Comptroller and Auditor General
Report on Value for Money Examination

Health Service Executive

Development of Human Resource Management System for the Health Service (PPARS)

December 2005

This report was prepared on the basis of information, documentation and explanations obtained from the public bodies referred to in the report. The draft report was sent to the Department of Health and Children and the Health Service Executive. Where appropriate, the comments received were incorporated in the final version of the report.

Report of the Comptroller and Auditor General

Development of Human Resource Management System for the Health Service (PPARS)

I have, in accordance with the provisions of Section 9 of the Comptroller and Auditor General (Amendment) Act, 1993, carried out a value for money examination of the development of a human resource management system for the health service.

I hereby submit my report on the above examination for presentation to Dáil Éireann pursuant to Section 11 of the said Act.

John Purcell
Comptroller and Auditor General

8 December 2005

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Summary of Findings

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The origins of the Personnel, Payroll and Related Systems (PPARS) project date back to 1995. At that time, each of the former health boards was statutorily responsible for its own human resource management and most of the personnel and payroll processes were manual in nature and processed centrally. The PPARS vision established at the outset encapsulated the development of an integrated human resource management and payroll system which would be used to transform the manner in which health service personnel were managed. A move from centralised personnel administration type activity to a more strategic function was envisaged with elements of personnel administration decentralised and devolved to line management. Hence, the PPARS project involved much more than the implementation of a computer system – it was part of a change management drive.

A further significant feature of the project was that it represented the coming together of many health agencies in pursuit of a common goal.

Project Outcome

The project experienced considerable time slippage and cost escalation. On 6 October 2005, the Health Service Executive (HSE) decided to suspend the further rollout of the project pending a review. At the time the project was suspended, a combined personnel and payroll system had been implemented in three HSE areas and St. James's Hospital. Configuration work and some elements of testing of the combined system had been completed in the remaining five HSE areas. In addition, personnel administration modules were functioning in three of those five areas. The planned extension of the system to the Dublin Academic Teaching Hospitals and voluntary agencies has also been deferred. A set of issues raised by users, including issues relating to the reporting element of the system have yet to be resolved.

Particular features of the project had a significant bearing on this outcome. These included

- A failure to develop a clear vision of what strategic human resource management actually meant for the health service as a whole and for its individual operational units.
- An urgent need in the Department of Health and Children (the Department) for accurate information on health service employee numbers and pay costings and a consequent desire to see the system implemented as speedily as possible.
- A complex governance structure defined by a consensus style of decision-making.
- Substantial variations in pay and conditions, organisation structures, cultures and processes which existed between and within agencies, the full extent of which was not known before the commencement of the project.
- The lack of readiness in the health agencies to adopt the change management agenda.
- An inability to definitively 'freeze' the business blueprint or business requirements at a particular point in time in accordance with best practice.
- A failure to comprehensively follow through on its pilot site implementation strategy before advancing with the roll out to other HSE areas.

History of the Project

Procurement of the system commenced in January 1997 at which point six health agencies (five former health boards and St. James's Hospital) became involved. The system was required to support Personnel Administration, Payroll, Attendance Monitoring/Control, Rostering, Recruitment and Superannuation functions in an integrated manner and was to be capable of interfacing and integrating with existing systems in health agencies, where appropriate. The system eventually chosen in 1998 was one based on SAP R/3 application software. SAP is considered to be a leader in enterprise resource planning systems. The project was approved by the Department.

A fixed price contract for implementation services in the initial six participating agencies was awarded to Bull Information Systems Ltd (BISL) in July 1998. The contract anticipated that implementation in those agencies would take approximately two years to complete and included all the required functionality, with the exception of Superannuation. The overall budgeted cost was €9.14m, although this did not include a provision for the hosting of the system, network infrastructural improvements or post-implementation system support.

The project was led by the Chief Executive Officer (CEO) of the North Western Health Board on behalf of the CEOs of the participating agencies. He chaired a National Project Board established to oversee the project made up of representatives from all of the participating agencies. Day-to-day management was by a National Project Director assisted by a National Project Team based in Sligo. Local governance and management arrangements existed within the individual agencies.

Not long into the BISL contract it became obvious that it would not be possible to have the system implemented within the anticipated two-year timeframe. The work involved in configuring the system to cater for the significant variations in terms and conditions of employment and practices and procedures, between and within the health agencies, had been seriously underestimated.

Following a dispute about the basis of remuneration, the contract with BISL was brought to a conclusion.

In effect, by the end of 2001 and more than three years after the commencement of the BISL agreement, only the personnel administration elements of the SAP HR system had been implemented in the initial six agencies and the former Western Health Board, which had joined the project in 2000. This cost approximately €17m. A separate version of the system, configured to meet each agency's specific requirements was the method of implementation. This gave rise to a substantial re-design and re-build when a single system strategy was later adopted.

The project recommenced with an advertisement in the Official Journal of the European Communities for consultancy support in December 2000. A realisation that the cost of implementation would be far greater than envisaged caused a delay in the procurement process. In the meantime, personnel from a range of companies were procured to carry out the technical configuration of the system. The first of these was procured in November 2001.

In May 2002, the Department insisted that national coverage of the project was essential. Its scope was thus extended to include the former Southern and South Eastern Health Boards as well as the Dublin Academic Teaching Hospitals and voluntary agencies in the community care area. The estimated cost of the project in February 2002 had been put at €109m with an expected completion date in 2005.

Eventually, following detailed negotiations, Deloitte Consulting Limited (Deloitte) was engaged in October 2002. Apart from an initial project 'scoping' exercise carried out for a fixed price of €400,000, their engagement as project support adviser was "time and materials" based.

Investment Appraisal and Business Case

Appraisals of the project were carried out at two stages. The first was in 1998, when the initial concept was being submitted for approval. The second was in 2002, following the failure of the project to deliver the original planned scope within the initial planned timeframe.

Both appraisals fell short of the requirements of a full business case for the project. The first did not adequately address the costs and benefits of the proposed approach while the second was seriously deficient with regard to its analysis of costs. For example, no detailed breakdown of costs was provided, estimates were not linked to the organisational or functional scope of the project and the extent of the necessary investment in process reform and change management were not quantified.

Project Budgeting and Outturn

While annual estimates were produced there was no definitive overall budget extending over the life of the project which linked money to deliverables.

In general, the examination found that estimates prepared in the course of the project were not supported by detailed cost analysis and were mostly framed in the context of funding requests. This led to the planned scope of the project being adjusted from time to time to take account of funding constraints.

The total cost incurred on the project at 31 August 2005 was approximately €131m. This can be broken down as follows

- Consultants and Contractors €57m
- Project Infrastructure €20m
- National Administration €17m
- Local Agency Costs €37m

The principal consulting and contract payments were in respect of advice and support from Deloitte - €38.5m, project implementation assistance from BISL - €3.3m and payments to contractors to configure the system and provide technical support - €11.7m.

The latest estimates at October 2005 put the total cost to completion of the rollout in St James’s Hospital and the eight HSE Areas at €195m in the period to 31 December 2006.

Governance of the Project

The examination found that, while nominally there was a single responsible owner for the project in the 'lead CEO', this person did not have the power to make and enforce decisions across the range of autonomous agencies. Likewise, neither the National Project Director nor the National Project Team had the authority to direct when or how the implementations would take place in the individual agencies. In fact, there was evidence of a lack of ‘buy-in’ to the project in some agencies.

Moreover, decision-making was cumbersome due to the size and composition of the National Project Board. Difficulty was experienced in getting agreement on binding decisions with members often unsure of their authorisation to make decisions. This was further exacerbated by the often patchy pattern of attendance and the frequent changes to personnel attending board meetings.

In addition, several factors, some of which relate to the fact that 2005 was a year of significant change in the health sector generally, were identified as having contributed to the less than satisfactory outcome on the project to date. These included a void in decision making caused by an uncertainty among senior management of their future roles and authority with the health service and, at agency level, a shift in project sponsorship and frequent changes in team leadership.

Management of Procurement

A number of issues associated with the management of the procurement came to light in the course of the examination.

A dispute with BISL as to whether the basis of remuneration was 'fixed price' or 'time and materials' caused the initial contract for implementation support to be re-negotiated and brought to a conclusion following completion of a reduced volume of work.

In the case of the subsequent contractual arrangements the health service was advised that an external party should quality assure the output from an initial project preparation review by Deloitte. This was designed to ensure that the scope of the work was properly defined and that the resulting revised price for work by Deloitte on the recommenced project represented value for money. The recommendation was not acted upon.

The arrangements with Deloitte did not incorporate an appropriate sharing of risk. In practice, the State carried all the risk.

There is evidence of a lack of clarity regarding the role of Deloitte. Whereas the PPARS National Project Team characterised Deloitte as a strategic implementation partner, Deloitte regarded itself as a project support adviser. This lack of clarity on the part of the health agencies militated against clear direction and control.

Because of uncertainty around funding, agency participation and other factors, the PPARS National Project Team entered into a series of short-term engagements with Deloitte. This short-term procurement approach is unsuited to a multi-annual project on the scale of PPARS.

A competition for the procurement of technical configuration and support contractors was held in November 2002, one year after the PPARS National Project Team had begun to engage personnel on an ad-hoc basis through recruitment agencies. Notwithstanding the results of the competition, there does not appear to have been any change in the companies engaged in this work. Companies that had not been involved up to then, but ranked well on price, were not engaged. Even after this procurement round the actual rates paid to a number of the companies who submitted tenders were higher than their tendered rates. The HSE is currently reviewing the arrangements that were used to procure these services.

Variations between and within Agencies

Arising from the legally autonomous nature of the former health boards as well as their historical origin in the local government system, significant variations existed between the organisational structures, cultures and processes of the agencies participating in the project. Substantial variations existed also from agreed national rules in pay and conditions. While many of these can be attributed to the historical and autonomous nature of the former boards others appear to have arisen through the interpretation in different ways of Department circulars on terms and conditions of pay. Typically these variances related to working hours, leave entitlements, grades and premia. The need to accommodate or deal with these differences contributed substantially to the complexity of the project.

The project identified 2,590 variances in practice. Of this number, 23% were configured into the system.

The remaining 77% were not configured and while some of these have been eliminated, manual intervention is still necessary in other cases to ensure that individuals are paid correctly. The extent of manual workarounds still existing is not known but represents an inefficiency in the system which will have to be dealt with prior to any move to a shared services environment.

One benefit of this process is that a large number of anomalies in terms and conditions have been brought to the surface. This information will help inform human resource management decisions in the context of addressing issues of standardisation across the HSE.

Consequences of Project Approach

Documentation of the business process requirements of an organisation through a 'blueprint' is a key stage in any system development and forms the basis for the system design. Best practice suggests that 'freezing' the blueprint before commencing configuration, testing and rollout, is a pre-requisite in any large-scale programme in that it provides a stable definition of requirements and design. Otherwise, the implementation programme runs the risk of scope creep through gradually changing requirements and re-work.

Since PPARS was being implemented as a single system in a non-standardised operating environment within legally autonomous agencies each with significantly different organisational structures, cultures and processes, the project was faced with changes to requirements as each new agency implementation progressed. This made the project particularly complex with the result that the technical configuration and subsequent testing required was greater than had been anticipated.

The Department and the CEOs urgently sought accurate information which could be used in the control of employment numbers and the costing of pay awards. Thus, the project was driven by a desire to implement in as quick a timeframe as possible – with adverse consequences.

It overstretched resources and resulted in a failure to fully complete the two declared pilot sites before moving on to implement new sites. The failure to take the opportunity to learn from the experience of the pilot sites and adapt the implementation in subsequent agencies impacted negatively on the project.

Failure to pause after the pilot site implementations eliminated the opportunity to establish more fully the scope of the project which in turn would have allowed for the alteration of "time and materials" based remuneration arrangements to more "fixed price" arrangements.

A lesser amount of functionality has been delivered than what was initially envisaged. Rostering, Recruitment and Superannuation functions have not yet been delivered. Although this can be partly attributed to cost containment issues, the desire to get the key elements of the system "live" in all agencies as early as possible also played a part.

Reviews of the Project

The project was reviewed by external consultants on five occasions. None of the reviews provided a meaningful challenge to the case for continuing with the project. In fact, the reviews tended to justify the continuation of the project although a wider review scope might have focused attention on the escalating cost, reduced scope and the risks to timeliness and coherence.

Implementation Issues

Not surprisingly given its scope and complexity, PPARS has experienced a number of problems since go-live. Major matters requiring attention were still being highlighted by staff at June 2005 prompting the drawing up of a 'Top Ten Issues' List. While some of these related to bugs or system errors, others

related to demands for additional functionality over and above that previously provided. This is indicative of a failure to properly define business requirements prior to configuration/go live.

A major frustration for staff is that work has not yet been carried out to enable the production of standard reports from the integrated system to assist in the management of HR. The view often expressed during the examination was that most benefits are still potential benefits at this stage.

It appears that where the payroll has gone live little or no redeployment has taken place and additional resources are required for the system, especially for the recording and entering of time. There is no evidence of staff savings having been achieved.

Although one of the main aims of PPARS was the devolvement of HR management to line managers, this has not been achieved to any appreciable degree.

Benefits

Apart from the not inconsiderable benefit deriving from the computerisation of personnel records there are a number of key achievements that can be built on, not least

- a single system across a large section of the health sector
- the isolation of variances from national rules which can potentially now be managed in a human resource management context
- the creation of expertise within the system which may be available for other developments if it is not dissipated.

However, work to complete the payroll and personnel modules for all HSE areas would be required

- to support regular comprehensive staff census reporting
- to produce reports geared towards proactively managing recruitment, transfers and absenteeism
- to enable devolution of HR management to line managers.

Good Practice

Chapter 8 outlines the main elements of good practice in relation to the management of major ICT projects which have been derived from this examination of the PPARS project.

Development of Human Resource Management System for the Health Service (PPARS)

1 Introduction

1.1 The concept of creating a computerised system to assist in the management of personnel, payroll and related activities in health agencies, was first mooted in 1995. Up to that point, the focus of computerisation had been on systems designed to process payments to staff rather than manage the human resources of the agencies.

1.2 Following the publication in 1994 of the Health Strategy - Shaping a Healthier Future, there was a recognition that agencies would be required to work more closely together and cooperate on delivering common outputs. The Personnel, Payroll and Related Systems Project (PPARS)[1] was planned as an early significant conjoint action arising out of the Health Strategy.

1.3 Following discussions between the Chief Executive Officers (CEOs) of the former health boards and the Management Advisory Committee of the Department of Health and Children (the Department), a group representative of the health boards was formed in early 1995, to draw up an agreed specification of requirements for a new human resource management system for all of the health boards. This specification was based on earlier work completed by the South Eastern, Southern, North Western and Western Health Boards. A common specification was produced by the Southern Health Board in July 1995, based on input from all the boards.

1.4 The CEOs then formed a Steering Group, in August 1995, charged with responsibility for procuring a system in accordance with the specification. The Steering Group comprised representatives of each health board and drew expertise from the Finance, Personnel and Management Services functions of the boards.

Human Resource Management in the Health Boards

1.5 At the inception of the project, each agency was statutorily responsible for its own human resource management (HRM). Accordingly, there were multiple human resource functions around the country resulting in

- the use of different HRM and payroll solutions
- a resulting variation in processes and procedures
- disparate ICT platforms
- variations in pay and conditions arising between agencies[2].

1.6 When the PPARS project started, most of the HR and payroll processes were manual in nature. In the case of payroll, timesheets were submitted by line managers to a centralised payroll function within each agency where gross pay was calculated manually before being entered into the system for further processing and payslip production. Since terms and conditions of employment varied between and within agencies, the correct operation of those processes was dependent to a large degree on expert knowledge and manual intervention at local level.

1.7 Generally, the payroll and HR systems, where they existed, operated as standalone systems, with limited interfacing to other accounting and management systems.

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[1] The first name, in 1997, was Personnel, Payroll, Attendance/Monitoring and Control including Rostering, Recruitment and Superannuation System.

[2] The HSE informed us that most variations predated the establishment of health boards and were inherited from the local government system in 1971.

PPARS Project Vision

1.8 The CEOs of the participating agencies identified a number of key administrative areas which they considered needed urgent attention and which they expected the PPARS project to address

- the need to develop a fully integrated human resource system, inclusive of payroll and attendance/absence administration which would meet the business requirements of a modern, dynamic human resource function.
- a requirement to streamline the processes of rostering and paying salaries and so eliminate the duplication of documentation.
- the desirability of having a system which would facilitate the decentralisation of the human resource functions making a line manager a human resource manager in his or her area of administration, while working under the guidance of human resource policies and procedures and advice where necessary.

1.9 The former CEOs informed us, in the course of this examination, that a major deficiency with existing information systems was that they did not allow the health service to readily and accurately profile the numbers of staff employed, the make-up of staff resources in terms of disciplines and professions, the training given to staff and how they were deployed.

1.10 Lack of information on the associated costs including those deriving from the different terms and conditions many of which had been inherited from the local government system in 1971 hampered management in the course of pay negotiation and in costing services.

1.11 They saw the PPARS system as the people management element of a wider ICT strategy which, in conjunction with financial information and patient management systems, needed to be in place in order to position the service to cost episodes of care.

The Department's Requirements from the System

1.12 In 1997, the Department had outlined its requirements from any new system as follows

- it needed to be capable of categorising pay elements in accordance with Standard Accounting Policies for health boards promulgated by the Department
- reporting facilities were required to be flexible and capable of meeting ad-hoc requests in relation to the costing of pay agreements
- the system was required to facilitate the supply of information on staff numbers on a monthly basis
- the system was required to be amenable to requests for information under the then proposed Freedom of Information legislation.

Initial Procurement Arrangements

1.13 Deloitte & Touche Consultants[3] (Deloitte) were appointed to assist in the preparation of procurement documentation and to provide quality assurance on a common specification. Finance Officers, Personnel Officers and Management Services Officers were consulted about the functionality required. Separate specification working groups were formed for each of the key functions within PPARS. These specifications were then consolidated into a composite invitation to tender document.

[3] A subsequent engagement was with Deloitte Consulting Limited, now known as Deloitte MCS Limited.

1.14 Tenders were sought in January 1997 for the provision of computerised systems to support the following functions in an integrated manner

- Personnel Administration
- Payroll
- Attendance Monitoring/Control including Rostering
- Recruitment
- Superannuation.

1.15 The product was required to be capable of interfacing and integrating with existing systems in health agencies where appropriate. An overview of the software requirements specified is set out at Appendix A.

Outline Project History

1.16 The project began in 1998, being initially implemented in association with Bull Information Systems Ltd (BISL) and subsequently in partnership with Deloitte[4] as project support adviser. At all times the solution was based on SAP software. The key events in the history of the project up to October 2005 are set out in Figure 1.1.

Figure 1.1 Project Milestones

Date	Key Events
July 1998	BISL are contracted to supply and install the selected SAP system
September 2000	The contract with BISL is terminated having delivered only the personnel element of the system
September 2000	SAP are engaged to blueprint further elements of the system
November 2001	Technical configuration personnel are engaged to configure the software to the business requirements
May 2002	The Department insists that national coverage of the project is essential
October 2002	Deloitte is engaged to assess the status of the project and define its scope
February 2003	Deloitte is engaged as project support adviser on a rolling contract basis
August 2004	IBM is appointed Technical Implementation Partner
October 2005	The HSE suspends the further rollout of the project pending a review

Source: Analysis by Office of the Comptroller and Auditor General

[4] The project was supported by a combination of resources from Deloitte (UK) and Deloitte (Ireland).

Project Oversight

1.17 Initially, the project was managed by the CEO of the North Western Health Board (NWHB) on behalf of the CEOs of six initial participating agencies[5]. The project was then taken over by the Health Boards Executive (HeBE)[6] following its establishment in 2002 - with the CEO of the NWHB continuing to function as the lead CEO for the project. Responsibility for area implementation continued to rest with CEOs of health boards under the Health Act, 1970.

1.18 Since the abolition of the health boards at 31 December 2004 and their consolidation along with other agencies[7], into the Health Service Executive (HSE), the responsibility now rests with the HSE.

1.19 The Department, as the funding agency, has a responsibility for ensuring that the funds provided are used to best effect.

VFM Concerns

1.20 The principal Value for Money concerns in regard to the project were

- the large escalation in cost from initiation to date
- the extended timeframe over which the project was being implemented
- the reduced functionality being delivered
- whether the expected benefits are being realised.

1.21 The PPARS project together with a Financial Information Systems Project (FISP) designed to implement SAP Financials in all of the agencies, were suspended in October 2005, pending a review by the HSE. At that point, the outputs of the project were as outlined in Figure 1.2. The terms of reference of that review are set out at Appendix B.

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[5] Eastern Health Board, Midland Health Board, Mid Western Health Board, North Eastern Health Board, North Western Health Board, St. James's Hospital.

[6] HeBe was established to enable the health boards, the Eastern Regional Health Authority and non-statutory provider agencies to work together on an agenda to develop and modernise the health service delivery system.

[7] Comhairle na nOispidéal, the Hospital Bodies Administrative Bureau, the Health Boards Executive, the General Medical Services (Payments) Board and the Health Service Employers Agency

Figure 1.2 Project Outputs

Date	Project Output
October 1999 – October 2000	Personnel Administration elements go live in the initial six contracting agencies
August 2001	Personnel Administration elements of the system go live in the HSE - Western Area
November 2003	Payroll and associated elements[a] go live in St. James's Hospital
July 2004	Payroll and associated elements[a] go live in the HSE - North Western Area
September 2004	Payroll and associated elements[a] go live in the HSE - Midlands Area
November 2004	Payroll and associated elements[a] go live in the HSE - Mid Western Area

Source: Analysis by Office of the Comptroller and Auditor General

Note: [a] The elements associated with the payroll were a revision of the existing personnel module, time recording and travel expense administration.

Related IT Proposals

1.22 It was intended that PPARS would be integrated with FISP when fully implemented and also linked with HISP[8].

Steps have recently been initiated to address two elements originally within the scope of PPARS in a separate development phase. These are the e-Recruitment and Superannuation projects[9].

Examination Methodology

1.23 The examination was conducted by staff of my Office. The examination which built on earlier work undertaken as part of the financial audit of health boards involved

- a review of files and documents provided by the PPARS National Office in Sligo, the local agencies and the Department
- interviewing persons and engaging with organisations involved in the project.

Assistance in the areas of change management and advice on the management of major transformation projects was provided by BrookHill Consulting Ltd.

Structure of the Report

1.24 The report is set out in nine chapters including this introductory chapter. Chapter 2 outlines the project outturn to date. Chapter 3 considers the arrangements for the planning and governance of the project. Chapter 4 considers how the project was resourced. Chapter 5 deals with the results of reviews and monitoring of the project. Chapter 6 looks at the arrangements for the management of change.

[8] Hospital Information Systems Programme (HISP).

[9] While a recruitment module formed part of the BISL contract, superannuation had been removed from scope before its conclusion.

Chapter 7 reviews the outturn of commissionings and whether the expected benefits are being realised. Chapter 8 outlines some conclusions that may have wider applicability. Chapter 9 outlines the views of the HSE and the Department on the project.

1.25 The HSE is currently reconfiguring its inherited functional areas into four regions. However, on an interim basis it has retained functional areas coterminous with those of the former health boards. For reference purposes, the relationship between those areas is shown in Appendix C.

2 Project Outturn

2.1 In October 2005, the HSE decided to suspend the further rollout of the project. This chapter examines the outturn on the project from inception up to that point in terms of time, cost and functionality.

2.2 The system was initially planned to be implemented in St James's Hospital and five former health boards during the period 1998 to 2000. The Western Health Board was added in 2000. The organisational scope of the project was subsequently extended to all health boards in 2002. In a further extension, it was planned that the project would include the remaining Dublin Academic Teaching Hospitals (DATHs) and Voluntary Health Agencies. Figure 2.1 outlines how the organisational scope has grown over the period 1998 to date.

Figure 2.1 Organisational Scope of Project 1998 - 2005

Agencies in Initial Round[a]T	Subsequent Additions	Proposed Extension
(1) Eastern Health Board[b]	(7) HSE - Western Area	(10) Remaining Dublin Academic Teaching Hospitals
(2) Midland Health Board	(8) HSE - Southern Area	(11) Voluntary Agencies within Community Care Area
(3) Mid Western Health Board	(9) HSE - South Eastern Area	
(4) North Eastern Health Board		
(5) North Western Health Board		
(6) St James's Hospital		

Source: Analysis by Office of the Comptroller and Auditor General

Notes: [a] At the initial round stage the health boards were still in existence. These have now been subsumed into the Health Services Executive

[b] Replaced by Eastern Regional Health Authority and three Area Boards in March 2000

Initial Budget and Contracting

2.3 The initial budget was €9.14m and covered the elements set out in Figure 2.2 in respect of the agencies in the initial round (Figure 2.1). The initial budget costs did not include any provision for a managed service facility, network infrastructural improvements or post implementation system support.

Figure 2.2 PPARS Initial Budget

Item	1998	1999	2000	Total
	€m	€m	€m	€m
Licences[a]	1.15	1.15	-	2.30
Hardware	0.15	1.40	0.56	2.11
Implementation Consultancy	0.84	1.28	0.44	2.56
Core Design Team	0.20	0.25	0.25	0.70
Agency Teams	0.25	0.61	0.61	1.47
Total	**2.59**	**4.69**	**1.86**	**9.14**

Source: National PPARS Office

Note: [a] Licences also covered an entitlement to use SAP Financial applications.

2.4 A proposal from BISL, using a solution based on SAP R/3 application software, emerged as the lead proposal from the related tender competition. BISL's implementation approach was to scope, design, configure, test and implement an initial 'common' SAP HR system which was targeted to give a minimum 85% 'common fit' to all health agencies. Each agency would then implement the common system together with modifications specific to that agency.

2.5 A contract was awarded to BISL covering the full scope of the project with the exception of modules to administer superannuation which were withdrawn after the tender stage on cost grounds. The timescale for the project envisaged in the contract was just under two years. IBM was selected to host the system centrally under a managed service agreement.

2.6 The software proposed by BISL was SAP. SAP has been implemented in many organisations worldwide and is considered to be a leader in 'enterprise scale' integrated, resource planning systems. Such enterprise systems are, however, complex and require specialist knowledge to configure.

Projected Cost and Envisaged Timescale

2.7 The estimated cost of the project has been revised on a number of occasions since the initial estimate in 1998. Figure 2.3 gives an indication of how expenditure estimates and project timescale have evolved over the life of the project. In July 2004, the Accounting Officer of the Department informed us that the project as then specified would cost an estimated €230m.

Figure 2.3 Estimates of Cost and Timescale of PPARS 1998 – 2005

Date of Estimation	€m	Period of Implementation	Coverage of Agencies
March 1998	9[a]	1998 - 2000	6
July 2000	18	1998 - 2003	6
October 2000	33	1998 - 2003	6
Feb 2002	109[b]	1998 - 2005	9 + Voluntaries[c]
March 2004	147	1998 - 2006	9 + Voluntaries
July 2004	230	1998 - 2006	9 + Voluntaries
October 2005	195	1998 - 2006	9 agencies (excluding the voluntaries)

Source: Analysis by Office of the Comptroller and Auditor General

Notes: [a] This estimate was in a report to the Department which stated that a number of additional costs had not been quantified. These included costs in respect of a managed service facility, network infrastructural improvements and post implementation system support.

[b] This forecast did not make provision for customer competency centre costs or local agency support costs.

[c] Voluntaries include the Dublin Academic Teaching Hospitals.

2.8 A report to the Board of the HSE, in October 2005, put the estimated cost of implementing the project in the nine agencies at €195m. Because the remaining Dublin Academic Teaching Hospitals and the voluntary agencies had been removed from the scope of the project no costing of work in those agencies was completed at that stage.

2.9 The estimates set out in Figure 2.3 need to be treated with caution. While they were used as part of project planning, they appear to have been framed on a variety of bases and, in general, the examination found no evidence to show that estimates of cost made up to 2004 were supported by detailed analysis. The first time a detailed budget was prepared was in March 2004, covering the period to 2006 during which time it was intended that implementation would be completed. By 2005, it was clear that this estimate was totally inadequate. It appears that most budgets were more related to funding demands than to a detailed costing of the tasks required to carry out the project and that the scope of the project was consistently adjusted to take account of funding constraints.

Cost to Date

2.10 €131m has been spent on the project up to 31 August 2005. Figure 2.4 provides a breakdown of the main elements of expenditure up to that date.

Figure 2.4 PPARS Expenditure 1998 – August 2005

Category of Expenditure	€m
Consultants & Contractors	57.0
Licences & Maintenance	10.7
Managed Service & Hardware	9.3
Staff costs of National Project Team	11.6
Office Costs	5.3
Local Agency Costs[ab]	37.1
Total	**131.0**

Source: National PPARS Office

Notes: [a] Assumes that agencies have spent two-thirds of their allocation in the first eight months of 2005.

[b] Agencies do not report their expenditure on PPARS separately. This is the funding which they received in respect of the project.

2.11 In September 2005, the PPARS National Team had prepared estimates of the cost to the end of 2006 under two scenarios – completing the rollout to all of the other agencies and pausing the project after the payroll had gone live in the HSE - Western Area. These estimates indicated that cumulative expenditure which would amount to €195m by 31 December 2006 could be pared back by around €18m if the rollout was paused after the system went live in the HSE - Western Area.

2.12 On the other hand, pausing does not eliminate ongoing support costs. In August 2005, the PPARS National Team, in a report to the HSE, stated that ongoing costs if the implementation was completed in nine agencies would be of the order of €28m per annum.

Scope and Timeframe

2.13 The project was expected to commence in 1998 and take approximately two years to complete for the initial six agencies. The initial concept envisaged the implementation in those agencies of a computerised system to support five high level functions in an integrated manner with the capacity to interface/integrate with existing health board systems where appropriate.

2.14 However, the BISL contract was terminated in 2000 and, at that point, the overall position in regard to the high-level project elements delivered is set out in Figure 2.5.

Figure 2.5 Comparison of Functionality Required and Delivered in Six Agencies at 2000

Functionality Required	Delivered
Personnel[a]	Yes
Attendance Monitoring/Control including Rostering	
Attendance Monitoring/Control[b]	Yes
Rostering	No
Payroll	No
Recruitment	No
Superannuation[c]	No

Source: National PPARS Office

Notes: [a] Basic pay recorded in the personnel modules was linked to existing payroll systems.

[b] Partial Attendance Monitoring and Control functionality was delivered with the assistance of consultants other than BISL. In the remainder of this report, attendance monitoring and control functionality is not treated as a separate sub-system but is regarded as part of the personnel or payroll modules as appropriate.

[c] The Superannuation module was eliminated from the scope of the project prior to the conclusion of a contract with BISL.

Output of BISL Partnership

2.15 The personnel modules delivered enabled the capture of details relating to the organisation's structure and each staff member's grade, payscale, contract details, personal details and professional details including qualifications and registration. These modules were customised differently for each agency – they had a common core but provided for agency variations.

2.16 Given that many of these details existed in paper format previously and that there were significant differences as to how each agency handled personal records, considerable effort was required to gather this information in a format suitable for entry to the system.

2.17 Interfaces to existing payroll systems were also implemented. However, these interfaces appeared to be at a high level and related only to one element of remuneration – basic pay. The remainder of the payroll continued to be separately calculated.

Project Recommencement

2.18 Following the conclusion of the contract with BISL (which is addressed in Chapter 4), a procurement process for consultancy support commenced in December 2000. In the course of this competition, it became clear that the cost of implementation would be far greater than had been envisaged and the procurement process was put on hold. A Quality Assurance Review of the work carried out to mid-2000 and an Investment Appraisal had both been commissioned in late 2000. The commissioned reports were delivered in early 2002 and, following approval from the Department, the procurement process recommenced.

2.19 Deloitte was engaged as project support adviser, in October 2002, to carry out a project preparation phase for the recommenced project and subsequently, in early 2003, it was engaged to advise and support the health agencies with a view to delivering payroll and time management systems in the period 2003 – 2005. In May 2002, the Department had directed that there should be national coverage for the project and that it should be progressed as speedily and as efficiently as possible.

2.20 The main programme of work outlined for 2003 related to the development of business processes which would apply across all agencies and two initial pilot implementations in St James's Hospital and the NWHB.

2.21 Overall, it was anticipated that during the period 2003 – 2005, all nine agencies (eight health boards and St James's Hospital) would have implemented the systems. It was also intended to commence planning the implementation of the systems in the DATHs and certain voluntary agencies during late 2004.

2.22 The examination heard conflicting evidence about the extent of the work envisaged in 2005. While the Chairman of the National Project Board reported to the Department, on 2 May 2003, that the project was working to an overall schedule of having all health boards and the "voluntaries" live by the end of 2005, the National Project Team maintain that what was envisaged for 2005 was the planning of this work in the voluntary agencies and DATHs. In their Project Preparation Report of 2002, Deloitte had stated that it was intended to 'bring on the remaining agencies, voluntary hospitals etc. during 2005'.

2.23 It appears that an initial timescale for the voluntaries ran until 2008. An IBM report on the implementation strategy for deployment of PPARS to the voluntary agencies under the aegis of the ERHA concluded that it was strategically sensible to deploy PPARS as the common human resource management system for the voluntaries and, while not cost-justifiable as a human resource management solution when each site was taken in isolation, taken in a national context, it was cost justifiable from an operational and strategic perspective. However, the report cautioned that, deployed under the then PPARS Office team structure, it would take until mid-2008 to implement in all voluntary agencies in the ERHA, assuming a start date in late 2004.

2.24 The IBM report identified certain 'accelerators' which could be used to shorten the timeframe including the creation of additional implementation teams and the implementation of shared services among clusters of voluntary agencies. In addition, some form of interim solution was required for certain voluntary agencies in such urgent need of a human resource management system that even the most optimistic PPARS implementation plan would not be able to meet.

2.25 In addition, the Department signalled its desire to have systems capable of reporting national statistics (even if they were not PPARS-based) by the end of 2005. In the event, no project preparation work was commissioned from Deloitte for the voluntary sector.

2.26 The envisaged implementation strategy to be carried out in association with the project support adviser is set out at Figure 2.6.

Figure 2.6 Implementation Programme at December 2002[a]

2003	2004	2005 - 2008
Determining National Business Processes	Implementation of Payroll and Time Management Modules in five agencies[b]	Implementation in DATHs and voluntary agencies[c]
Implementation of Payroll and Time Management Modules in two pilot agencies[b]	Midland Health Board	
St. James's Hospital	Mid Western Health Board	
North Western Health Board	Western Health Board	
	Eastern Regional Health Authority	
	North Eastern Health Board	
	Implementation of Personnel, Payroll and Time Management Modules in two agencies	
	Southern Health Board	
	South Eastern Health Board	

Source: Analysis by Office of the Comptroller and Auditor General

Notes:[a] All references are to the functional areas of the former health boards. The programme was set out in the Deloitte Project Preparation Report in December 2002.

[b] This involved revision of the personnel modules developed mainly by BISL.

[c] See paragraphs 2.21 to 2.23.

Recommenced Project - Output

2.27 As at October 2005, the planned systems outlined in Figure 2.6 have been substantially implemented in four agencies as follows

- St James's Hospital (November 2003)
- HSE - North Western Area (July 2004)
- HSE - Midlands Area (September 2004)
- HSE - Mid Western Area (November 2004)

2.28 As well as the substantial completion of the payroll and time management systems in those four areas, work in other regions was at various stages of completion. The HSE informed us that the system in the remaining HSE areas had been configured and integration testing completed. The existing live systems had been regression[10] tested for compatibility with the newly developed elements. Two agencies

[10] The purpose of regression testing is to ensure that when a new agency's configuration is added to the existing system that there are no adverse effects for the functioning of the system or for the calculation of wage values for those agencies already live.

had reached the final parallel running stage while the remaining three had almost completed data mapping and data migration.

2.29 In regard to piloting, the two pilot sites had signed off on the developed system subject to the resolution of a set of identified issues which needed to be addressed. These issues were largely in the areas of support, maintenance and enhancement. Not all identified issues were resolved and the reporting element of the system was not meeting the expectations of agencies. The PPARS National Team informed us that there was pressure from the Department to get the system 'live' in all agencies as soon as possible[11]. However, senior officials in the Department informed us that they were not aware that the implementations had not been completed at the pilot sites. While they were anxious that the implementations should proceed as quickly as possible, they stated that they did not issue any instruction to the effect that work was not to be completed at the pilot sites.

Factors Impacting on Project Completion – 2005

2.30 The recommenced project envisaged completion by the end of 2005 in the former health boards and St James's Hospital. However, 2005 was a year of major change in the health sector generally. The experience of Deloitte was that a number of factors impacted on performance

- In the drive to restructure and reconfigure the service, senior management became uncertain of their future roles and authority leading to a decision-making vacuum.
- Project sponsorship in agencies shifted from assistant CEOs to HR Directors.
- There was frequent change in agency team leadership including in Project Managers and Change Managers.

Achievement of Organisational Coverage

2.31 At present, the personnel and payroll system is live in four agencies. Personnel modules only, using the agency-specific configuration carried out by BISL, are in operation in three other agencies. The HSE has decided to stabilise the project at this level of implementation pending its review of the operation of the system in practice. Extension to the DATHs had been deferred prior to the HSE decision. Figure 2.7 indicates the extent to which PPARS has been implemented.

[11] This was echoed in two reports published in 2003 – Audit of Structures and Functions in the Health System (Prospectus) and Commission on Financial Management and Control Systems in the Health Service (Brennan Commission).

Figure 2.7 Organisational and Functional Coverage of PPARS

Agencies	Personnel Modules[a]	Payroll and Related Modules[a]
St. James's Hospital	√	√
HSE - North Western Area	√	√
HSE - Midland Area	√	√
HSE - Mid Western Area	√	√
HSE - Western Area	√	
HSE - North Eastern Area	√	
HSE - Eastern Region	√	
HSE - Southern Area		
HSE - South Eastern Area[b]		

Source Analysis by Office of the Comptroller and Auditor General

Notes:[a] Attendance monitoring and control functionality is delivered through the integrated personnel and payroll system or through the personnel modules for those agencies which have not yet implemented the payroll system.

[b] An element of the personnel system – the organisational management module has been implemented for this area.

Deviation from Conceptual Scope

2.32 The module to manage superannuation was excluded from the scope of the initial consultancy work even before receipt of the proposals from tenderers in March 1997. The originally envisaged superannuation element remained outside the scope of planned initiatives, but some work has been done to provide a facility to record employee service records.

Achievement of Contracted Functional Scope

2.33 Apart from the failure to deliver the full organisational scope of the project, a lesser amount of functionality has now been delivered than what was envisaged at the outset[12]. The failure to deliver these services can be ascribed to cost containment demands and a desire to have the key elements of the system implemented as early as possible. Compromises to functionality occurred, particularly with regard to Rostering and Recruitment functions.

Rostering

2.34 The rostering functionality required by the health agencies was a facility to define work plans based on planned services, to automatically roster staff accordingly and to generate the required data for

[12] The services outlined and stage payments specified in the contract with BISL envisaged that each agency would be billed for personnel, time, attendance, payroll, rostering and the recruitment modules.

payroll and other purposes. It had been included in the original specification and scope of work produced in 1997. The original specified requirement at that time was for a system to record attendance by confirmation of rosters. However, by the time the project was being recommenced in 2003, the concept of automatic rostering and its use as a basis for payroll calculation had been abandoned as a viable option[13]. This would appear to be due to the complexities in the rostering of staff in the acute sector where a high degree of mobility occurs. It is possible, however, to manually schedule staff for work using other aspects of the system where the work pattern is stable.

Recruitment

2.35 A module to manage recruitment was included in the specification of requirements provided to prospective bidders in 1997. It was also part of the requirements as published in the Official Journal of the European Communities (OJEC) Notice related to the procurement of further consultancy support in December 2000 but was excluded from 'Best and Final Offer' documents in November 2001. The HSE informed us that this exclusion was due to questions around suitability of the standard SAP recruitment module to meet its business requirements.

2.36 The HSE informed us that a prototype for a recruitment module has recently been developed and the PPARS team is testing its application to the health sector. The prototype as developed is a tool for planning, conducting and evaluating recruitment competitions.

[13] While an analogous module – shift planning – is stated to come within the revised scope of PPARS it has not yet been planned.

3 Planning, Governance and Decision Making

3.1 PPARS was a major initiative designed to facilitate modern human resource management in the health sector. Because of the number of agencies involved and the variety of different systems and practices it was always going to be a complex project. This chapter examines

- the initial appraisal arrangements and the adequacy of the business case
- the adequacy of the structure for governance and management of the project.

3.2 Appraisals were conducted at two stages

- when the initial concept was being submitted for approval
- after the failure of the initial implementation strategy to deliver the initial planned scope.

Appraisal and Initiation 1998

3.3 The need for the development of information systems to support the efficient management of the human resources employed within the health services was outlined in a report of the PPARS Steering Group to the Department in 1998. It was supported by an investment appraisal carried out by the National Institute for Management Technology (NIMT)[14].

3.4 The NIMT report noted that the health boards had taken a strategic initiative to devolve decision-making and accountability and that SAP would support that initiative. The effect of implementing the selected system would be to support the achievement of key requirements of the Health Strategy including

- the recruitment, development and retention of quality staff across the health sector
- the establishment of an integrated organisational structure to improve performance, accountability and delivery of health services
- the identification and optimum deployment of staff skills and talent
- the ongoing monitoring and evaluation of the effectiveness of the health services, specifically in relation to the accurate measurement of human resource utilisation.

3.5 The report concluded that SAP was an appropriate choice in architectural terms having considered whether the software, hardware and other elements of the system were compatible with existing or planned systems within the boards and whether they were reliable, future-proofed and capable of expansion.

3.6 The NIMT appraisal outlined a limited number of potential benefits that had been identified by the health service together with suggestions made by BISL and noted that

- The managed service cost of around €1.5m per annum could be offset by the elimination of payroll bureau running costs of around €0.5m per annum.
- There were, at that time, 165 staff involved in payroll administration and 12 in IT support and data entry across the six agencies. The report noted that there might be some freeing up of this resource but that additional IT staff would probably be required in each agency.

[14] At the time, NIMT was a commercial consultancy company focused particularly on the national software programme in advanced technology. NIMT has since been acquired by the Gartner Group.

- The delay at that time (of between one and five weeks) in receiving labour distribution and utilisation data would be eliminated.
- The agencies could face a significant upgrading cost for Euro and Year 2000 compliance. These costs would not arise for those systems covered by PPARS as the SAP R/3 range was Year 2000 and Euro compliant.

3.7 NIMT also reported that it had been informed, in the course of its review, that there might be some scope for a reduction in costs associated with absenteeism. The report, however, stated that cost reduction in this area would be unlikely in all agencies as the absenteeism level was relatively low.

3.8 On the question of risk management the report noted that the implementation of any computer system had risks associated with it. The key consideration was not to eliminate risks but to manage them. While the proposed implementation had a number of significant risks associated with it, none of these were, in NIMT's opinion, unmanageable.

3.9 In particular, it noted that existing practices would need to be reviewed and changed in conjunction with the implementation, in order to bring them into line with best practice so as to optimise service provision. Considerable resources, both personnel and financial, together with unstinting support from top management would be required.

3.10 The report highlighted the fact that the complexity of SAP would impose restrictions on any additional process re-design desired at a later stage. It referred to a study by Forrester Research in the United States, which claimed that "SAP's complexity in effect freezes business processes during the system's lifetime, in effect embedding existing practices in the software".

3.11 However, it also noted that new systems were an urgent necessity in the health service and that a major business process re-design exercise undertaken prior to their introduction would be costly and would cause major delay.

3.12 NIMT's general project advice to the health agencies is set out at Appendix D.

3.13 SAP, however, has stated that the product is certainly no more complex than comparable solutions. It pointed out that SAP's business software systems are used to support large and small organisations from all industries and as such have to provide flexible software solutions. In configuring the software to support the desired business processes of a particular organisation, SAP provides a methodology and configuration tools that allow great flexibility. Configuration is not a one-time only exercise and most organisations would re-visit configuration to reflect changing business needs and as such a change to process support requirements, thus meaning that SAP can meet the continuing and changing demands of an organisation.

3.14 Taking account of NIMT Advice, the Steering Group Report to the Department in 1998 set out the initial organisational scope of the project. The estimated cost of the project was put at €9.14m which included implementation consultancy based on tender proposals. The report anticipated a two-year timeframe for implementation in the initial six agencies. The required resources were identified including the numbers of staff required at national and agency levels. However, the function, qualification or experience required of those resources was not identified. Neither did the report identify the persons who would be charged with responsibility for delivering the project.

3.15 A number of costs were not quantified in that report, however, (although some were flagged) as it was considered that the effect of implementations upon individual agencies would only emerge after the design phase for each agency had been completed. These included

- managed service costs[15]
- improvements to the networking infrastructure
- computers in excess of an estimated 150 per agency
- post implementation system support staffing within agencies.[16]

3.16 Overall, the report did not amount to a comprehensive appraisal of the costs and benefits of adopting the PPARS solution. It noted that SAP was an integrated solution and maximum benefits would only be realised when additional modules such as SAP Financials were implemented or interfaces built to other financial systems. The report, however, stressed the need for the health service to itself quantify the benefits of the project.

Cost Escalation and Review

3.17 In late 2000, by which time the arrangements with BISL had terminated, it was decided to commission a Quality Assurance review of the implementation to that date and, also, a further investment appraisal. The decision to undertake the appraisal had been taken following the submission of new cost projections. In October 2000, the PPARS National Office had submitted detailed estimates to the Department. These covered the period to the end of 2003 during which time it was anticipated that the implementation would be completed in six agencies. The estimate was for just under €20m for the three years 2001 - 2003. €12.5m had been spent by the end of 2000 which would have brought the total estimated cost of the project to just under €33m.

3.18 The Department suggested that the appraisal should

- assess the revised cost projections, which had recently been submitted to the Department
- take account of developments since the original business case was made and the opportunities which existed to fully exploit the potential of the investments underway
- consider the most appropriate way forward.

Investment Appraisal 2002

3.19 Hay Management Consultants were commissioned to conduct the appraisal which was delivered in February 2002.

3.20 The appraisal noted that there was a poor IT and management information system nationally and a lack of reliable, consistent data across the health services as a whole. It concluded that there was a compelling case for the development of a national, integrated human resource information system to enable the strategic goals to be realised.

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[15] NIMT had noted in their report that the managed service cost would be approximately €1.5m per annum.

[16] It was considered that this would only become clear after the common conceptual design phase of the project but that at a minimum the effort used to support agency implementation, five whole-time equivalent staff (WTE), would need to be maintained indefinitely after the implementation had been completed.

3.21 It restated the need for the project in these terms

> "To meet the objectives of the health strategy in relation to HR, it is critical that a high standard, integrated and reliable information system is available. In fact, it is difficult to see how the actions recommended by the strategy in regard to integrated workforce planning, retention policy, the development of the HR function and the action plan for people management can be implemented without such an integrated system".

3.22 A number of risks and challenges were identified, which if not managed effectively, would seriously undermine the potential benefits of the system and/or could seriously impact on costs. The appraisal noted that

- The full benefits of PPARS would only be realised if it encompassed the entire health service.
- There was a need to ensure that maximum standardisation was achieved for the first two agencies implementing the payroll modules and subsequently for the other agencies. This was a critical element of the project and needed urgent attention.
- There needed to be a clear understanding that the PPARS project going forward was an enterprise wide strategic initiative, not a personnel and payroll implementation for a limited number of health agencies. The implications needed to be understood in terms of required leadership and commitment from other stakeholders such as agencies, the Department and the Health Service Employers Agency (HSEA)[17].
- The success of the project depended critically on visible and tangible senior management commitment to the project.
- There was a need to ensure that maximum value for money was achieved in supplier negotiations. The scale of the project provided a strong basis for effective commercial leverage with suppliers and partners.
- In relation to project management and governance, there was a need to establish mechanisms to ensure that project milestones and performance indicators would be monitored. Clarity of accountability and role as well as efficient decision-making would be critical.
- Significant benefits would not happen automatically. Benefits needed to be documented and translated into operational performance indicators.
- PPARS was a major business change project and the changes would be felt at two levels – the strategic level where fundamental shifts in how agencies were managed and organised would need to occur and at the process level where the detail of the significant process changes would be felt by line management and staff. The recognition and management of this change agenda was one of the most critical success and risk factors for PPARS.
- It was important that a clear policy be established on the issue of data inputting and whether this should be based on centralised or decentralised systems.
- There was an urgent need to ensure that the benefits of the earlier implementations would be realised. This involved ensuring that the various modules would be implemented and maintained with quality data.

3.23 The appraisal report noted that the estimated costs incurred on the project to the end of 2001 were €17m and it estimated that approximately €92m would be required if full national rollout was to be achieved over the following four years (2002 – 2005). In addition, in terms of ongoing costs following

[17] The HSEA has now been subsumed into the HSE and is known as the HSE - Employer's Agency. It is a representative body for health service employers.

national implementation, there would be the need to maintain a support team at a cost of around €5m per annum[18]. The details are set out in Figure 3.1.

Figure 3.1 Estimated Cost of PPARS 1998 – 2005[a]

Period	1998 - 2001	2002	2003	2004	2005	Total
	€m	€m	€m	€m	€m	€m
National Team	12.0[b]	5.8	5.2	5.6	6.0	34.6
Consulting		6.0	9.0	4.0	1.0	20.0
Existing Local Agency Costs	5.0	4.2	8.2	8.3	5.0	30.7
Rollout to further Agencies		1.4	7.0	7.9	7.9	24.2
Total	**17.0**	**17.4**	**29.4**	**25.8**	**19.9**	**109.5**

Source: National PPARS Office

Notes: [a] Projections made no provision for customer competency centre costs and the support costs of local agency teams.

[b] 1998 – 2001 National Team costs include all costs except local agency costs.

3.24 The report concluded that the potential benefits of PPARS were extensive and classified them as follows

- strategic benefits of having a modern, consistent, integrated HRM system across multiple agencies
- process effectiveness benefits (e.g. manpower planning and absenteeism) which would significantly "raise the game" in terms of how HR services were delivered and how people were managed
- process administration benefits such as single entry data processing, automation and process rationalisation that would reduce current inefficiencies.

3.25 Without quantifying it, the report considered that the overall potential return on investment in all three areas was both extensive and realistic assuming performance measurement systems were put in place to track and measure it. Savings based on even slightly improved levels of absenteeism, retention and productivity alone would run into tens of million euro in the short to medium term.

3.26 The appraisal fell short of a full business case for the remainder of the project to the extent that

- it did not provide detailed information on the breakdown of projected costs
- it failed to identify the overall staff resources required including the type and the source of those resources
- it did not clearly link its high level estimates with an organisational or functional scope of the project

[18] The forecast did not include any provision for customer competency centre costs nor the support costs of local agency teams.

- it did not quantify the extent of the necessary investment in process reform and change management nor identify how it would be aligned with the investment under the PPARS project.

3.27 While the NIMT investment appraisal of 1998 signalled the implications of transitioning to an enterprise system and the consequent need to give upfront consideration to the standardisation of business processes in accordance with best practice and the Hay investment appraisal of 2002 had further elaborated on this need, neither report addressed the issue of how this standardisation might be achieved.

Governance and Management Structure

3.28 Good governance allows for clarity regarding project ownership. It allows for the maintenance of a coherent vision for the project and the escalation of issues to an appropriate level. Most importantly, it establishes clear lines of authority and decision-making. Poor governance leads to confusion, flawed decision-making and delays.

National Governance Structure

3.29 A Steering Group of senior managers of the former health boards was charged with the responsibility of procuring the system. In March 1998, when the Steering Group submitted a report to the Department seeking approval for the required funding for the project, it proposed the establishment of a National Design Team, which subsequently became known as the National Project Team.

3.30 It was decided that the project would be led by the CEO of the former NWHB. The National Project Team was based in Sligo. In October 1998, a Project Director was appointed, reporting to the CEO of the NWHB. The Project Director was given approval to recruit a core National Team of seven staff, including a Project Manager. The project commenced in October 1998 with part-time resources and on a full-time basis in January 1999.

3.31 In January 2002, the report of a Quality Assurance Review by Hay Management Consultants, recommended a new governance structure for the implementation of the remaining modules

- A National Project Board whose purpose would be to monitor progress on the implementation of the project in the various agencies and to ensure the necessary decisions of a conjoint nature were taken.
- A high level Sponsorship Group with representatives from the Department, the CEOs and the HSEA to provide strategic and leadership focus for the project.
- It also made recommendations in regard to local governance and management.

3.32 It was recommended that responsibility for further defining these governance arrangements should lie with the National Project Board, in the first instance, and that the agency-specific structures should be implemented locally by the CEOs.

3.33 The Health Boards Executive (HeBE) was established in February 2002 and, from that point on, the project's overall policy direction, resourcing and monitoring was overseen by HeBE and the Department.

3.34 HeBE assigned a 'lead CEO' to the project. Since the CEO of the former North Western Health Board was then chairing the National Project Board, he remained in the role of 'lead CEO' and continued to lead the project and chair the National Project Board.

3.35 Management of the project on a day-to-day basis was assigned to the National Project Director. Two people have filled this position over the life of the project. The position was initially filled in October 1998. In May 2001, the current Project Director was appointed.

3.36 The National Project Director was assisted by the National Project Team, based in Sligo. Overall, the team was responsible for project development, implementation and support including facilitating local implementations. It included staff on secondment from individual agencies as well as external consultants. The National Project Team worked in close alliance with the agency implementation teams.

3.37 An internal HSE report dated January 2005[19], states that it became clear during the project that a large board representing all agencies was too unwieldy to make all the necessary decisions around project planning, design and HR/IR issues. Key challenges faced included

- Members changed frequently and attendance was patchy.
- It was difficult to get decisions that were binding.
- Members were sometimes unsure of their authorisation to make decisions.
- There was a high cost in preparing for and attending those meetings by all concerned.

3.38 For this reason the National Project Board set up a HR/IR sub-group as a decision making sub-group of the board.

3.39 Following the establishment of the HSE, an Enterprise Resource Planning Management Group was set up in respect of PPARS and FISP. This group comprised representation from the Department and the following HSE staff

- Director of HR
- Director of Finance
- Director of ICT
- Director of Shared Services.

The HSE has informed us that the objective was to maximise the synergies and economies of scale that could be achieved from the fact that Deloitte was involved in both projects.

Local Governance Structure

3.40 The governance and management structures which operated within the local implementing agencies consisted of

- a local Steering Group usually under the chairmanship of an assistant CEO and comprising National Project Board representation
- a local agency implementation manager who headed up the local implementation team and reported to the agency sponsor or HR Director.

3.41 Agency implementation managers from across the boards met collectively with National Team project management at monthly intervals to discuss risks, implementation planning and other issues.

[19] PPARS Report 2004

Deficiencies in Governance

3.42 The examination concluded, based on information gathered, that there were less than adequate governance arrangements in place.

- While nominally there was an owner of the project – the lead CEO until the inception of HeBE – this person did not have ultimate power to make and enforce decisions across the range of the project.
- There was a lack of 'buy-in' by many of the agencies to the project. This is evidenced most strongly by the poor state of preparedness of the agencies as reported by Deloitte in their Programme Preparation Report in late 2002.
- Decision-making was cumbersome arising from the composition and size of the National Project Board. In addition, certain decisions appear to have ignored, or failed to consider, the earlier experiences on the project and key risks identified in the Hay Investment Appraisal. When decisions were made it appears that it was difficult to have them implemented due to the autonomy of the agencies.
- The National Project Director and the National Team, while responsible for the implementation programme, did not have the authority to direct the implementations in the agencies and the individual agencies could decide when and how PPARS would be implemented there. The local implementation teams did not report to the National Team.
- Key information was not presented to the Sponsorship Group and its role was ineffective.

3.43 Since the inception of the HSE, the project has been the responsibility of the National Director of HR and all implementation teams, whether local or national, report to him. However, even within this new structure, the National Team still does not have authority to direct local implementation teams.

Decision Making

3.44 Two decisions had a key bearing on the project

- the decision to implement a single system in a non-standardised operating environment
- the decision to press ahead with implementation in the absence of full pilot site commissioning.

Single System Decision

3.45 The initial personnel modules created in partnership with BISL were agency-specific. Because a single system decision was taken these modules became redundant in the agencies which took part in the next stage of development. Deloitte, in examining whether a multiple or single client approach should pertain for the recommenced project, reported that whilst it had proved difficult to identify the definitive reasons for the implementation of the multiple client architecture for the initial personnel modules, from discussions and the documentation available, it had been possible to extrapolate the following factors

- An assumption that the segregation of agency data was best achieved by having a separate client for each agency.
- The HR structure was considered too complex to fit well into a consolidated organisational SAP structure.
- The flexibility for individual agencies to have their own configuration to support different business requirements.
- Consolidation was not considered a primary issue and it was believed that this could be achieved using an interfacing method.

3.46 In a review of the partial implementation in July 2000, it was noted that variations in practices and procedures between the boards contributed substantially to the elapsed time to reach standardised decisions and added considerably to the complexity of the configuration.

3.47 The decision to implement a single system across autonomous agencies when the project was recommenced in 2003 was a fundamental change. The reasons given by the HSE for implementing a single standard system included supporting a move to a single employer, faster deployment, lower cost of implementation, lower cost of maintenance and future moves to shared services.

3.48 In this context, implementing a single system meant the implementation of a single system capable of handling multiple variances across legally autonomous agencies with significantly different, multi-layered organisational structures, cultures and processes as well as altering how staff did things.

3.49 The rationale for the single system approach was set out in a project strategy document in the following terms

- No technical issues regarding the configuration had been identified which would prevent the implementation of a single client approach.
- Agency specific data could be defined by relevant company codes within a single client.
- A single client approach fitted well with the published aims of the project for common configuration across all agencies and standardisation of business processes.
- A single client approach was the recommended approach of IBM, SAP and Deloitte.
- Significant effort and cost would be associated with the implementation of multiple clients and their subsequent merger into a single client approach.

3.50 The adoption of a single client approach from the outset would, however, add additional risk to each of the agency implementations particularly with regard to cutover and parallel running. However, it was considered that this risk was outweighed by the cost associated with the implementation of multiple clients and a subsequent merger to a single client approach.

3.51 The issue of whether or not this was an appropriate strategy was never challenged. Alternatives such as the capture of data from different systems for management information purposes might have been more cost effective. They might also have avoided the complexity that arose from using a system implementation to achieve standardisation of business processes.

3.52 The Department supported the concept of a single system as it was considered to be in line with the critical need to provide meaningful staffing and cost data at national level. From a technical perspective, it was also considered necessary to implement a single system in order to reduce the cost of maintenance and to provide a basis for a move to shared services in the future.

3.53 It is acknowledged that with the advent of the HSE as a single entity a single system, if fully implemented, should aid consistency and coherence in payroll and human resource administration.

Standardisation

3.54 A single system is built around core national processes but accommodates local variation. From a data processing perspective, local variations can be accommodated in two ways

- By configuration of the system to automate their operation
- By accepting their existence and administering them by way of intervention in the processing for each individual case (workarounds).

The extent of variations is considered further in Chapter 7.

3.55 The sheer scale of effort required to enable the technical configuration and subsequent testing was far greater than anticipated. Even when an agency went live it was not finished because it had to undergo further rounds of testing each time a new agency was subsequently added.

3.56 In regard to the approach taken to the processing of variations, the former CEOs informed us that a distinction was drawn at an early stage between standardising terms and conditions and standardising business processes. It had never been intended that all anomalies and variations in terms and conditions would be addressed in the initial stages. The approach, generally, was to assemble information for the entire system and so position the service to address variances in the context of a common human resource strategy.

3.57 The decision to standardise processes and accommodate variances within a single system had the value of bringing to the surface details of work practices which varied from what was considered to be the national standard. This information will help inform human resource management decisions in the context of addressing issues of standardisation across the HSE. However, work needs to be done to analyse those variations not configured in order to inform this process. This information is largely held at local level.

Pilot Site Implementation

3.58 At the point of implementation of payroll modules at two pilot sites it had already been decided that roll-out to the other sites should occur and work had already commenced.

3.59 However, while implementation work was in progress in the new sites, the two pilot sites had not been fully 'bedded-in'. This had a number of negative impacts, including the over-stretching of resources and the failure to develop key reports within a reasonable timeframe. In fact, two years after go-live, the two pilot sites are still awaiting key management reports. It appears that the decision to roll out to other sites was made in a time and objective-bound context, driven by demand to go-live in all sites in as short a time-frame as possible.

3.60 This decision had serious consequences since it eliminated the opportunity to consolidate live sites before progressing to implement new sites. It also undermined the opportunity to learn from the experience of the pilot sites in order to adapt implementation in other agencies. Without a pause after piloting there was no opportunity to set out a defined scope for future work and alter the basis of remuneration to a fixed price arrangement.

4 Resourcing and Consultancy

4.1 This chapter examines how the project was funded, what resources were committed to it, how consultancy input was procured and the contractual basis on which consultants were engaged.

Funding the Project

4.2 Funding was allocated on an annual basis by the Department and resources were committed to the project with a view to having the system implemented as speedily as possible. At the same time, the Department was cautious about the timescale being proposed. An internal Department memorandum in June 2003 stated that, given the scale and complexity of the project to that point, implementation within a 2005 timetable might not be feasible. It went on to say that there was a saturation point beyond which a continued commitment of resources would not have a positive impact.

4.3 In July 2004, the Department assured the Department of Finance that rapid implementation of PPARS (and FISP) was central to the success of the health reform programme. It stated that the system would provide a wealth of management information not then available and would facilitate more efficient and effective management of health service resources as well as better accountability. It referred to a need to implement those systems in the shortest timeframe possible.

4.4 The Department provided funding for the period 1998 – 2004 while from 2005 funding has been provided by the HSE. The funding details are set out in Figure 4.1.

4.5 Internal Department papers indicate that its Funding Committee had decided, in November 2004, that any available excess funds, up to a maximum of €10m, should be given to the PPARS project. The National Project Director had written to the Department in October 2004 advising that the PPARS project would be able to use any additional funding if it were to become available during the year. He stated that up to €10m could be used to provide additional resources including those required for developments in relation to eRecruitment and Superannuation. An additional €7m was made available in December 2004.

4.6 However, the additional funds remained unspent at the year-end and the financial statements of the NWHB for the year ended 31 December 2004 show an accumulated surplus of €11.7m for the PPARS project. This suggests shortcomings in the budgetary oversight exercised by the Department and poor financial planning on the part of PPARS management.

4.7 Expenditure on PPARS for 2005 was as yet unsanctioned in mid-October 2005. The Department of Finance has not yet given delegated authority to the HSE which has yet to respond to issues raised by the Centre for Management Organisation and Development of that Department (CMOD) in relation to both the PPARS and FISP projects. The HSE has informed us that responses to issues raised by CMOD are being addressed as part of the current review of the PPARS project.

Figure 4.1 PPARS Funding 1998 – 2005

Year	Total
	€m
1998	1.3
1999	4.8
2000	5.8
2001	8.6
2002	13.0
2003	31.0
2004	47.3
2005[a]	34.4
Less surrendered 31 December 2004[b]	(11.7)
Total[c]	**134.5**

Source: Department of Health and Children and HSE

Notes: [a] Funding available to PPARS in 2005.

[b] Surrendered on the abolition of the health boards.

[c] Analysis of the Accounts of the former North Western Health Board indicates that a further €0.5m was applied to the project over the period.

Resourcing the Project

4.8 In order to deliver the project the following were the principal resources put in place

- A central project team
- Agency implementation teams
- Consultancy support
- A firm to blueprint modules of the new system
- Configuration experts to adapt the SAP software to the health agencies requirements
- A firm to host the system under a managed service arrangement.

4.9 Overall, expenditure on the project to 31 August 2005 can be categorised as set out in Figure 4.2.

Figure 4.2 PPARS Expenditure 1998 – August 2005

Category of Expenditure	€m
Consultants & Contractors	57.0
National Team Salaries	11.6
Local Agency Costs	37.1
Other[a]	25.3
Total	**131.0**

Source: National PPARS Office

Note: [a] Includes office costs, managed service and hardware, licences and maintenance.

Resource Cost – Staff

4.10 The National Project Team was located in Sligo and it commenced on a full-time basis in January 1999. A Project Director was appointed in October 1998. The wholetime equivalent (WTE) number of staff and the staff costs for the National Project Team for the period 1998 to 31 August 2005 are set out in Figure 4.3.

Figure 4.3 National Team Staffing Levels and Costs 1998 – August 2005

Year	WTE	Cost €m
1998	1	0.02
1999	4.9	0.23
2000	9.9	0.47
2001	21.4	0.98
2002	30.1	1.50
2003	34.7	1.93
2004	57.1	3.56
2005[a]	69.9	2.87
Total		**11.56**

Source: National PPARS Office

Note: [a] To 31 August 2005

Resource Cost – Agency Implementation Teams

4.11 The agencies received funding directly from the Department and, in addition, from 2004 onwards recouped additional expenditure from the PPARS national office. Details are set out in Figure 4.4.

Figure 4.4 Agency Funding 1998 – August 2005

Year	Department[a]	National Office	Total
	€m	€m	€m
1998	0.1	-	0.1
1999	1.3	-	1.3
2000	2.4	-	2.4
2001	2.9	-	2.9
2002	4.0	-	4.0
2003	5.7	-	5.7
2004	5.8	5.0	10.8
2005[b]	3.9	6.0	9.9
Total	**26.1**	**11.0**	**37.1**

Source: Department of Health and Children

Notes: [a] The HSE provided this funding from 1 January 2005.

[b] To 31 August 2005. Assumes that agencies have received two-thirds of their 2005 allocation in the first eight months of the year.

4.12 Notwithstanding the increased funding allocated to the project, the National Project Director informed us that it has been difficult to get resources at both national and agency level due to recruitment embargoes and employment ceilings.

Procurement and Contracting

Consultancy Cost to Date

4.13 In addition to directly managed resources, consultancy was also used. The cost incurred to 31 August 2005 for the principal consultants involved in the implementation of PPARS was €57m as set out in Figure 4.5.

Figure 4.5 PPARS Consultancy Costs 1998 – August 2005

Consultants	€m	€m
Consultancy Support		
Bull Information Systems Limited (BISL)	3.3	
Deloitte	38.5	41.8
Blueprinting		0.8
Configuration and Technical Support		11.7
Reviews		0.7
Other		2.0
Total		**57.0**

Source: National PPARS Office

Initial Consultancy Contract

4.14 In 1998, the NWHB on behalf of the health service, entered into an agreement with BISL. The health service maintained, and was subsequently legally advised, that the agreement was for a fixed price consideration.

4.15 However, following completion of the design stage and the commencement of technical configuration of the system, it became obvious that the original estimated time would be grossly insufficient to implement the complete system. The scale of the configuration effort had been underestimated largely due to the volume of differences encountered in the terms and conditions of employment which existed between agencies. A status report of July 2000 states that it is difficult to determine how much of the original plans and costs were knowingly underestimated by BISL and how much were simply due to a lack of experience and proper research.

4.16 BISL insisted that, under the agreement, remuneration was on a "time and materials" basis and it purported to use the change control procedure to claim for the additional time worked on the project. It threatened to withdraw its resources if payment was not made for all days accrued. Legal advisers to the PPARS project management reaffirmed their interpretation of the contract as "fixed price" but indicated that

- in the event of a continuing dispute, a third party interpretation or arbitration (as provided for in the contract) in favour of PPARS Project Management, could never be guaranteed
- significant costs would be involved in such a process
- recourse to legal action would mean that the project would have to be suspended and this would have a significant impact on the credibility of the first national IT project in the health service
- if arbitration upheld the "time and materials" basis of remuneration, BISL would be legally entitled to complete the project on "time and materials", and accordingly the company would have access to an "open chequebook" in whatever timeframe they deemed appropriate.

4.17 In the event, the option recommended by the legal advisers and approved by the Department was that the contract with BISL should be terminated following the completion of a reduced volume of work. The agreement with BISL was then re-negotiated.

4.18 The re-negotiated arrangement provided that BISL would be required to complete implementation of the personnel function only. Payroll, recruitment and rostering functions were effectively removed from the contract.

4.19 The revised number of man-days required to complete implementation of the personnel function in the six contracted agencies was 1,648 at a negotiated cost of €2.6m, exclusive of expenses and VAT[20] i.e. an additional 350 man-days over and above that originally estimated for a complete implementation. PPARS Project Management have indicated that the revised deadlines for the reduced scope were met in accordance with revised work plans.

4.20 Other issues which appear to have impacted on the time taken by BISL include

- problems with a SAP upgrade process[21]
- the complex nature of the interface process between SAP and CARA applications (the running of payroll was already contracted to CARA by several of the health boards).

4.21 In regard to the elements of PPARS actually delivered, documentation made available suggests that BISL delivered the following elements of the personnel modules to the initial six agencies

- Organisation Management (with the exception of Funds and Position Management) - this depicts the physical organisational structure of the agency based on funding and approval of positions
- Personnel Administration - this holds the master data for all employees of the agency
- Personnel Development - a qualifications component of this module which enables the recording of qualifications and competencies against jobs and employees
- An element capable of recording basic pay and interfacing to legacy payroll systems for basic pay only.

4.22 Following the termination of the BISL contract, the personnel module was implemented in the former Western Health Board, with the assistance of other contractors.

4.23 The personnel systems delivered were separately configured to the requirements of each agency. This had implications for their use as a base for national payroll processing. While it had been agreed that there would be separate configurations, it had been envisaged that there would be 85% commonality between the agencies. However, the differences between the agencies were greater than had been anticipated. In addition, a significant amount of programming work was subsequently undertaken where configuration of the system would have been more appropriate.

4.24 The effect of this was that a re-design of the system was later needed to facilitate the requirements of the Time Management Module, the principal module supporting the processing of payroll. The system had to be re-configured as a single system in order to work across all agencies. Deloitte informed us that in order to accommodate this the system was substantially rebuilt. Approximately €17m had been expended on the provision of the personnel modules for seven agencies which have been or will be replaced in future developments.

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[20] Based on rate of exchange of 0.68 Stg/IR£

[21] The upgrade problem arose out of a key step being omitted during the SAP upgrade process resulting in differences between the development version of SAP (4.5A) as configured on the computer at the project headquarters in Sligo and the production version (4.5B) on the "live" computer in IBM which hosted the system.

Blueprinting Contract

4.25 Following the termination of the contract with BISL and the decision to continue to implement the remaining modules, the health service contracted with SAP to produce blueprints for the system. SAP (UK) Ltd using consultants from SAP Canada, were contracted in September 2000[22] to develop the "blueprints". The principal "blueprints" required at that stage were in respect of Payroll and Time Management Modules. The blueprints were delivered by June 2001. The actual amount paid to SAP was €781,065 inclusive of VAT and expenses.

> ***Blueprints***
>
> *A "blueprint" documents the business process requirements of an organisation and outlines how the business processes can be mapped in the SAP system. It is usually based on information gathered during workshops and other data gathering activities. The blueprints serve as the basis for the design of the system.*

4.26 Although most agencies signed off on the output of the process, the blueprinting was less extensive than what was necessary in this case. As a consequence, the blueprints were not initially sufficient to fully meet the requirements of the configuration team. The National Project Team, with the support of SAP, worked with the configuration team to bring the delivered components of the blueprints to the stage where they could be used for configuration purposes.

4.27 The HSE has explained that the reason for this was that SAP had only been retained to define initial business requirements due to budgetary constraints[23].

4.28 In regard to the PPARS approach to blueprinting, Gartner noted in a review in July 2004, that additional work required in the area of blueprinting fed into the cost structure of the project. It noted that

"typically such large scale implementations do not start until the 'global Blueprint and global model' is ready. Projects that start too early never really 'finish'. The installing and then supporting of SAP becomes a constant lifecycle of upgrades, adding new functionality, new enhancements etc. that were not incorporated in the original solution. Freezing the Blueprint before commencing configuration and the testing and roll out activities is a fundamental best practice in any large scale change programme. It provides a stable definition of requirements and design. Without this the dangers of scope creep, gradually changing requirements and rework start to undermine the necessary stability of the implementation programme".

4.29 Subsequent to the Blueprinting stage, Deloitte assisted the PPARS team in defining the national business processes.

Configuration and Technical Support

4.30 Although the software configuration was expected to form part of the consultancy support for the recommenced project, a delay in selecting consultants led the PPARS Project Management to procure technical personnel on a contract basis from November 2001 onwards. Technical personnel such as ABAP Programmers[24] and SAP HR Functional Consultants were required to install and configure the system.

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[22] The contract agreement was not signed by the NWHB until June 2001 and by SAP until August 2001 by which time the work had been carried out.

[23] A core system was substantially configured based on design documents created from the blueprints. The full extent of variations in business processes only emerged later.

[24] A major function of ABAP programmers is to programme the system to generate specific management reports.

4.31 There was no advertising of requirements during this initial procurement round. The National Team informed us that most of the contractors were sourced from agencies who had offered staff and the remainder were sourced on the basis of recommendations from existing consultants. Individuals proposed were vetted by the project team. Up to 2004, the work was supervised by one of the contractors who reported, in turn, to an Assistant Project Director.

4.32 Contracts for the supply of personnel were entered into with the following principal companies

- MSB International PLC
- Global Resourcing Limited
- Blackmore Group Assets Limited
- Portland Resourcing Ltd
- Diagonal Consulting
- Divine Solutions
- Ark Global IT Solutions
- Fusion Limited.

4.33 Amounts in excess of the EU Services Directive[25] were paid to individual agencies during 2002. The fee for the services associated with those contracts was charged at a daily rate and varied between €500 and €1,400 per day. A sample of invoices examined showed that the average daily rate charged was in the region of €1,020.

Configuration

Configuration is the process by which the standard SAP software is adapted through the setting of various parameters to enable the system to perform as required i.e. to reflect the specific rules and regulations applying in the implementing health agencies. Configuration requires specialist knowledge of SAP software and its rules and protocols. It should not, however, involve any customisation of the underlying software thus allowing for a straightforward upgrade process. Configuration of the system has two main elements

- *the core configuration (rules and regulations common to all agencies)*
- *configuration of variances (add-ons to reflect agency specific rules and regulations).*

4.34 In November 2002, approximately one year after the first of the technical configuration contracts had commenced, a notice was placed in the OJEC seeking expressions of interest in the provision of skills and services associated with the implementation of the SAP R/3 product in the health agencies, for a period of three years. The request for tender document outlined the number of days estimated to be required on each of the specific elements of the work.

[25] Under the EU Services Directive, the threshold (exclusive of VAT) above which advertising of contracts in the Official Journal of the EU is obligatory was €162,293 during 2002.

4.35 Following the procurement competition, there does not appear to have been any change in the companies engaged to provide the personnel to carry out the technical configuration work[26].

4.36 A review in the course of this examination noted that

- many of the companies which ranked well on price in the evaluation process were not subsequently contracted
- the actual rates charged by a number of the companies who submitted tenders, were higher than their tendered rates.

4.37 Although it is normal practice for contractors to work to the clients schedule, the contracts viewed in the course of the examination did not include any schedule of required work nor did they provide for a clearly defined deliverable for a fixed price.

4.38 The National Team has informed us that the contracts were for a specific skill set for defined periods of time rather than defined deliverables. It assured us that work was performed in accordance with a defined project plan and was managed and reviewed by project management using weekly status reports.

4.39 The HSE is currently reviewing the arrangements that were used to procure these services.

4.40 A review by IBM of technical issues in October 2004 recommended that a single technical implementation partner should take full control of all configuration work in order to maintain control and systems integrity. This is dealt with in Chapter 5.

4.41 IBM informed us that, prior to their appointment as Technical Implementation Partner, the technical work was overseen by one of the contractors. They stated that there had been little cohesion – nobody was contracted to deliver specific items. Configuration work should be carried out in a controlled environment. They asserted that they brought discipline and structure.

4.42 IBM stated that they had contracted to deliver a system, configured to HSE requirements by 28 February 2005 and that they met that deadline. Subsequent work prior to implementation would include integration testing, regression testing and parallel running, customer support and reporting facilities. The Technical Implementation Partner was also contracted to provide assistance in these areas.

4.43 To 31 August 2005, an amount of €11.7m has been paid in total for technical and configuration work to the independent contractors and the Technical Implementation Partner. The services included the provision of project leaders, business analysts, data conversion resources and personnel to manage change requests.

4.44 The relationship with the Technical Implementation Partner was managed on the basis of a series of engagement letters. Each letter was for a discrete piece of work, specified in lots. Remuneration was on a times and materials basis. However, the letters of engagement gave an estimate of the cost for each lot. Where lots had been completed by the end of August 2005, the cost was less than the estimate provided in each case. The average daily rate charged for the work was €1,109 exclusive of expenses and VAT. The details are set out in Figure 4.6.

[26] No change was detected in a review which extended to transactions constituting 90% of the cost incurred up to mid-2004 for these services.

Figure 4.6 Technical Implementation Partner Costs[a] August 2004 – August 2005

Period	Days charged	Total Fees	Total expenses	VAT	Total
		€	€	€	€
2004	478	517,006	21,996	113,190	652,192
2005	1,832	2,045,601	67,028	443,652	2,556,281
Total	**2,310**	**2,562,607**	**89,024**	**556,842**	**3,208,473**

Source: Analysis by Office of the Comptroller and Auditor General

Note [a] In addition, IBM carried out a Project Technical Review at a cost of €130,058.Project Support Adviser Contract

4.45 In parallel with the development of the blueprints, an EU procurement process took place to secure consultancy support for the remaining modules. Following publication of a notice in the OJEC in December 2000 three bids were received. An evaluation group was established.

4.46 Integrity Consulting Partners (Integrity) were commissioned to advise on the procurement process and presented an evaluation of the tenders in August 2001. The recommendation to keep all three bidders in the procurement process was accepted by the evaluation group.

4.47 In the period September – November 2001, each bidder made a presentation to the evaluation team and meetings were also held with each bidder. No preferred bid had emerged following this process and each of the three bidders were asked to submit a Best and Final Offer (BAFO). Two such offers were received in December 2001. They were both for a time and materials based contract for implementation in seven agencies, estimated at €25.8m (Deloitte) and €25.7m (a consortium led by SAP), both inclusive of VAT. SAP had stated, at the time of the tender in June 2001, that a fixed price offer would be around 40% greater than a time and materials based offer and that they would expect the agencies to formally commit to a set of project milestones and a payment schedule. Deloitte also offered a fixed price contract option at €33.15m. The Assistant Project Director has informed us that, due to the conditions attached to the fixed prices tendered, there was no real prospect of concluding a contract based on a fixed price. In these circumstances a fixed price would have entailed continuous alteration through the issue of change orders.

4.48 The Deloitte price for the change management element of the bid was around €3m inclusive of expenses and VAT. Subsequently, the scope of work envisaged in this area increased.

4.49 The HSE has stated that from the outset it was not considered to be feasible to implement a fixed price contract due to the range of unknown factors and uncertainties in the sector including agency participation, agency autonomy, level of variances, capacity of agencies, internal resources and skill sets, unknown data quality and incremental funding arrangements. Fixed price arrangements would have imposed contractual commitments on agencies and the national team that would have been difficult to fulfil.

4.50 Deloitte informed us that it is not, in their view, unusual to be engaged on a time and materials, instead of a fixed price basis, on a project of this nature. In this case, it was due to budget uncertainty and a lack of clarity about the scope of the project until after the finalisation of the pilot projects. They also state that the engagement was by way of periodic letters of engagement and not by way of contract due to the nature of the funding as the client was not willing to enter into a long-term commitment.

4.51 Following a delay in the process, during which time the PPARS team sought legal advice in relation to the procurement process, the evaluation team met again in May 2002. The Project Director pointed out that the National Team had performed a considerable amount of configuration work and that, consequently, the volume of services required from any consultant in this area would be greatly reduced by comparison with the requirement that had been anticipated when the BAFOs had been submitted. It was proposed that the National Team would recommence negotiations with the two bidders.

4.52 The National Team held meetings with both bidders in June 2002 in order to update them on the status of the project and the bids. A proposal emerged that the contract should be divided into three lots (the original OJEC notice provided for this)

- Lot 1 Project Preparation Phase
- Lot 2 Programme Management, Change Management, Technical/Functional elements
- Lot 3 Application Support.

4.53 The National Project Board, at a meeting in July 2002, was informed that the evaluation group took the view that Deloitte should be confirmed as the preferred option for negotiation purposes (excluding application support). The National Project Board sought some clarification and further information. Concerns centred around the implications of having Deloitte do the project preparation work, procurement issues that might arise and whether there was clarity about the body of work being proposed and the outputs.

4.54 Integrity, following a request from the National Project Board, prepared a report which noted that

- A project preparation phase was appropriate as the health agencies had changed their requirements compared with what they originally sought.
- As Deloitte were being asked, during Lot 1, to scope and plan the remainder of the implementation work they were effectively writing the revised requirements for the project but that this would be all right if Deloitte had been declared as the preferred bidder.
- In respect of the price for Lot 2, at the end of the project preparation stage Deloitte could be asked to put in a revised final price for the second lot in accordance with the new scope as defined in the project preparation stage. Prior to final agreement, the National Project Team and an external party should quality assure the outputs of the project preparation stage to ensure that the scope of the work was properly defined and the resulting revised price from Deloitte represented value for money.

4.55 Following consideration of the Integrity report and consultation with legal advisers the evaluation team accepted a recommendation that Deloitte should be deemed the successful bidder for the first lot and that the agencies should continue negotiations with them for the second lot. The National Project Board approved a proposal to award the project preparation stage to Deloitte on 6 October 2002.

4.56 The project preparation task awarded to Deloitte is considered in more detail in Chapter 5.

4.57 Following its completion and the conclusion of negotiations with Deloitte about the scope of the work, Deloitte was engaged for Lot 2 on a time and materials basis.

4.58 The recommendation from Integrity to the health agencies – that an external party should quality assure the output of the project preparation stage to ensure that the scope of the work was properly defined and the resulting revised price from Deloitte represented value for money – was not carried out.

Contractual Arrangements

4.59 No overarching contract was signed with Deloitte. A series of engagement letters covered the relationship during the period from October 2002 to July 2005. Deloitte commenced by carrying out the project preparation phase at a cost of €400,000. The purpose of this phase was to understand the progress made by the team since the initial notice in the OJEC and to firm up the scope of work that would be included in the final contract.

4.60 The following were the significant features of the engagement letters

- Deloitte would perform consulting services to support the health agencies with work activities for the PPARS implementation.
- Each letter set out a Statement of Work in a schedule. The schedules set out a list of activities to be supported in an advisory capacity during the course of each engagement. The schedules stated that activities would be focused around two primary work streams – Program Management and Change Leadership.
- Professional services, expenses and VAT would be charged on a time and materials basis.

4.61 The letters of engagement list the main activities to be performed and identify responsibilities and timeframe. They do not record how work would be directed and controlled and there was no mention of any in-built assessment. However, in practice, these aspects of the relationship were covered in working documents.

4.62 The schedules of work for the period from January 2003 to July 2005 are set out in Appendix E. No schedule of work has been provided for the period from January 2004 to June 2004.

4.63 The HSE has stated that the direction and control of the work was governed by a Roles and Responsibilities document. Weekly work status meetings were held. There was a weekly review between the Deloitte Project Director and the PPARS Assistant Project Director.

4.64 An agreement dated 12 May 2005 was drawn up which was intended to provide for services delivered subsequently. This agreement envisaged the provision of services in "work packages" which could be remunerated either on a time and materials or fixed price basis as agreed from time to time. No fixed price packages arose before the ending of the arrangements with Deloitte on 28 October 2005.

Resources Provided

4.65 The total number of days charged by Deloitte in the period up to August 2005 was around 19,200 at an average daily fee rate of €1,520, exclusive of expenses and VAT. The number of hours worked by a consultant in any month ranged from around 16 to 296. Time worked was charged as days or parts of days. A day was defined as eight hours. Any additional hours, regardless of when worked were charged at the basic rate. The PPARS National Team informed us that consultants often worked in excess of eight hours while charging for an eight-hour day only. Details of the cost of the Deloitte engagement are set out in Figure 4.7.

Figure 4.7 Project Support Adviser Costs[a] – 2003 – August 2005

Period	Days charged	Total fees	Total expenses	VAT[b]	Total
		€ '000	€ '000	€ '000	€ '000
2003	5,559	8,453	732	1,790	10,975
2004	8,531	12,586	1,062	2,784	16,432
2005[c]	5,122	8,161	658	1,830	10,649
Total	**19,212**	**29,200**	**2,452**	**6,404**	**38,056**

Source: Analysis by Office of the Comptroller & Auditor General

Notes: [a] €400,000 was also paid to Deloitte in respect of a project preparation phase in 2002.

[b] Because the contract is with a UK registered company payments in respect of Value Added Tax are made directly to the Revenue Authorities.

[c] To 31 August 2005.

4.66 An examination of the personnel working on the project from Deloitte showed that for the 32 months from January 2003 to August 2005, 114 consultants were provided by Deloitte. Measured in consultant–years the input averaged 25 consultant–years work for 2003, 39 for 2004 and 23 for 2005 (up to 31 August). Each consultant's input was related to a defined task. In general, most consultants spent more than six months on PPARS work. A summary is set out in Figure 4.8.

Figure 4.8 Project Support Adviser – Resources provided Jan 2003 – August 2005

Number of months a consultant was charged to the project	Number of consultants
1 month to 3 months	25
4 months to 6 months	20
7 months to 9 months	18
10 months to 12 months	11
13 months to 18 months	17
19 months to 24 months	13
Over 24 months	10
Total	**114**

Source: Analysis by Office of the Comptroller and Auditor General

Basis of the engagement

4.67 The engagement of Deloitte which provided for the supply of resources on a "time and materials basis" did not set out the actual number or level of staff resources to be allocated to the work in the engagement letters. Resources were requisitioned by the PPARS team based on requirements and their use was controlled and monitored through work schedules, resource plans and other administrative tools.

These administrative documents associated individual consultants with tasks.

4.68 There was some use of consultants to compensate for staff vacancies. In a report to the HSE in August 2005, the PPARS National Team stated that there had been an inability to recruit appropriately skilled staff for the project. The report stated that Deloitte consulting resources had been used to fill the resulting void.

4.69 While the letters of engagement clearly set out Deloitte's role in terms of PPARS activities to be supported, the PPARS team characterised Deloitte as a strategic implementation partner. The first contractual use of this description appears to have been in an agreement of 12 May 2005[27]. This lack of role clarity on the part of the Health Agencies could only militate against clear direction and control.

4.70 The views of Deloitte and of the National Project Team on the role of Deloitte on the project are set out in Appendix F.Managed Service

4.71 An element of the procurement competition for consultancy support for PPARS in 1997, provided for the outsourcing of the operation of the implemented system. IBM emerged in 1999 as the preferred choice for the hosting of the system. An initial contract period of three years with a possible extension for a further two years – a maximum of five years, was envisaged during the procurement.

4.72 A series of short-term contract arrangements were put in place pending the finalisation and agreement of the final contract terms. The contract with IBM was not signed until October 2003.

4.73 When the five-year term expired in July 2004, the contract was extended for a further year (pending the establishment of the HSE) without holding a new tendering competition. It is now in the process of being further extended to the end of 2006 pending consideration of the arrangements for data centres at national level.

4.74 The total amount paid to IBM to the end of 2004 in respect of the managed service was €7.2m.

4.75 The customer support manager on the National Team has stated that the managed service has been operating satisfactorily.

[27] The agreement with Deloitte dated 12 May 2005 is entitled "PPARS Phase 2 – SAP Related Strategic Implementation Partner Consulting Services Supply Agreement".

5 Reviews and Monitoring of the Project

5.1 The governance structure adopted militated against accountability and responsibility. This meant that the project proceeded in an environment where there was a deficit of authority and inadequate levers to make it happen. However, at various stages in the project, reviews were carried out for assurance or to assist in the decision-making process or as a form of due diligence review by incoming consultants. This chapter examines the results of those reviews.

Internal Review

5.2 An internal review of the status of the project was carried out in July 2000. This considered the options then available to the implementing agencies following the decision to end the contract with BISL. The options considered were to

- conclude the SAP implementation following installation of the personnel modules in the original six agencies
- extend the personnel modules to the remaining three health boards i.e. the Western, Southern and South Eastern Health Boards
- engage in an EU procurement process for a new payroll system for those agencies which needed new payroll systems to meet compliance with the Euro – St. James's Hospital and the North Western Health Board – the initial two sites for payroll modules[28].
- continue to implement SAP functionality in accordance with the original objectives.

5.3 The Project Steering Committee decided to continue with the project on account of the significant potential benefits. The cost of continuing to implement payroll in the original six contracting agencies was at that point estimated at approximately €8 - €9m.

External Reviews

5.4 The external reviews commissioned in the course of the project included

- A Quality Assurance Review and an Investment Appraisal Review[29] by Hay Management Consultants which were delivered in January 2002 and February 2002 respectively.
- A Project Preparation Review delivered by the project support adviser (Deloitte) in December 2002.
- A ReedSmith Healthcare Consulting Review of the performance of Deloitte of July 2003.
- A Gartner Review of the resourcing and cost of the project, delivered in July 2004.
- An IBM SAP Project Technical Review delivered in October 2004.

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[28] In the event the payroll modules were not delivered until November 2003 in St James's Hospital and July 2004 in the NWHB. Alternative arrangements had to be made.

[29] The Investment Appraisal review is dealt with in Chapter 3.

Cost of the Reviews

5.5 The cost of the reviews are set out in Figure 5.1

Figure 5.1 Cost of Reviews of Project

Review	€
Hay Quality Assurance and Investment Appraisal Reviews 2002 [a]	130,893
Deloitte Project Preparation Review 2002	400,000
ReedSmith Healthcare Review 2003	9,922
Gartner Review 2004	31,763
IBM SAP Project Technical Review 2004	130,058
Total	**702,636**

Source: National PPARS Office

Note: [a] It is not possible to separate the cost of the Quality Assurance Review from the Investment Appraisal dealt with in Chapter 3.

Quality Assurance Review 2002

5.6 When the contract with the initial consultants was terminated a quality assurance review was commissioned. It was conducted by Hay Management Consultants. The review took place between June 2001 and January 2002. This was completed at a stage when the personnel modules had gone live in seven agencies. It did not, however, review the latest installation in the former Western Health Board.

5.7 Department files indicate that the decision to undertake a quality assurance review had been taken at a Project Sponsors Group meeting following the submission of new cost projections for the project. The Department submitted issues for consideration as part of this review. These were

- the use being made of the implementations to date, and any issues for their further exploitation in the future, arising from the approach taken
- the extent to which the current implementations were particular to individual agencies and the implications in relation to full benefits realisation
- the consistency of data within and between agencies and the potential for high-level data analysis
- the degree to which SAP implementations were being undertaken as an enterprise wide solution and were regarded as such by senior management.

5.8 The quality assurance report ultimately concluded that

- the introduction of PPARS had proved to be much more complex than originally envisaged and questioned the readiness of the health agencies to accommodate the changes necessary
- the assumptions on which the original estimates for the time and the cost of the project were based were overly optimistic

- some of the expectations for PPARS at that stage of the process may have been unreasonable. However, there was a sense that some of the system's functionality (such as online access and reporting) should have been more advanced at that stage
- a lack of resources, realistic expectation management and communication, management commitment and ownership and change management support were issues that had been constantly raised by the health agencies
- organisational benefits such as devolved access and control of data, process ownership etc, were not as advanced as originally planned. It was considered that the requirements of Year 2000 scheduling tended to narrow the focus of the project
- there was little evidence that the potential benefits identified in 1997 had been actively used as measures of success.

5.9 At a strategic level, the report identified the need to maximise system and process standardisation, restate the vision and purpose of PPARS within a national context and clarify the implementation approach of HR strategy at agency level of which PPARS would be a part (e.g. devolution of HR processes to line managers).

5.10 At an organisational level, it identified the need to define new management, decision-making and governance arrangements at national and agency levels and implement new guidelines.

5.11 At operational level, the challenge was to embed the initial personnel functionality and define and assess the specific changes required to processes and roles so that this could be achieved. It drew attention in particular to the need to resource the project sufficiently at National Team and agency level for project stages going forward. At agency level change programmes needed to be defined and implemented, local involvement and ownership maximised, appropriate indicators of success set and the results communicated.

5.12 An investment appraisal was carried out in conjunction with the quality assurance review. Details of this review are included in Chapter 3.

Outcome of the Quality Assurance Review

The Quality Assurance Review identified key requirements for the project going forward and recommended maximum standardisation of rules, processes etc.

Project Support Adviser – Project Preparation Review 2002

5.13 There was a major delay in engaging a project support adviser. Because of this, it was considered necessary, in October 2002, to undertake a project preparation review to assess the progress made since the advertisement in the OJEC in December 2000 seeking consultancy support to complete the project. A sizeable element of the technical work anticipated to form part of the consultancy contract had by then been carried out by other third party contractors. Consequently, it was necessary to firm up on the scope of work that would be included in the final contract. The review was conducted by Deloitte prior to their confirmation as the project support adviser.

Review of technology and technical configuration work

5.14 At the point the review was undertaken, work on configuring the system to the terms and conditions of employment in the health sector was proceeding. Having reviewed the SAP design and

configuration, Deloitte reported that the system should provide a sound basis for both current and anticipated future requirements. Overall, it concluded that the core configuration appeared sound although it identified the need to develop nationally agreed business processes[30] which could be used to undertake a detailed validation and, if necessary, used to update the core configuration.

5.15 Although many boards had gathered a significant amount of data on their local rules and policies, in most cases the data had been completed some time previously. No boards had conducted any detailed analysis from this data collection. Most of the boards expressed concern that they had not seen, at that point, the HSEA Rule Book – the set of rules establishing the baseline against which departures from standard terms and conditions of employment (variances) would be determined.

Result of Change Readiness Assessment

5.16 In order to identify the key risks and to inform the planning required going forward, Deloitte reviewed the readiness of each board to implement the systems. The key findings of the assessment were

- Few boards had completed any detailed implementation planning for the next stage of the project. Consequently, less groundwork had been completed by the boards than had been anticipated. Most of the boards had taken a conscious decision not to invest significant effort in preparation work at that stage and saw the initial agency implementations as pilots, rather than the first in an overall sequence of implementations.
- Critical to the success of the implementation was the confirmation of resource requirements and approval of the required funding. The review found that few boards had clarity over the team size, timing and skills required for the implementation of the remaining modules. No agency had secured funding of their total requirements and only two pilot agencies had any resources dedicated to the implementation at that time.
- Most of the boards had clear project governance in place and, on the whole, these were considered to be effective. In general, the CEOs were the project sponsors, although they had tended to delegate this responsibility, usually to Assistant CEO level. Clarity was required in some boards in relation to roles and responsibilities.
- Commitment at the senior level was considered to be good. However, concern existed particularly in relation to the operational/line management levels.
- Although all boards had local project controls in place, the quality of these varied. The use of a consistent set of tools based on best practice was suggested.
- All boards were generally content with the implementation of the personnel modules and were working on exploiting these further, in particular elements such as Absence Recording and Qualifications.
- All boards were working on improving their data quality, which had serious issues for some agencies.

[30] National policies, practices, procedures and systems to govern the administration of personnel functions.

Project Scope

5.17 The review noted that one of the key challenges associated with PPARS was the lack of clarity associated with detailed scope definition. This related both to functional and organisational scope. For the purpose of planning, the planned functional scope was redefined at this point (December 2002) as extending to personnel, payroll and time management[31]. It set out organisational scope by way of a listing of the health boards and agencies who were to participate.

Implementation Strategy

5.18 The implementation strategy anticipated that all planned participants in the project would have implemented the then project scope within two years, commencing in January 2003. There were lead-in activities to be completed by each agency prior to the main implementation. In addition, there was a core set of activities to be completed in early 2003, which would require participation by all of the agencies, focusing upon the development of the national business processes and a consistent approach to the identification, validation and incorporation of variances. The initial two implementation sites were confirmed as St James's Hospital and the North Western Health Board.

Shared Services Concept

5.19 It was considered that a number of significant challenges would need to be addressed before a shared services approach could be implemented. While supporting the concept, Deloitte noted that the matter was not being progressed and recommended that a discussion on shared services be suspended in the context of PPARS in order to allow for a focus on the project's delivery within PPARS. However, in the short-term, the direction of and developments within PPARS would be conducted to ensure that they were supportive of a potential move to a shared services operating model.

5.20 Appendix G sets out the project risks identified by Deloitte in December 2002.

Outcome of the Deloitte Project Preparation Review

The review examined the design and technical build of the system which had been carried out by other parties and assessed the state of readiness of each agency to commence implementation of the payroll system.

ReedSmith Healthcare Review 2003

5.21 ReedSmith Healthcare Consultants were engaged to review and quality assure the performance of Deloitte and the effectiveness of their approach. The review took place around six months into the Deloitte engagement. Although it was described by the Assistant Project Director as a limited review conducted at a cost of €10,000, it nonetheless set out the case for continuing the existing implementation arrangement. The conclusions, issued in July 2003, were

- the Deloitte solution, with its emphasis on change management and integration, offered key benefits to the PPARS implementation both at national and agency level

[31] Including a travel expenses element.

- the leadership provided by the Deloitte team, both in terms of their internal management and their ability to drive the project along common goals at national and agency level, was highly effective
- Deloitte brought considerable skills, talent and experience to bear on the project, which were not available internally
- Deloitte had shown considerable commitment to the agencies and the PPARS team, shown most clearly in their
    - Flexibility regarding the standard of business blueprints on their initial engagement
    - Facilitation of aspects of the project outside their original remit
    - Commitment to delivery on tight deadlines at national and agency levels.

5.22 The review recommended that knowledge transfer and skill enhancement of internal staff should be a key area for discussion going forward. While it noted that Deloitte was committed to this area of development, no formal plans had been implemented. Matters for the health agencies to consider included developing a full business case outlining the key cost/benefit implications of such a transfer, the suitability of skills within the health service and the most appropriate skills and knowledge to be identified for transfer, whether to focus on specific functional skills or experience of project management of the magnitude of PPARS.

5.23 The review concluded that the scale of the project was reflected in the resources allocated to oversee its successful implementation. In addition to a considerable financial commitment by the health service, all personnel interviewed had demonstrated a high level of commitment to the project. The partnership approach, which would be embedded further throughout the lifetime of the project had proved a sound foundation upon which a successful outcome would be built. It was considered paramount that going forward this openness of approach would be key to tackling issues in relation to the future funding of the project and the role of external resources in the future.

Outcome of the ReedSmith Healthcare Review

The review which was conducted approximately six months into the Deloitte engagement supported the continuation of the engagement of Deloitte as project support adviser.

Gartner Review 2004

5.24 Files in the Department indicate that the Gartner review emanated from concerns raised at the National Project Board regarding the level of resourcing and the split of responsibilities between external consultants and the internal team.

5.25 Gartner was requested to carry out a verification and validation assessment of the implementation cost. The terms of reference for the study included

- making a comparison of the costs incurred with those of other organisations undertaking similar projects and
- assessing the balance of resources and responsibilities between the internal team and the supporting consultants.

Peer Comparison

5.26 Gartner reported that the charge rates for the inputs used were within industry norms and that hardware and software costs were in line with peer group spend. Overall, the level of investment on PPARS was not unique and was typical of large-scale Enterprise Resource Planning programmes.

Resource Mix

5.27 In relation to the mix between internal and external staff, Gartner found that the ratio of external consultants to in-house staff (1:5) was unusual and not the optimum. It suggested that the norm should be in the region of 1:1.

5.28 A mix closer to the norm, although more costly, would provide a better skill mix and improved SAP expertise and streamline the rollout. However, the skill mix would help with skill building, training and developing a population of local expertise which should lead to a higher level of internal agency knowledge and expertise in the PPARS solution.

Department Views on Report

5.29 A note on the Department's files states that the report raised issues which needed clarification. A letter was issued by the Department to the Chairman of the National Project Board in November 2004 on the need for such clarification.

5.30 The Department's concerns with the Gartner report were expressed in an internal departmental memorandum of October 2004. The concerns were that

- The terms of reference of the study were not in accordance with the Department's understanding of what was required. Their understanding of the main issue to be addressed was whether the consultancy charges for PPARS and FISP were the best available with particular reference to the per diem rate and the size of the contract.
- The report was vague and uninformative. The costs of implementing the personnel modules were excluded from the overall assessment as this implementation was deemed to be a legacy. The Department did not consider that this was justification for the exclusion. The memorandum stated that there was no indication of who deemed those costs to be so or why.

5.31 In addition, a draft briefing document on the Department's files refers to the Gartner report as being "terse". It states

"*the report asserted that the spend was in line with peer group spend for similar projects but omitted to show where the figures compare on this scale. It also asserted that the consultancy charges were within industry norms. However, Gartner failed to show what the norm was, therefore we are unable to see clearly which end of the scale these consultancy rates are at"*.

5.32 The Chairman of the National Project Board responded to the Department's letter in December 2004 and stated that Gartner modelled PPARS as being towards the top end of the peer group range. The letter stated that in arriving at this finding, Gartner had acknowledged a number of local, unique and project specific factors which contributed to the PPARS cost profile when compared to the peer group. These included

- the scale and organisational complexity of the programme. Gartner acknowledged that it had been difficult, due to the scale of the project, to find suitable peers particularly in the health sector. The peer average number of employees was approximately 8,000 whereas PPARS covered 100,000

plus. In addition, PPARS was being deployed to several independent entities across an estimated 1,000 sites/locations whereas the peer average was a single entity with an average of 83 locations.

- the level of variances in terms and conditions of pay which existed between agencies and which needed to be eliminated
- the variety and number of different work patterns
- the approach to testing which used a different agency team for each roll out
- the complexity of health sector payroll
- the additional change management effort arising from the need to manage change over an extended period of time
- the complex decision-making processes arising from the autonomous nature of the organisations
- the efforts required in transitioning the project from one dealing with a number of boards/hospitals to a national programme covering the entire sector.

5.33 The issues raised in the Gartner review were to be discussed at the next Sponsors Group meeting but the transfer of health sector funding to the HSE meant that the Sponsors Group did not meet.

Outcome of the Gartner Review

The review purported to give a peer group comparison.

However, no similar project on the scale of PPARS could be found to enable a meaningful comparison. Moreover, the cost estimates[32] on which the peer comparison was based were understated thereby tending to invalidate its conclusions.

SAP Project Technical Review 2004

5.34 After its engagement as technical implementation partner, in August 2004, IBM was commissioned to review the project implementation and highlight areas of technical improvement that could assist the project in meeting its implementation deadline of end-2005.

5.35 The report by IBM identified a number of significant technical issues, including

- A lack of adherence to process and control leading to risks to the project operation and system integrity in an environment with live agencies and agencies in the process of transitioning to a live environment.
- Technical requirements and technical requests (sometimes contradictory) emanating from a number of different sources.
- System performance issues associated with the lack of standardisation and the level of variances in terms and conditions of employment, between and within agencies.
- The extent to which the system was future-proofed or scaleable for a national implementation given the configuration changes made to cope with the complex nature of the various boards' requirements.

[32] The estimate which informed the Gartner assessment had increased by 55% by July 2004.

- Insufficient adherence to set processes and a lack of standardised system documentation which would make future development more difficult and any future support overly complex, at best.
- Issue resolution, change control and risk management were all separate processes thus posing a risk to the project. These should be linked to ensure important issues or changes were managed correctly.
- The Risk Register was not comprehensive enough for such a complex project[33].
- There was little evidence that the project plan had played a large part in the management of the project or that it had been a true reflection of where the project was on the timeline.
- Concerns were raised about the ability of the existing implementation platform to support the full national implementation programme.

5.36 It also noted that agencies had no visibility of the benefits delivered. At that point (October 2004), the business and organisational benefits identified in the Hay Quality Assurance Review were over two years old and it was strongly recommended that a benefits study be repeated given that three agencies were then live.

5.37 A number of recommendations with regard to the management of the implementation were made. These were

- the Technical Implementation Partner (TIP) who had been engaged in August 2004 (IBM itself) should take full control of all configuration on the PPARS project – this was essential to maintain control and system integrity
- the TIP should work with the PPARS team to ensure that requirements, design documents and testing material were developed to best practice high standards in a managed and structured manner
- the TIP should supply a management team to work alongside the PPARS management and Deloitte, to manage the TIP input to the project
- the TIP should continue to review the current SAP design with a view to maximising performance levels.

5.38 The HSE informed us that IBM was subsequently tasked with the implementation of these recommendations.

Outcome of the IBM Technical Review

The review highlighted significant issues which posed a risk to the project and the system's integrity. The main technical concern raised related to how changes were being made to the live systems.

5.39 The project would have benefited from having a review of this type carried out much earlier.

[33] The commitment of individual health boards, the dependency on CARA for payroll processing, set deadlines, contingency planning and knowledge transfer from third party contractors were identified by IBM as key risks which would be outside the control of any Technical Implementation Partner.

6 Change Management

6.1 This chapter examines the PPARS approach to change management, how it identified the change required in human resource management (HRM), whether it set about implementation in an ordered way and how it managed the resources made available for the change process.

6.2 It was the responsibility of the health service to ensure that the project was planned, controlled and executed efficiently and effectively. In the area of change management, the National Project Team considered Deloitte to be expert in this area and aligned their activities with the strategies and approaches recommended by Deloitte.

6.3 However, Deloitte was only responsible for those aspects of change which it contracted to support and advise upon. The wider business transformation issues including achieving devolved HRM remained the overall responsibility of national and local management in the health service.

Transformation Objectives

6.4 The report of the PPARS Steering Group to the Department in 1998 suggested a number of drivers for the proposed project

- The 1994 Health Strategy – Shaping a Healthier Future, had identified a requirement for health boards to work more closely together to meet common needs.
- Information Systems needed to be developed to support the efficient management of the human resources employed within the health service.
- Pressure was mounting for agencies to effectively and efficiently manage their financial affairs which demanded the use of sophisticated information systems rather than the largely manual systems which then dominated.

6.5 The Steering Group report concluded that SAP could be used to greatly enhance the enterprise-wide management of scarce human resources, empower the management and administrative processes and facilitate the health service in fulfilling the vision of the Health Strategy into the next millennium.

6.6 At the outset, there was both a recognition of the need for such a system to meet the basic administrative and information supporting aspects of the health boards and a clear acknowledgement of the potential strategic impact of this project, not just on HRM, but on the entire health service.

6.7 The NIMT Investment Appraisal report of 1998 also noted that the health boards had taken a strategic initiative to decentralise and devolve decision-making and accountability and that a system such as SAP would provide an excellent enabler for that initiative. The report asserted that the immediacy, depth and richness of information would be greatly enhanced, whilst management involvement in routine administrative chores would be reduced.

6.8 It further stated that PPARS would support the achievement of key requirements of the Health Strategy, including the

- recruitment, development and retention of quality staff
- establishment of integrated organisational structures to improve performance, accountability, management and delivery of health services
- identification and optimum deployment of staff skills and talents
- ongoing monitoring and evaluation of the effectiveness of the health services, specifically in relation to the accurate measurement of human resource utilisation.

6.9 Accordingly, it is quite clear that, from the beginning, the PPARS project was envisaged as much more than the implementation of a computer system or the automation of manual processes. It was to be the enabler for the development of a strategic approach to HRM across the health service and it was on this basis that the project was approved.

6.10 The project was to enable transformation of HRM from a centralised, personnel administration focused activity to a decentralised and devolved management of resources, and was intended to provide a platform for the production of critical service-wide statistical and financial data.

Prerequisites to Achievement of Transformation Objectives

6.11 The NIMT report identified a number of high level risks relating to the achievement of these goals. These were, inter alia

- The identified benefits could only be achieved if they were carefully managed, metrics defined, and accountabilities for delivering those benefits assigned.
- Considerable resources would have to be applied and considerable business disruption accommodated, along with the provision of unstinting support from top management, in order to move from the existing 'hierarchical, departmentally-based, inflexible and focused inward' structures, to one which would transcend departmental boundaries in an effort to deliver value to the 'customer or client'.
- An enterprise system like SAP would require business processes to be 'frozen' thus rendering it difficult to make further process changes following implementation. Thus, it was critical for agencies to be confident that there would be limited process redesign following implementation.

6.12 Our examination found little evidence that these risks were incorporated into the PPARS implementation strategy for the project. No related benefit-oriented metrics were defined or accountability for their achievement assigned. In fact, four years later, the Hay Quality Assurance review noted little evidence that business benefits had been actively used as benchmarks for success or converted to priority key business or success indicators which could be measured before and after.

6.13 It would also appear that the staggered nature of the system implementations resulted in process changes occurring after each new deployment. Gartner, in their review of July 2004, found that one of the cost drivers on the project related to the ongoing changes to requirements.

6.14 At a higher level, notwithstanding the rhetoric around the strategic intent of the PPARS project, it is clear that there was not a clearly articulated and consistent vision of what strategic HRM actually meant in the context of the health service as a whole. In the context of the statutory autonomy enjoyed by each board, and the variation in practices between boards, no structure then existed to facilitate the development of such a single and consistent vision.

Technical Solution

6.15 Implementing a single system across a number of autonomous agencies and in a multi-layered healthcare environment provided a challenge.

6.16 However, both the Steering Group and NIMT reports agree that SAP presented the most appropriate technical solution for the operational and strategic needs of the health service. It would appear that the functionality available within SAP encouraged management to envisage a situation where a more controlled and structured approach could be taken to the management of human resources and that best practice HR processes, supported by SAP, could help transform the management of human resources in the service.

6.17 However, two critical issues were signalled in both these reports

- The cost-effective deployment of an enterprise system like SAP demands that processes be explicit and not likely to change in the short-term.
- SAP had not been implemented previously to any significant degree in Ireland or the UK in a healthcare situation.

However, SAP has pointed out that its products had been successfully implemented in the healthcare industry for over ten years and there were, to date, over 1,000 such installations in healthcare worldwide. One such customer was Queensland Health, a large decentralised organisation whose facilities and services spanned the entire State of Queensland. It informed us that in Queensland Health, some 60,000 staff members work at more than 500 facilities, ranging from small community health centres in remote areas to large metropolitan and provincial hospitals.

Cost of Change Management and Associated Work

6.18 Achieving change proved to be much more challenging than originally envisaged. It was estimated based on allocations made by Deloitte that, up to 31 August 2005, of the total amount paid to it for support and advice, approximately €21m had been incurred on activities designated as 'change advisory work'. This assistance was delivered to the national and local implementation teams. The balance was spent on

- Advice on the development and maintenance of business processes including activities related to national testing and support staff in functional areas such as payroll - €12.3m.
- Advice on the management of the programme including deployment advice - €5.2m.

Devolution and HRM Administration

6.19 From discussions with line managers and other users of the system in the course of this examination, it is clear that the implementation strategy adopted did not allow for a definitive model to be specified, agreed and fully implemented, before moving on to other implementations. Accordingly, as each new implementation progressed, changes occurred to processes already defined or additional variations were incorporated. Priority was not given to the provision of necessary management and control reports and issues relating to security affected line managers access to the system.

6.20 It became obvious in the course of the examination that there was no 'common strategic intent' across all the agencies regarding what was meant by 'strategic and dynamic HR management'. In the absence of a defined model for devolved HRM, those implementations achieved do not, in most cases, operate in a devolved setting. It is also possible that the vision of decentralised, devolved HRM being carried out by line managers may be severely impacted by basic system usability issues. However, the PPARS National Team have assured us that the system fully supports devolution and is already operating in a devolved setting in some agencies.

6.21 An issue frequently raised by users of the system, in the course of the examination, was that the implementation appeared to be focused on the configuration of system processes and that underlying organisation structures and operational issues were not resolved prior to going live. A fully defined model must address both system and non-system issues.

Sites with Personnel Modules Only

6.22 Currently, only four sites have implemented a system that integrates personnel administration with payroll. Three other sites have implemented personnel administration modules only. In these latter sites, three different versions of the system are being used primarily within the HR function for that area of the

HSE. A deficiency, in the context of the unitary organisation that the HSE now is, is that these initial sites are also based on separate versions of SAP, which means that they must be maintained separately. As a result, they have been in a 'code freeze' since implementation because the focus switched to the sites implementing payroll.

6.23 In these cases, the benefits to the organisation as a whole or, in a HSE context the relevant parts of the organisation, are limited and there are ongoing difficulties including the lack of appropriate procedures to maintain data up to date, given that the data does not drive the payroll process[34].

Impact of Partial Implementation

6.24 Given that a key goal of the project was to make available service-wide information regarding the status and utilisation of human resources, it is an inescapable conclusion that this objective has not been achieved to date.

6.25 In the first instance, only four agencies have actually implemented the integrated personnel/payroll system, which means that the majority of health service staff are not currently covered by PPARS. Therefore, while it is now possible for St. James's Hospital, for example, to quickly produce a staffing census from the system, it is not possible to do this on a national basis.

6.26 Secondly, even within those sites that have implemented PPARS, the examination noted a disparity in terms of the production of key management information. In some cases staff have been able to apply their own resources to extract data from the system and combine it with information from their financial systems to produce useful statistical and financial reports. This, however, is not the practice across all live agencies.

Feasibility and Piloting

6.27 From the outset, this project had been assessed as being particularly complex and dependent on a number of critical success factors. These were

- a fundamental transformation in the way in which human resources were to be managed
- agreements on common processes and standards across multiple agencies
- a sufficiently flexible system to meet the needs of the various agencies
- explicit business rule definition given that SAP is a rules-based system, and taking account of the fact that the health service was known to be replete with all manner of historical variations
- the project involved the computerisation of a mix of manual processes that varied immensely even within agency areas.

6.28 In a project of such complexity and uncertainty it would have been prudent to assess the feasibility of the overall programme through the controlled and monitored implementation of a pilot project.

6.29 However, once the decision was made to proceed with PPARS in 1998 it appears that the only option considered was the full implementation of the system. There is no evidence that a pilot approach was considered. Following difficulties experienced with the first consultancy contract, where it appears that there was a significant difference in terms of understanding as to the scope of the project and the basis of remuneration, the focus of the project narrowed to a determination to go-live with the personnel administration modules only. It is clear that this short term decision-making detracted from a clear,

[34] The integration of payroll and personnel systems allows for a mutual sharing of information which, due to the link with salary payments, tends to guarantee completeness and accuracy if properly administered.

consistent focus on the strategic imperatives underpinning the overall project and led to a significant underestimation of the scale and nature of the change involved.

6.30 The Hay Report of 2002 referred to problems experienced with the personnel administration modules which were caused by the project moving on to new implementations before completing the 'just gone live' sites. It also referred to the difficulty experienced in dealing with multiple variations across the agencies.

6.31 This lesson did not appear to have been incorporated into the implementation strategy for the subsequent round of implementations. Even though it had been declared that the North Western Health Board[35] and St. James's Hospital were to be pilot sites, the focus switched, even before they went live, to bringing new sites live without ever fully completing those designated pilots, assessing their outcomes, understanding the scale and dynamics of the change involved, and modifying the ongoing implementation strategy. The project was impacted by a drive to implement in as many agencies as quickly as possible, which grew more insistent as time passed by.

Planning

6.32 A project of this size required clarity regarding the desired outcomes in terms of re-engineered processes, altered organisational structures and changed culture so as to ensure that the project aligned with the strategic direction envisaged for human resource management in the sector. It also demanded clarity in regard to the relationship with and key deliverables of consultants engaged.

6.33 In regard to the involvement of BISL as the original implementation consultant, it is clear that there was a total misunderstanding of project deliverables, as evidenced by the dispute which arose about the work involved in the project, the respective responsibilities of the various parties to the project and the basis of the contract.

6.34 The health services engagement with Deloitte commenced with an initial exercise whose objective was described as intending to 'firm up the scope of the project'. In fact, the process consisted of an assessment of the state of readiness of the agencies and providing enough detail around scope to allow the initial two pilots to proceed and carry out preliminary work in other agencies. The Department had by this time, mandated the commencement of the work in all agencies.

6.35 The failure to pause after the pilots and learn from the experience, as well as bed down the new systems, militated against clear project definition. A pause would have allowed for a more defined scope to be established and, potentially, for the negotiation of a fixed price contract for the subsequent agencies.

Monitoring Achievement

6.36 The 1998 NIMT report was very specific regarding the need to put a set of metrics in place in order to measure improvements in both quality and quantity. It recommended that targets be established and emphasised that the monitoring of the achievement of those targets 'was absolutely vital'.

6.37 However, there is no evidence that any set of national or agency-specific metrics was developed at any stage throughout the project. Therefore, it is not possible to state that the service

- was clear as to the changes it wanted to measure
- set targets for those changes or

[35] The North Western Health Board pilot went live seven months behind schedule which might suggest that the order of complexity was greater than envisaged in a health board site.

- achieved those changes.

Change Management Agreement and Approach

6.38 Over the period of the project, each of the letters of engagement with Deloitte listed activities under the heading of change management. The engagement letters do not deal with the specifics of the work undertaken, and in fact there seems to be little difference in the work being addressed under the change management heading for the lifetime of the project. However, while the engagement letters are not, in general, drawn up in terms of deliverables separate administrative documents were used in the course of the project to identify the contribution and output of individual consultants.

6.39 Deloitte outlined its approach to those aspects of change management for which it was responsible in its Project Preparation Report. It was to focus on two main areas – the change readiness of agencies and strategies to address key change management areas.

6.40 Each local implementation team was required to appoint a change team, which would work on change management activities specific to their agency. Change management at local level was informed by a change management scheme developed by Deloitte.

Change Readiness Assessment

6.41 As part of its first engagement on the project, Deloitte prepared a Change Readiness Assessment, which was a major part of its project preparation review. This exercise involved an assessment of the readiness of each agency for the next round of implementation against a set of criteria. At this stage, the focus was on pragmatic and factual criteria.[36]

6.42 The criteria used by Deloitte in assessing initial readiness for the implementation of the changes are set out at Appendix H.

6.43 Following interviews and the completion of questionnaires, Deloitte scored each board on a scale of Green, Yellow and Red, (where Green is ready) against each of the established criteria, and then gave an overall score for each board. Out of the seven boards reviewed, five scored a red, two scored a yellow and none scored a green on this change readiness scale.

Strategies to Address Key Change Management Areas

6.44 While changed human resource management would require taking a wide set of measures designed to move agencies from centrally driven personnel administration towards more devolved approaches to the management of people, Deloitte was only contracted to advise and support in four key areas of change management within PPARS.

Business Processes

6.45 It was envisaged that 'nationally agreed, common business processes' would be defined during the first half of 2003 and would be 'framed around the SAP HR modules'. In exceptional circumstances, it was recognised that certain boards might need to deviate from these processes - deviations would be determined during the implementation process of that board.

[36] At a later stage factors such as attitudes, commitment, motivation and understanding were assessed for implementing agencies.

Stakeholder Communications

6.46 Deloitte emphasised the importance of ongoing communications with stakeholders and noted the absence of a structured communications plan previously. They set out a number of principles upon which such a communications plan should be based. These included

- honest and clear communications at all time
- communications should provide an understanding of the change imperative and the PPARS vision, so that all understand the reason for the implementation and their role in it
- everyone impacted by PPARS should be given an opportunity to input to the change process
- demonstration by senior management, in both words and behaviour, of their commitment to operational change
- regular checkpoints for feedback should be installed and learnings incorporated into the communications plan.

Training and Education

6.47 Deloitte defined the end-user training strategy as being focused on a number of key objectives. These included

- educating staff on the benefits of using the SAP system
- teaching end-users how to execute new or revised processes
- training employees on exactly what they need to know to do their jobs by matching the required learning to each job role
- ensuring all employees achieve pre-defined learning and performance objectives
- establishing a foundation of continuous skills development.

Implementation Support

6.48 This involves the creation of a project management structure to support the implementation of the project, including project team charters, risk and issue tracking tools and processes, status reporting procedures, development of schedules and workplans.

Change Management Challenges

6.49 The scale and nature of the change effort altered considerably with the decision to implement a single system across all participating agencies.

6.50 Implementing change in the agencies proved to be a major challenge for a number of reasons

- At the earlier stages (up to 2005) the dispersion of authority and governance militated against standardisation, consistency of leadership and sponsorship with each agency valuing its own autonomy.
- Later, as the reform programme began, there was a further set of difficulties. As local managerial layers began to be dismantled, Deloitte reported that in some areas there were frequent changes in key roles which worked to the detriment of learning and continuity and slowed decision-making and problem resolution.
- The project preparation review was based on assessments by local management some of which were found, in retrospect, to have been overly optimistic and underestimated the completeness and quality of data available for transfer to the new systems.

- It also emerged that the extent of variation between and within agencies was underestimated and that a much greater deviation from the general terms and conditions of staff existed.
- One of the criteria used to assess change readiness for the second round of implementations was the degree to which a board had defined and modified its procedures to align with the HSEA 'rule book'. However, it emerged during the Deloitte project preparation work that the HSEA rule book was, at that point, a draft and far from clear. In addition, it had not been seen by some agencies. In these circumstances, without the rules having crystallised, it would have been difficult to definitively isolate variances.
- While the initial readiness assessment focussed mainly on technical and pragmatic criteria allowing for the proposed sequencing of implementations, this did not guarantee readiness. The readiness of individual agencies to seriously engage with the change depended crucially on local attitudes, commitment and leadership.
- The main focus of the change management activity related to the definition of a set of future national business processes. Although these were originally estimated in the Project Preparation Report to require 'the first half of 2003' to be completed, Deloitte was still being engaged in 2005 to work on them. However, Deloitte has pointed out that work continued on a low level maintenance basis due to the request of the health service to resource the upkeep of the processes in line with the changing rules.

6.51 Although a structured approach to communications, training and 'role to position mapping' was adopted the perception of many staff was that communications was largely one-way and 'toolkits' used gave rise to a generic approach. However, Deloitte informed us that while their role extended to the tailoring of the approach for agencies, the communication was handled by agencies thereafter. They pointed to high turnover rates as a factor that might militate against fully effective communications. The PPARS team have stated that, notwithstanding the perceptions of staff, the training provided was extensive and fully documented on the project website and that the consistent response to training was positive. They assured us that lessons were learned and applied from the pilot implementations. The national training strategy adopted a 'train the trainer' approach and local agency teams customised the national training materials.

6.52 The manner of allocating funding also presented a challenge to transparent effective management of the resources. Allocations were made to both agencies and the national team. A transparent alignment between resourcing and project activities would have been preferable in order to ensure that developmental resources were dedicated to the creation of the system and there was a clear distinction between capital and current expenditure.

6.53 While change can be enabled by technology, it also requires commitment and acceptance. Superimposing national templates (national business processes, role-to-position mapping etc.) onto autonomous organisations, each with their own individual resource profile, culture, processes, priorities and expertise was a change strategy which, on its own, was unlikely to succeed. Issues of attitude and behaviour were also fundamental to the effective implementation of the entire project.

6.54 Deloitte advised that change teams be drawn from live agencies to assist in subsequent implementations. The failure to harness the resources developed and gain from the experience of change staff, militated against the sharing of experience between sites.

6.55 At this point there are three major steps necessary before the goal of 'dynamic HR management' can be achieved

- Staff in the agencies which have gone live need to begin drawing on the system to derive reports which will allow them to manage in a way which targets the potential benefits that were envisaged from the system – including managing absenteeism and recruitment.
- An overall view needs to be taken on the model of human resources management that will apply in the HSE as a whole including the extent of devolution and how the PPARS system can contribute to that model.
- In the case of the HSE areas that have not gone 'live' but whose systems have been configured it is necessary to consider the relative merits of finalising the installations as against prioritising other more costly systems such as HISP and finalising FISP. Failure to finalise PPARS would give rise to considerable nugatory expenditure.

7 Commissioning and Benefits Realisation

7.1 This chapter examines the extent to which the system has been commissioned, the commissioning issues that arose, and the benefits realised from the process. It also outlines the HSE assessment of the project up to its decision to suspend the further roll-out of the programme on 6 October 2005.

Extent of Completion

7.2 At the time the project was suspended the combined payroll and personnel system had been implemented in just four agencies. The personnel administration elements only, were live in a further three agencies[37]. The project was moving to have the integrated personnel and payroll modules fully implemented in all HSE areas by June 2006, while the implementation in the HSE - Western Area was considered to be only a matter of weeks from completion. A number of issues pertain, however, with regard to the existing live sites. These are considered below. Figure 7.1 outlines the current status of the implementation process.

Figure 7.1 Status of Implementation Process at October 2005

Live with SAP Integrated Personnel and Payroll System	Live with SAP Personnel System Only [a]	SAP System not Implemented
HSE – North Western Area	HSE – Western Area	HSE – Southern Area
HSE – Midlands Area	HSE – North Eastern Area	HSE – South Eastern Area[b]
HSE – Mid Western Area	HSE – Eastern Region	Remaining Dublin Academic Teaching Hospitals
St. James's Hospital		Voluntary Agencies within Community Care Area

Source: Analysis by Office of the Comptroller and Auditor General

Notes: [a] The personnel modules are not common in these areas.

[b] An element of the personnel system – the organisational management module has been implemented for South Eastern Area.

Benefits

7.3 Despite the shortcomings inherent in the approach to this project outlined in Chapter 6, certain benefits have accrued.

7.4 For the first time, personnel records have been computerised in six former health boards and in one of the largest hospitals in the country, St. James's Hospital. Maintenance of data on electronic media has been of benefit to HR staff in particular, and has made it possible to make inroads in the following areas

- the management of vacancies and appointments
- the identification of funded positions
- recording staff qualifications

[37] Seven agencies in total had implemented the personnel modules.

- standardising grades nationally, and allowing staff to move from region to region and to automatically bring their personal and professional details with them
- measuring HR performance. For example – how long it takes to fill a vacancy
- managing starters and leavers
- identifying contract start and end dates
- automating pay award calculations
- census returns.

7.5 In the context of the management of thousands of staff, these are not inconsiderable benefits. It should also be recognised that the immense effort that was applied to the standardisation process and the rigour required by SAP has meant that a large number of anomalies in terms and conditions were brought to the surface.

7.6 In addition, subject to addressing the concerns that have arisen after the payroll system has gone live, the HSE now has a single system capable of generating payroll for a large proportion of its staff and, subject to the outcome of its review and cost justification, capable of extension to the remainder.

7.7 The former CEOs maintain that there is scope for realising cost savings in the area of absences. While they concur with NIMT that absenteeism is low in most grades their experience has been that it was high in grades with large numbers of staff so that, with closer monitoring and drawing attention of staff to the results of that monitoring, there could be scope for substantial savings. They stressed, however, that it was dependent on the active pursuit of these benefits using the reporting capacity of the system.

Perceived Shortcomings

7.8 The negative perceptions which were consistently articulated during the course of our examination were

- At local level, users, line managers and senior management believe that PPARS has delivered little of value to them and that currently most benefits are potential benefits.
- Six years after first implementation, only four sites are live with integrated personnel and payroll. However, in these cases there is considerable dissatisfaction regarding the provision of control and management reports and the resource drain involved in regression testing. The PPARS team assured us that senior finance division representatives have signed off on control reports in March 2005.
- While local teams had carried out work on assessing the potential for redeployment, there is a general view that little or no resource redeployment has taken place, and if anything, additional resources are required to handle the workload of the system.
- Agencies, particularly those still operating personnel modules believe that the benefits of the system were oversold. Key analyses and reports are still not available two years after the first integrated site went live.
- What appears to have been one of the main objectives of PPARS – devolved HR management does not seem to have been achieved to any appreciable degree nor even to have been considered possible in most implementations.
- It appears that at some sites where payroll systems have been implemented, manual systems to record leave and absence details are being maintained due to lack of confidence in the system and usability. This is an unacceptable situation two years after implementation.

Issues Arising

7.9 In a project of this scope and complexity, the likelihood always was that substantial issues would surface when the payroll element went live. Issues which have arisen, to date, include

- the scale of variances in pay rates which require manual adjustments
- the requirement for separate payroll runs for staff who opted out of payroll rationalisation
- commissioning errors which have materialised to date
- the facility to extract key HR management reports is not fully developed
- administrative costs.

Variations in terms and conditions

7.10 SAP is a rules-based system and is adapted through a process of configuration, which sets the system to automatically calculate entitlements in accordance with the specific rules and practices in use. If an organisation wishes to make a payment to an employee in accordance with a practice which has not been configured a manual calculation is required. Ideally, the system should be configured to take account of

- rules and regulations common to all agencies
- variances from agreed national rules in pay and conditions.

In practice, the rules and regulations common to all agencies but not all variances have been configured.

7.11 The implementation of the PPARS project has highlighted the significant number of variations in terms and conditions of employment which existed across all sectors of the health service. Previously, these variations had been dealt with at local level and many were not known or understood even at health board level. Typically, the variances related to working hours, leave entitlements, grades, premia and other similar personnel-related conditions. However, not alone did terms and conditions vary extensively but there were very significant differences in organisational structure, roles, policies, procedures and processes across the entire health sector.

7.12 Many of these variations and differences were historical in origin and were directly related to the autonomous nature of the health boards and various entities in the voluntary sector. There was no unanimity of approach to these issues across the sector. Others, however, arose through the interpretation, in different ways, of Department circulars on terms and conditions of pay.

7.13 In cases where the practices of agencies varied from the common rules and regulations the National Project Board, in early 2003, suggested the following approach

- Agencies would be asked to eliminate variances locally where possible.
- Variances not eliminated would be categorised and prioritised. Those variances with the greatest impact nationally would be configured.
- 'Manual workarounds' would be required in each agency for those variances not configured.

7.14 After the first two pilot implementations and because of the cost associated with configuration, agencies were requested to complete an assessment of the numbers of employees affected by each variance suggested for configuration and carry out a financial impact assessment for each of them. This had not been done at the pilot implementations.

7.15 A report to the National Project Board in November 2004 recommended that a process should be established to monitor the progress of agencies in eliminating differences and also to prevent requests

which had been rejected by a monitoring sub-group being represented at a later date as a change request. In addition, it highlighted the need to take steps to ensure that all differences which were neither eliminated nor configured would have a workaround in place.

7.16 Ultimately, 2,590 variances were identified and classified under three headings – those relating to time, pay and travel expenses. As indicated in Figure 7.2, 585 were recommended for configuration. This means that the system provided an automated solution to 23% of the variances which were identified. As a result, 77% of all variances were not configured and where these had not been eliminated manual intervention was necessary to ensure that individuals were paid correctly. It is not known how many variations in practice were eliminated nor how many staff have their entitlements calculated manually. These processes are handled at agency level. A move to shared services will require standardisation. At that point, a decision will be required in relation to the manual workarounds. They may have to be configured or eliminated.

Figure 7.2 Variances – Configuration decisions November 2004

Category	Configuration requests	To be configured	Proportion to be configured %
Time	1,463	322	22.0
Payroll	1,010	257	25.4
Travel Expenses	117	6	5.1
Total	**2,590**	**585**	**22.6**

Source: National PPARS Office

Requirement for Separate Payroll Runs

7.17 Associated with PPARS was the concept of payroll rationalisation which commenced in 2004. Its aim was to convert the majority of employees to a fortnightly payment for time worked with payment being made eleven days in arrears.

7.18 In moving to a fortnightly pay cycle it was decided that no cash flow disadvantage should arise from the move for existing employees. The solution adopted was to incorporate a pay adjustment into the initial pay period in which the transition to the fortnightly cycle was effected. The cash value of the adjustment would be recouped on leaving but staff would be given the option to repay over a number of pay periods up to a maximum of two years.

7.19 This is a major exercise for most agencies. Payroll rationalisation has not yet been implemented in the earliest agencies to go live with payroll systems i.e. St. James's Hospital, HSE - North Western Area and HSE - Midlands Area. Accordingly, live sites, with the exception of HSE - Mid Western Area, have not completed the rationalisation process.

7.20 Payroll rationalisation where it has occurred, however, has been hampered by opt-outs of staff. Figure 7.3 indicates the number of employees who have opted out of the standard fortnightly pay cycle in those areas where it has occurred.

Figure 7.3 PPARS – Fortnightly pay cycle

HSE Area	Employees opting out	Number rationalised
Western	61	10,171
North Eastern	98	8,169
Southern	82	12,948
Eastern	183	15,695
Mid Western	0	7,869

Source: National PPARS Office

The HSE - South Eastern Area has not yet completed the process.

7.21 Additional pay runs within PPARS are required to facilitate those opting out of rationalisation. In addition, a policy decision has been taken to exclude "Home Help" employees from the payroll rationalisation process. Pensioners have also been excluded from the current process although there has been rationalisation in some regions.

7.22 Failure to achieve payroll rationalisation will impact negatively on the HSE plans to move to a shared services environment for payroll processing in the future.

Post Commissioning Issues

Top Ten Issues

7.23 A number of issues have arisen since the payroll system went live in the initial four agencies. In June 2005, those agencies produced a list of the ten key issues which they wished to see addressed by the National Project Team. The document stated that there were many other issues which needed to be addressed also. The ten key issues were

- The system had not been configured to take account of the rules which apply in the case of certain types of leave for some groups of employees. The document referred to 35 matters which need to be addressed under this heading.
- The system was not recording details of time off in lieu of payment for extra hours worked for all employees.
- In relation to acting up allowances, the document cited eight instances where the system was not configured correctly.
- The system was incorrectly calculating certain payments due to Non-Consultant Hospital Doctors and was including extra hours in relation to Consultant call-outs.
- A solution was required to support the business process in cases where an employee had multiple contracts.
- Contract end-dates were referred to as an issue to be addressed but no details were included in the document.
- The system was incorrectly calculating payment for Emergency Medical Technicians in certain circumstances.
- Some issues needed to be addressed in relation to how the system calculated pay in respect of hours worked for certain employees.

- Additional configuration was needed in respect of allowances to certain employees.
- Additional work was required in the area of downloading from the payroll system to the financial system.

7.24 Some of these issues relate to demands for additional functionality over and above that provided and are not system bugs or errors in configuration. The fact that some of these issues reflect seemingly obvious deficiencies points to a failure to properly define business process requirements prior to configuration/go live.

7.25 The HSE has stated that many of these were new issues that were neither specified nor tested as part of the implementation. Work is proceeding on addressing these issues. It was generally felt that, when the top ten outstanding issues have been addressed and the system configured to incorporate these, managers would have more faith in the system.

HSE – North Western Area

7.26 A review by my office of post implementation issues in the HSE - North Western Area, noted that where an individual is employed in a position which carries entitlement to an allowance on foot of a qualification, the system can be configured to generate the allowance automatically. However, the Director of HR in that area informed us that this part of the system is not being used and that the allowances are being entered by way of workarounds. This decision is currently being reviewed.

7.27 In July 2004, the system calculated a gross payment of €1.1m for an employee (the net payment was €581,000). The overpayment arose due to an incorrect basic pay amount having been entered on the system. At that time, the exceptions report (which is designed to highlight unusual[38] payments to employees before payment is made) while indicating that an unusual payment had been made, was not designed so as to specify the amount of the payment. The matter was not investigated and the payment issued. The employee reported the overpayment and the sum was recouped. Exceptions reports have been re-designed and they now report unusual amounts detected. In addition, exceptional payments are sorted into descending order by value by the payroll department and they are now examined prior to proceeding with the payrun.

7.28 In November 2004, it was noticed that overtime had been overpaid to a group of Emergency Medical Technicians (EMTs) in the Ambulance Service. Internal audit in the HSE - North Western Area investigated the matter and reported, in May 2005, that overpayments of €128,000 had arisen due to incorrect configuration of the system. The configuration had been carried out following a variance request from the HSE - North Western Area. In the course of parallel testing of the system prior to go-live, it was discovered that the variance request had been made in error and a revision was sought in mid-June 2004. However, that revision was not carried out on a timely basis by the PPARS National Team. A recoupment plan has been put in place.

7.29 The fact that the overpayment was not detected earlier has implications for the system of internal financial control operated in the HSE - North Western Area –

- The overpayments had been listed as unusual payments on the exceptions report for the period. The internal audit report noted that 288 messages had been listed on the exceptions report but it was not the practice to investigate all exceptions reported.
- An extract from an analysis which reconciles gross salary to the related net payments is circulated to locations after each payrun. However, ambulance salaries staff had advised Internal Audit that

[38] Parameters are set on the payroll system and any payment which falls outside these parameters is listed. Examples would be where an employee's gross pay exceeds a certain limit for a grade or where the amount of overtime paid exceeds a certain amount.

the report was not being checked by them on a regular basis and that, in any case, it had not provided sufficient detail to have enabled them to have identified the error. The internal audit report noted that, in April 2005, an additional report called Basic-to-Gross Pay report had been introduced. However, ambulance payroll staff indicated to Internal Audit that they do not have the authorisation to run that report. The PPARS National Team has informed us that this access problem was resolved by July 2005.

Shortcomings with the System

7.30 Some senior managers expressed their concerns in documentary form. Figures 7.4 and 7.5 set out a summary of the views of the Project Manager, HSE - North Western Area and those of St. James's Hospital together with the responses of the PPARS National Team and the HSE.

Figure 7.4 Senior Manager's views of system

HSE – North Western Area

An e-mail from the Project Manager in the HSE - North Western Area, in June 2005, expressed disappointment that no response had been received from the National Project Director with regard to a letter in April 2005 in relation to key PPARS operational issues/problems and the approach to regression testing.

The e-mail stated that there was growing negative reaction among line managers and staff to PPARS because of the long delay in getting what they regarded as fundamental operational issues sorted out. It stated that the success of PPARS in the HSE - North Western Area would be totally undermined unless corrective action was taken immediately in relation to the matters set out. It also stated that it would be much preferable to extend the timeline for implementation than to continue to implement the system without first resolving the serious shortcomings. Some of the shortcomings translated into requests for configuration such as annual leave, 24-hour rule and multiple contracts. The absence of management reports almost a year after go-live was also raised and compliance with sign-off procedures for regression testing were threatened if requirements in this respect were not met. A declaration from the National Project Team that the new environment was "fit for purpose" was also requested prior to sign off on regression testing.

The National Project Team has informed us that the HSE - North Western Area, together with other HSE Areas, signed off on the regression test in October 2005 indicating satisfaction with the new technical build.

In November 2005, the Project Manager in the HSE - North Western Area further clarified the context for his e-mail. He stated that, while he was acutely aware that national team resources were stretched to the limit, he felt that there was a real risk that, with the concentration of national team resources on those agencies planning to go live in 2005, the necessary priority would not be given to the issues impacting those agencies already live.

Figure 7.5 Senior Manager's views of system

St. James's Hospital

A letter from St. James's Hospital to the Director of ICT at the HSE, in June 2005, was highly critical of the implementation process. It stated that provisions for the management and resolution of PPARS issues had been consistently below acceptable standards over the period of 18 months since go-live and the consequential risk to the integrity and smooth production of the hospital payroll had remained unacceptably high. It stated that the arbitrary imposition and application of system changes, whether technically correct or not, was not acceptable under any circumstances.

The letter stated that there was a fundamental requirement for a review of the current PPARS structure and operation, with particular emphasis on the need for robust communication with live agencies and an emphasis on a partnership problem-solving approach rather then the current dysfunctional provisions which were leading to a breakdown in trust and confidence.

It emphasised the high potential risk of significant payroll malfunction and stated that, given the recent track record and the low level of confidence, any further extension of the system to other HSE areas would only be acceptable in the context of prior stabilisation and resolution of existing critical issues.

In essence, the letter stated that the hospital was not willing to continue with an arrangement which clearly threatened its basic functioning, its ability to meet its fiduciary accountability obligations with assurance and its credibility and relationships with its workforce.

The HSE informed us that there has been ongoing work between the HSE and the hospital and satisfactory progress has been made. The hospital signed off on regression testing in October 2005. They assured us that at a meeting with HSE senior management the hospital stated that "PPARS continues to calculate the majority of employee payroll payments correctly and within specified deadlines". A small percentage of system programming errors need correcting in order to provide absolute assurance and transparency in the calculation of all employees' payroll payments.

7.31 Notwithstanding the issues raised in internal audit reports and other documents, both the PPARS National Office and the visited agencies maintain that the payroll system is operating well and the rules based approach to calculating pay leads to confidence that pay is calculated in accordance with an employee's terms and conditions. Some concern was expressed, however, about the controls over the entry of data and that errors in data entry could lead to pay errors.

Availability of Reports

7.32 The facility to generate reports which would provide up to date information to management was expected to be a major benefit of PPARS. However, while the system has been configured so as to enable the automatic generation of key reports from payroll, work has not yet been carried out to enable the production of standard reports to assist in the management of HR.

7.33 In addition, there is a facility on the system which allows staff with the necessary security access to generate ad-hoc reports. However, the reports that can be generated in this way are limited to reports on standing data and line management cannot run reports which incorporate data on amounts paid and other transactions. This limits their value as a source of management information.

7.34 The PPARS team informed us that it was never the intention to roll out ad-hoc query type reporting to line managers as the skill set required to use this facility is categorised as a 'superuser' within the local administration.

7.35 Users, in particular line managers, indicated that the system had been 'marketed' to them on the basis that it would provide reports to assist them in carrying out their duties. The absence of this facility appears to have caused some to lose confidence in the system as, while the necessary data is being provided and input in the manner requested, managers cannot extract meaningful analysis of the outcomes. This issue was raised by all managers interviewed in the course of the examination. The general view expressed was that a lot of work had been put in by managers to bring the system to this point, but the expected benefit of such work had not been realised.

7.36 The absence of the reports has caused great frustration among line managers although they have been informed that the matter is being addressed. The view was that this issue, along with the others, should have been resolved in the two pilot sites prior to roll-out to the other agencies. St. James's Hospital, where the payroll system is now live for two years, expressed great frustration at the lack of support from the National Project Team in the area of reporting.

Impact on HRM and Payroll Administration

7.37 Adapting to a new system inevitably gives rise to an evaluation by staff of the new and old procedures. Issues reported by staff in the course of the examination which impact on HRM and payroll administration include

- In the new system time returns take longer to enter and queries are more complex and time consuming. This was particularly the case in the early stages following implementation of PPARS and related also to the new payslips provided. However, the four agencies which have implemented the payroll reported that there is general satisfaction among employees with the new payslip which provides greater detail about pay than previously.
- Areas like catering present a major challenge. One full time person was needed in St. James's Hospital to carry out the keying-in for this area. This area would greatly benefit from electronic time capture.
- There was a large learning curve associated with the introduction of PPARS in areas where payroll was previously contracted out.
- Rosters are still prepared manually.
- Data "inputters" who did not exist previously are now part of the process. In some instances the input of time records is centralised while it is decentralised in others.

Impact on Staffing Numbers and Costs

7.38 A review of resources in agencies which went live, carried out in 2005, indicated that while it was expected that, although there would be an increase in administrative work associated with time capture, there would be a decline in the administrative tasks carried out by payroll or salaries staff thereby facilitating their deployment to other PPARS activities. However, it was found that there had been minimal redeployment of these staff to new roles. The main points arising out of the review were that time gathering and time recording were more resource intensive than expected and that some agencies had not followed the agreed national processes.

7.39 The range of additional resources required in each agency varied substantially from three in the HSE - North Western Area to 27.3 in HSE - Midlands Area. This increase in the HSE - Midlands Area

excludes the numbers associated with insourcing payroll (16)[39]. Following the implementation of the personnel and organisation management modules, the four agencies which have subsequently implemented the payroll required 399 staff for PPARS related duties. Following implementation of the payroll module, this had risen to 478 staff. However, the HSE areas indicated that, following planned redeployment of staff, the number will fall to around 441. The HSE is currently conducting a review to establish the exact position in this regard.

HSE – Assessment of Project October 2005

7.40 On 6 October 2005, the Board of the HSE accepted a recommendation of a management team under the chairmanship of the National Director of ICT. The recommendation was

- To put any further development of the programme on hold for two reasons
  - to reduce the levels of unapproved expenditure
  - to provide space to facilitate the preparation of a comprehensive business case outlining all options to remedy the current problem.
- That clear leadership and accountability arrangements be put in place with immediate effect in order to ensure that a viable, effective and value for money solution would be implemented.

7.41 In making its recommendation, the management team had presented a review of the current status of the project. The main points of this review are set out below.

Expenditure and Funding

7.42 Projected spending on the project for 2005 was around €55.4m[40] while the funding available was €37.2m[40], leaving a shortfall of €18.2m. An additional €42m would be required for 2006.

7.43 The report noted that ICT expenditure by the HSE is subject to approval by the Department of Finance. This approval had not been received for 2005 and, thus, the expenditure being incurred in 2005 was unapproved. In addition, the Department of Finance, through CMOD, had raised issues about the level of management consultancy costs and the staffing costs of internal HSE personnel.

Staffing

7.44 There were, at that time, around 500 staff working on the programme throughout the entire health system. The report noted that, in mid-July 2005, the Secretary General of the Department had stated that no ceiling adjustment had been approved for this number of staff, that there should be no further recruitment to the programme and that he wanted the number working on the programme to be reduced.

Governance Arrangements

7.45 The existing governance arrangements were complex and not robust enough. It could not be stated that there was a single implementation process, rather there were ten separate agencies as part of the implementation process, the national office and the nine sites.

Live Site Issues

7.46 A number of stabilisation and business value-added issues pertained with respect to existing sites and the most pressing of these related to transactional payroll matters.

[39] Prior to PPARS payroll in the HSE – Midlands Area was outsourced.
[40] Both figures include €2.8m related to FISP. The shortfall is unchanged.

Shared Services

7.47 PPARS could not be transferred into a shared services environment without incurring more significant costs. Significant variations exist between the system installed at the four sites arising from the manner in which the system was configured to accommodate locally negotiated agreements. In addition, the current processes involve significant manual interventions.

Project Planning

7.48 The report noted that a business case was not prepared prior to the commencement of the programme and that the programme had continued on, year on year, in the absence of adequate project management or without a gateway review process.

7.49 In 2005, there had been significant slippage in the project. A commitment had been given to the Department of Finance, in early June 2005, that the project would be completed in the nine agencies by the end of 2005 and that this date had since slipped to June 2006.

Progress to Date

7.50 The report stated that it was important to recognise and acknowledge the work and commitment of all staff involved in the programme to date. It noted that significant progress had been made in providing a single HR/Payroll system and that the HSE must seek to gain maximum leverage from the work and investment.

8 Conclusions

8.1 This chapter sets out some general conclusions of the examination. They are expressed in a way that, hopefully, will facilitate their wider application to the public sector generally.

Vision and Goals

8.2 The intention of PPARS was not simply to computerise personnel records or to replace existing payroll systems. Its primary goal was to enable the transformation of human resource management in the health service. However, there was never a clear articulation of what this actually meant and how it was to be achieved at a sufficient level of detail to enable senior management to fully understand the nature and scale of the change involved in the task. This very quickly led to the project becoming focused disproportionately on its system elements.

> Business transformation projects demand a clear and consistent articulation of vision and goals; a full understanding of the cultural, organisational, process and technical changes required to support that vision; and a coherent but adaptable plan to effect those changes in practice at every level of the organisation.

8.3 Lack of clear and common purpose often leads to conflicting agendas, misunderstanding as to objectives and confusion as to priorities. Understanding and planning for changes across related functional areas also helps to maintain focus on what are often the most challenging and important issues of culture and organisational change.

ICT alone cannot transform a business

8.4 There seemed to be a general belief that the introduction of changes in HR management and the provision of reliable information could be addressed by the implementation of an ICT system and that the new ICT system would 'force' the desired change in practice across the health service. The ICT system was often described as the 'silver bullet' which would drive change.

> ICT cannot transform business processes. It is but one element in what must be a broadly-based approach to business change.

8.5 For a variety of reasons, including the fact that many senior managers have little expertise or confidence when dealing with ICT issues, and perhaps avoid ICT as a result, there can be a tendency to overestimate the role ICT can play in business transformation. Organisations across the public sector must adopt more holistic approaches to business transformation and regard ICT as being one element of a much broader strategy for change. This approach would allow for more realistic and achievable projects.

Choosing an ICT solution

8.6 The twin goals of PPARS were to implement dynamic, devolved HR management and to facilitate the production of key information across the health service. It does not appear that alternatives to the implementation of a single, standardised, national system were fully considered. For example, could these twin goals have been achieved by agreeing standards for best practice and information formats, and allowing each agency to utilise existing and/or new systems to meet these standards? Also, while there is no doubt that enterprise systems are highly configurable and capable of supporting extremely complex processes, their ability to support the goal of devolved HRM depends on a high degree of training in report production. The acknowledgement that enterprise systems like SAP were complex and required explicit rules and that process changes should be limited after implementation was not matched by a plan that took this fully into account. Implementation was always going to be a challenge in the case of

autonomous agencies that had difficulty in defining their own rules.

The ICT solution selected should be appropriate to the needs being addressed and its requirements fully factored into the implementation plan.

8.7 While it is acknowledged that the consolidation of the health services into the HSE increased the case for a single system this approach is not necessarily the only option. In many public sector ICT projects, particularly where multiple agencies are involved, it may be more feasible and cost effective to focus on making data available to multiple applications, based on agreed protocols and standards. Local agency needs can then be addressed in a local manner, while information at a national level can be assembled to an agreed standard.

Cost Benefit Analysis

8.8 The cost was consistently underestimated and changes to the cost benefit balance were not maintained throughout the life of the project as a key input to senior management decisions. Many of the benefits identified at an early stage and again in 2002 were based on broad assumptions of possible outcomes. There was no specific and determined focus on actually achieving those benefits, e.g. the redeployment of staff or the reduction in absentee rates, or evidencing benefits targeted.

The cost benefit analysis must identify costs on as wide a basis as possible, be maintained and re-assessed on an ongoing basis and set out targets and plans to achieve those benefits.

8.9 A focus on cost benefit analysis and monitoring at all stages of a project is a challenging but essential task. It exposes senior management to information that may require them to alter project strategy and it constantly challenges all stakeholders to address the implications of emerging costs and the realisation of benefits.

Involvement of Users

8.10 Users and line managers were key players in this project. However, it appeared that while representative groups of users were involved in the identification of business processes the bulk of those interviewed in the course of the examination complained that they were minimally involved in the design and implementation of the system. There does not seem to have been consistent engagement by senior managers and, consequently, opportunities for users to get involved were limited. This probably reflects the scale of the project, the lack of clarity as to its purpose and the fact that many people were expected to contribute to PPARS while also supporting their fulltime workload. Regardless of the reasons for lack of involvement, if users are expected to start using a system that they perceive to be cumbersome, adds no value, is additional work to them for the benefit of others, enjoys lukewarm commitment from their own managers and is distracting them from their work, it is likely that they will be difficult, resistant and will perceive the system to be a ‘failure’.

Users of a proposed system must be centrally involved at all stages of the project and additional resources must be provided to allow them to be so involved.

8.11 A major focus on the involvement of users throughout all stages of a project will mitigate the risks of an inappropriate solution being selected, disengagement from the process and resistance to change. Users should not be merely included at the end of the process but must play an integral role throughout.

Feasibility Testing and Piloting

8.12 Moving from a determination to transform an organisation or a key function within it to actually realising that transformation is a massive leap. The PPARS project does not appear to have ever seriously tested the assumptions being made as to the feasibility of achieving transformation through this process. Once the decision was made to use an enterprise system to facilitate that change, it appeared that a course had been set which was never fundamentally altered. Even the severe warning of the failure of the first implementation attempt did not cause the project to deviate from its course. If anything, in the context of the then organisational structure, even more fundamental decisions were made at that stage, viz. moving to a single system. Crucially, even though the payroll implementations in the HSE - North Western Area and in St James's Hospital had been intended to be pilots, they were not treated as such in practice.

The overall feasibility of the project strategy should be tested in order to mitigate the risk of failure. In this regard, the importance of comprehensive pilot testing should not be overlooked.

8.13 Business transformation projects are usually based on very significant assumptions. By testing the feasibility of the approach these assumptions can be challenged and crucial changes may be made to elements of a project including timing, resourcing, management and funding. Such changes can mitigate the risk inherent in large-scale business transformation projects.

Governance

8.14 All projects require a clear line of authority. While the CEO of the former North Western Health Board was the Project Chairman and lead CEO, each of the other CEOs had statutory responsibility for their agencies, and as such were responsible for allocating management and staff resources to meet local priorities. While the HSE now provides a single organisational framework within which clear project governance could be established this did not exist for the lifetime of the PPARS project.

Projects must not proceed without clearly defined lines of authority, responsibility and accountability and a means of ensuring they are observed in practice.

8.15 Clear lines of authority help to maintain focus, reduce delays, avoid rework, support decision-making, resolve problems and, in general, reduce risks on a project.

Risk Management

8.16 Major risks were identified in the Hay document in 2002 which do not seem to have been taken on board sufficiently. Risk management is one of the key responsibilities of the Project Sponsors and Team.

A Risk Management process should form an integral part of projects at all stages and a process to mitigate and manage all risks identified should be put in place.

8.17 All projects have risks associated with them, and it is inevitable that some of these risks will actually occur. What matters is the rigour with which such risks are identified and mitigated. This will sometimes require senior management to change the course of a project, often in the face of opposition. Good risk management allows for the removal, minimising or avoidance of the identified risks. This is an essential element of good project management.

Gateway Reviews

8.18 A project as large as PPARS requires review points at each major stage in its lifecycle. Ideally, a structured review should exist at the following stages of a major project's life

- to assess the business justification for the project after a full business case has been developed
- to review the procurement strategy
- to review the investment decision
- to review the readiness of the system for service
- to review benefits realisation.

Gateway reviews need to be built into the approval process for major ICT projects and should be independent of the project team.

8.19 Identifying key points where the approval to proceed is contingent on meeting specific criteria ensures that a focus on quality project management and decision-making is maintained. All major public sector projects should be assessed at critical points in order to determine whether or not the project should continue as planned. These gateway reviews should be explicitly defined and transparent to all those involved. It is essential that all elements crucial to the success of the project be assessed by expert authorities and that the focus is not simply on whether a process is being followed. It is also essential that these assessments are based on relevant and sufficient information. Information provided by the Project Sponsor should be independently and objectively validated.

Multiple Agencies

8.20 PPARS involved the implementation of a standardised, single system across multiple autonomous agencies with significant variations in work practices not only between agencies but also within agencies. This was an extremely difficult task. The project management structures that were implemented were inadequate to deal with the complexity of this scenario.

Where multiple agencies are involved, there must be clear buy-in based on an agreed project charter, resourcing agreements, governance protocols and budgets.

8.21 Projects that require the involvement of multiple agencies pose particular risk. Having an explicit basis upon which the agencies will work together on a project minimises this risk.

Technical Management

8.22 Arising from the delay in the procurement of consultancy support for the recommenced project, a decision was made that the National Project Team should manage the technical resources directly. This strategy was later changed and IBM was appointed as Technical Implementation Partner. This change reflected the fact that it is difficult to establish a technical organisation from scratch and to ensure that best practice is adopted across the range of technical areas, particularly with a system as complex as SAP.

Technical Management should rest with the party best equipped to handle it and there should be clear contractual terms to enforce this.

8.23 Organisations involved in business transformation projects should be careful to avoid taking up roles which are not within their capacity to deliver at sufficient levels of quality.

Commissioning Protocols

8.24 It is clear that the transition of agencies to live implementation was not handled well. There was inadequate provision of post-live support from a process change perspective and no service level agreements were in place prior to go-live or since. The training initiative used was a 'train the trainer' approach with user training left to local teams.

Commissioning protocols should be in place.

8.25 Large scale projects tend to narrow their focus to simply achieve go-live and to ensure that the system 'works'. However, it is critical that sufficient attention is paid to post-live support, ongoing change management, performance measurement, continued feedback and training. This will help ensure that the focus is maintained on achieving the benefits and addressing issues that may adversely impact on the change.

Central Expertise

8.26 The PPARS project would have benefited from access to public sector expertise throughout the lifetime of the project. However, although staff with experience in the successful development of computer projects exist in some sectors of government there has as yet been no attempt to consolidate this knowledge for the benefit of agencies for whom ICT development is a new or challenging undertaking. This absence of a central repository of ICT expertise militated against effective direction and control and was a factor in the over-reliance on consultants.

Industry-best ICT and project management expertise should be developed within the public sector.

8.27 There appears to be a case for establishing an ICT project management centre of excellence to enable agencies to have access as required to expert resources and, in particular, to help ensure that they are properly prepared to successfully pass though gateway reviews. This would greatly improve the capability of agencies to professionally manage what are extremely complex projects and to grow their own expertise over time. It also reflects the fact that many agencies simply cannot maintain the high level of expertise required to manage large-scale projects.

Engagement of Consultants

8.28 The manner in which external consultants and contractors were engaged to work on this project was unsatisfactory. The original contractual agreement with BISL encountered significant difficulties when differences arose as to the scope of the project and the nature of the agreement. This led to a considerable narrowing in the scope of the project and to the agreed termination of the contract. Arrangements for support for the recommenced project were made on a time and materials basis of remuneration, both during the pilot installations and in respect of subsequent work. There was no attempt to scope the work after the initial pilots and seek a fixed price arrangement. The core of this work involved the supply of advice and support at the requisition of the PPARS team. It is not clear that this arrangement allowed for the transfer of risk to the party best positioned to manage it especially around responsibility for technical aspects of the project. In effect, under the terms of the engagement, all risks were borne by the health service.

Contracts should be based either on defined specifications or managed in a way that focuses on milestones, deadlines and deliverables. High value contracts with consultants on large IT projects should incorporate provisions whereby each party shares the rewards and the risks.

8.29 Agencies and third party consultants have differing business objectives. A professional approach to engaging consultants can help agencies to maximise the value of consultants while appropriately apportioning the risk. Time and materials agreements should be avoided. If the project can not be defined to specify the deliverables required at a level of detail sufficient to enable the third party to provide a fixed price for the project, it is likely that the project is not ready to proceed, and should not proceed until such clarity is achieved.

Managing Consultancy

8.30 Where possible, large-scale project agreements should be divided into 'manageable chunks of work', which are of such scale and scope that project managers can more easily assess progress, and alter implementation strategy as required. Ideally, this should align with a gateway review process.

> All agreements entered into should be subjected to regular, independent performance review. Such review should engage with all stakeholders in the project, including users.

8.31 Agencies, through the use of expert resources, should not allow consultants to determine project or implementation strategy, notwithstanding that the consultants' input may be very useful. The practice of engaging consultants to scope a project and/or provide a detailed specification and subsequently contracting with the same consultants to develop the system should be avoided.

Funding of Projects

8.32 The dispersion of funding over multiple agencies as well as the allocation of funds to the national team militated against coherence. Ideally, there should be a single budget holder, a single responsible project owner and an all-in project budget. In addition, bearing in mind that such projects involve the creation of substantial assets there should be a clear distinction between capital and running costs in the budget.

> Effective accountability for results is more likely to be achieved through the use of a high level budget holder with regular financial reporting responsibilities.

8.33 Without clarity and consolidation of funding, there is a risk that funds may be diverted to purposes not intended or that an optimum development approach may not occur in circumstances where organisations are engaged in the construction of a long-term asset but must rely on a series of short-term funding decisions.

Future Considerations

8.34 The health service has identified a programme of ICT development which is designed to modernise its information infrastructure. The indicative cost runs into billions of euro and PPARS is just one component of that programme.

8.35 The scale of the investment required demands that lessons learned from this project be assimilated into future management and governance arrangements. In particular, it is imperative that the HSE

- create an appropriate ICT governance and management system capable of handling that level of investment
- consolidate the expertise developed in the course of the project so that the investment in people is not dissipated

- prioritise those elements of the programme which give the prospect of service improvement for users of the health system
- avoid nugatory expenditure, to the extent possible, by reviewing how the unfinished sites might be brought to completion in a cost-effective manner.

9 Views of the Department and the HSE

9.1 This chapter outlines the views and observations of the Accounting Officers of the Department and the HSE on the project.

Views of the Department

9.2 The Accounting Officer of the Department set out his observations on four key areas

- The National Approach
- Governance of the project
- Lessons from the project
- Building on the existing system.

The National Approach

9.3 During the period in question the Department was faced with trying to manage industrial relations and the expenditure on human resources on a national basis while a number of independent agencies had not implemented and applied the rules on its circulars on pay and conditions in an agreed fashion nationally.

9.4 The Department saw an absolute need to get and maintain national data and ensure that management information was available to the health boards so that they could manage their human resources better. Against that background the Department wanted to be as supportive as possible to the system that was then being recommended by the Chief Executive Officers.

9.5 A situation had developed over the years where there were different applications of the rules for calculating pay within and between health boards, overtime was calculated in different ways, the extent of absenteeism was unclear, staff numbers were being underreported and no useful workforce planning could be undertaken because of inadequate information on the make-up of that workforce. Accurate costs for pay awards could not be provided and, as the health sector was the largest payroll in the economy, it was essential to address these fundamental problems.

9.6 At the same time the Government was seeking to contain costs, control numbers employed and eliminate overruns on health service expenditure. Since 70% of all health expenditure goes on staffing the Department saw it as an obligation to introduce a strong national unified system for pay and conditions which had been originally set out in the Health Act 1970 which stated that 'CEOs in determining pay and conditions shall act in accordance with the directions of the Minister……'. The Department saw this as a difficult task but nevertheless, one which had to be carried out.

9.7 The Department wanted to take a unified approach in this area. This is not unique since the other large public sectors employing teachers, Gardai, the Civil service etc. accept only one set of pay and conditions nationally. In agreeing pay and conditions the trade unions also operate on a national basis. The Department saw the selected technology as being appropriate to bring the required discipline to this entire area. The Department was constantly criticised for the lack of reliable and timely data in regard to a range of issues (including at hearings of the Committee of Public Accounts) and wanted to collect such data electronically to allow for best HR management practice.

9.8 In 1999/2000 this was the best way that the Department could bring a national approach to bear on the situation. The Audit of Structures and Functions in the Health Service (Prospectus) however recommended the abolition of the health boards and the creation of the Health Service Executive as a single national health system. The subsequent Government decision and the enactment of the Health Act,

2004, provided a single national enterprise delivery system for the health sector, which was an essential requirement to replace the fragmented structures that were in place since 1970. Those structures were considered to be an inadequate framework for overall governance in the health system.

9.9 It is the Department's understanding that enterprise systems filled a valuable role in providing packaged solutions for a number of standard requirements such as HR, payroll, financials, and procurement and as such were widely used for that purpose around the world. It is also the Department's understanding that since the original decision they have become the norm for those types of uses in large organisations worldwide.

Governance

9.10 While accepting that valuable lessons must be learned for future projects, nevertheless the Department wants it to be known that it had raised its concerns during the project as to the governance arrangements and costs. At the earliest stage, the Department was as helpful as possible to the initiative of the CEOs to work together on this project. With the setting up of the Health Boards Executive (HeBE) to facilitate conjoined working by boards the Department's understanding was that the Board of HeBE (the CEOs) fully supported the PPARS project and as such could provide strong leadership to support and guide the project. However, it has to be remembered that the health boards were separate, independent, statutory bodies and as such it was not possible to put in a single line command structure for PPARS.

9.11 While a total of eight outside management consulting organisations were called on during that period to examine various issues surrounding the programme, at no stage did any one of them advise against continuing with the project. In fact, each review supported the continuation of the project. In particular the Hay and Gartner examinations confirmed the view that the project was valid and that the costs were not such as to cancel or abandon the project.

9.12 The Department was quite open about the costs on the project. The Comptroller and Auditor General was told of the position in 2003. The Department of Finance was told, in 2004, in the context of finalising the National Health Information Strategy, about the general deficit of ICT in the health sector, the significant benefits which would be associated with further investment in the area, including in relation to PPARS and the estimated costs associated with modernising and integrating the various sectors. It is very difficult to manage health services at local level as effectively as possible if there is an information deficit and major investment is necessary if that information gap is to be adequately tackled. A piece-meal response is the worst of all approaches as it pretends to address problems but, in fact, is not doing so.

Lessons from the Project

9.13 The Department accepts that there are very valuable lessons to be learned from the project. This, after all, was the first of the major ICT projects in the health sector, delivering large-scale change through a modern high functionality ICT system. The arrangements being recommended in this report will be put in place, as will the revised arrangements for projects and consultancies agreed by Government.

Building on the Existing System

9.14 The Department is anxious to point out that the PPARS system is not 'a computer that doesn't work' but on the contrary is providing accurate salary payments on a regular basis. The Department has been informed that regular payments are being made to over 31,260 staff and 4,500 pensioners in the agencies where it has gone 'live' and that since January of this year it has made around 600,000 payments amounting to over €936 million. The Department understands that it is now paying staff in these agencies more accurately that ever before based on pay and conditions as approved. In addition, the HR information to provide for best practice HR management is available in respect of around 70,000 staff in the health sector.

9.15 The Department sees it as essential that HR managers use the system and exploit the benefits to allow for much better use of resources. The PPARS system will allow managers to know where staff are deployed, the cost of that deployment, the premium payments in place and allow for appropriate rostering arrangements to be put in place.

9.16 While very significant funding has been provided it is the Department's view that with better information available to management, human resources can now be much better utilised for patient care with significant benefits to the health system.

Views of the HSE

9.17 The Accounting Officer of the HSE noted that very significant issues had been raised by this report which require careful consideration.

9.18 He stated that, together with colleagues on his management team, he is examining the detail – particularly the general conclusions set out in Chapter 8. He recalled that shortly after his appointment as CEO of the HSE, in mid-August 2005, he sought an update on PPARS. On receipt of that update, he immediately ordered a pause on any further development on the project. The Board of the HSE also approved of that decision.

9.19 He informed us that an internal review of how to proceed in relation to PPARS will be finalised early in 2006. At that stage, as the Accounting Officer, he will have to decide how best to proceed to meet the HSE's requirement of a Payroll and HR Strategic Management System.

9.20 He assured us that he is fully committed to taking any appropriate action to address the issues raised and to act upon recommendations which may emerge from the internal review which are deemed necessary to providing a cost-effective solution to the HSE's Payroll and HR Strategic Management System requirements.

Appendices

Appendix A Overview of Software Requirements as set out in the Invitation to Tender Document – January 1997

The participating Boards require an integrated computer system with the following modules: Personnel, Payroll, Attendance Monitoring /Control & Rostering, Recruitment and Superannuation.

A brief overview of the high level functions is given below.

Recruitment Function

The purpose of recruitment is to identify and appoint suitably qualified individuals to meet the job requirements specified by the Health Authority in a fair, effective and efficient manner.

The main recruitment functions are

- Create/Maintain Standard Recruitment details
- Record Vacancies for filling
- Record/Track Transfer Requests
- Record/Manage Panels
- Manage Competition Process
- Manage Appointment Process
- On-Line Enquiries/Reports/Analysis.

Personnel Function

The role of personnel management, in the sense of managing people, can be said to be part of the role of every line manager. The main objective of a personnel application is to support the personnel department of the health boards in the following areas

- Maintenance of personnel files
- Training
- Career Development
- Staff Welfare including Health & Safety
- Staff Relations.

The personnel application will be used to record and process all information relating to the employees.

The main personnel functions are

- Create/Maintain standard Personnel Details
- Employees Numbers Control
- Add/Maintain Staff Details
- Training
- Add/Maintain Medical/Occupational Health Details

- Manage Health & Safety
- Reports/On-Line Enquiries.

Attendance Monitoring/Control & Rostering Function

The role of the Attendance Monitoring /Control & Rostering module is to define work plans based on planned services, to roster staff according to the defined work plans, to record employee attendance and absence, to control against budget and to generate the required data for payroll and other appropriate purposes.

The function should be capable of being used for all staff groups in all sub cost centres in all cost centres. Each sub cost centre will have a service plan which will have agreed resources allocated to it, of which staff will be a major element. The work plans will be defined to cater for the provision of the agreed service level within the agreed staff resource level.

The main functions of the Attendance Monitoring/Control and Rostering module are

- Define patterns of work for agreed staff resource requirements
- Match staff to defined patterns of work
- Attendance/Absence recording
- Confirmation of duties
- Maintain employee information
- Maintain reference tables
- Enquiries/Analysis/Reports
- Payroll data provision.

Important Note:

It is intended that the recording of attendances and absences will be by confirmation of the roster, following input of actual changes, rather than by the use of clocking-in systems. However, if a supplier's only means of confirmation of attendance/absence is via clocking-in systems, this should be clearly indicated and costed in the response.

Payroll Function

The purpose of the Payroll function is to ensure the accurate and timely payment of all employees/pensioners and to retain such records as will be required for subsequent examination.

The main Payroll functions are

- Create/Maintain Payroll System Parameters
- Create/Maintain Staff Details
- Generate Payments
- Year End Procedures (Tax Year End)
- Reports/On-Line Enquiries
- Interfaces – Information Exchanges
- Payroll History Recording.

Superannuation Function

The purpose of the Superannuation System is to

- Create/Maintain Superannuation Expert System
- Record employment history
- Calculate Superannuation Awards
- Report (Forecast) on Superannuation Data.

The main Superannuation functions are

- Create/Maintain Superannuation Systems Parameters (including Expert System Parameters)
- Record Employment History
- Create/Maintain Superannuation Registers
- Calculate Superannuation Awards and Refunds
- Create/Maintain Pensioners Registers
- Create/Maintain Gratuities Register
- Report/Forecast on Superannuation Data.

Appendix B Terms of Reference for the HSE Review

The complete text of the terms of reference established for the review group set up by the HSE following the suspension of the PPARS project, are set out below.

The Health Service Executive has a critical need to

- Manage and control the very significant human resources capacity within the health sector, having regards to the rules and regulations laid down by the Government and Department of Finance
- Establish a HR/payroll system capable of delivering on this responsibility, within a single delivery system, in the most effective and efficient manner
- Build on the significant investment already applied in developing such a system.

Following the decision of the Chief Executive, Professor Brendan Drumm (and endorsed by the HSE Board) to put on hold the PPARS Project, he has established a group to determine the way forward now for the HSE with the following Terms of Reference

- Understand the current situation in relation to PPARS programme
    - its complexities
    - how it is being deployed
    - how it is working
    - what are the problems
    - what are benefits/is working well
    - project costs to date (capital and revenue expenditure)
    - the involvement of external resources, the contracts put in place for these, and the nature of continuing contractual obligations.
- Establish the following 'baseline' costs
    - cost of maintaining the system in the four live sites to end of 2005
    - cost of maintaining the National Project Office to end of 2005
    - cost of implementing Phase II[41] in the remaining five sites
    - ongoing maintenance/support costs in all sites for next five years (2006-2010)

[41] Phase II refers to the recommenced project in 2003 designed to install revised personnel and new payroll functionality in the former health boards and St James's Hospital.

- cost of developing programme costs beyond Phase II
- projected full costs of programme from initiation to 2010.

- Identify all potential options to deliver on the HSE's strategic requirement for a Payroll and HR Management System and seek to build on the investment to date in the programme.
- Determine the most cost effective and efficient option for the HSE. Define appropriate ownership, project management and governance structure for the preferred option.
- Evaluate the resource implications of the preferred solution
  - capacity issues for the HSE in delivering and managing implementation
  - time-tabling and scheduling
  - ability to deliver into the emerging appropriate single national architecture.
- Prepare high-level business case for submission to all identified key stakeholders and timescale for reporting.

Appendix C Relationship between the Abolished Health Board and the new interim HSE Functional Areas

The HSE is in the process of transitioning to four regional areas. These are not coterminous with the former health board and interim HSE functional areas. For ease of reference, areas referred to in the report are either the former health board areas or since 1 January 2005 the interim HSE functional area, as set out below.

Abolished Health Board	New HSE Functional Area
Eastern Regional Health Authority	HSE Eastern Region
Midland Health Board	HSE Midland Area
Mid Western Health Board	HSE Mid Western Area
North Eastern Health Board	HSE North Eastern Area
North Western Health Board	HSE North Western Area
South Eastern Health Board	HSE South Eastern Area
Southern Health Board	HSE Southern Area
Western Health Board	HSE Western Area

Appendix D NIMT Advice as set out in their Investment Appraisal Report - 1998

- Be clear on what constitutes a business benefit. Faster, better or more detailed information is not in itself a business benefit. It only becomes that when the organisation's key performance indicators are improved, or critical success factors met. It is very common to see things continue much as they were even with new improved information services. Relevant staff should be asked precisely how they envisage the new services translating into better delivery. It is the view of the NIMT team that, while progress has been made, there is a degree of vagueness on this point, being largely based on the assumption that 'I'll have more time to do things'.
- Put in place a set of metrics. Peter Drucker said that 'what gets measured gets managed', with the corollary being that what is not measured does not get managed. The NIMT has found from practical experience that it is almost always possible to quantify potential benefits, even in the presence of reluctance from staff to be 'tied down' on the issue. These should relate to the situation as it is now, the anchor measures, and the targets for improvements under the new system.
- Ensure that the metrics are balanced. For instance, if the reduction in clerical work allows time for '10% more visits per week', it is important to ensure that quality checks are also in place for those visits, as quantity rather than quality could become the focus of those involved.
- Monitor achievement of targets. This is absolutely vital, and is often forgotten or overlooked once the system becomes operational. If the improvement is less than anticipated, the problem will usually stem from an inadequate initial benefits assessment or users failing to take full advantage of the systems functionality. If it is the latter, significant improvements can be achieved, often matching what was anticipated. If it's the former, the exercise can at least serve as a valuable learning experience, to be put to good use the next time.
- The importance of benefits management and realisation cannot be overstated, especially in the context of the large, diverse and complex environment in which the agencies operate.

Appendix E Extracts from the Engagement Letters between Deloitte and the Irish Health Agencies

Jan 03 – Jun 03: Statement of Work – Description of Project, Scope, and Responsibilities

The Interim Work next step activities to be performed are within the framework of Lot Two and are focused around two primary work streams; Program Management and Change Leadership. A degree of SAP, technical consulting is also included. These activities will continue to draw upon the work done to date by Hay and SAP along with the research, findings and deliverables produced by ourselves during the Project Preparation Phase – Lot 1.

The activities undertaken within the scope of this work are based upon the assumptions defined. Following is a list of the activities that will be supported during the initial period of this Engagement Letter. Detailed definition of Phase activities, responsibilities and timeframe will be produced for mutual agreement during the January/February 2003.

Interim Work – Initial Activities

- Production of National "To Be" Business Processes & System (SAP) Design Validation
- Development of Detailed National and Agency Implementation Plans (1st two agencies)
- Create Framework and Management Communications
- Plan and Establish Change Management Activities
- Create National Programme Office and Implement Supporting Management Processes
- Define Detailed Roles and Responsibilities
- Collation of Single, Simplified, Programme & Process Scope Document

Jul 03 – Dec 03: Statement of Work – Description of Project, Scope, and Responsibilities

The activities to be performed are within the framework of PPARS Phase II, Lot 2 are focused around two primary work streams; Programme Management and Change Leadership. A degree of SAP, Technical Consulting and Customer Competency Centre support strategy are also included. These activities will continue to draw upon the work done to date by Hay and SAP along with the research, findings and deliverables produced by ourselves during previous phases.

The activities undertaken within the scope of this work are based upon the assumptions defined. Following is a list of the key activities that will be supported during the period of this Engagement Letter.

Technology

- Quality Assure (QA) Technical Design
- QA Configuration
- Design & Implementation of National Initiatives e.g. Portals, ESS, Managers Self Service, Business Workflow, Learning Management Solution, eRecruitment
- Assist in the definition of solution for Data Archiving
- Assist in the Payroll Rationalisation exercise

- Produce Go Live Scripts
- Develop Payroll Parallel Run Strategy
- Develop Single Client Strategy
- Develop System Architecture/Landscape Map

Change Leadership

- Definition and Approval of To-Be Business Process
- Support the identification of business benefits
- Develop Communications Strategy and Delivery
- Stakeholder Management/Change Impact Analysis
- Change Readiness Assessment
- Strategy – Centralised to Devolved
- Training Strategy
- Support the production of Training Materials & Initial Delivery

Customer Competency Centre (CCC)

- Assist in the Development of a CCC Strategy
- Definition of Service Level Agreements
- Supporting the definition of national information architecture

Programme Management

- Maintain National Programme Office and Implement Supporting Management Processes
- Develop Project Budget
- Team Management and Resourcing
- Implementation Strategy
- Key Stakeholder Engagement including the Department of Health and Children
- Manage Issues, Risks, Change Request Processes
- Produce Project Board Packs.

Jul 04 – Dec 04: Statement of Work – Description of Project, Scope, and Responsibilities

The next activities to be performed are a continuation within the framework of Lot 2, Phase II and are focused around two primary work streams; Program Management and Change Leadership. A degree of SAP, Technical Consulting and Customer Competency Centre support strategy are also included. These activities will continue to draw upon the work done to date by Hay and SAP along with the research, findings and deliverables produced by ourselves during previous phases.

The activities undertaken within the scope of this work are based upon the assumptions defined. Following is a list of the key activities that will be supported during the period of this Engagement Letter.

Technology

- QA Technical Design
- QA Configuration
- National Initiatives (if approved) e.g. Portals, Employee Self Service, Managers Self Service, Business Workflow, Learning Management Solution, E-Recruitment
- Assist in the definition of solution for Archiving
- Assist in the Payroll Rationalisation exercise
- Produce Go Live Scripts
- Develop Payroll Parallel Run Strategy
- Develop Single Client Strategy
- Develop System Architecture/Landscape Map

Change Leadership

- Definition and Approval of To-Be Business Processes
- Support the identification of business benefits
- Develop Communications Strategy and Delivery
- Stakeholder Management/Change Impact Analysis
- Change Readiness Assessment
- Strategy – Centralised to Devolved
- Training Strategy
- Support the production of Training Materials

Customer Competency Centre (CCC)

- Assist the CCC Strategy
- Definition of Service Level Agreements
- Supporting the definition of national information architecture

Programme Management

- Maintain National Programme Office and Implement Supporting Management Processes
- Develop Project Budget
- Team Management and Resourcing
- Implementation Strategy
- Key Stakeholder Engagement including the Department of Health and Children
- Manage Issues, Risks, Change Request Processes
- Produce Project Board packs.

Jan 05 – Jun 05: Statement of Work – Description, Scope, and Responsibilities **(Superseded by the following schedule)**

The next activities to be performed are a continuation within the framework of Lot Two Phase II and are focused around two primary work streams; Program Management and Change Leadership. A degree of SAP, Technical Consulting and Customer Competency Centre support strategy is also included. These activities will continue to draw upon the work done to date by Hay and SAP along with the research, findings and deliverables produced by ourselves during previous phases.

The activities undertaken within the scope of this work are based upon the assumptions defined. Following is a list of the key activities that will be supported in an advisory capacity during the period of this Engagement Letter.

Technology

- On Going QA of Technical Design
- On Going QA of Configuration
- Design and Delivery of National Initiatives (subject to funding approval) i.e.
    - SAP Portal
    - Employee Self Service
    - Managers Self Service
    - Business Workflow
    - Business Warehouse
    - Learning Management Solution
    - E-Recruitment
    - National Archiving Solution
    - National Reporting
    - Middleware
- Assist in the Payroll Rationalisation exercise
- Management and QA of Go Live Scripts and on-going testing strategy/plan
- Review Payroll Parallel Run Strategy and produce alternative strategy if requirement mutually agreed.
- Lead and assist in the development of a cross programme client strategy
- Lead and assist in the development of a cross programme transport strategy
- Lead and assist in the development of a cross programme system architecture/landscape map

Change Leadership

- Continued Definition and Approval of To-Be Business Processes
- Support the identification of business benefits & plans for subsequent exploitation
- Communications Strategy and on-going Delivery
- Stakeholder Management/Change Impact Analysis

- Change Readiness Assessment
- Role to Position Mapping, Impact Assessment and transition/redeployment planning.
- Assist in definition of National HR Shared Services Centre (SSC) model and strategy for transition
- Training Strategy & Delivery
- Support the production of Training Materials

Customer Competency Centre (CCC)

- Assist in the creation of the cross programme CCC Strategy and associated plans
- On-going definition of appropriate Service Level Agreements
- Supporting the definition of national information architecture

Programme Management

- Maintain National Programme Office and Implement Supporting Management Processes
- Manage and QA National and Agency Project Plans
- Develop and maintain Project Budget
- Team Management and Resourcing
- Implementation Strategy
- Key Stakeholder Engagement including the Department of Health and Children, and HSE
- Manage Issues, Risks, Change Request Processes
- Contribute to production of Project Board/Sponsorship packs.
- Agency (National) Project and Team Management
- Development/Definition of Key Performance Indicators (KPIs) for the Project

Jan 05 – Jul 05: Statement of Work – Description, Scope, and Responsibilities

The next activities to be performed are a continuation within the framework of Lot Two Phase II and are focused around two primary work streams; Program Management and Change Leadership. A degree of SAP Customer Competency Centre support strategy is also included. These activities will continue to draw upon the work done to date by Hay and SAP along with the research, findings and deliverables produced by ourselves during previous phases.

The activities undertaken within the scope of this work are based upon the assumptions defined. Following is a list of the key activities that will continue to be supported in an advisory capacity during the period of this Engagement Letter.

Technology

- On Going QA of Technical Design (By specific documented request)
- On Going QA of Configuration (By specific documented request)
- Advise in the Payroll Rationalisation exercise
- QA of Go Live Scripts

- QA of on-going testing strategy/plan
- Management of Regression Test process

Change Leadership

- Advise and support for each HSE area (not yet implemented) in the areas of:
    - Change Readiness Assessment
    - Stakeholder Management/Change Impact Analysis
    - Communications Strategy and on-going Delivery
    - Role to Position Mapping
    - Impact Assessment and transition/redeployment planning
    - Support the identification of business benefits & plans for subsequent exploitation
- Continued revision of National To-Be Business Processes
- Review of adherence to SAP securities strategy
- Assist in definition of National HR Shared Services Centre (SSC) model and strategy for transition

Customer Competency Centre (CCC)

- Production of a strategy for the creation of an HSE wide business applications support function
- On-going definition of appropriate Service Level Agreements
- Supporting the definition of national SAP information architecture

Programme Management

- Maintain National Programme Office and Implement Supporting Management Processes
- Manage and QA National and Agency Project Plans
- Assist in the development and maintenance of Project Budget
- Deloitte Team Management and Resourcing
- Assist in the on-going development (revisions) of the Implementation Strategy
- Key Stakeholder Engagement including the Department of Health and Children, and HSE
- Manage Issues, Risks, Change Request Processes
- Contribute to production of Project Board/Sponsorship packs.

Appendix F Role of Deloitte

The Letters of Engagement record that the role of Deloitte was to provide advice and support to the National Project Team.

Role of Deloitte (as presented by Deloitte)

The Deloitte role was to provide advice and support to the National Project Team. Deloitte stated that individual agencies remained responsible for their own implementations while the National Project Team were responsible for designing and configuring the system and providing technical support.

Deloitte stated that, at the BAFO stage, the client asked them to focus on change and implementation management.

With regard to benefits their role was to assist the client in identifying the benefit opportunities and then working with the agencies.

They had no role in the post go-live period or around benefits realisation.

In regard to a business case for the project, Deloitte stated that the client considered that the Hay report was, and continues to be, the main business case for the project.

In regard to change management

- Their major challenge was 'role to position' mapping.
- They stated that there is always resistance in any change programme.
- The role at national level was in advising the team in regard to change and in managing change in the agencies. Tool kits showed how to go about things.
- In the agencies, Deloitte provided two to three resources to drive through the change.

There were a number of environmental issues outside the control of Deloitte

- Resourcing
- Governance (national and local)
- Employee relations.

Deloitte saw key change issues as

- Getting local buy-in
- Local governance structures
- Getting acceptance of the need for change
- Trying to get agreement about the scope of the project and the roles of individuals
- Getting agencies to take responsibility for redeployment.

The overall Deloitte assessment was that there had been considerable achievement in the project in the form of

- A single system across the live agencies
- A single set of business processes
- A single configured system now ready to go for the other agencies
- The national toolkits which are working.

Deloitte also pointed out that a lot has been achieved in respect of standardisation and that the system has the potential to be an enabler of the reform process.

Role of Deloitte (as seen by the National Project Team)

The National Project Team viewed them as strategic implementation partners pointing out that they

- are experts in implementing SAP
- are experts in best practice
- were overall architects of the programme management
- had a primary focus on change management
- were used to resource positions that could not be filled internally.

They fulfilled the following roles

- brought a structure and formal organisation to the project
- prepared the rollout plan but were hindered by the autonomy of the agencies
- carried out work in the area of change management.

Appendix G Project Risks as identified by Deloitte in their Project Preparation Report of December 2002

The key risks facing PPARS at that time were typical of those facing most large scale business transformation initiatives in any significant organisation.

The high level risks identified included

- Change leadership
- Losing momentum
- Stakeholder buy-in
- Training
- Communications planning
- Appropriate and timely funding
- Competing initiatives
- Benefits realisation
- Ownership of HR strategies
- Programme governance and project management.

Appendix H Change Readiness Criteria used by Deloitte – 2002

Deloitte assessed boards on the basis of the following criteria

Current Round Implementations

Resources

Whether or not a board had identified, funded and put in place the members of the local project team.

Variances Analysis

Whether or not a board had completed the identification of their own rules, policies and work schedule, and whether by comparing these to the HSEA Rule Book, would be aware of their own variances.

Implementation Planning

Whether or not a board had prepared 'reasonably detailed' implementation plans up to and beyond go-live of the envisaged implementation.

Local Project Governance

Whether or not a board had 'effective project governance' in place. This would include an 'active project sponsor who is aware of their responsibilities' and a 'project steering group who meet regularly … aware of their responsibilities … adhere to them … operate under defined processes'

Local Project Controls

Whether or not a board was using 'basic project management tools such as project plans, progress reporting mechanisms, and risk and issue management techniques'.

Historic Performance – Previous Round

Whether or not a board had fully implemented earlier phases of the project.

Data Quality

Whether or not a board had resolved all data quality issues prior to the implementation of the payroll modules.

Enthusiasm and Commitment

Whether or not a board had enthusiasm for the project across the organisation.