



Looking both ways

Hello and welcome to The Infonomics Letter for January 2012.

Casting an eye back over the corresponding edition for 2011 might cause one to wonder if we have made any progress in the past 12 months. Indeed, looking through the full set of 2011 editions we can see many more case examples of lessons provided through failure of operational IT disrupting business, and through failure of IT-enabled business change that renders the investment waste and denies access to potentially substantial benefits.

Current history – that which is too new to be yet dismissed as the folly of the past, continues to tell us that we must learn to do better when it comes to maximising the current and future business value of our investments in information technology, in the private and public sectors.

One person who knows all too well that we must learn from current history and adopt better practice is the Auditor General of Victoria, Des Pearson. Des has been a long-time champion of improved governance in the state's use of information technology. Late in 2011, he and the Victorian Ombudsman, George Brower, co-authored a major report on Victoria's less than satisfactory performance in delivering value from IT investments. That report was the focal point for discussion in the November 2011 edition of The Infonomics Letter, under the heading *"A State of IT Failure"*. It is my very great pleasure to now welcome Des Pearson as a contributor to The Infonomics Letter. His article, *"A Victorian Public Sector Challenge: Delivering and Realising Value from ICT"* adds further depth and guidance for government business leaders in particular, and includes useful guidance of all business and technology leaders.

Several other developments through late 2011 and on into this year give confidence that there is more attention now being given to learning lessons. In *"Stepping Boldly Forward"* I look across a range of developments, from a major business newspaper getting very aggressive in discussing the value of IT spending, to two universities investing significantly in research, and new behaviours emerging in Australian state governments.

Finally, may I share just one tiny example of how we can learn from experience? Today I am in a serviced apartment in Brisbane. The apartment has a broadband internet service. The desk is positioned near the door, but the internet access point is on the farthest opposite wall leaving a gap of about four metres. How does that meet the intent of the ISO 38500 Performance Principle, meeting business need?

Mark Toomey

31 January 2012

A Victorian Public Sector Challenge: Delivering and Realising Value from ICT

by Des Pearson, Victorian Auditor-General

Information and Communications Technology (ICT) in the Victorian Public Sector should be characterised as a double-edged sword. One side of the sword promises massive potential for more strategic use of ICT to achieve positive step-change in the productivity of the public sector, increased efficiency of service delivery and greater effectiveness of policy implementation. However, on the other side of the sword there are tales of woe from unfulfilled technology dreams and ICT careers, and millions in public funds transferred to contractors, consultants and multinational vendors, without commensurate benefit shown for the public's investment.

Some argue that these ICT problems faced by the public sector are not unique and that similar levels of ICT underperformance and failure also occur in the private sector, but are merely less frequently disclosed or reported. This may be so, but there is a fundamental difference between public sector and private sector investments.

Public revenues raised by taxes and charges on citizens will never be sufficient to meet all identified needs. Available funds are 'rationed' to areas of highest priority in the public interest.

In simple terms, this means that a dollar wasted or spent sub-optimally on a public sector ICT initiative is a dollar that can't be used to build a new school, buy a new train, fix a pot hole in a country road, care for an abused child, or train a new paramedic or police constable.

In the private sector, if a dollar is wasted or otherwise sub-optimally expended on an ICT investment, it might reduce profit, which may then have an impact on executive bonuses, and dividends on shareholders' risk capital. The market tends to correct these problems by removing underperforming management, restructuring the business, or by merger or acquisition of weaker enterprises.

In the Westminster system of democracy we enjoy in Victoria, citizens address underperformance of public sector service delivery via the ballot box, which might even result in a change of government. Many press commentators linked the public perception of the Myki transport ticketing project as a major contributor to the demise of the previous Labor government in the latest election.

ICT is therefore a risky and high-stakes game for the public sector, as the fate of a government could

plausibly hinge upon public reaction to a high profile failure of an ICT project being seen as a general indicator of wastefulness and incompetence in other areas of public administration.

Increasing visibility of ICT risks in the Victorian public sector

Visibility of risks related to public sector ICT has increased over the last decade, mainly due to an increased focus by review and integrity agencies such as my Office. Since 2003, my Office has published a dozen or so audit reports focussed on ICT-enabled change in the public sector. Some notable examples of these reports include:

Report title	Date Tabled
Victorian Life Sciences Computation Initiative	June 2011
Security of Infrastructure Control Systems for Water and Transport	October 2010
Towards a 'smart grid'—the roll-out of Advanced Metering Infrastructure	November 2009
Connecting Courts—the Integrated Courts Management System	June 2009
Implementation of the Criminal Justice Enhancement Program	June 2008
Delivering HealthSMART—Victoria's whole-of-health ICT strategy	April 2008
Report on Public Sector Agencies, Implementation of RMIT University's Academic Management System, pp. 58–88.	February 2003

In June 2008, we complemented this review work by publishing a better practice guide (written in close consultation with the [Gateway](#) team from the Department of Treasury and Finance) to try to assist public sector organisations better manage the strategic and operational risks related to ICT investment.

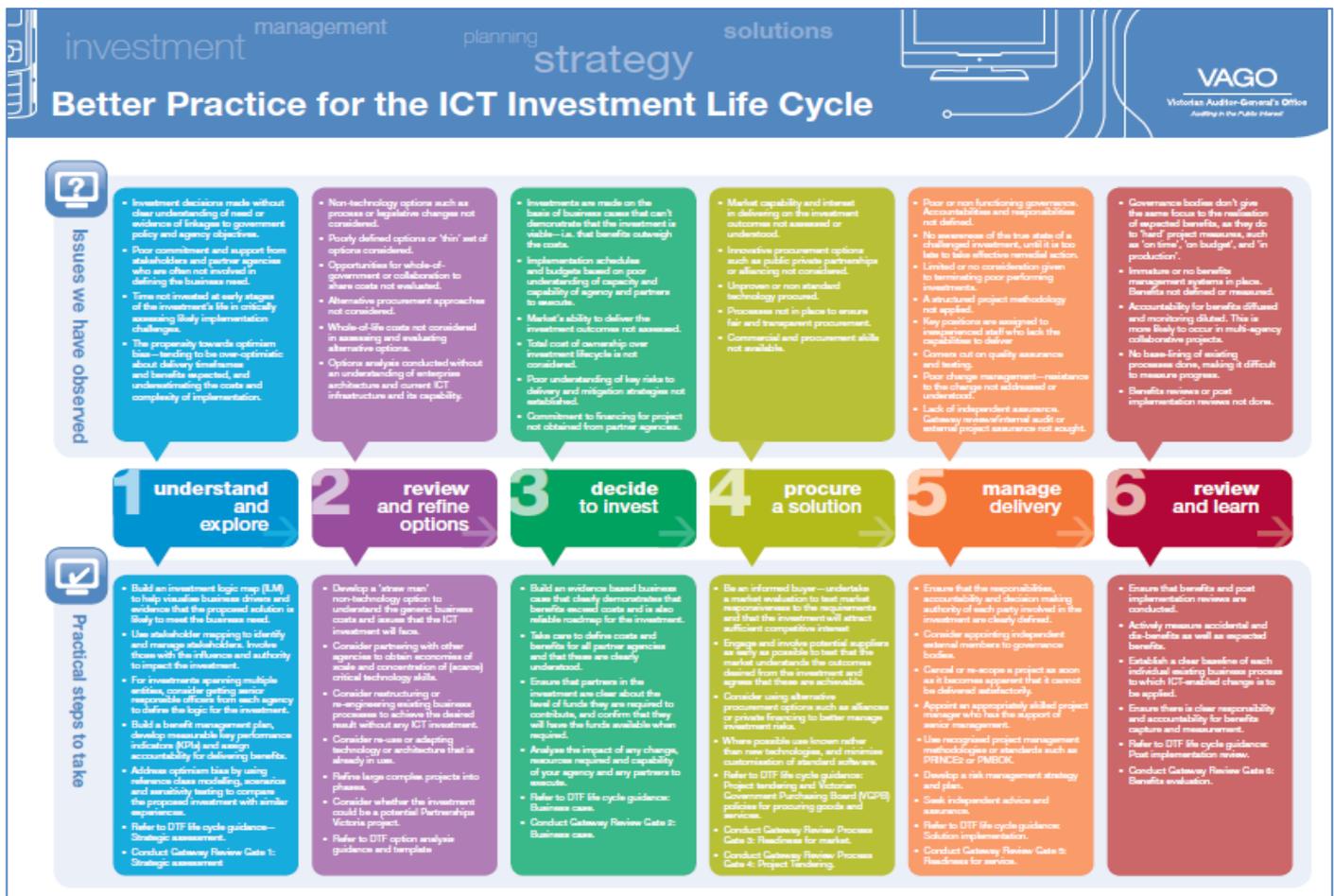


Figure 1: The ICT BPG's three-page fold-out, showing the generic investment life cycle steps.

Source: http://download.audit.vic.gov.au/files/ICT_Key_Principles.pdf, accessed on 23 December 2010.

This [guide](#), *Investing Smarter in Public Sector ICT: Turning Principles into Practice* has been well received by many public sector agencies as a useful summary of key thinking steps for an ICT investment. It advocates a six-step lifecycle approach to ICT investments.

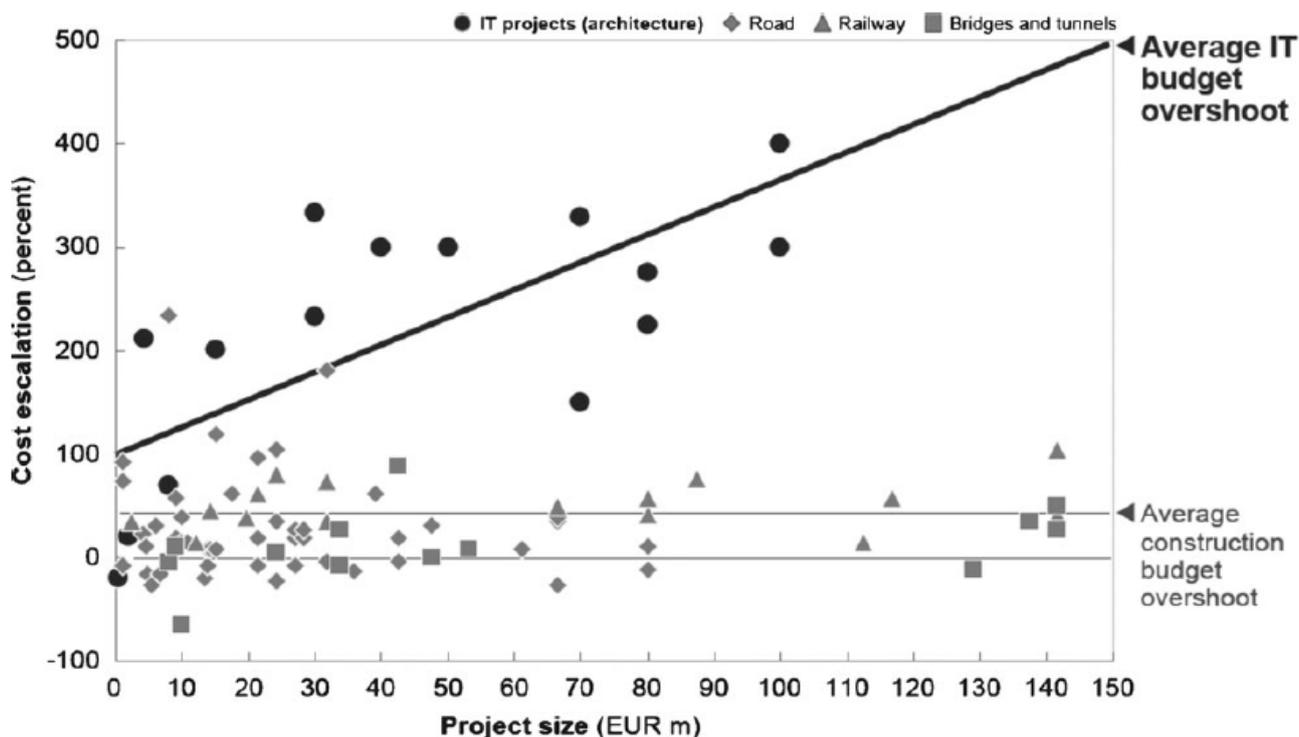
More recently, a Victorian Ombudsman’s [report](#) (produced in consultation with my Office) and tabled in November 2011 has focussed on a range of critical issues arising from Victorian public sector ICT investments. The report reflects many of my earlier findings on specific projects, and our joint foreword notes in very frank language:

"The evidence to date is that the public sector is not managing ICT-enabled projects effectively, as demonstrated by the current difficulties that Victoria is facing in this area and the increasingly adverse public comment about major ICT-enabled projects. [...] The investigation [...] identified that despite the extensive guidance and literature available, agencies are making the same mistakes around planning, governance, project management and procurement that our offices have observed and reported on for some years. This includes the lack of accountability of those responsible for these project failures."

Housekeeping first, strategy second?

In terms of the international peer-reviewed empirical evidence for cost and time over-runs in ICT projects, a study by Oxford University’s Professor Bent Flyvbjerg indicates that ICT projects have a likely cost overrun of **350 per cent** for projects worth €100 million (approx. A\$125 million).

Figure 2: Cost overrun in construction projects and IT projects compared



Source: Diagram from p363 of Flyvbjerg, B. (2009). "[Survival of the unfittest: why the worst infrastructure gets built—and what we can do about it.](#)" *Oxford Review of Economic Policy* 25(3): 344-367.

The extremely risky nature of ICT projects for the public sector has been recognised by Victoria’s Department of Treasury and Finance via their new High Value/High Risk project screening and review process. This new [process](#) aims to reinforce the existing Gateway processes, and involves more focussed and structured Treasury advice on business cases and proposals, as well as formal sign-offs at key project lifecycle points by the Treasurer.

I understand that about a dozen projects are now subject to this enhanced process, and hopefully the new process will deliver more robust business cases to decision-makers and better match procurement strategies and market engagement to the risk profiles of transformative ICT investments.

The way forward: leading and delivering IT-enabled strategic change

The challenge for Victoria is to re-build credibility of the valid role of ICT in the public sector. There is some danger in throwing out the baby with the bath water due to the poor performance of ICT investments in the

past, however, there is no reason why outcomes shouldn't improve with better planning and, and very importantly, rigorous oversight of projects over their entire lifecycle.

One place to start would be to re-focus public sector ICT investment behaviour by:

- measure 'Return On Investment' for public sector ICT with a greater focus on 'public value'
- making citizens' service needs a core focus and priority
- using evidence to support advice and decision making
- using exemplar and transparent procurement and governance processes
- diligently applying better practice methodologies to improve project estimation and delivery.

A further area of potential improvement is maximising efficient and effective use of existing ICT infrastructure through incremental and iterative change. This approach can reduce risk, avoids the public sector continually being on the 'bleeding edge' of technology lifecycles, and builds confidence with service owners and users.

I would also like to reinforce the 'back to basics' [message](#) arising from Sir Peter Gershon's 2008 *Review of the Australian Government's Use of Information and Communication Technology* which identified the need to grow technical capability in the public sector so that public servants (rather than more expensive contractors or consultants) can think, plan and deliver in the technology arena. In basic terms his message could be summarised as "don't outsource your brain" and "don't be a dumb buyer".

To conclude, I think it's useful to return to my [speech](#) delivered at the launch of the VAGO ICT better practice guide in late August 2008, and reflect on what progress, if any, has been achieved since then.

"Over-promising, under scoping and under-delivering does no favours for anyone and only depletes community confidence in government. Looking ahead, smarter investment in major ICT projects will require embracing a new realism of costing and planning, and having the evidence to persuade stakeholders and co-investors alike."

Thanks to Paul O'Connor and other colleagues in the office for their assistance with the preparation of this article. [\[top\]](#)

Stepping Boldly Forward

Recent government audit reports in Queensland and Victoria point to an increasingly inescapable need for more effective governance of information technology – one that focuses on achieving business outcomes and results. In parallel, mainstream business press is taking an increasing interest in questions of whether or not investment in IT is properly controlled, and delivering value for money. Already in 2012 the Australian Financial Review has posed a raft of hard questions for boards to ask about IT – following on from a story (*A quiz for industry super funds*, AFR Chanticleer, 4 January 2012) about a major cost overrun on the new system now being deployed by Superpartners. In the past year, companies like Borders and Harvey Norman have experienced extreme pain as they adjust to the realities of how new capabilities and use of information technology slipped under their radar and enabled upstarts to steal market share. Others, like Vodafone, have been lambasted for appalling lapses in information security. Now one of the great brands, Kodak, has entered Chapter 11 bankruptcy protection in a desperate struggle to save itself, after its core business was overtaken by its own invention, on which it was too slow to capitalise.

These events point to a continuing learning process, reinforced by pain, in which business and government

leaders are discovering the hard way that effective governance of IT has to deal with much more than the low level detail of how IT is supplied to the organisation and of how IT departments manage delivery of IT solutions, operational IT services and information security. Undoubtedly, these disciplines are important, and an effective governance regime needs to ensure that they are all being done well, by the right people. But it is becoming increasingly clear that governance of IT must now deal with how IT is USED by the organisation – how it influences and is exploited in business strategy, how it is positioned as a competitive differentiator, and how it is employed as part of organisational capability development to generate new value. And as the Kodak experience reinforces so intensely, organisations must also now look beyond their own use of technology, to understand how others are exploiting new opportunities to disrupt markets, disintermediate previously key players in the supply chain, and create compelling new value propositions. No longer is governance of information technology a topic that can be confined to the IT department – it is a crucial aspect of the fundamental planning, building and running of any 21st century organisation!

The value of history – and particularly current history, is the lessons that we learn from it. While there continue to be plenty of negative outcomes associated

with use of IT, there are also, patently, efforts being made to learn those lessons and improve the state of the art. Perhaps we can now view the massive UK National Health Service IT program (its shutdown after burning £12 billion was reported in the October 2011 edition) as having created value after all, as we see a crucial statement in the December 2011 announcement of a new "Enterprise Patient Administration System (EPAS)" for public hospitals in South Australia: *"The new EPAS will be designed by our clinicians for our clinicians."*

The design of the new system will commence in early 2012, and will actively involve hundreds of doctors, nurses, midwives, pharmacists, allied health and administrative clinical staff across SA Health."

It was, among other things, the complete failure to recognise, let alone engage the clinicians that caused problems for the UK NHS. Similar behaviour – focusing on the IT specification rather than the total business system – almost certainly contributed to problems in the Victorian Government's HealthSmart system.

Of course, there is a risk from going too far the other way. I wonder if this project has the happy balance of business drive and input on the comprehensive change necessary for people, process, and structure and technical functionality, while technology experts properly play their role of ensuring that the technology design and implementation is efficient and effective.

Looking to the longer term for the South Australian Health project, it is important also to remember that while clinical leadership is essential, it is only one aspect of setting up and conducting a successful multi-year initiative. It is crucial that the project design and governance arrangements ensure effective direction, control and oversight for an extended period. A particular issue with long term projects is how the governance arrangements can start out with enthusiastic engagement, and progressively fall to virtually nothing after a while, allowing serious issues to develop unchecked.

As organisations come to understand that governance of information technology must deal with the entire business cycle, from strategy development through to mundane ongoing operations and on into retirement of business offerings, it is inevitable that demand for expertise in governance of IT will shift from the past efforts of improving supply, framed around established frameworks like the OGC products, COBIT and ITIL. This shift in demand has the potential to cause significant disruption to consulting firms. Over the past several years, responding to demand for COBIT, ITIL and so on, it seems that firms have drifted away from maintaining an internal "brains trust" which creates innovative product and capability that is compelling for the market. Instead, many firms have adopted the publicly available intellectual

property attached to the established frameworks, and set themselves up to "administer the medicine" in a bland, consistent manner.

Late in 2011, I delivered a series of ISO 38500 briefings across Europe. It was interesting to see that participants in these briefings included very senior executives of major global companies, as well as a substantial proportion of consultants from European firms. In Australia, my conversations so far this year, with business and technology leaders, are pointing to a greatly increased interest in new advice on how to do better with information technology. There is also a substantially increased level of chatter on internet discussion forums about certification against ISO 38500, indicating that the technical and advisory communities are beginning to wonder more about how to take advantage of the standard's guidance.

My very strongly held view is that ISO 38500 is an ideal foundation on which consulting firms can build compelling, unique services that will help end-user organisations improve their performance, while generating new revenue streams for their developers. It deals explicitly with the business use, or demand aspects of IT, without overlooking the supply side. It acknowledges the relevance and value of existing supply-side frameworks, but opens the door to much more.

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Infonomics Education Program

The first ISO 38500 Foundation Class for 2012 is already complete – it was delivered in Kuala Lumpur in mid-January.

Forthcoming events include:

"Delivering Business Value through IT Governance": a half day conference organised by the Intec Group, on March 20, in Adelaide. Confirmed speakers are Jane Treadwell, Andy Koronias, Phil Ingerson and Mark Toomey. [See the Intec site for further details.](#)

"Information Technology Governance and Management Seminar": a 5 hour exploration of the guidance in ISO 38500, for business and technology leaders, planners and managers. Organised by Australian Industry Group and developed and delivered by Mark Toomey. Key dates are:

March 28: Adelaide

March 29: Melbourne

March 30: Sydney

See the [brochure](#) for details.

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