

Stage 2

Identify and refine options

Identify and analyse the range of approaches and options, including non-ICT options, available to satisfy the business need.

Key better practice messages

- Evaluate a wide range of options
- Consider the non-technological solution
- Consider options to collaborate or leverage off other agencies' investments
- Consider incremental development options

Overview

CEOs and SROs need to ensure that the full range of options that could satisfy the business need are identified and analysed so that they understand the relative merits and risks of each option.

Failure to fully appreciate all available options (including non-technological options) can result in unnecessarily expensive or complex solutions, or in solutions that will not properly address the business need.



Evaluate a wide range of options

Issues we have observed

Agencies often give government only two choices when proposing an ICT investment—a choice to do nothing, or a choice to invest in the (agency preferred) ICT solution.

This approach precludes consideration of a wide range of possibilities, including asset/non-asset, timing/phasing, scale, location and delivery options.

Options should not be limited to asset solutions only; policy and/or legislative changes may amend the direction, scope or urgency of the organisational need or provide a viable 'non-technological' solution.

Illustration

Due to its preference for managing the investment centrally, the agency did not investigate whether the solution could be outsourced or provided via co-sourcing.

As a result, opportunities for better design solutions or any cost savings were foregone.

Practical steps to take

Identify several different types of technology or options

Where applicable and practical, identify and analyse several different types of technology or options for sourcing that would satisfy the business need.

This analysis will show that the options presented to government are not limited to certain technologies and will demonstrate that innovative solutions have been considered.

Think about the adaptability and flexibility of the various options to meet potential future service delivery changes. For example, is the solution scalable and flexible; does it align with current and future enterprise architecture?

Consider the non-technological solution

Issues we have observed

Non-technological options are rarely considered when proposing ICT investments. This is mainly because the 'fix' being sought in the business has already been characterised as a technology (rather than business) solution.

Investors need to consider both technological and non-technological solutions to address business needs.

Likewise, technological options may also require a critical non-technological enabler (such as process change or staff re-training) to produce the desired benefits.

Practical steps to take

Ask for the 'non-technological' solution to be included in any analysis

Maintain a sceptical view of the 'promise' that an ICT investment offers.

Develop a 'straw man' non-technological option to understand the generic business costs and issues that the ICT investment will face.

Illustration

Gauld and Goldfinch explain (ICT investment) failure in the public sector by four 'pathological' enthusiasms:

1. Idolisation—staff 'idolise' ICT and see it as leading to great benefits
2. Technophilia—more and better technology prevents or fixes problems
3. Lomanism—feigned or genuine belief of ICT suppliers and sales staff in their company's products
4. Managerial faddism—new management or structures bring benefits and prevent or fix problems

Dangerous Enthusiasms: E-Government, Computer Failure, and Information System Development Dunedin, New Zealand: Otago University Press, 2006.



Consider options to collaborate or leverage other agencies' investments

Issues we have observed

Many agencies are independently investing in similar technologies (sometimes even with the same suppliers) without fully considering the benefits of collaboration.

'Joined-up' projects often have the potential to deliver greater benefit to the system as a whole, compared with multiple projects in which agencies pursue individual solutions.

Shared services arrangements can offer economies of scale and help avoid duplication by leveraging inter-agency and government-wide investments. State governments have adopted varying forms of shared service organisations to deliver cost effective, improved services.

The implementation of shared services is often challenging and requires a robust, disciplined implementation approach, as well as strong recognition of the many change management issues that will need to be addressed.

Illustration

The investment created standardised infrastructure across 10 departments with all participating departments adopting the same technical solution.

Through this approach, departments were able to optimise collective purchasing power, which eliminated the need for each agency to develop their own solution and avoid duplicated design and development costs.

This has also allowed for the possibility of further development and application across government using this common infrastructure.

Practical steps to take

Look for options to cost share or collaborate

Although 'joined-up' ICT projects are, by their nature, more difficult to complete, they should be considered as a viable option early in planning for an ICT investment.

Consider the economies of scale, and concentration of (scarce) critical technology skills that these options offer.

Consider incremental development options

Issues we have observed

Some ICT investments seem to be driven by the 'newness' of technology options, rather than an understanding of the requirements of the organisation.

An incremental improvement to existing ICT may be the best way to address a given organisational need, but is often eclipsed by the 'glamour' of a new technology solution.

These types of projects are often described as 'solutions looking for problems'.

Illustration

The agency reviewed a number of alternative solutions available in the market as a replacement for its legacy systems.

It decided that the available solutions were overly complex for its business and chose to invest in process change and a small in-house system as the best way to improve its business.

Practical steps to take

Re-design and re-use

Consider how a new business requirement could be met by the following incremental options:

- restructure or re-engineer existing business processes to achieve the desired result without any ICT investment
- re-use or adapt an application, technology or architecture already in use
- re-use a solution already in place elsewhere in government
- refine large complex projects into phased delivery ICT projects.



Further references

DTF guidance

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

- Gate 2, Business Case, Gateway Initiative, Gateway Review Process.
- Gate 3, Readiness for Market, Gateway Initiative, Gateway Review Process.

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

- Investment Management—Solutions Definition 3.0 June 2008.
- Investment Management—Benefit Definition 3.0 June 2008.

Life Cycle Guidance information can be obtained from <http://www.lifecycleguidance.dtf.vic.gov.au>

- Investment Life Cycle Guidelines—Options Analysis, July 2008.
- Investment Life Cycle Guidelines—Business case, July 2008.

Other guidance

- Robin Gauld and Shaun Goldfinch, *Dangerous Enthusiasms: E-Government, Computer Failure, and Information System Development*. Dunedin, New Zealand: Otago University Press, 2006.