

# Investing Smarter in Public Sector ICT



Turning Principles into Practice

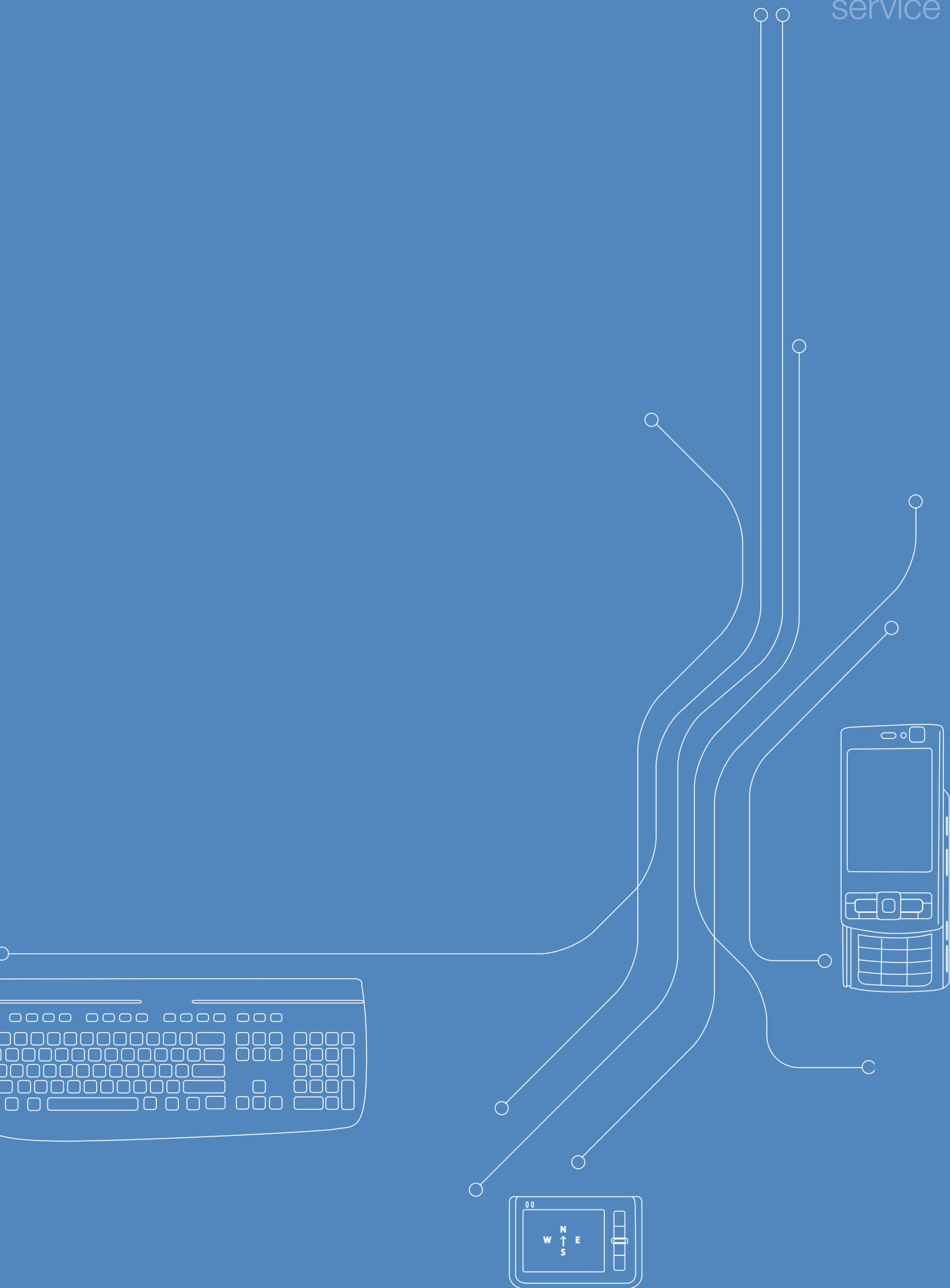
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## Foreword

Like most large enterprises in Australia, the Victorian public sector has steadily increased its spending on information and communication technology (ICT). Government investments in ICT generally aim to achieve more efficient administration, more coordinated operation, and more informed public participation. Despite these laudable goals, results from Victoria's public sector ICT investments have often been disappointing.

Recent ICT-focused audits carried out by my office, as well as data from the Department of Treasury and Finance's Gateway Unit, clearly indicate that agencies within the Victorian public sector sometimes begin large, expensive ICT projects without a clear understanding of goals, required resources, or risks.

Some projects are not planned carefully and others are not structured properly. These projects will undoubtedly struggle during implementation and deliver disappointing results—if indeed they deliver any benefit at all. Media exposure of poor project outcomes reflects public concern about the poor performance of taxpayers' investment in ICT failures.

This guide uses a lessons-learned approach to develop general principles that can be applied by any agency undertaking an ICT-dependent investment. These principles are structured around an ICT investment life cycle that extends from creating an initial understanding of the organisational need for an ICT investment, to carrying out a final review of the outcomes of that investment. These principles are illustrated with case studies based on my office's experience with ICT projects across the Victorian Government.

The guide is aimed at chief executive officers (CEOs) and senior responsible officers (SROs), who are accountable for projects where the technology is not always understood. All meaningful ICT projects include a degree of uncertainty and, therefore, a level of risk. However, by asking the right questions and employing the right principles, CEOs and SROs are likely to achieve better and quicker project outcomes at lower costs, which is a clear example of smarter ICT investment.



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*Auditor-General*  
30 July 2008

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# Introduction

## Context

In 2007, the Victorian public sector spent over \$1.5 billion<sup>1</sup> on new and existing information and communication technology (ICT) enabled asset investments and infrastructure.

The government funds these investments to improve service quality, deliver new types of services and enhance the efficiency and cost effectiveness of public administration in important sectors such as education, health, justice, transport and water.

‘Organisations do not invest in projects so that they can come in on time on budget or even to meet specifications! Projects are undertaken to realise benefits.’

*Raymond C Young, Improving implementation, organisational change and project management ANZSOG, p 36*

Fundamentally, ICT investment management is an exercise in governance. Public sector ICT investors need to get governance right. In this context they are accountable for:

- clearly defining the reason for an ICT investment
- shaping the solution that will answer that need
- overseeing the procurement and implementation of the investment
- realising benefits, including tracking the delivery of benefits throughout the investment life cycle.

‘IT governance often gets confused with IT management and the CIO gets to be accountable for anything that has the word IT attached to it. As a consequence the business ends up being interested onlookers and expert critics, rather than accountable participants in any business process pertaining to IT.’

*Christina Gillies, Improving implementation, organisational change and project management ANZSOG, p 23*

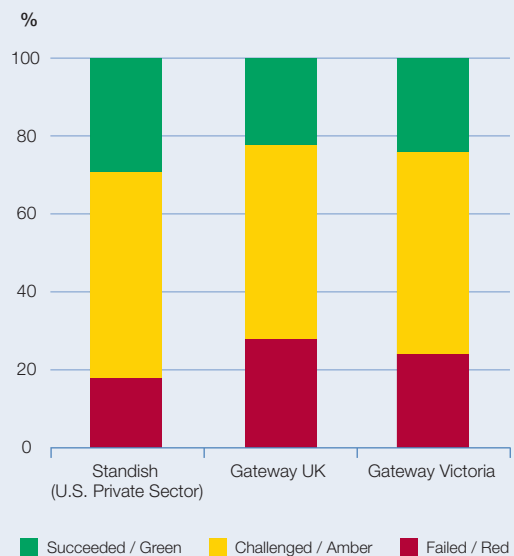
## Challenges and issues for public sector ICT investments

Despite the promise of significant benefits from ICT investments, the reality has often been disappointing. Many government ICT investments don't meet functionality expectations, are delivered much later than scheduled, and come in well above budget.

Our recent ICT-focused audits, as well as data collected by the Department of Treasury and Finance's (DTF) Gateway Unit<sup>2</sup> show that many medium- to high-risk ICT projects are inadequately planned, structured, and implemented and lack any coherent measurement of benefits.

Disappointing results from ICT are not restricted to the public sector. The Standish Group has found that more than 70 per cent of all ICT projects in the private sector either fail completely or don't deliver on time, within budget, or to expected requirements (see Figure 1).

**FIGURE 1: ICT PROJECT FAILURE RATES IN THE US PRIVATE SECTOR, COMPARED WITH UK AND VICTORIAN PUBLIC SECTOR GATEWAY PROJECT STATUS.**



Note: Gateway uses Green / Amber / Red ratings for project status. Red is not equivalent to project failure.

Source: Standish, UK Gateway, and Victoria Gateway project status review data

<sup>1</sup> Sourced from Factbase, a collection based on data provided by Victorian departments to the Department of Treasury and Finance. This data includes both operational and capital expenditure.

<sup>2</sup> A key component of DTF's Gateway Initiative, the Gateway Review Process is an independent assurance and review process carried out at key decision points (gates) in a program or project's life cycle.

## Purpose of this guide

This guide is for chief executive officers (CEOs) and senior responsible officers (SROs) involved with the governance and management of ICT investments. Its central premise is that robust governance and skilful management can play a significant role in achieving success with an ICT investment.

The better practice advice in the guide is distilled from lessons and observations drawn from 10 recent VAGO audits of ICT enabled investments (see Appendix A), aggregate data derived from DTF's gateway reviews of ICT investments, and academic and better practice literature.

## Acknowledgement

The Victorian Auditor-General's Office would like to acknowledge and thank staff from the Department of Treasury and Finance, Professor Michael Vitale, chief information officers from a number of Victorian public sector agencies and Mr Peter Niblett for assistance and advice they provided during the preparation of this guide.

## Structure of the guide

The structure of the guide is based on the six stages of the 'ICT investment life cycle'<sup>3</sup>. For each stage there is an analysis of the issues and challenges faced in public sector ICT investments, together with suggested better practice approaches and advice on avoiding project failure.

### Stage 1. Understand and explore

Clearly understand the organisational need, explore likely approaches and articulate potential benefits.

### Stage 2. Identify and refine options

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

### Stage 3. Decide to invest

Confirm that the proposed investment is worthwhile and of greater merit than other proposals competing for funds, and develop a procurement strategy.

### Stage 4. Procure a solution

Confirm a procurement approach and select suppliers that offer best overall value for money, including risk reward trade-offs.

### 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 of operations to realise the expected benefits.

### Stage 6. Review and learn

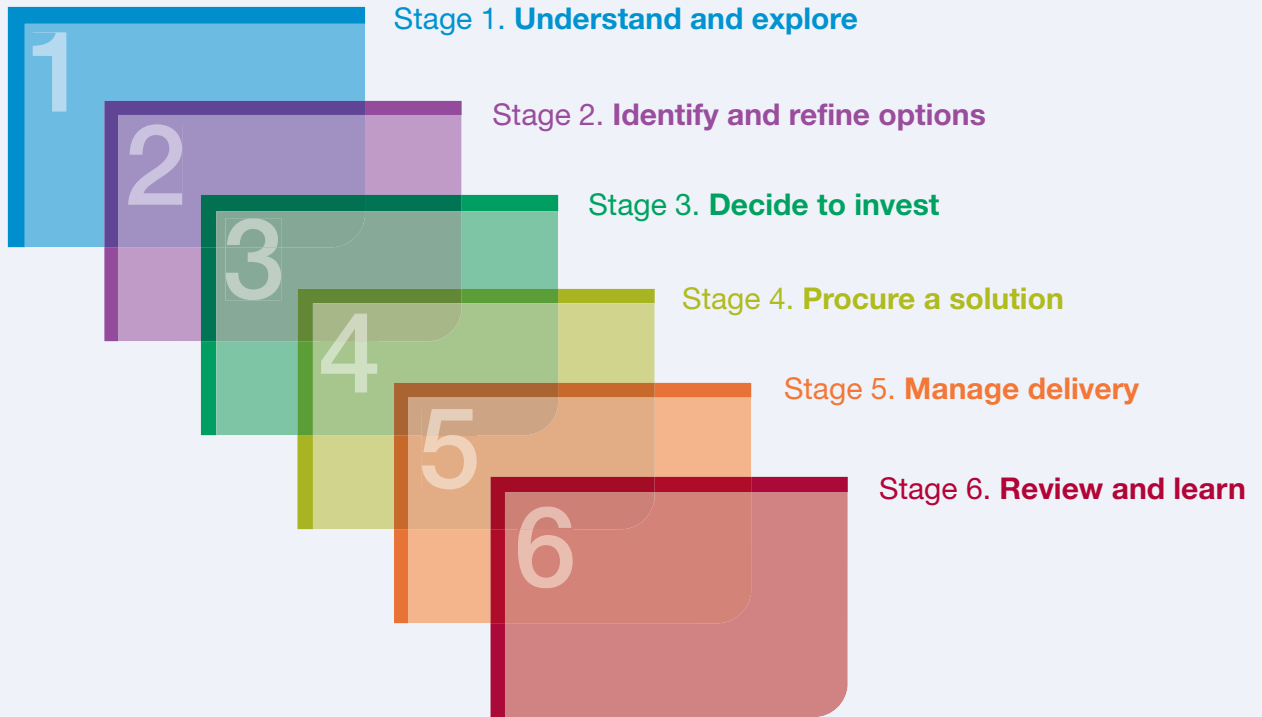
Review performance of the investment, assess whether it is achieving expected benefits, and capture lessons learned.

'Project managers and implementers can afford to declare success in the short run, but executives and investors are in it for the long haul ... In general, companies that do not deliberately set out to achieve measurable business results do not achieve them.'

*Markus M.L. quoted in Standards Australia, HB 280-2006 Case studies, p12.*



**FIGURE 2: THE ICT INVESTMENT LIFE CYCLE**



Source: Victorian Auditor-General's Office, based on Department of Treasury and Finance Investment life cycle guidance