Stage 5

Manage delivery

Manage implementation and delivery of outputs and benefits, regularly review the ongoing need for an investment, confirm that the solution remains valid and viable and oversight/ handover to operations to realise the expected benefits.

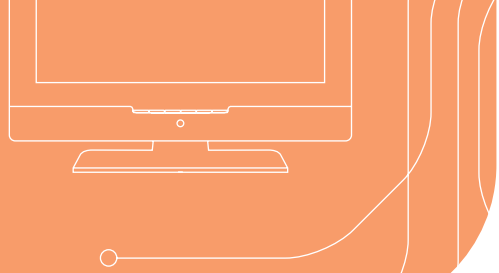
Key better practice messages

- Clarify governance and management roles
- Get the right balance right
- Get consensus on multi-agency projects
- Build early warning systems
- Actively intervene in poorly performing projects
- Strengthen independent oversight on the project
- Adopt a proven project methodology
- Embed risk management
- Manage the relationship with the contractor
- Don't cut corners on quality assurance of software
- Manage the change process
- Recruit skilled staff who are capable of delivery

Overview

Good governance and sound project management are key ingredients for successful implementation of ICT investments. CEOs and SROs need to ensure there is adequate oversight of:

- changes to scope
- adherence to policies and procedures
- management of technical and financial aspects of the project.



Clarify governance and management roles

Issues we have observed

The roles and responsibilities of investment sponsors, steering committees and project managers often aren't identified and documented. Equally, often the reporting relationships and accountabilities among stakeholders are unclear.

Failure to clarify responsibilities can lead situations in which:

- there is no individual or group responsible for achieving benefits, or for the operational or financial outcomes of the project
- there is no individual or group with either the responsibility or the management authority to take remedial action, where it is apparent that the project is experiencing difficulties.

Illustration

The steering committee did not have the authority to allocate resources from the participating agencies and business groups, which caused delays and resulted in the agencies managing their implementation separately.

At several stages during the project, milestones for individual participating agencies were not achieved within the specified timelines. In some cases, action was not taken to set new timelines.

Governance of the project and coordination of participating agencies could have been improved through the participation of more senior departmental representatives on the steering committee.

Practical steps to take

Implement a governance structure at the start of the investment

Define and implement the governance structure for the project before investing.

Ensure the responsibilities, accountability and decision-making authority of each party involved in the project are aligned and clearly defined.

In multi-agency implementations get a senior stakeholder from each agency to act as the investment's 'champion'. This provides the clearest and most useful senior link between the project and the agency.

Get the balance right

Issues we have observed

Governance bodies often lack experience and understanding of the complexity (both technical and business) and challenges involved in implementing ICT enabled investments. They can also suffer from a lack of representation by senior management.

Governance bodies can also become dominated by a single approach, or succumb to 'group think' without an external voice to challenge or test assumptions.

This can manifest itself in optimism bias about what can be achieved, poor change management, and lack of robust governance or inadequate commercial acumen.

Illustration

The governing body did not involve senior management or specialist advisers leading to a vacuum of expertise and leadership.

There was no challenge or oversight of the project manager and no risk management or reporting instituted or insisted on by the governance body.

Governance was ineffective—the final system did not meet the business need and was poorly implemented. This caused the agency to suffer severe disruption to its business and significant damage to its reputation.

Practical steps to take

Look outside your agency for skills and experience

Consider appointing independent external members in governance bodies to ensure that agency executive members are supported and constructively challenged in their role.

Get senior management buy-in

Assign project sponsorship to an appropriate senior manager, or through the creation of a steering committee representing senior management from across the agency (and its partners, if appropriate).

Get consensus on multi-agency projects

Issues we have observed

In cross government or multi-agency ICT capital development projects, there might not be consensus among the participating agencies as to how responsibility and accountability for the project should be achieved.

Designated lead agencies do not always establish a monitoring function to oversee the operation of fundamental project controls in participating agencies.

Lead agencies also do not always work in conjunction with participating agencies to ensure that:

- project budgets include the life cycle costs expected to be incurred by participating agencies
- common charts of account and accounting rules are established at each participating agency so that development and recurrent costs can be recorded consistently and accumulated to disclose the full cost of the project
- financial reports include all material expenditure incurred by all participating agencies
- project forecast 'cost-to-completion' figures are updated regularly and monitored to reconcile with the cost assumptions in the original business case.

Illustration

The lead agency did not record or monitor expenditure by partner agencies on its development and ongoing support.

Partner agencies incurred an additional $10.4 million for costs associated with the project, over and above what had been recorded by the lead agency.

The governing body overseeing the implementation did not have visibility of this additional expenditure being incurred or of the total cost associated with the system's implementation and operations.

Practical steps to take

Allocate all funds initially to the lead agency

Lead agencies must accept responsibility for the overall financial management of the project.

This necessitates that the lead agency establish a system for the financial management of the project, which will ensure a flow of financial information from participating agencies.

Set up systems to get data from participating agencies on project controls and costs

Participating agencies should also accept responsibility and accountability for any funds transferred to them.

As the responsible agency remains accountable for the final use of transferred funds, its financial management systems should be designed to produce relevant and timely information on the use of transferred funds.

Build early warning systems

Issues we have observed

Agencies aren't always aware of the true state of a challenged or failing ICT investment until it is too late to take effective remedial action. In particular we found that agencies don't always:

- analyse and report project progress
- estimate, record or track total costs as the project proceeds
- calculate or disclose variances in cost on completed work.

Illustration

Problems in obtaining project-related information from the financial and payroll systems meant that there was a two-month delay in providing senior management with project reports.

Project managers did not have timely information on the performance of completed work and could not make informed project or investment decisions.

Practical steps to take

Use 'earned value' analysis management tools

Earned value management[5] (EVM) is a project management control tool allowing visibility into technical, cost and schedule planning, performance and progress. It allows project costs incurred to date to be compared with the value of work performed at any point in time.

[5] Federal CIO Council, A framework for developing earned value management systems (EVMS) policy for information technology (IT) projects, December 5, 2005.

Actively intervene in poorly performing projects

Issues we have observed

ICT investments develop a momentum of their own once they are approved and underway.

In some projects this momentum can be dangerous and needs to be tempered with regular, independent and objective reviews, followed by positive intervention early on in the project, if required.

Often there is little or no consideration given to terminating a project, as project cancellations are seen as a sign of failure and weakness.

Organisations that are constantly trying to make the most effective use of ICT should expect that from time to time, projects will be cancelled while underway. This should not be taken as a sign of careless planning or ineffective management, but as an indication of ICT risks and the high rate of change in the public sector environment.

Active management is only effective if projects are actually cancelled, from time to time, because they are not performing.

Illustration

A report on ICT procurement encourages corporations to 'kill projects early and often' to enhance value delivery from the total ICT investment portfolio.

Source: Gartner, 'The Elusive Business Value of IT', August 2002.

Practical steps to take

Use active management

Cancel or re-scope a project as soon as it becomes apparent that it cannot be delivered satisfactorily.

Cancelling a project is never easy, but is essential if confidence in ICT staff and ICT governance is to be maintained.

Strengthen independent oversight on the project

Issues we have observed

Agencies don't always seek independent reviews of their investments. Governance and project management is strengthened by regular independent reviews during the investment's life cycle.

Often internal audit is not engaged, and Gateway Reviews are not carried out, even when government requires them. Independent reviews can help to avoid or minimise the impact of some of the problems that confront investments.

Illustration

Although the endorsement of the funding submission was conditional on the program undergoing a series of Gateway Reviews at key decision points, only one of the five reviews required in the funding approval had been conducted.

Further, there was no internal audit activity conducted or planned for the program by the department.

The governance body of the program did not seek regular independent assurance on the progress of the program and could not substantiate its assertions that the program was delivering the planned benefits.

Practical steps to take

Use external reviews to validate the progress of the investment

Investors should engage early with their agency's internal audit/review function, to seek independent reviews (including external consultants) to validate the progress of an investment.

DTF's Gateway Review Process provides a valuable external set of checkpoints for investors. The Gateway Review Process is designed to improve infrastructure and ICT project development and delivery across government.

The DTF Gateway Review Process should be tightly integrated into the scope and schedule of major ICT investments.

Adopt a proven project methodology

Issues we have observed

Projects that are 'challenged' or that have failed often have not followed a defined project management methodology, and consequently have poor project controls and documentation.

Conversely, we observe that successful projects often adhere to proven project management and system development methodologies.

Illustration

The project lacked a structured approach or project methodology. There was no evidence of:

- documentation of formal sign-off of project functionality by relevant stakeholders
- formal sign-off of key project deliverables, such as business requirements, specifications, and testing and data-conversion strategies
- risk or issue reporting or escalation.

The poor implementation of the project resulted in significant damage to the financial and professional reputation of the agency. It was only after the agency began implementing a project management framework that positive results began to be clearly seen from the project.

Practical steps to take

Use well-defined project management methodologies

Effective project management involves a number of key processes, including project sponsorship, resourcing, quality planning and management, project reporting and user involvement.

For ICT investments, consider using PRINCE2, which is a recognised and tested methodology for the management of ICT projects.

Use an appropriately skilled project manager

Appointing an appropriately skilled project manager who has the support of senior management is also fundamental to the successful implementation of a system.

The project manager should have project management skills, experience with similar systems and be familiar with the principles of systems implementation. It is desirable that the project manager already has experience with projects of the size and complexity of the proposed investment.

Embed risk management

Issues we have observed

Agencies are generally proactive in conducting an initial risk assessment of a project. The majority of projects also identify risk-mitigation strategies as part of that initial assessment and prioritise the proposed treatments of the risk.

However, as with many other areas of project documentation initiated at the beginning of a project, agencies don't always follow through to check that actions are being taken on risk-mitigation strategies or to keep their risk treatment registers current throughout the life of the project.

Illustration

The project charter, implementation plan and early project reports identified several risks, but the agency did not consider any mitigation actions.

Many of these risks eventuated during the project. Due to poor processes, unspecified timeframes, and a lack of people responsible for mitigation actions, risk treatments were not applied.

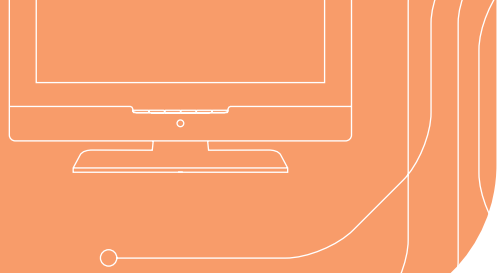
Practical steps to take

Build risk management on a sound framework

Develop a risk-management strategy and plan based on a sound framework, such as the Australian and New Zealand Standard AS/NZS 4360:2004 Risk Management (or equivalent).

The risk-management plan should give a consolidated view of the project's approach to risk management across all aspects of the project and provide guidance and a suggested approach to the escalation of issues.

Risk management should be embedded into project practice and governance arrangements by including risk as a standing agenda item for steering committee meetings.



Manage the relationship with the contractor

Issues we have observed

Contractor management requires input from a number of levels, ranging from project managers to senior management and the governance body.

Contractors have sometimes been released before completing all work to the required quality.

Illustration

Despite the fact that performance issues identified in the post-implementation testing had not been resolved, and despite the number of problems experienced by users immediately following roll-out, the project was signed-off by the project sponsor and the contractor was released from its performance guarantee.

Immediately after roll-out, users started to report problems with the performance of the system.

In another instance, software was implemented into a production environment with a number of known material defects, without the required action plans and without an undertaking from the contractor that the defects would be addressed as required.

Practical steps to take

Manage and monitor contract performance

Once a contractor is selected it is important that the contractor is managed and monitored.

The contractor should be monitored against the required specifications with any concerns identified at the earliest opportunity and raised with the contractor so that they can be effectively dealt with.

Don’t cut corners on quality assurance of software

Issues we have observed

In the rush to meet delivery deadlines, software and system testing by agencies is sometimes compromised.

In some instances this may mean that software is released before it is fit for purpose or implemented with significant manual workarounds required to compensate for the deficiencies of the software.

Illustration

Actual testing took longer than planned but the testing period could not be expanded because of the agency pressure to roll-out the upgrade.

The agency did not follow its own guidelines when accepting the software. Acceptance of, and payment for, the software occurred without the user acceptance testing exit report to demonstrate that the user acceptance testing criteria had been met.

As a result, the software went into production in a form that did not meet contractual performance standards and did not meet user and business needs.

Practical steps to take

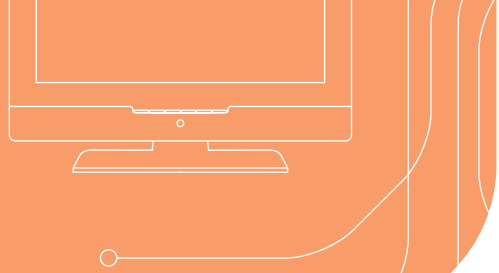
Use comprehensive independent quality assurance

A comprehensive independent quality assurance (QA) function can play a major role in the successful delivery of project benefits.

Thorough testing and full sign-off before ‘going live’, prevents premature or inappropriately timed deployment.

A ‘go-live’ decision should only happen after extensive testing or piloting, and should ensure that either all scope items have been fully met or that clear post-implementation plans exist, which include timeframes for their achievement.

This ensures that the final delivered solution meets the required outcomes. Additionally, it can also highlight problems before going live and enable more informed decision-making about the implementation.



Manage the change process

Issues we have observed

Agencies often have an inadequate understanding of change management delivered through ICT investments.

Inadequate change management can lead to poor buy-in from users and result in significant user resistance and lack of acceptance of the software, leading to business disruption.

Illustration

The project lacked a strong and effective change management focus to ensure adequate communication, training and support. There was a general lack of communication and consultation between the project team and users during the implementation of the project.

While monthly meetings were held, insufficient information was available on progress, outstanding issues and plans for progression of the project. This was further exacerbated by the fact that the system went live without input from all relevant stakeholders.

The project experienced significant user resistance and lack of acceptance of the software, leading to business disruptions.

Practical steps to take

Get buy-in of key stakeholders ahead of the change

Get key stakeholders to buy-in ahead of the change so there is support within the agency. If this support is not obtained, key stakeholders may feel that a change is being forced on them and consequently could resist the change being delivered.

A focus on change management also ensures that the affected areas of the organisation receive adequate training, communication and support.

Users will then be prepared for a change that may significantly modify the way they perform day-to-day activities and provide a level of comfort to accept the change.

Recruit skilled staff who are capable of delivery

Issues we have observed

Very often we find that:

- key positions are assigned to inexperienced staff who lack the capabilities to deliver
- agencies have not thought through their resourcing requirements early enough and have configured establishment levels that do not provide sufficient remuneration to attract the necessary ICT staff
- much of the project management is done by contractors, and only limited knowledge is held by agency staff
- agencies do not require contractors to effectively transfer knowledge.

Illustration

Key project positions were staffed with people that lacked relevant project management or implementation experience.

Inexperienced staff could not manage the project due to its level of complexity.

An appropriately skilled internal project director and project manager were not part of the project team for three years. The investors could not, therefore, ensure that the organisation's interests and needs were being appropriately looked after.

Practical steps to take

Manage and develop human capital

Investors should develop the project's resourcing strategy as fully as possible, identifying key resources and tasks, and known skills shortages.

The resourcing strategy should:

- articulate retention approaches for key human resources, including contracted resources
- contain a recruitment plan that takes into account lead times to recruit and induct new staff
- regularly revisit assumptions to ascertain whether resources allocated to project functions are adequate, appropriately skilled and experienced
- make sure that project managers are qualified, experienced and dedicated to the project and have appropriate authority and access to resources in order to deliver
- look to transfer skills from contractors to in-house staff wherever opportunity allows.

Further references

DTF guidance

Gateway information can be obtained from http://www.gatewayreview.dtf.vic.gov.au/.

- Gate 5, Readiness for Service, Gateway Initiative, Gateway Review Process.

Investment Management information can be obtained from http://www.dtf.vic.gov.au/investmentmanagement.

- Investment Life Cycle Guidelines—Solution Implementation, July 2008.
- Investment Management—Benefit Reports 2.9 June 2008.

Other guidance

- PRINCE2 is a process-based approach for project management, providing a scaleable method for the management of all types of projects. For more information on PRINCE2 see www.ogc.gov.uk.
- The American Project Management Institute's Project Management Body of Knowledge (PMBOK) is a collection of processes and knowledge areas generally accepted as best practice within the project management discipline. See www.pmi.org.