Chapter 9   Central Government

Termination of Major ICT Projects

Termination of Major ICT Projects

9.1   Circumstances may arise that require long-term projects that are unlikely to deliver good value for money to be terminated. A key challenge in managing these projects is to recognise in a timely way when it is appropriate to terminate them.

9.2   Termination of information and communications technology (ICT) projects may come about for a number of reasons, including

▪   lack of user involvement or acceptance

▪   absence of need for the technology delivered

▪   changes in technology or alternative technologies have rendered the product obsolete

▪   technological difficulties make the solution difficult or impossible to implement or its cost too high.

9.3   In the last two years, two major Government ICT projects have been terminated. These were

▪   the electronic voting project

▪   the Public Service Broker.

Audit Focus

The circumstances of the project terminations were reviewed to establish the extent of the write-offs involved, what value (if any) has been recovered from the project investments and what residual benefits of the projects remain.

Termination of the Electronic Voting Project

9.4   The 2003 Annual Report[22] included a Chapter on the Electronic Voting project being managed by the Department of the Environment, Heritage and Local Government. This project aimed to replace the existing manual voting and counting process with an alternative computer-based system for voting and vote counting. The system was piloted in a number of Dáil constituencies during the 2002 general election and the second referendum on the Nice Treaty in the same year. Subsequently, the computer hardware and software required to operate the system on a nationwide basis was acquired from Nedap, a system supplier in the Netherlands. The total costs of acquiring and developing the system were €51.3 million.

9.5   Arrangements were made by Returning Officers for storage of the equipment at a number of locations around the country. Some of the storage facilities were provided in publicly owned property (e.g. local courthouses). In other cases, Returning Officers entered lease arrangements with private sector providers of storage facilities.

9.6   Following considerable public concern about the new voting process, the system was examined by a Commission on Electronic Voting. Based on the Commission's findings (published in a report in December 2004), the Government decided that further assessment, testing and validation of the electronic voting and counting system should be undertaken. The

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22   Annual Report of the Comptroller and Auditor General, published in September 2004.

Commission published its second report in July 2006 in which it recommended against the use of the system pending a number of changes being made to both hardware and software. The Government established a Cabinet Committee to report to it on the implications of the Commission's recommendations.

9.7   In 2008, the Department undertook a structured analysis of options on the future of the project. Four options were identified and examined in terms of risks, costs, benefits and impacts. Cost estimates were provided in respect of each of the options and account was taken of hardware and software changes, training, education, information programmes, transport, storage and testing of the system. The four options considered and presented to Government are outlined in Figure 27.

Figure 27 Options presented to Government

Option		Outline of option
A	■	Modify the voting system in line with the recommendations of the Commission on Electronic Voting
	■	Undertake testing and roll out the system nationally
B	■	Modify the voting system in line with the recommendations of the Commission on Electronic Voting
	■	Retro-fit the system with a voter verifiable audit trail
	■	Undertake testing and roll out the system nationally
C	■	Refer the question of the future use of the chosen system to an independent Electoral Commission
D	■	Cease the electronic counting and voting project
	■	Establish an Interdepartmental Task Force to oversee the disposal of the equipment and termination of storage arrangements

9.8   Having considered the results of the Department's analysis, the Government decided in April 2009 to terminate the electronic voting project (option D). In announcing the decision, the Minister for the Environment, Heritage and Local Government stated that significant additional costs would arise if electronic voting was to be advanced and that the decision had been taken to avoid those costs. The Government also decided that the Department should establish an Interdepartmental Task Force to bring the project to a conclusion and oversee the disposal of the relevant equipment and the termination of storage arrangements.

Cost of the Project

9.9   Total expenditure on the electronic voting project up to May 2009 is estimated at €54.4 million. A breakdown of the expenditure is shown in Figure 28.

Figure 28 Expenditure on the Electronic Voting Project to May 2009

Expenditure Category	€000	€000
Voting Equipment		
Voting Machines	41,028	
Voting Machine Retrofit	2,913	
Other Hardware Costs	2,330	
Software, Development and Support	828	47,099
Training and Awareness		
Training	132	
Awareness and Education Campaign	2,566	2,698
Other Development Costs		
Consultancy/Testing Costs	731	
Miscellaneous	669	1,400
Other Costs		
Local Storage	2,753	
Centralised Storage (Preparatory Costs)	328	
Freight and Insurance	136	3,217
		54,414

9.10   Most of the cost of the electronic voting project was met directly from the Central Fund, rather than through the Vote of the Department. However, the Department included the value of the voting equipment in the Statement of Capital Assets attached to its Appropriation Account. This was being depreciated over 20 years, to reflect the expected operating life of the equipment. The termination of the project will result in a write-off in due course of the residual value of the equipment.

Storage Costs

9.11   The Department wrote to all Returning Officers in January 2003 requesting them to make arrangements for storage of the voting equipment in advance of delivery starting in September 2003. In 20 areas, lease arrangements of varying duration and cost were entered into.

9.12   Because of decisions not to use the voting equipment in elections between 2003 and 2007, dispersed storage was not necessary.   The Department sought to rationalise the storage arrangements in order to save money. Between February and November 2007 the Department was able to move voting equipment from 12 local storage points into the Department of Defence facility at Gormanstown, Co Meath. This absorbed the full available capacity at Gormanstown. Site preparation and consultancy costs in planning the move amounted to €328,000.

9.13   Some of the leases entered into were of relatively short duration and could be terminated at short notice. In a few cases, long-term leases had been agreed. For example, in Cavan-Monaghan, a lease costing €16,800 per annum is due to run until 2029. A lease in Cork city, costing €25,200 each year is due to run until 2024.

9.14 Consultants were engaged by the Department in 2007 to examine a number of local storage arrangements where leases had been entered into. The objective of the consultancy was to bring forward recommendations in relation to the conclusion of the leases on a least-cost basis for the State and to manage the process on a case-by-case basis.

9.15 The consultants recommended retention of leases in five locations. This was based on there being an ongoing need for manual equipment storage coupled with a lack of suitable alternatives in the local area and/or a lack of marketability of the existing leases in the local market.

9.16 The consultants recommended termination of leases in seven cases and this has since happened in three cases. No additional payments were made in respect of these terminations. Negotiations are in progress with a view to terminating the other four leases.

Disposal of the Voting Equipment

9.17 The Accounting Officer informed me that the Department was putting in place arrangements to address the matters that followed from the Government decision of April 2009 concerning the disposal of the voting equipment. The Department had established an Interdepartmental Task Force to bring the project to a conclusion and to oversee the disposal of the relevant equipment and the termination of the storage arrangements. The first meeting of the Task Force took place in July 2009.

9.18 The Accounting Officer stated that, in considering options for the disposal of the equipment, the priority for her Department would be to pursue the most economically advantageous approach, with a view to achieving the maximum recovery of cost possible in the circumstances. She stated that the Department was in communication with the suppliers of the equipment.

9.19 Developments in other jurisdictions might have implications for the disposal value of the equipment.

▪ In 2008, the Government of the Netherlands decided to end the use of similar Nedap electronic voting equipment. In that case, the supplier agreed to accept the equipment for disposal.

▪ In March 2009, the German Constitutional Court ruled against further use of Nedap voting equipment in that jurisdiction. While it found that there was no evidence that the equipment had failed in the past, the Court ruled against its further use on the grounds that voters should not have to be computer literate to vote, and because it would be difficult to detect programming errors or manipulation of the equipment.

Termination of the Public Service Broker Project

9.20 Reach was a unit within the Department of Social and Family Affairs charged with developing the Public Service Broker. The Broker was a key eGovernment infrastructure project that aimed to provide a set of publishing and customer interaction facilities, including a facility for interactive exchange of messages, aimed at integrating all public services and making them readily available to the users of services on-line.

9.21 Reach delivered the first operational version of the Broker in December 2005, with a limited range of on-line services.

9.22 A previous examination of progress on development of the Broker[23] found that, while it did not operate in the way originally envisaged, it nevertheless had some potential if it could be used to make available a wider range of services and if the public used those services. Aspects of the system that were operating effectively included

- the Inter Agency Messaging Service, which provided a means for departments and agencies to exchange documents and data with each other

- identity authentication for PAYE taxpayers

- a death notification service linking the General Register Office with almost 40 other departments and agencies.

However, it was also found that there was an overlap of some of the Broker's functions with other on-line Government services.

Continuity of Broker Functions

9.23 A subsequent report of an inter-departmental review of the Broker project recommended that responsibility for Reach and the Broker should be transferred from the Department of Social and Family Affairs to a central Government department. It also made recommendations about how the operational elements of the Broker should be handled.

9.24 In April 2008, the Government approved the transfer of responsibility for the project to the Department of Finance. The main operational elements of the Broker were subsequently dealt with as follows.

- The Reachservices.ie information portal was shut down and the content and links were integrated with the main Government website.

- The Inter-Agency Messaging Service was replaced by bilateral message exchanges using the secure Government Networks infrastructure and messaging technology already in place in the organisations concerned.[24]

- Identity authentication for Revenue on-line PAYE services was replaced initially by a lower-cost service developed by the Department of Finance, and subsequently was integrated into the Revenue PAYE Anytime service.

- The death notification service was also replaced by an in-house developed lower-cost service based in the Department of Finance.

- The Broker included an on-line form filling (eForms) function, but Reach had discontinued its use prior to the transfer of responsibility to the Department of Finance. Since then, the Department has helped a number of organisations to design forms for on-line delivery of services using in-house development.

Cost of Reach and the Broker

9.25 The Department of Social and Family Affairs has stated that its total expenditure on Reach, from its establishment in 2000 to its transfer to the Department of Finance in April 2008, was €71.4 million. This included the costs of developing and supporting the Broker. By 2007, the annual expenditure on Reach and the Broker was in the region of €14 to €15 million.

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[23] Special Report No. 58: eGovernment, Comptroller and Auditor General, October 2007

[24] For example, the transfer of messages between Revenue and the Department of Agriculture, between the General Register Office and the Department of Social and Family Affairs, and between the Courts Service and An Garda Síochána.

9.26   Following the transfer of responsibility and the replacement of functions by alternative services, the Department of Finance wound down the Reach operations through the re-assimilation of departmental staff to their parent departments and the termination of the contracts of contracted staff. A substantial contract with a company for services in support of the operation of the Broker was terminated by agreement, and the technical infrastructure of the Broker was dismantled. Termination costs incurred by the Department amounted to an estimated €1.49 million.

9.27   The Department has stated that the current cost of delivering the functionality previously delivered through the Broker is minimal.

Accounting for the Termination

9.28   The Department of Social and Family Affairs disclosed the capital costs it incurred in developing the Broker in a note to its annual Appropriation Account dealing with capital assets under development. The total amount capitalised up to the end of March 2008 was €32.3 million. This related to the direct costs of developing the Broker, including project pay and consultancy costs.

9.29   In recognition of the transfer of responsibility for Reach and the Broker out of the Department of Social and Family Affairs with effect from 1 April 2008, a note to the Department's Appropriation Account for the year records the transfer of assets under development valued at the full recorded amount of €32.3 million.

9.30   However, following the closing of the Reachservices portal and the replacement of other Broker operations by alternative and cheaper means of provision, the Department of Finance valued the Broker's residual assets — principally computer software being retained for use — at €5 million. The assets have been brought onto the Department's fixed asset register at that value, and are recorded in its statement of assets and liabilities in the Appropriation Account for 2008. This effectively wrote off €27.3 million of the accumulated capital cost of development of the Broker.

eGovernment and Major ICT Projects — Views of the Accounting Officer of the Department of Finance

9.31   I sought the views of the Department of Finance on

■   the risks that need to be managed in major ICT projects such as those terminated and

■   the steps taken by it to encourage and promote better management of the development of major ICT projects.

9.32   The Department is of the view that problems experienced in the management of large ICT projects usually stem from a lack of internal ICT skills, knowledge and experience, which in turn leads to an over-reliance on external resources. Such outsourcing usually leads to a lack of control over ICT architecture development and to over-use of complex solutions built to standards which minimise risks to the service providers rather than the procuring departments. Such standards usually involve the use of 'best-of-breed' commercial software which carries very high licensing, maintenance and support price tags. Considerable development/consultancy effort is usually required to get software to work together and this can lead to considerable lock-in effects. Lack of technical knowledge and experience often leads to an inability to manage outsourced development well.

9.33   It stated that the Government had already decided that expenditure on external ICT resources must by reduced by 50%, and that public bodies must enhance their internal ICT

capability and put in place plans to increase self-sufficiency. The arrangements set out in a circular letter[25] gave effect to these decisions. As a consequence, the Department, as part of its ICT expenditure approval role, favoured

- the use of pilots to validate concepts and proposed technology approaches

- small projects to minimise exposure to risk and

- in-house development or the use of contractors under the direct management control of civil service staff (rather than companies or large system integrators).

9.34 To support this, the Department has formulated proposals to help civil and public service bodies improve their internal ICT capability. These are currently under consideration in the context of the studies on Public Service Numbers and Expenditure Programmes. Additionally, all major projects must now be subjected to a detailed peer review process.

9.35 The Accounting Officer sees the key central role of the Department of Finance as

- provision of important elements of technical infrastructure such as Government networks

- provision of certain key elements of information infrastructure including central eGovernment systems

- establishment and management of central ICT procurements for national frameworks

- indirect support by promoting good practices and the provision of advice with a view in particular to securing the maximum value for money for the State's investments in ICT infrastructure

- policy support in promoting better ICT staff policies in the public service.

Conclusions

It is in the nature of large ICT projects that they can be overtaken by technical developments or that the solutions developed may not achieve user acceptance. In such instances, the challenge for management of projects is to recognise when they are not working as intended and to act appropriately. The decision to abandon a project that is not working is the correct course because it avoids spending further public moneys – both capital and current – in a non-effective way.

In the case of Reach and the Broker, the technology used to maintain the functionality of the project had been overtaken by readily available and cheaper alternatives. To continue to invest in the Broker in those circumstances would not have represented value for money. Replacement of the Broker by alternative services resulted in an effective writing off of some €27.3 million of capital expenditure incurred on development.

The accumulated expenditure up to May 2009 on the electronic voting system was €54.4 million. Once it was decided by Government to terminate the electronic voting project, the expenditure falls to be written off. The process of disposal of the equipment and wind-down of the storage arrangements is ongoing. It is not yet possible to determine whether and to what extent any recoveries will be made on the disposal of the equipment.

In the case of both projects, reasonable steps have been or are being taken to wind down the projects and re-use or dispose of assets no longer being utilised.

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[25]   Department of Finance Circular 2/09.