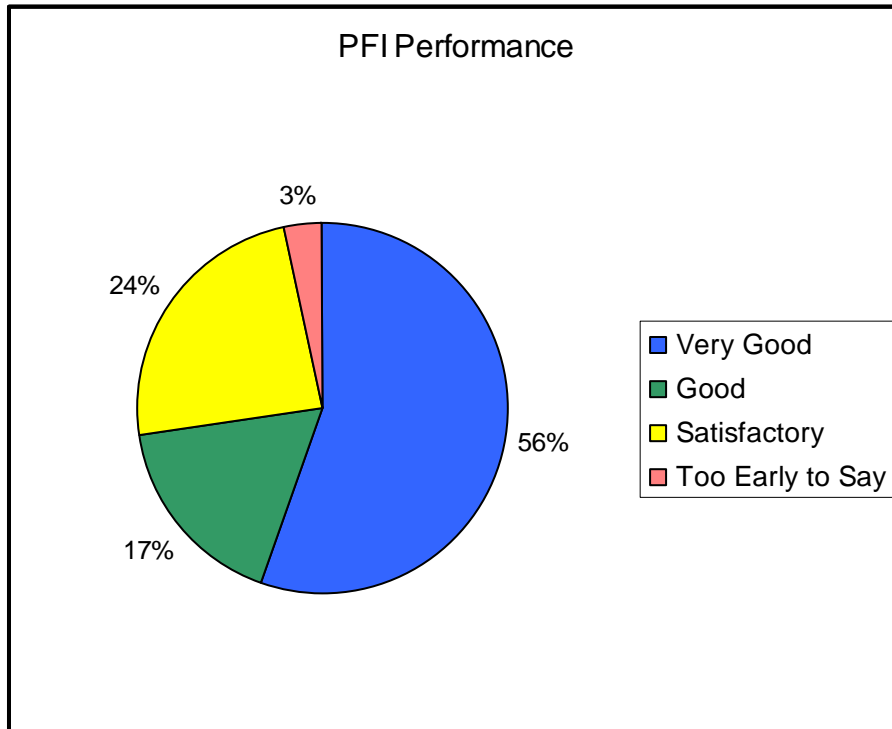
3.2 The review also found evidence that in some PFI projects, assets were being completed significantly ahead of schedule. In one notable case, assets were delivered six months early to meet the military requirements for Operation TELIC.

3.3 All the projects in the reviews came in on budget and did not suffer from any construction cost overruns. It was noted in 3 projects that as a result of Authority changes to the requirement additional costs were incurred.

3.4 The review findings on time and cost for MOD PFI project are broadly consistent with the results that HMT published in MTIC and those that NAO reported in PFI: Construction Performance published in 2003. It was also noted that there was no difference in the delivery performance of non-building PFIs as compared with building PFIs.

4. PFI Projects Are Performing Well

4.1 Although it was difficult to assess the operational performance of PFI projects and draw conclusions as many are in the early years of a long term commitment, the review sought to gain some initial views of the overall operational performance to date.



4.2 The review identified that over 97% of the sample rated the performance of the PFI as satisfactory or better. Indeed almost three quarters of contract managers rated the performance of PFI projects as good or very good. The main reasons given by project teams to support their markings were:

- Good levels of service delivery;
- Feedback from customers indicating high levels of user satisfaction.

4.3 Out of the sample only one project felt it was too early to provide a performance marking. Although no projects rated the performance of their PFI projects as poor or below, the review team did encounter a project outside the scope of the review who felt that operational performance of their project was poor. The reasons that were provided to support their assessment were that:

- Their PFI contract was ambiguous and provided for a poor payment mechanism that did not monitor the right performance e.g. It used random sampling to monitor performance;
- Communication between industry and MOD as the customer was poor.

4.4 The review identified that contractors are providing the services that were contracted for in all projects, and were providing a good service and meeting user expectations in most cases where the contract was sufficiently mature to assess user satisfaction.

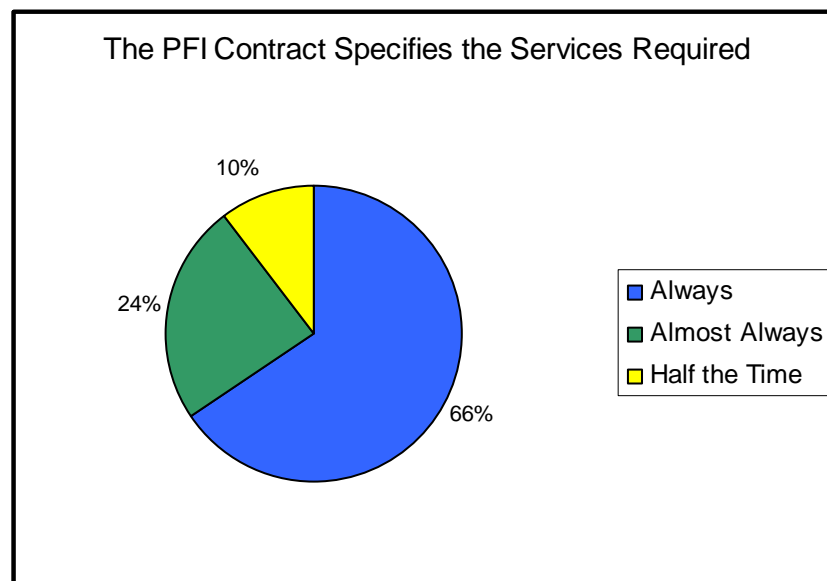
4.5 The review identified that the majority of projects were delivering the value for money benefits anticipated at financial close in the opinion of their contract managers.

4.6 Less than half of the PFI projects in the review reported imposing deductions and the level of deductions being imposed amounted in most cases to no more than 1-2% of the unitary charge. This provides further evidence of a satisfactory performance on the part of the private sector contractors in delivering the requirement.

5. The PFI Process Works

5.1 PFI contracts by their very nature are long term commitments in which the private sector are bound to provide a clear set of services over the life of an asset. The review sought to gauge how well the services have been defined in the contract; whether the contract has sufficient flexibility to allow for change and enable services to deliver on a sustained basis; how the performance mechanism has operated to date; and how well the relationship between the public and private sector has performed.

Accuracy of PFI contracts



5.2 The responses suggest that PFI contracts are generally very good at capturing accurately the services that are required. However, it was noted that earlier contracts had greater difficulty defining the requirement accurately and in output terms – later contracts tend to be more tightly focused. The results indicate that the department has learnt lessons from past procurements in drawing up specifications.

Flexibility of PFI Contracts

5.3 It is often cited by critics of PFI that it is not a flexible enough in coping with change. The review sought to find out whether PFI contracts have sufficient flexibility to allow for change and enable services to deliver on a sustained basis.

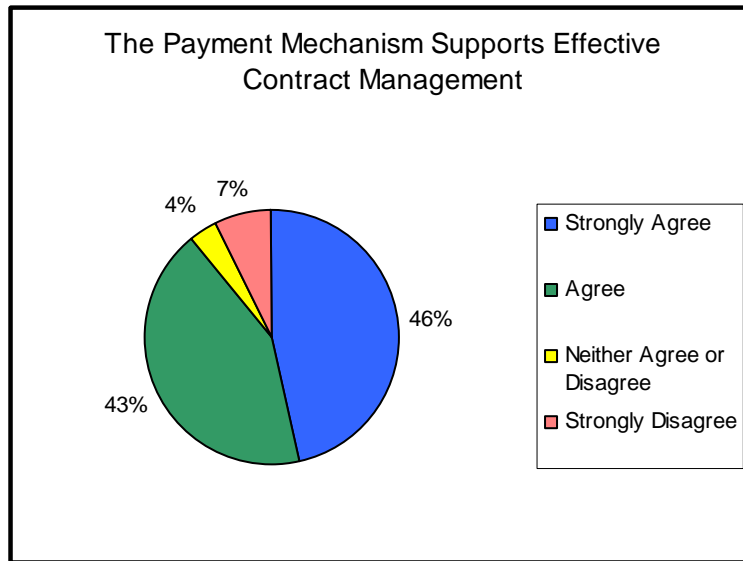
5.4 The review found that 85% of contract managers thought that their PFI contracts were generally flexible enough to cope with future changes. The review also identified the following:

- All PFI projects in the sample have a change mechanism set into the contract that deals with a large variety of situations in a very open way and so gives MOD real flexibility;

- Earlier contracts may not be as flexible as later ones, where different situations were not anticipated;
- The majority of changes that have occurred to contracts have been minor and in most cases peripheral to the delivery of the main outputs; The review did not encounter any projects where the fundamental service outputs had changed;
- There is a perception among some project teams that the change process is cumbersome, slow and costly, particularly for small changes. This was based on a view that any potential change would require the financial model to be re-run; an examination of the risk profile would be required; and that external advisors may be needed;
- As a result changes were often being made outside the contract as workarounds or add-ons rather than variations to the contract itself.

5.5 The issue of flexibility was not deemed to be a major issue for project teams although some commented about the difficulty and cost of making changes to the contract. Most of the changes that had been made by projects were minor and contract managers found that achieving the required service through additional one-off arrangements and paying for them separately was a suitable way forward. Some projects that had a larger amount of minor changes found that an appropriate response was to bundle the changes together into a single variation and put together an additional model for the cost of the changes rather than to amend the financial model for each change. Both public and private sector partners were content with this approach.

Effectiveness of the Performance Mechanism

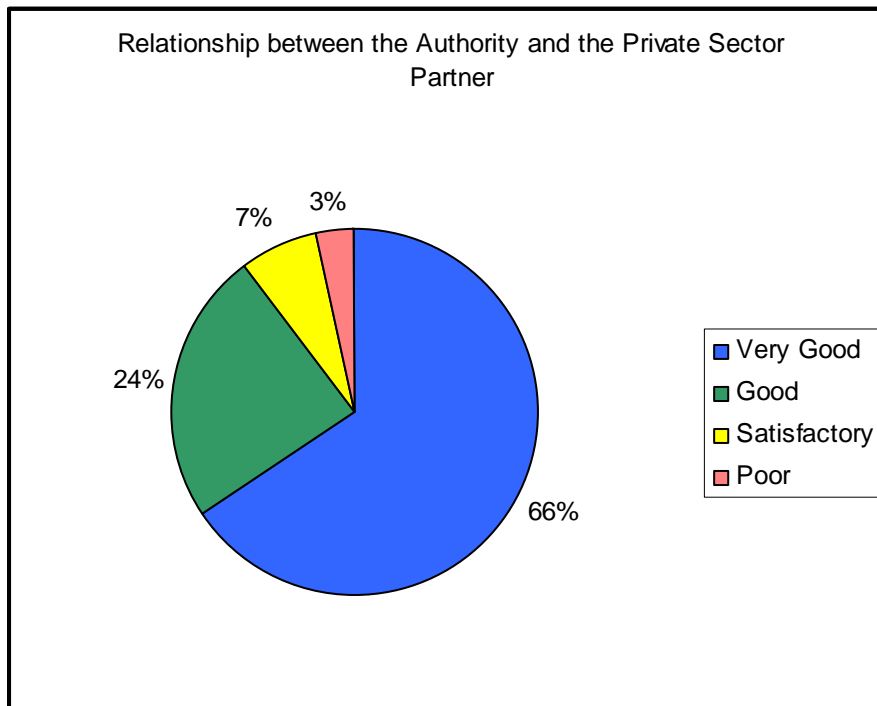


5.6 The review found that almost 90% of project teams agreed that the Performance Mechanism was generally considered to be effective. The review also found out that:

- 41% of PFI project teams reported imposing no performance deductions to date. Of the remaining 59% the level of deductions being imposed amounted in 76% of cases to no more than 1-2% of the unitary charge. This provides further evidence of a satisfactory performance on the part of the private sector contractors in delivering the requirement;
- Some contract managers considered the performance mechanisms of their projects to be unnecessarily complicated and time consuming to monitor. Some of these felt that the number of Key Performance Indicators (KPIs) was excessive. A few felt that there may have been a degree of over-engineering of the performance mechanism by external advisers, perhaps as a result of trying to reflect the interests of too many stakeholders. A small number of project teams, together with their private sector partners, were seeking to rationalise and reduce their KPIs.
- Some contract management teams have chosen not to impose deductions for failure to meet KPIs because they consider that the effort involved was disproportionate to the incentivising impact on the contractor. This choice of action was attributed by some to a desire to develop a long term partnering ethos between the department and the private sector partner.
- Only a half of those which imposed deductions believed it resulted in an improvement in contractors' performance.

- Often it was the high-profile nature of the asset and service and its role in providing a showcase for the private sector that was considered to be a more powerful – and equally valid - incentive for the contractor to perform well than the payment mechanism.

Effectiveness of the PFI Partnering Relationship



5.7 For PFI to be an effective delivery tool in the long term, it is crucial that a constructive and productive relationship is developed between the Department and the private sector. The review sought to gauge from PFI project teams their perception of the day-to-day operational relationship between the authority and the private sector supplier.

5.8 For the large majority of projects, the results suggest that relationships between public and private sector partners are working well. In addition the review identified the following:

- 90% of contract managers considered the working relationship to be good or very good. Typical reasons why such an assessment was made included:
 - an open and honest approach;
 - trust on each side;
 - each side sharing the mutual aim of delivering a good product;
 - a partnering ethos; and
 - the right kind of personalities and attitudes.

- Good or very good assessments were given even where the two sides to the contract were often not in agreement, but were nevertheless willing to air their views honestly and work to find a solution;
- In the very few cases where the relationship did not work so well, the reasons cited included: personalities (on either side) not willing to work at the relationship or to seek compromise or workable solutions;
- The co-location of MOD and the private sector teams promote a smoother working relationship and a better run contract;
- All had appropriate governance structures in place and the majority worked well;
- Nearly all projects had a dispute resolution clause set up in the contract but only one project had used it. Most projects resolved disputes at a working level or at an appropriate level within the governance structure as part of their normal working processes.

6. Lessons Learnt

6.1 Many projects were inevitably commissioned in the early years of the MOD PFI programme before a number of MOD and HMT initiatives to establish and disseminate best practice had been implemented. However, in undertaking the review, it was noted a number of examples of best practice and areas where lessons had been learned as well as areas where improvements to MOD management practices still need to be made on a more consistent basis.

- Lessons from earlier projects are being fed into newer projects, but only where projects are very similar or where project teams are from the same part of the department.
 - A key message is that the process for passing on lessons and best practice needs to be improved and formalised.
- Team continuity is generally good within the procurement phase and within the in-service phase but there is very little continuity from the procurement phase into the operational phase. In the worst cases the lack of business continuity had caused difficulties, extra effort and had put MOD at a disadvantage relative to the private sector provider.
 - This has been overcome in some cases by lengthy handovers, clearly written contracts, and user guides to the contract and performance mechanism.
 - Best practice in projects has shown that the involvement of the contract manager (or another member of the future in-service contract management team) in the procurement team during the final negotiations before contract signature has proved beneficial in terms of providing them with a deeper understanding of the contract and decision flow.
- The level of resources and skills of contract management teams is good in some cases but too low in many others.
 - An appropriate level appeared to be that found in many dual accountable Defence Procurement Agency (DPA) and Defence Logistics Organisation (DLO) teams which consisted of between 4 and 6 people having direct and daily responsibility for the PFI contract within a larger Integrated Project Team. The team leader, with responsibility for several projects in addition to the PFI contract, was usually at MOD Band B level (Civil Service Grades 6/7) with a day-to-day operational contract manager at Band C level (Civil Service Grades are Higher/Senior Executive Officer), and with commercial and financial support embedded within the team. This level of skills and resources enabled the team

not only to manage the contract on a day-to-day basis but also to monitor continuous improvements and handle any variations, disputes and other issues.

- The Review found that many teams, particularly those in DLO and other Top Level Budgets, were under-resourced in terms both of the number of people (often only 1 or 2), and at too low a grade (often C2 in DLO), with commercial and financial support generally being not co-located or embedded within the team. This has led to MOD not managing contracts effectively in terms of applying deductions where applicable and managing variations or other significant issues.
- In DLO contract management teams are believed to be under additional threat from further cuts to meet strategic HR targets.
- Some contract managers felt that they and their teams lacked some of the necessary skills for effective management of PFI contracts. There was considered to be a lack of training available for contract managers in how to manage PFI contracts (partnering ethos, output based specifications, payment mechanism, refinancing) as opposed to conventional contracts.
- There is a large gap in guidance on how to do value for money reviews and benchmarking/market-testing. All the teams covered by the Review expressed a wish for help with undertaking these exercises.
- Many teams also sought help with understanding how to account for PFIs under the MOD's accounting rules, in particular, how to accept third party income or whether to apply VAT, for example.

Other Messages

6.2 The Review identified a number of other features of the MOD's PFI procurement record that are valid observations to consider when assessing the future use of PFI in the Department:

- It is clear that PFI works best where the requirement is clearly defined, there are few boundaries with other projects or dependencies on inputs from others outside contractors control. Problems arise where there are overlaps and dependencies, such as where the contractor is reliant on MOD service or information or data from another contractor.
- It is not possible to differentiate between "equipment" and "accommodation" PFIs in terms of how well they perform. It is clear

that the degree of technical complexity inherent in a project does not adversely affect the performance of a PFI – one of MOD's technically complex equipment projects is one of its best performers.

- The PFI process itself is improving, leading to better written contracts and more clearly defined requirements. HMT developments such as VFM assessment guidelines and standardisation of contracts are leading to further improvements.

7. Conclusions

7.1 Notwithstanding the actual difficulties that MOD has previously experienced with the PFI procurement process, the review of MOD PFI projects has provided good evidence that PFI in the MOD has performed very successfully in delivering the right procurement outcomes. The review has demonstrated that PFI, as a procurement tool within MOD, has delivered assets on time, within budget and has overwhelmingly met the Department's expectations in terms of service delivery. Although, many projects are in the early years of operation, the strength of performance of the MOD PFI projects provides a solid evidence base for continuing the use of PFI to provide substantial capital investment to deliver capability within the defence environment where it is value for money to do so.

Annex A

Projects Reviewed

No	PROJECT NAME	CATEGORY	DETAILS
1	Defence Helicopter Flying School (DHFS)	Training	Provision of helicopter training services
2	Medium Support Helicopter Aircrew Training Facility (MSHATF)	Training	Helicopter training facilities
3	Hawk Simulator	Training	Provision of Hawk aircrew training simulators to replace existing facilities
4	RAF Lossiemouth Family Quarters	Accommodation	Redevelopment and reprovision of 279 family quarters
5	Joint Services Command and Staff College	Accommodation	Command and staff college for all three services, including construction, IT, furnishing and facilities management
6	Attack Helicopters Training - Apache Simulator Training	Training	Aircrew training for the Apache Attack Helicopter and some REME training
7	Light Aircraft Flying Training (LAFT) (Bulldog)	Training	Provision of flying training and support services for University Air Squadron (UAS) and Air Experience Flight (AEF) tasks
8	RAF Cosford and Shawbury Family Quarters	Accommodation	Accommodation for 145 service families
9	NRTA Fire Fighting Training Units	Training	Provision of fire fighting training facilities for Naval Recruiting and Training Agency
10	Tornado GR4 Simulator	Training	Full training package including simulators, CBT and instructors
11	Central Scotland Family Quarters (HQ)	Accommodation	Provision of accommodation for service families in Edinburgh and Glasgow. NOTE: The property portfolio is widely spread and is in a number of constituencies. Consequently the constituency references are an approximation only.
12	Army Foundation College (AFC)	Training	Design and build of foundation college
13	Main Building Refurbishment	Accommodation	Project to redevelop MoD main building and staff decant during build phase
14	Tri Service Materials Handling Service	Vehicles	Provision of remaining MHE vehicle fleet
15	Naval Communications	Communications	Submarine fleet communications service
16	Wattisham Married Quarters	Accommodation	DBFO of serviced accommodation for 250 properties
17	ASTUTE Class Training Service (ACTS)	Training	Provision of a training environment for crewmen and maintainers to support Astute Class Submarines
18	Bristol, Bath and Portsmouth Family Married Quarters	Accommodation	Provision of serviced accommodation for 317 service families. NOTE: The property portfolio is widely spread and is in a number of constituencies. Consequently the constituency references are an approximation only.
19	Heavy Equipment Transporters (HET)	Vehicles	Provision of vehicles to replace existing fleet and meet future requirements
20	Strategic Sealift (Ro-Ro Ferries)	Equipment	Provision of Strategic Sealift service based on six RO RO ferries in support of Joint Rapid Reaction Force
21	Field Electrical Power Supplies (FEPS)	Equipment	Provision of generator sets to support operational electrical requirements in the field
22	MOD-wide Water and Waste Water Project (Aquatrine) - Package A	Utilities	Provision of water and waste water services
23	Defence Sixth Form College (DSFC)	Training	The development of a 6th Form college to help meet the future recruiting requirements technical officers for the Armed Forces and the MoD Civil Service.
24	Colchester	Accommodation	Redevelopment, rebuilding and refurbishment of Colchester Garrison to provide accommodation and associated services (messing, education, storage workshops etc)
25	Devonport Support Services - ARMADA	Accommodation	Provision of Support Services and Fleet Accommodation Centre services at Devonport Naval Base (HMS Drake) for 25 years.
26	MOD-wide Water and Wastewater (Project Aquatrine) - Package B	Utilities	Provision of water and wastewater services at over 490 MOD sites in Scotland.
27	MOD-wide Water and Wastewater (Project Aquatrine) - Package C	Utilities	Provision of water and wastewater services at over 1,500 MOD sites in GB covering north, east and south-east England.
28	C Vehicles	Vehicles	Provision of "C" vehicles (Earthmoving and Specialist Plant, Engineer Construction Plant and Materials Handling Equipment) and support for 15 years.
29	Skynet 5	Communications	Range of satellite services, including management of existing Skynet 4 satellites.