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PFI case studies

Projects for technical support services

HIGHER EDUCATION FUNDING COUNCIL FOR ENGLAND

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Executive summary

1. This guide presents three case studies of recent Private Finance Initiative (PFI) projects undertaken in the higher education sector. PFI is a method of procurement which seeks to achieve best value for money by focusing on the delivery of a service, rather than the provision of an asset. All the projects described in these case studies were supported by the HEFCE under the terms of its pathfinder initiative. Information on the initiative, with additional case studies, is available on the web at www.hefce.ac.uk under 'Finance – Private finance'.

2. The case studies will be of interest to people in higher education institutions (HEIs) who are considering the use of PFI as a procurement method, and those who are already involved in PFI projects. Unlike those published in HEFCE 98/71 and 99/43, these case studies deal with the delivery of technical support services rather than buildings. All three resulted in the successful negotiation of a contract with a private sector supplier.

Case study 1 The Bloomsbury Combined Heat and Power Consortium – School of Oriental and African Studies and University College London

3. The first case study describes the experience of a consortium of HEIs in London, in negotiating two successful contracts to provide combined heat and power supplies. This study is of particular interest because it is an example of a successful contract being used as the basis for negotiating a second similar deal. During the negotiations, it became clear that the project lent itself to two separate technical solutions. The members of the consortium therefore agreed to negotiate one contract initially, and then use these negotiations as the basis for a second one. The case study is also of interest because it proved expedient for the capital funding to be negotiated by the client rather than by the supplier, to deliver better value for money. The main text deals with the initial contract negotiated by the School of Oriental and African Studies on behalf of the consortium, and a separate annex describes the experience of University College London basing a second deal on the model of the first.

Case study 2 Telecommunications – Imperial College

4. Imperial College used PFI as a procurement route for telecommunications services. The second case study describes how the project was negotiated with a single supplier after potential competitors withdrew from the negotiations at a very early stage. The college had to develop a comparator against which to evaluate the one remaining bid from the private sector. The valuation of risk played a significant part in establishing value for money. The case study, written with the benefit of experience of the first 18 months of operation, shows that the PFI structure has already served to protect the college from the impact of a number of risks.

Case study 3 Outsourcing management information systems – University of Durham

5. The third case study will be of particular interest to institutions considering outsourcing IT functions. The University of Durham's project transferred responsibility for the operation of

its management information systems to an external supplier. The private sector operator, Unisys, took over the operation of the existing systems and was responsible for migrating them to an updated and integrated development. A key part of the project was the transfer of some of the university's staff to the private sector under the provisions of the Transfer of Undertakings (Protection of Employment) Regulations 1981 (TUPE). This case study is written from the perspective of two years of operation of the project agreement. The project has demonstrated value for money in a number of ways: by the effective transfer of risks to the private sector operator, by the strong performance incentives on the contractor, by streamlining the university's administrative tasks, and by providing better information for decision making.

6. A list of abbreviations used in the document is provided on the inside back cover.

Case study 1 Combined heat and power

The Bloomsbury Combined Heat and Power Consortium and University College London

Introduction

1. The Bloomsbury Combined Heat and Power Consortium (BCHPC) is a consortium of institutions of the University of London, which was established to introduce combined heat and power (CHP) generation for the benefit of its members.

2. The members of the consortium are:

- Birkbeck College
- School of Oriental and African Studies (SOAS)
- The Institute of Education
- University College London (UCL)
- University of London (Senate House).

3. For the purposes of the BCHPC, the University of London (Senate House) represents the following:

- The Institute of Advanced Legal Studies
- The University of London Union
- The Warburg Institute.

4. The consortium is geographically situated between Senate House to the south and Euston Road to the north. Torrington Place effectively divides the consortium into two, with the majority of UCL being based to the north and the remainder of the institutions and one small part of UCL being to the south. As the project evolved, this geographical separation became significant.

Background

5. Most, but not all, of the consortium's premises to the south of Torrington Place were served by two separate district heating systems. One was an electric-fuelled system dating from the 1940s, which served Birkbeck College, the University of London Union, the Warburg Institute and the original college building of SOAS. The second was oil-fired, dating from the early 1970s, and served the SOAS library building and the complex housing the Institute of Education, a small part of University College and the Institute of Advanced Legal Studies.

6. By 1994 it had become apparent that the electric-fuelled system would soon need replacement and was expensive to operate. The oil-fired system used heavy oil and the institutions were under pressure from the London Borough of Camden to seek environmental improvements. It was also evident that this heating system was over-specified and had never operated anywhere near its design capacity. As a result of these considerations, an

informal consortium of institutions within the University of London was created in 1994. Its purpose was to explore the feasibility of:

- rationalising the existing oil and electric-fuelled district heating systems
- developing a CHP plant to serve the existing loads within the University of London Bloomsbury complex
- expanding the CHP scheme to other neighbouring institutions
- exploring the possibility of avoiding significant capital investment on the part of consortium members, ideally seeking solutions that were off balance sheet.

7. During the early days of the consortium it became evident that there might be value in extending the introduction of a CHP scheme across Torrington Place into the main campus of UCL. This was prompted by two factors:

- UCL main heating systems were ageing and in need of replacement
- normally economies of scale are achieved in larger CHP schemes – bigger is usually better.

8. The first major development was an agreement by the consortium to identify technical advisers, to conduct an outline feasibility study into the costs and benefits of CHP generation to the Bloomsbury institutions. The NIFES Consulting Group was appointed, and by Easter 1996 it had confirmed that CHP was a feasible option which should be pursued. This study also confirmed that the oil-fired district heating system had sufficient capacity to serve all the premises to the south of Torrington Place. The result was a plan to connect all these premises to the oil-fired system, eventually disconnecting the electric-fuelled system and decommissioning it. NIFES' report also confirmed that it was desirable to convert the oil-fired system to gas, supported as a dual operating system by light oil. The use of a dual system was necessary because of the inability to obtain a non-interruptible supply of gas in the Bloomsbury area.

9. Although not technically a part of the CHP scheme, the change from electric to a dual gas and light oil system reduced the unit cost of heat to those buildings originally connected to the electric-fuelled system by 50 per cent, making significant savings for several of the members.

The Private Finance Initiative in higher education

10. The Private Finance Initiative (PFI) is a procurement method with three main features:

- it focuses on the procurement of the service, rather than the provision of the assets required to deliver the service

- the risks associated with the project are borne by whichever party to the deal can manage them most effectively so as to achieve best value for money

- the transfer of risk is reflected in the payment method.

11. The Higher Education Funding Council for England (HEFCE) expects higher education institutions to base their investment decisions on seeking value for money. It encourages them to consider PFI and other innovative forms of procurement as ways of achieving this. To this end it introduced the pathfinder scheme to provide support to PFI projects.

12. In this instance, the BCHPC project did not start out as a PFI project. However, with the HEFCE announcement of the pathfinder scheme, members of the consortium agreed that they should seriously consider the PFI procurement route. A successful bid was made to the Council, and the project became a pathfinder.

Developing the project

13. In the early summer of 1996, the BCHPC was formalised and began the process of appointing advisers with the assistance of members of the Private Finance Panel Executive (PFPE). During the summer of 1996, Price Waterhouse (now PricewaterhouseCoopers, PwC) were appointed as financial and technical advisers (incorporating for technical purposes Merz Orchard). Taylor Joynson Garrett (TJG) were appointed as legal advisers. With their assistance, the purpose of the consortium was redefined as follows:

> *'The purpose of the BCHPC is to procure heat and power for its members at the lowest overall cost subject to adequate safeguards in respect of service level provisions and compliance with all relevant legislation.*
>
> *To this end BCHPC seeks to appoint a contractor to:*
>
> - *design, build, fund, operate and maintain, for a period to be agreed, a CHP plant and associated infrastructure to supply heat and power to the members;*
>
> - *in order to achieve least overall energy cost for the consortium and to the benefit of the third party contractor, to develop and market the scheme to serve other customers in the locality.*'

CHP generation

14. To understand the BCHPC project requires some appreciation of the benefits of co-generation of heat and electricity. The most common approach to the procurement of heat and power has been to generate heat locally while receiving electricity from one of the major utility companies. The main alternative is to co-generate heat and power on site. A CHP plant is essentially an engine-driven electricity generator which, as a by-product, generates heat. The critical issue in all CHP schemes is the size of the engine(s). For a scheme to work

successfully, a significant proportion of the heat generated must be used. In certain cases it may be possible to store the heat or to use it innovatively, for example in absorption chillers to generate cooling. Where this is either not possible or too costly, the major technical issue is to agree the base heating load and to introduce plant which meets this need. This allows the engines to be operated continually at full load, which gives the best efficiency. When electricity demand rises above that being generated by the CHP system, top-ups have to be purchased from one of the local utility companies.

15. Given that local generation of electricity normally represents a saving of some 40 per cent, there is a benefit from increasing the base heating load, keeping to a minimum the amount of electricity imported. This can be achieved by attracting third party loads. It follows that there has to be an incentive to the operator of the system to identify and connect new loads. How the benefit of these loads should be reflected in the payment mechanism was a matter that was to take considerable discussion and negotiation.

The tender process

16. Following detailed discussions with PwC and TJG it was agreed that a two-stage tender should be adopted; it was agreed that the negotiated tender process, in the context of EU procurement legislation, should be employed. This approach was justified by:

- the specialist nature of the work involved

- the requirement to identify an appropriate contractor early in the process so as to be able to satisfactorily negotiate and develop specific design needs.

17. In this instance the first stage was to evaluate the responses to an Indicative Notice published in the Official Journal of the European Communities (OJEC) in August 1996. The outcome of this evaluation process would be to short-list three or four potential contractors, who would each be asked to develop a commercial case to maximise the benefits of the scheme to the consortium. The second stage was to invite detailed bids from the short-listed contractors, with the aim of selecting and eventually contracting the tenderer with the best commercial plan to proceed to the design, build, fund, maintain and operate phases of the project.

18. It was hoped that this process would achieve the commercial objective of an energy supply at the lowest cost for consortium members over the period of the contract, which was expected to be 20 years. It was anticipated that the major contractual underpinning of the agreement would be individual supply contracts to the individual members of the consortium. The approach to the project was innovative in that the principal customer, the consortium, was initiating the project using the PFI approach to procurement.

19. Although the original notice was placed in OJEC in August 1996, it proved to be impossible to proceed to the pre-qualification stage until July 1997. The major problem was the preparation of a detailed specification of existing utility usage in a standardised form across the membership of the consortium. This was in part caused by the number of

buildings operated by the members, but also because record-keeping procedures varied significantly.

20. A start to the formal procurement process was achieved in July 1997 when a Contract Notice was published in OJEC. An open day was very well attended, with over 20 companies represented. Of these, almost one half responded, and the invitation to negotiate was issued to three short-listed tenderers on 1 October 1997. The return date for bids was December 1997, but this was later revised to the end of January 1998 to allow the tenderers more time to analyse the data provided. In the event, one of the selected companies failed to return a tender while the other two submitted broadly compliant bids.

21. The bid review procedure took rather longer than anticipated and the preferred bidder, Utilicom Limited, was not selected until the end of May 1998. This was largely because it was hard to reconcile the high heat demand estimated by both tenderers with that estimated by the consortium when it developed its own comparator. There was also considerable variation in the approach taken by the two bidders, with one scoring highly on commercial terms while the other scored more highly on the non-financial benefits.

22. It was then necessary to agree the appointment of the preferred bidder through the various decision-making bodies within each institution. As a result the final appointment of the preferred bidder was delayed until 30 June 1998.

23. Detailed contractual discussions with the preferred bidder took much longer than anyone had anticipated. One major factor was that, by the end of 1998, it had become clear that the single consortium approach would not work for two main reasons:

a. There were serious practical problems (including the licensing of road crossings) in connecting the main UCL site to the remainder of the consortium. Torrington Place divides the consortium into two halves.

b. The capital investment at the UCL main site was many times greater than that required for the remainder. This issue was further complicated by uncertainties about the possible involvement of the planned new University College Hospital.

24. It was therefore agreed to split the consortium into Southern and Northern groups, with UCL remaining a member of the Southern Group as well as being the only party in the Northern Group. The professional team continued as before but working for the two groups as separate clients. Utilicom became the preferred supplier for both groups.

25. It was anticipated that detailed negotiations for the Southern Group would take two to three months, and that a financial close would be achieved before the end of 1998. This proved to be over-optimistic and there was continual slippage of revised deadlines. Financial close was only achieved in December 1999, and final contracts were signed in January 2000. Only then was it possible for Utilicom to place the order for the CHP engines, which were delivered on site in April 2000 and fully commissioned by 1 September 2000. However, even at this point it was not possible for the engines to be fully operational, because not all

the individual institutions in the consortium had been able to ensure that their plant was up to the necessary performance levels to meet the agreed heat return temperature targets. A revised start date was agreed on 1 October 2000. Negotiations for third party loads commenced in November 2000.

26. For the Southern Group, the PFI process occupied more than three and a half years, and the whole process took six years including the pre-PFI stage. The remainder of this report mainly addresses the Southern Group agreement. The Northern Group achieved a separate agreement on 25 April 2001, and its experiences are recorded in the annex to this case study.

The PFI contract

27. The aim of the project was to find a commercial supplier who would design, finance, build, operate and maintain a district CHP system for a period of 20 years, in the first instance. It was the consortium's ambition to transfer almost all risks associated with the design, building, operation and maintenance of the plant to the supplier, while reducing electricity and heating costs to each consortium member. It was also envisaged (and ultimately achieved) that CHP generation would mitigate the impact of any environmental surcharge on utility costs. By introducing third party loads, it was hoped there would be a benefit to both the supplier and the individual consortium members, so that when these loads were brought on line, there would be a reduction in charges to consortium members. The structure of the contract had to provide incentives for the supplier to market the capacity for third party loads, while maintaining as efficient a service as possible for the original consortium members.

28. Although the detail of the discussions about the contract and pricing were highly complex, the charging mechanisms themselves are essentially straightforward. Each consortium member is charged on three elements: availability, volume and performance. It is envisaged that the availability charge will be reduced as third party loads are connected.

29. The availability charge is the element which enables the supplier to obtain bank capital funding for the plant. The volume charge represents the cost of operating and maintaining the plant on an on-going basis. The performance charge is the mechanism by which the supplier earns a return on his efforts, while providing a mechanism for the consortium to ensure that there is a strong incentive to avoid poor performance. Whereas the charging mechanism itself is not complex, the process of making the financial model dynamic over 20 years was difficult. Agreeing a methodology for indexing, and reviewing periodically the impact of indexing, proved to be time-consuming and hard to achieve.

30. The contractual arrangements have two other major components. The first relates to Utilicom's need to gain access to plant rooms, access tunnels and all parts of the heating and electrical systems for which it now has responsibility. This is highly complex as the buildings themselves are mainly under the control of the individual consortium members, although the inter-connections between all the buildings run through University of London

land. As a result, issuing permits to work can frequently require communication with more than one member institution.

31. The other major component is an agreement between the individual members of the consortium. At the start of the project it had been envisaged that all matters relating to individual members could be handled by separate supply contracts between Utilicom and the members. This was found not to be possible.

Agreement between consortium members

32. The need for a formal agreement was based on three major issues. The first was that Utilicom not unreasonably wished to deal with one contract manager. It followed that there had to be a mechanism for appointing the contract manager and removing him if necessary. The contract manager also needed the authority to negotiate permits to work with the individual consortium members.

33. The second issue related to the development of third party loads. There needed to be a mechanism by which each consortium member could express their views about the addition of loads and the implications it might have for their own contractual position. There was also a need to demonstrate to prospective third parties that the consortium was a going concern and that they could have every confidence that, potentially, supply contracts for 10, 15 or 20 years would be fulfilled.

34. Thirdly, there was the issue of what might happen should an individual member seek to withdraw from the consortium. Although it was felt that this was unlikely under normal circumstances, it could not be ignored; there was the possibility of institutional mergers and relocation of activities. It was possible that the existing users of the buildings supplied by the CHP system could change over a 20-year period. There was also the unlikely scenario of one of the members becoming bankrupt.

35. To address all these issues a consortium agreement was drafted to define the relationship between the members. It created a managing board and defined the role of contract manager. The latter was to be appointed by individual consortium members in rotation for a period of between two and four years. The agreement also provides the basis for negotiating and establishing third party loads.

Reviewing the process

36. The gestation period of BCHPC was long. From conception to live running of the Southern Group CHP system took from 1994 to October 2000. It is likely to take up to two more years before the Northern Group begins to operate. For the Southern Group the PFI process itself took three and a half years, with contractual discussions taking more than 18 months.

37. During the PFI process there were over 100 formal meetings, a significant number of which lasted more than half a day. In an attempt to streamline the process, one member

each from UCL and SOAS represented the consortium and attended all meetings. The majority of the meetings also involved professional advisers, particularly TJG during the final contractual discussions. For the last 12 months of the contractual discussions, with HEFCE support, an external project manager was appointed to drive the project during and between meetings. It had become evident that the UCL and SOAS staff members simply could not devote sufficient time to this process. The project manager devoted approximately 10 to 12 hours per week during the period of his involvement. His earlier involvement would no doubt have shortened the process.

38. The total cost of professional fees was £535,000. No attempt has been made to quantify the cost of the time of staff from the consortium members. Set against these numbers, the capital investment necessary for the Southern Group at the start of the project was relatively modest, totalling approximately £650,000. However, over a 20-year period the total value of the contract will be well in excess of £10 million and could be much greater if appropriate third party loads are attracted. The capital investment for the Northern Group will be in excess of £5 million.

39. For the Southern Group the final outcome has the following advantages:

- heat and power are now being supplied by Utilicom at a unit cost below that available on the open market
- the electricity generated by the CHP plant avoids the environmental surcharge
- the members have 20 years free of any capital investment in their main heating and electricity supply system
- subject to success in attracting third party loads, there is a strong possibility that over the period of the contract the cost of heat and power will be further reduced in real terms
- the form of contract used avoids creating an intermediary, which might have caused serious VAT or other taxation liabilities.

40. Apart from charges payable to Utilicom, the only other costs that are likely to be incurred by the BCHPC over the period are those associated with maintaining the consortium and devoting some middle management time to contract management. This is not expected to be onerous.

41. There are a number of important questions that need to be asked. These are:

- was the outcome worth the effort?
- was PFI the right vehicle for this project?
- what lessons can be learnt from the project?

42. There is more than one way to answer the question as to whether it was all worthwhile. The first is to say that the objectives of the project appear to have been achieved and real savings will accrue. With the development of third party loads in the Bloomsbury area (which is a realistic possibility) the scheme should be even more beneficial over the length of the contract. However, in a strictly financial sense, a detailed investment appraisal will need to be done in a few years' time to see whether the costs incurred have been offset by the benefits derived. Taking a different perspective, the question could be answered by saying that the process was valuable in itself, as it provides an insight into the problems that are likely to be encountered with this type of project. The experience also helps identify ways in which the process could be much improved.

43. The answer to the question as to whether the PFI was the right vehicle for this project should be answered conditionally in the affirmative. Had the Southern Group been a single institution, it is possible that direct capital investment by the institution would have delivered better value for money, perhaps accompanied by buying-in the necessary expertise by employing a CHP contractor. However, the advantages listed above would not have been achieved for a consortium by direct financial investment. The PFI process as experienced by the Southern Group needs to be modified and adapted to reduce costs and to streamline the timetable. Taking account of the advantages and the changes that could now be made in the light of experience, PFI was the right vehicle.

44. The lessons that can be learnt from this project would enable other institutions or consortia to achieve the benefits of the project without incurring the level of costs. The process could also be shortened and the amount of time spent on contractual matters reduced significantly. These themes are explored further below.

Problems and solutions

45. The idea upon which BCHPC was based is a simple one. The principles of CHP are well understood and the technology well proven. The majority of problems associated with this project stem from the level of understanding about the PFI process itself and the need to attempt to predict contractually what might occur 10, 15 and 20 years into the contract period.

46. Although the consortium members co-operated fully throughout the process and there were rarely if any real disagreements, there can be no question that the consortium approach considerably complicated the process. Some examples of the problems are set out below.

a. The relative benefits to each member as a result of participation in BCHPC vary according to where they started from, in terms of access and use of the local district heating systems and according to their relative heat and power loadings.

b. Bringing together information about the estate of each individual member and presenting it in a coherent form was a major task, which might not be as daunting for a

single institution. However, the benefits of CHP are critically dependent upon accurate data and this may not be readily available in many circumstances.

c. Although co-located, and all being part of the University of London, each member had very different decision-making processes. This not only slowed down the process but also was confusing for the commercial supplier.

d. There were many complications on the property side caused by the complexity of the estate, which included issues relating to restrictive covenants, overlapping freehold and leasehold interests, and ownership of plant.

47. Many of these problems would have been overcome had a project manager been appointed early in the process. The appointment could have been an external one or by secondment from one of the institutions. The project manager would have had more time to prepare the consortium for the PFI process. Adding in the benefits of having a project manager throughout the process of PFI makes the case for project management overwhelming.

48. There were many problems associated with the PFI process, which in the light of experience ought to be able to be managed more effectively, particularly if a project management approach is taken. The problems include:

a. There was little experience of PFI on the part of either the institutions involved (with the exception of UCL) or the bidding parties.

b. Almost every aspect of the PFI process had to be created and developed as a unique solution. This extends to the public sector comparator, indexation, termination, financial models, force majeure issues, insurance issues, liability issues, dispute resolutions, and a myriad of problems associated with entering into supply contracts which are to last for 20 years.

c. In the light of experience gained in BCHPC, some or all of the following are recommended:

- employ or appoint a project manager
- use experienced PFI advisers and consultants
- try to use standard forms of contracts. At the time of this project there were no standard forms of contract; nugatory, and often lengthy, discussions were held about points which in the event proved not to be an issue
- define the responsibilities of each party during the final financial and contractual discussions

- cap time given to discussions on areas of disagreement – at some point either a commercial judgement has to be made by both parties or the process stops

- always keep in mind what the prime objectives are for each party; when discussions become bogged down, restate the objectives

- (for HEFCE) consider the creation of a suite of off-the-shelf forms.[1]

d. Essentially PFI should be a process by which partners come together to create a working relationship, and yet the contractual arrangements necessary tend to result in adversarial discussions.

e. The PFI process does not define the relative responsibilities of each party in the process of coming to a financial and contractual close. Once the preferred bidder has been appointed there needs to be a clear understanding about the relative contributions to the final outcome that will be made by the legal and other professional advisers representing each party.

f. The professional advisers employed were all highly competent. However, the unique nature of the challenge they faced caused complications which would be avoided in future if more standard format financial and contractual terms could be made available to fit a series of categories of PFI projects.

49. In summary, the BCHPC experience should be regarded as a useful one, pointing to the way in which long-term contracts for the supply of services might successfully be agreed.

50. Finally, for the Southern Group, PFI was almost certainly the only route by which the main objectives could be achieved. For other institutions with other objectives and priorities this might not always be the case.

Acknowledgement

51. This case study was produced by Frank Dabell, Secretary and Registrar of the School of Oriental and African Studies.

By the end of 2001, and after this case study was written, the first third party load had been connected to the BCHPC system and discussions were progressing with several other interested parties.

[1] HEFCE comment: There have been a number of calls for greater standardisation of PFI deals. In response the Treasury Taskforce published 'Standardisation of PFI Contracts' Butterworths, July 1999, ISBN 0 406 92881 9.

Annex to case study 1

Northern Group CHP – University College London

Background

1. The main case study has explained (paragraph 23) that discussions with the preferred bidder, Utilicom Limited, identified that a single combined heat and power (CHP) scheme for buildings located either side of Torrington Place was not appropriate. Therefore it was decided to negotiate a separate CHP scheme, serving buildings to the north of Torrington Place. This Northern Group scheme was to involve University College London (UCL) as the sole university recipient and provide heat and power to a significant part of its estate. It was also designed to supply certain buildings belonging to the UCL Hospitals Trust (UCLHT), and some other NHS users.

2. An additional complication was presented because the UCLHT was negotiating the construction of a new hospital under a PFI scheme, and the plans included the closure of the Middlesex Hospital and sale of the land. UCL has a significant presence on the Middlesex Hospital site, and the plans anticipated that UCL would be offered alternative accommodation, closer to the main UCL campus, in the Rockefeller Nurses' Home. The legal arrangements for this move could not be completed until the UCLHT PFI project received approval from the Secretary of State. However the Northern Group CHP scheme was based on the use of the boiler house located in the nurses' home, and so the development of the scheme was dependent on securing an early right of access to the building for the CHP contractor.

Timescale

3. Since UCL representatives would continue to be involved in the detailed negotiation of the project agreement for the BCHPC, it was decided to defer detailed consideration of UCL's Northern Group requirements until those Southern Group negotiations were complete. At that time, financial close for the BCHPC had been anticipated for around the end of 1998.

4. In the event, financial close for the BCHPC was reached in January 2000, and negotiation of the Northern Group scheme started in April 2000. The intention was to sign the project agreement with Utilicom by June 2000 so that major infrastructure works could be started in the summer, with the CHP plant operational by October 2001.

Issues

5. The major issues that needed to be resolved were:

   a. The financial model to be agreed, incorporating both existing and planned UCL and hospital energy loads, after analysis of various funding mechanisms.

   b. A revised project agreement to be developed, based largely on that agreed for the Southern Group.

c. Lease terms to be agreed with UCLHT for the Rockefeller boiler house.

d. Easements to be agreed with UCLHT for use of UCLHT service tunnels.

e. Utilicom to agree an interim supply agreement with UCLHT to take over the operation of existing services from the Rockefeller boiler house, and to supply steam to the hospital.

f. Agreement from UCLHT on the price for the supply of steam and heat following the commissioning of the CHP plant.

6. Although the project agreement was finalised in December 2000, financial close was not achieved until 25 April 2001.

The financial model

7. In developing the financial model it became clear that funding over £5 million of capital expenditure using a third party lender was an expensive option when compared with the rates at which UCL could borrow. UCL therefore decided to fund the scheme itself, conditional on sufficient guarantees from the service provider's parent company. This required careful analysis and acceptance of the risks, but demonstrated clear benefits in terms of value for money.

8. During the delays in finalising documentation for the BCHPC scheme, UCL's predicted requirements changed, because of new buildings planned for the UCL main campus, and records of increased electricity consumption over a sustained period. This enabled UCL to re-evaluate the scheme, taking into account successes under various capital funding programmes, and to achieve improved recurrent savings through optimisation of design.

The project agreement

9. The project agreement produced for the Southern Group was used as the basis for negotiations between UCL and Utilicom. Experience of these earlier negotiations showed that much of the time had been spent on commercial issues, where the presence of legal advisers was not really necessary. The parties therefore agreed to try to take forward the negotiations without the direct involvement of lawyers, but to refer issues as and when it was felt necessary. This approach led to a further nine amended drafts being issued between May and October 2000, before the document was 'in an agreed commercial form' and the solicitors were instructed to make the necessary legal amendments. The project agreement, with the exception of property issues, was finally signed on 21 December 2000. The outstanding property issues, however, took a further four months to settle, with documentation finally concluded on 25 April 2001.

10. The BCHPC project agreement was extremely useful as the basic document. However, the complexities and size of UCL's estate, the involvement of UCLHT and the

much larger capital cost of the scheme meant that many fundamental changes were required, resulting in the inclusion of many new clauses:

a. UCL had to acquire a leasehold interest in respect of the boiler house in the Rockefeller Nurses' Home, so that the CHP contractor could be granted access under the project agreement. In the event of the future formal transfer of the Rockefeller Nurses' Home to UCL, the leasehold arrangement would 'fall away'.

b. As a result of acquiring rights to operate the Rockefeller boiler house, the service provider was obliged to supply steam to the hospital, under a separate agreement. This agreement became a condition precedent for the project agreement.

c. The decision by UCL to fund the capital works directly (paragraph 7) resulted in the introduction of 'milestone payments', being the sums to be paid by UCL to the service provider during the installation phase.

d. The decision that UCL would fund the capital works resulted in the complete revision of clauses relating to payments, deficiency points and performance monitoring.

e. Substantial revisions were required to clauses dealing with termination and the consequences arising therefrom, particularly where third party users had been introduced to the scheme.

f. The schedule to the project agreement dealing with property matters was completely rewritten, due to the complex nature of UCL's estate, including complicated title issues, restrictive covenants, loan documentation and tenancy issues. This became the most time consuming and legalistic issue of the transaction, and took a further four months following the settling of the project agreement to finalise.

UCLHT easements

11. A section of the pipework running from the Rockefeller boiler house, serving a number of UCL properties, was to be located in tunnels owned by UCLHT. It was necessary therefore to enter into easements with the UCLHT. Although the principle for a lease and deed of easement was agreed in April 2000, it took a further 12 months to settle the legal documents.

Interim supply agreement

12. This was an independent agreement between the service provider and UCLHT, but it was also a condition precedent to the signing of the project agreement. Although the principle was agreed between the parties at an early date, it took many months to finalise documentation.

Charge to UCLHT for supply of heat and steam

13. A key element in the viability of the whole CHP scheme was the supply of steam to UCLHT. This meant that there had to be a financial incentive for UCLHT to enter into a supply agreement with the service provider. However it was also crucial that, in the event of poor performance, UCLHT would be able to terminate the agreement, yet be assured of a continuing supply from UCL. This involved considerable input from the lawyers representing all parties, and was one of the main causes of delay in finalising documentation.

Lessons learnt

14. The existence of the BCHPC project agreement itself, and the earlier experience of negotiating this document with the service provider were both extremely helpful, and should have allowed the revised document to be agreed within the original target date of April 2000. However, resolving both funding and property issues proved difficult and time consuming. In particular, the size and complexity of UCL's property estate, and the absence of a dedicated individual with estates knowledge for the CHP project, led to delays and a requirement for more assistance from solicitors than might normally be expected.

Acknowledgement

15. This annex was produced by Jack Foster, Director of Finance at University College London.

Case study 2 Telecommunications
Imperial College

Overview

1. Imperial College embarked on the procurement of a set of IT services via the PFI in 1997 and signed an agreement in February 2000. The original requirement for services comprised a wide-area video teaching system, managed desktop services, an integrated telephony service across all campuses, data networking and telephony services for the halls of residence, and a branded internet service for students, staff, and the alumni. During the procurement process the college decided to obtain the video teaching service and the associated desktop service via a traditional purchasing route while pursuing the remaining three services via the PFI. Four consortia were initially selected, with the intention of issuing the invitation to negotiate (ITN) to three of them. Shortly after the issue of the ITN, two consortia withdrew. After taking advice, the college decided that it could continue with the procurement as the internal comparator was sufficient to provide competition for the remaining consortium. The agreement was signed on 22 February 2000 and the first services were live on 1 May 2000.

Business drivers

2. A number of business drivers were behind the decision to proceed with a PFI project for communication services. The merger of the college with five West London medical schools had created a legacy of ageing telephony systems. Also there was a need to create a highly advanced video conferencing system capable of supporting interactive teaching at a number of remote hospital sites.

3. The college wished to install a modern telephony and data service throughout the halls of residence for the benefit of the students, and for conference delegates who make use of the accommodation during the vacation periods.

4. The college wished to develop a set of communication services which would be of use to staff while they were travelling or working away from base. These included access to the internet and college computing facilities, and mobile telephony. With each of these services there would be a requirement for the supplier to offer better value and improved functionality over what the college could procure for itself.

5. Lastly, the college wished to launch an internet portal for the use of all its members including staff, students, and alumni. The portal would offer information and services that were of interest to each of the constituent groups, and would be free of charge to users.

The project team

6. The internal members of the college's core team were the Director of Planning and Management Information Systems (chairman), Head of Communications Services (project

manager), Business Planning Manager, and Director of Networking. Other team members were seconded for periods during the project as their normal duties permitted.

7. External advisers were:

- legal – Mills and Reeve
- management consultants – Deloitte and Touche ('Deloittes')
- IT and communications services – Improcom.

8. It is fair to say that with hindsight the college underestimated the internal resources required by the PFI process and the length of time the negotiations would take. If the college were to embark on a similar project then dedicated internal resources would need to be made available.

Option study and the decision to proceed

9. Deloittes undertook an option study which looked at the viability of procuring a set of communications services under the PFI. The study looked at each of the services in turn, and attempted to assess whether an external service organisation was likely to be able to offer better value for money than a conventional procurement. At this stage in the project a certain amount of crystal ball gazing was required, but the conclusion of the option study was that a basket of related communications services procured under the PFI process was likely to offer better value for money. There was also the belief that the services would be available more quickly if they were delivered by an external organisation with the appropriate motivation. Deloittes also suggested that few organisations would be able to provide all the services without the use of partners or sub-contractors and so consortia bids should be encouraged.

Initial response from the market

10. There was a very positive early response from the market to the OJEC procurement notice. Forty-eight organisations registered an interest. There were some surprises in terms of both who did and who did not respond.

11. A presentation to potential bidders was felt to be the best way of encouraging organisations to commit to the next phase of the procurement. The presentation was seen as an opportunity to sell the project to an audience who in many cases had not yet done business with the college. Few of the organisations were active in the PFI market place and the presentation spent some time talking through the next stages of the procurement. Organisations were encouraged to look for partners from among the assembled delegates, where they felt this would strengthen their offering.

Short-listing

12. Four consortia were chosen to proceed to the next stage. The intention was to eliminate one consortium leaving three to proceed to the ITN.

Development of the ITN

13. The ITN document production was managed by Deloittes but much of the text was produced by the college team members. The authors found some trouble thinking entirely in terms of output specifications, probably because they frequently found themselves thinking about how they would deliver the services themselves. In retrospect it would have probably been more sensible if Deloittes had written the ITN with the assistance of college team members.

14. The ITN was structured so that the output specifications could be used as the basis of the services schedules in the contract document.

Development of the internal comparator

15. It was recognised that the internal comparator would be crucial in demonstrating whether the PFI solution offered value for money. The internal comparator also turned out to be vital during the negotiations because two of the bidders withdrew from the competition at an earlier stage than was anticipated, leaving Ericsson as the sole contender. The spreadsheet model was sufficiently detailed to allow for changes such as variations to service levels as well as the more obvious ones like volumes.

Negotiations

16. During negotiations the lawyers became the lead advisers, with the management consultants assisting where required. None of the college team had negotiated a deal as complicated as this project.

17. In order to keep momentum during negotiations, issues which could not be resolved within a reasonable time were put aside. Towards the closing stages it was felt that the remaining issues should be dealt with in one final session in order that things could be brought to a close. A last meeting was planned with the intention of continuing until a final contract was ready for signature. This stage was reached after a meeting which lasted 24 hours.

The agreement

18. The agreement took the form of a head contract with 20 schedules. Each of the services is defined within a schedule. Other schedules cover areas such as change management and service credits. The agreement is a large document but it is reasonably easy to locate specific items of information.

Transfer of staff

19. Twelve staff were transferred to the operator under TUPE regulations. The length of the procurement meant that the affected staff were uncertain about their future for much longer than was desirable. However, frequent meetings with management and the offer of informal meetings on an individual basis for staff meant that morale was maintained, which was crucial for the continued success of the services. One of the selling points of the deal for the staff was the opportunity for improved career prospects with a new employer. A number of the telecommunications staff have made significant advancements with their new employer, and the college has the benefit of continued access to their skills and knowledge.

The first year of operation

20. Loss of key staff was one of the risks which the college transferred to Ericsson and this has proved to be a wise decision. There have been a number of resignations among the staff in both the project and service delivery teams. A shortage of experienced IT staff has led organisations to advertise high salaries and this has increased turnover.

21. One of the knock-on effects of staff churn is that few people remain from the original negotiation team. It is very important to ensure that new staff are given an appropriate induction so that they understand the philosophy and complexities of the agreement. As this is the only PFI deal that Ericsson has won, there is a danger that the services gradually return to a more standard form of outsourcing. This is most likely to occur in new services when prices and service levels are being defined.

Benchmarking

22. Under the agreement the college has the right to benchmark the services or sub-services for price and service levels. It is recognised that, over time, technology improves service levels and reduces costs. Three distinct phases allow the benchmarking to progress from informal discussion through semi-formal benchmarking and finally to independent arbitration. The phased approach to benchmarking ensures that services which are relatively easy to compare against the market, such as telephone calls, can be readjusted quickly and without the cost of arbitration. At the end of the first year of operation, an informal survey of recent open market tenders showed that Ericsson needed to reduce its prices. This was quickly brought into effect.

Risks

23. One of the major reasons for choosing the PFI as a method of procurement is to transfer appropriate risks to private sector companies. A number of risks which have been outsourced have materialised, thus demonstrating the value of the PFI approach. Examples of these risks are:

- loss of key staff
- implementation cost overruns

- external price pressures
- lower than expected volumes on some services.

Service credits

24. A service credit regime encourages Ericsson to meet the service levels by imposing financial penalties for failures to meet key metrics. Although the service credit model was adapted from previous systems used by the college's management consultants, the calculation is probably too complicated. Not all service delivery managers have fully understood the service credit model, which means that the incentive has not always worked as it should. We have recently worked through a number of disaster scenarios which would have generated extremely high service penalties. However, to date no service credits have been payable.

Novation

25. The contract provides strong protection against the service provider 'novating' their obligations, that is transferring them to a third party, without the college's agreement. This issue has recently come to the fore as Ericsson decided to sell off its direct sales and service organisation. This has resulted in the services to the college being provided by a third party. This has produced no short-term problems as the new service organisation has inherited all the staff and facilities from Ericsson. However, the college is still reviewing whether it is sensible to novate the contract as the reasons for selecting Ericsson as a partner may not be applicable to the new service provider.

Lessons learnt

26. Lessons learnt from the negotiations include:

- ensure that the project team is properly resourced and members are available for the duration of the negotiations
- consider training for staff in areas of PFI and negotiating techniques
- select the best advisers you can afford and agree capped fees if possible
- develop an accurate and detailed cost model
- use benchmarking to protect against changes in the market for service levels and price
- ensure that there is buy-in from senior management
- retain veto over selection of subcontractors

- keep control of the contract development during negotiation
- do not lose momentum.

27. Lessons from the post-contract period include:

- ensure that senior management buy-in continues, particularly when staff move
- do not bury the contract
- conduct periodic independent reviews of the services and share the results with the partner organisation. This showed, for example, that a number of the risks that were transferred to the service provider had in fact materialised.

Acknowledgement

28. This case study was produced by Tim Wetten, of Imperial College of Science, Technology and Medicine.

Case study 3 Outsourcing management information services– University of Durham

About the university

1. Durham is a medium-sized collegiate university which prides itself on its high standards of teaching and research. It covers a broad spectrum of academic disciplines in four faculties: arts, social science, science and health medicine, and environment. The university opened its second campus in Stockton in 1992 with the general aim of making its resources more widely available to the North-East region. Durham is one of the national market leaders among universities with residential and catering activities.

Background to the project

2. Durham took part in the Management and Administrative Computing (MAC) initiative which the HEFCE ran in the early 1990s. The initiative grouped institutions with similar management information requirements into 'families' for the purpose of developing joint software solutions. Durham was part of the Powerhouse family and was one of the few universities to implement the MAC systems in full. Within a few years the senior management of the university had concluded that the MAC suite of software, known collectively as DUMAS, had limited functionality and lacked the user-friendliness which was essential for successful operation in a devolved management environment. Support for the software was not guaranteed beyond May 2000 and there were doubts as to whether it was fully proof against 'year 2000' problems.

The initial business case

3. The first stage of the project was to present an outline business case to the university's policy and resources committee for investment in new management information systems. The purpose of the business case was to establish a robust, quantified, analytical context for assessing the current and potential performance of university support processes, and the measures against which the success of the investment would be judged. It was the intention from the outset to take account of service and strategic performance criteria as well as resources. The framework thereby established would also support the identification and management of risk.

4. The initial case for investment in new systems was the long-term decline in the income per student received from public sources, coupled with the introduction of new regulatory and inspection processes. In the late 1990s there was no sign that the annual reductions in the unit of resource would come to an end. New processes such as teaching quality assurance and research assessment were intended to satisfy the need for accountability for public funds, but also required resources to be effective.

5. Against this general background, the key issue for Durham was how it could continue to sustain excellence in teaching and research. The solution had to involve finding new ways

of delivering the university's objectives which were less resource intensive, while safeguarding standards.

6. In terms of the way the university was managed, the objective had to be to reduce in absolute terms the amount of effort across the university that was devoted to supporting and administering the core functions of teaching and research. The resources so released would be re-directed into the direct delivery of those core functions. The goal was to provide the university with streamlined, high quality support services which added value. This would include the development of mechanisms to analyse how resources were performing, enabling them to be directed as necessary into areas to which the university attached the greatest importance.

7. The key to effecting this transformation was to take advantage of technological advances to reorganise the way management support functions were carried out. This was to be a long-term institution-wide programme.

Getting the project established

8. The project was conceived from the outset as a business improvement project rather than an IT project. In January 1997 the university's policy and resources committee received the initial business case, and made a commitment to invest in new management information systems. A project steering group, drawn from the university's Information Technology Service and administrative departments and chaired by a pro vice-chancellor, was established to oversee the procurement of IT systems to support the university's management processes.

9. The project was to be undertaken in accordance with the objective in the corporate plan to 'secure more benefits from the use of IT in providing management information and integrated data systems'. Successful implementation was expected to take three years. A key objective was to replace existing systems before 1 January 2000. The cost of replacing software systems using a conventional procurement route was estimated to be £1 million. A full-time project manager was appointed, reporting to the Treasurer.[2] The project manager was given overall responsibility for delivering the project to acceptance stage.

10. The experience of implementing the DUMAS system had shown that it was not satisfactory to procure new software without considering the processes which it was intended to support. The project steering group therefore first set out to review the university's business support processes. The whole project was aimed at specifying and achieving a solution which was driven by the way the university as an organisation wanted to work.

Achieving PFI pathfinder status

11. As the project was developing, the university, through its procurement function, was becoming aware of new models of IT (and other) procurement which were driven by the

[2] At the University of Durham, the Treasurer is a full-time officer fulfilling the role of Director of Finance.

needs of users. An application was submitted to the HEFCE in November 1996 for financial assistance to determine whether the project was suitable for PFI. Members of the HEFCE and the Private Finance Panel Executive (PFPE) visited the university in January 1997 and met the project steering group. Following this meeting the university made a successful application for pathfinder status.

12. As a pathfinder, the project was eligible for a grant of up to 50 per cent of the cost of professional fees incurred in pursuing a PFI procurement process, up to the point of signing a contract with the preferred PFI partner. The grant covered assistance with a business process review. It was a condition of the grant that the university had committed itself to procure new IT systems for management, whether ultimately through PFI or another route. Further, the HEFCE required to be involved in the appointment of advisers, their terms of reference, and the fee levels agreed, which were to be capped. In addition to financial support, the HEFCE offered advice and guidance from its own PFI adviser. The Council expected that, if the university chose a procurement method other than PFI for the project, it would be able to demonstrate due diligence in its search for a PFI solution, and that the alternative method chosen represented better value for money.

13. With HEFCE support, the university undertook a competitive recruitment of advisers to the project in March 1997. The firms selected were Deloitte and Touche as IT and business advisers, and Eversheds as legal advisers.

Selecting the procurement route

14. The main principles of the PFI are that a procurement must involve:

- specification of outputs rather than inputs
- an emphasis on the delivery of a service, and not just the provision of a capital asset
- risk sharing
- value for money over the life of the project.

15. The HEFCE pathfinder initiative was focused on the PFI procurement route. However the steering group was clear that it would expect to consider a wide range of procurement options. These might range from conventional purchase of hardware and software through to a contract for service delivery involving significant elements of risk transfer, in the interests of securing the best value for money. It was recognised that at some stage it would be necessary to consider solutions which involved transferring IT and administrative functions currently performed by in-house staff.

16. The procurement had to be undertaken in accordance with EU procedures, using the negotiated route rather than open tendering. The rules and parameters of the procurement had to be set out in advance. The university needed a professional set of documentation ready to send to those who responded to an initial invitation to negotiate. The expectation was that the terms of draft contracts, including the negotiation of payment structures, would proceed with a small number of short-listed suppliers in a competitive situation. The aim was to identify a preferred bidder at the latest possible stage.

17. On the assumption that a PFI procurement would be selected, a period of nine months from initial advertisement to contract award was expected.

A new approach to procurement

18. The steering group tested its future preferred model of working against the available range of procurement options. These can be summarised as follows:

a. Purchase selected development tools and hardware to develop all administrative applications internally. Manage and support the applications internally.

b. A third party software house implements all or part of the applications, and the university supports none, some or all of the systems after implementation. The university or the third party may implement new functions as the need arises.

c. A system integrator supplies the complete solution, including both hardware and software. The university provides some or all of the ongoing support.

d. A facilities management or outsourcing company delivers and maintains the complete solution. All future enhancements and upgrades are performed by the third party.

19. Each option was evaluated in terms of likely cost, timescales and risk. It was agreed that the minimum option would be the systems integrator, packaged solution (c), but that the scope of the procurement should also include the service provider, managed solution (d). Systems supplied and installed by a software house would be the fallback position (b).

20. A timetable for the procurement was drawn up which started with seeking expressions of interest in September 1997, and with the intention of identifying a preferred bidder around the end of March 1998.

21. During the summer of 1997 the university engaged in the huge task of developing generic specifications of the business processes to be supported by its new IT systems. These would form the basis of the output-based specification (OBS). The OBS was designed to let short-listed suppliers know the scope of the project; it was not a detailed system specification. Deloitte and Touche assisted with a series of workshops in key process areas to identify desired future ways of working to go into the OBS.

22. For each process it was necessary to:

- identify the scope of the process, functions and roles involved and outputs produced
- draw up high-level process maps with associated commentary to highlight special features or service requirements

- assemble key data such as numbers of staff involved, numbers of transactions, current turnaround and service times

- document key information and reporting requirements, especially special or unusual needs.

23. The steering group also began to address how the internal communications surrounding the exercise were going to be managed.

Managing the procurement process

24. The university had always been concerned that its project might not be sufficiently large to attract serious interest from IT service providers. At the time of the procurement, IT professionals were in high demand to address the 'year 2000' and European Monetary Union (EMU) issues. Durham's project was a relatively small one. Deloitte and Touche in particular worked hard to encourage interest in the project in the market. Seventeen suppliers who responded to an initial advertisement in the Official Journal of the European Communities (OJEC) were issued with a questionnaire. Based on the responses, three potential suppliers were selected at the beginning of November 1997 and issued with an invitation to negotiate (ITN), which included the OBS. The short-listed parties were given several weeks in which to investigate how the university worked as the basis for their proposed IT systems solution. Two of the short-listed suppliers withdrew at an early stage of this process, leaving only one, Unisys Limited.

25. Having got down to a single bidder at an unexpectedly early stage in the procurement, the university had to decide whether it wished to proceed. It was decided to continue to negotiate with Unisys for a service provider managed solution. While Unisys had no direct competitor for provision of this nature, it remained open to the university to pursue one of the other procurement options if Unisys was unable to satisfy the requirement for value for money.

The internal dimension

26. Unisys's response to the ITN was to propose widening the scope of the procurement. This possibility had been foreseen by the steering group at the outset. The proposed wider scope took in both management information services and the management of the university's entire IT network and associated services (known in the university as 'common services'). It aroused a considerable level of interest among the academic community. The extensive consultation which followed included establishing an academic advisory group to consider the proposal in detail, as well as presentations by Unisys to a number of committees and the university senate.

27. In relation to management information systems (MIS), the ITN was felt to provide a sufficiently clear statement of what was required to elicit a commercially-sound response from Unisys. In contrast, it was not possible in the time available to develop more than broad current service descriptions for common services. It became apparent that the university did

not have a clear enough strategy for the future use of IT in support of its teaching and research to provide sensible change-control mechanisms within a service provider model.

28. After extensive internal debate, the university concluded that the lack of information on common services was likely to produce difficulties for both parties. Unisys would have difficulty in developing a convincing response to the university's requirements in this area, and the university would have difficulty in evaluating the response in terms of value for money. Generally, the absence of a tightly-drawn output-based specification for common services was likely to extend the timescale of negotiations and increase risk. Critically, from the university's point of view, it could divert attention and effort from the successful implementation of the new MIS, and delay the delivery of essential business benefits. The university did leave open the possibility of a phased roll-out of the contract to embrace common services in due course, although this has not been pursued subsequently.

The PFI contract with Unisys

29. The process of producing the final structure of the procurement, in terms of the phases and boundaries of the PFI provision, took about three months. It introduced a certain amount of time pressure. In March 1998, the university issued a supplementary ITN and received a response from Unisys in early April. Contractual negotiations began at the end of April and were expected to last two weeks. In the event they lasted four weeks, and it was another 10 weeks before the extensive documentation was signed off.

30. At this time the university received valuable input from the HEFCE on a number of matters which greatly assisted the negotiations. Firstly, the university elected to proceed on the basis of a notional valuation of the transferring assets involved in providing MIS services at the start of the contract, with a corresponding nominal value on termination. The HEFCE agreed that this approach, which identified assets by function rather than in terms of a rigorous evaluation, was essentially neutral. Secondly, the contract anticipated that the implementation of new systems would be a service deliverable. This drew on a very broad parallel with deliverables found in property-based PFI contracts such as the construction and operation of a new hospital. The HEFCE supported the view that this approach did not move the contract too far away from being a service-based solution and was in the university's best interests.

31. In accordance with the principles of PFI, the contract is based on the sharing of risk. Risks which Unisys agreed to meet within the contract price include:

- the impact of the year 2000 on the university's management support systems
- the cost of amending systems to deal with entry of the UK into EMU
- the need to make changes to systems as a consequence of changes in legislation, regulatory and reporting requirements (including reporting requirements which are specific to higher education, such as those of the Higher Education Statistics Agency).

32. Under the terms of the contract, Unisys is responsible for IT services in the following key areas:

- financial management
- personnel services
- student admissions and administration
- estates and buildings
- corporate communications
- careers advisory service.

It is also responsible for related support services such as help desk and training.

33. These services are being provided in accordance with detailed service levels specifying minimum service availability and maximum response times.

34. Those university staff who were substantially engaged in providing MIS services to the university transferred to Unisys with the protection of the Transfer of Undertakings (Protection of Employment) Regulations 1981 (TUPE) and the Acquired Rights Directive. Under TUPE, Unisys had an obligation to engage the staff concerned at their existing rates of pay, with no break in continuous service for redundancy payments or unfair dismissal seniority rights. Unisys entered the transferring employees into a pension scheme which is the equivalent of the Universities Superannuation Scheme.

35. A summary of the contract structure is attached as an annex to this case study.

36. The final arrangements were presented to a number of university committees including faculty planning committees, the IT strategy committee and the policy and resources committee. The finance committee approved the business case in early June 1998. University Council authorised the university officers to enter into the contract on 9 July 1998.

The final business case – how outsourcing added value

37. Good value for money is not the same as being cheaper. Despite the fact that the cost of the Unisys contract was higher than the estimated cost of in-house provision, the contract embodies high levels of tangible risk transfer and, by including an element of business process review in conjunction with new systems implementation, offers better operational and business benefits.

38. Value is achieved through the contract in a number of ways:

a. Significant risk is transferred to Unisys, as the service provider, which the university would otherwise retain. For example, it is not unknown for large IT projects to be delivered late, to go over budget and fail to meet objectives. In the past, for example, the university might have found that it had insufficient capacity, in terms of hardware, to operate new applications software effectively, or at all. This would

involve additional unplanned expenditure before systems which had already been paid for could be made to work. Such extra cost, over and above the contract price, now has to be met by Unisys, who would also be penalised financially if systems were delivered late or performed below specification.

b. Strong performance conditions are included for the new systems, such that any shortfall on the levels of required performance over a range of measures triggers significant financial penalties for Unisys.

c. Modern information systems have streamlined administrative tasks. An example is the benefits derived from migrating data onto one reliable central student system, thereby ceasing to maintain separate, unreconciled student records in the registry, departments and colleges.

d. Better information is available for planning and decision making. An example is the automatic integration of information from several different systems into a single, high-level report.

39. In addition to the benefits that can be readily quantified, the Unisys contract gives the university the opportunity to improve its overall performance and to enhance the services it provides to students, staff and the wider community. This is because it enables the university to focus on its information needs and business processes, rather than on the underlying technology,

The story so far

40. The contract was signed in the middle of August 1998. Unisys engaged in a lot of preparatory work following the conclusion of the negotiations at the end of May. As soon as the contract was signed it took over responsibility for running the university's existing DUMAS software and embarked on the implementation of new software solutions. A network was installed covering central administrative departments, which was separated from the main university network by means of a firewall. The Unisys team and computer hardware were initially accommodated on the university campus before moving to new rented accommodation on the nearby science park at the end of 1998.

41. Unisys provides and manages all PCs within the central administration. Many of the older PCs were replaced within three months of the contract being signed. All the PCs and servers were replaced or upgraded within six months to achieve a common minimum specification. The contract includes the requirement to refresh the technology once again within the seven-year contract period. This is scheduled to take place during 2002.

42. New systems for finance, student management, and estates management were installed over the period from August to November 1999 on time and within budget. (Unisys had elected to retain the university's existing system for personnel/payroll management.) The timing of the installation was driven by the requirement to replace existing systems before 1 January 2000. The installation on such a rapid timescale was not without its

teething problems, which took a significant amount of time to overcome. During the first half of the 1999-2000 financial year there were delays in the collection of tuition fees and residence charges from students, in the submission of research grant claims, and in pursuing general debtors. The difficulties were overcome within the first year and all the systems are now working well.

Acknowledgement

43. This case study was produced by Paulina Lubacz, Treasurer of the University of Durham.

Annex to case study 3

Contract structure

1. The contract was entered into under the auspices of the PFI. Accordingly, the university is purchasing 'outputs', in this case the provision of a service to meet specified business needs, and is therefore not directly concerned with the particular hardware or software to be supplied by Unisys. In this way Unisys, rather than the university, assumes the risk of the systems design and configuration chosen by Unisys not meeting the university's output-based requirements.

2. Under the terms of the contract Unisys will be responsible for providing IT services for management support functions, and support such as help desk and training in relation to those services. These services are to be provided in accordance with detailed service levels specifying minimum service availability and maximum response times. The contract is for a period of seven years, with an option to extend for a further five years.

3. The contract states expressly that, in providing services to the university, Unisys must take cognisance of the university's overall strategy for IT and that nothing in the arrangements between the university and Unisys detracts from the ability of the university to determine its own IT strategy.

4. At the start of the contract Unisys took over the university's existing IT systems, known as the legacy systems. Unisys then operated the legacy systems on the university's behalf. Unisys was required to ensure that the service the university received in relation to the legacy systems was no worse than it received before the contract.

5. Unisys was thereafter responsible for introducing new systems, with enhanced performance, in accordance with dates set out in an agreed implementation plan. The university had remedies available to it under the contract for any failure to migrate to the new systems, and hence achieve the higher service levels, by the dates specified in the plan. The availability levels and response times set out in the service level documentation are baselines for performance rather than targets, and so it is expected that Unisys will meet and exceed these baselines. Unisys is obliged to ensure that management information is made available to enable the university to monitor performance across all areas of the services supplied.

6. The contract provides for Unisys to receive a monthly unitary charge for the services supplied. In accordance with the risk sharing principles inherent within PFI, the unitary charge is subject to abatement by way of deduction of service points if, for example, the service availability levels are not met or if the maximum response times are exceeded.

7. In addition, the contract provides for the following:

- the transfer of nine university employees to Unisys on at least equivalent terms and conditions (including pension rights)

- a requirement for Unisys to adhere to the university's security requirements and to respect the confidentiality of all information relating to the university, its employees and students

- a lease of appropriate accommodation on the university's science park

- the sharing of income derived from licensing to third parties of 'bespoke' software created for the university by Unisys or its sub-contractors.

8. If the performance of the services by Unisys is unacceptable, the contract provides for liquidated damages (pre-agreed contractual damages) and ultimately the termination of the contract, in which case the university would be permitted to purchase equipment back for a nominal sum. The university would also be entitled to require the assistance of Unisys in returning the IT services to the university or transferring them to a new service provider.

Acronyms and abbreviations

BCHPC	The Bloomsbury Combined Heat and Power Consortium. A consortium of institutions of the University of London, which was established to introduce combined heat and power generation for the benefit of its members
CHP	Combined heat and power. A CHP plant is essentially an engine-driven electricity generator which, as a by-product, generates heat. Making use of this heat increases the overall efficiency of the plant
DUMAS	A suite of MAC software
EMU	European Monetary Union
HEFCE	The Higher Education Funding Council for England
HEI	Higher education institution
ITN	Invitation to negotiate. The document setting out the detailed framework within which commercial organisations can make their offers
MAC	The Management and Administrative Computing initiative, which grouped HEIs with similar management information requirements into families to develop joint software solutions
OJEC	The Official Journal of the European Communities, in which contract opportunities are advertised
OBS	Output-based specification. Under the PFI, suppliers are contracted to deliver outputs, and have freedom to select the appropriate delivery method. The OBS forms part of the invitation to negotiate
PFI	The Private Finance Initiative. A procurement method which seeks to achieve best value for money by focusing on the delivery of a service, rather than the acquisition of an asset
PFPE	Private Finance Panel Executive. A body set up to support the Private Finance Panel in furthering PFI. The Office of Government Commerce's Private Finance Unit now fulfils this role, in collaboration with Partnerships UK
PwC	PricewaterhouseCoopers – lead and financial advisers to BCHPC
SOAS	The School of Oriental and African Studies – lead member of BCHPC

TJG	Taylor Joynson Garrett – legal advisers to BCHPC
TUPE	Transfer of Undertakings (Protection of Employment) Regulations 1981
UCL	University College London – a member of BCHPC
UCLHT	University College London Hospitals Trust