VICTORIAN ombudsman

"The Victorian Ombudsman's investigation into ICT-enabled projects"

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ICT Projects in government – challenges for procurement and contract management

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The management of ICT-enabled projects at the state, national and international level, in both the private and public sectors, has been the subject of considerable research and debate over recent years. The consensus has been that these projects are often poorly managed and failures are common. Prior to the Ombudsman's report, *Investigation into ICT-enabled projects*, the Ombudsman and the Auditor-General had tabled in Parliament a number of reports relating to ICT-enabled projects. These reports identified significant shortcomings in the public sector's management of such projects and included numerous recommendations. Despite this, there had been little sign of lessons learnt and ICT projects, such as myki, HealthSMART and LEAP, were regularly in the newspapers for the wrong reasons.

In April 2011, the Ombudsman decided to conduct an own motion investigation under section 14 of the *Ombudsman Act 1973* into ICT-enabled projects. The investigation was conducted in consultation with the Victorian-Auditor General's Office, which seconded two staff to the Ombudsman for the project.

ICT 'covers all forms of computer and communications equipment and software'[1] and lies at the heart of all government operations. The Ombudsman's investigation examined ten *ICT-enabled* projects – these are projects seeking to transform government business and services, which are enabled by ICT. It is important to understand the difference between a 'technology' project (for example, the replacement of an item of communications equipment) and a business transformation project enabled by ICT. While the former may be the responsibility of ICT experts, the latter must be driven by the business to succeed.

The Ombudsman investigated the following projects:
1. Link (Victoria Police)
2. Property and Laboratory Management (PALM) - Victoria Police
3. HRAssist - Victoria Police
4. HealthSMART - Department of Health
5. myki - Transport Ticketing Authority
6. Registration and Licensing (RandL) - VicRoads
7. Ultranet - Department of Education and Early Childhood Development
8. Integrated Courts Management System (ICMS) - Department of Justice

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[1] University of Queensland, *What is ICT?* (2011) <http://www.uq.edu.au/ict/what-is-ict>.

9. Client Relationship Information System (CRIS) - Department of Human Services
10. Housing Integrated Information Program (HIIP) - Department of Human Services.

The objectives of the investigation were to determine:
- whether the projects were on budget and on time and, if not, the reasons for this
- whether the ICT systems met the needs for which they were designed
- who should take responsibility for any project failures
- what lessons can be learned for the public sector as a whole.

The investigators reviewed public documentation on ICT project failings and learnings; met with or interviewed over 100 people; conducted site visits to child protection, housing and education offices, hospitals, and the Supreme Court; and reviewed documentation relating to planning, procurement, project delivery and training.

The Ombudsman concluded that every one of the projects failed to meet expectations; most failed to meet delivery timelines; and all ran over budget.

The latest estimated cost for the 10 projects examined is $2.74 billion. This is a significantly higher amount than was budgeted for these projects. Examples of budget blow outs identified during the investigation include:
- The Department of Human Services CRIS project, the budget for which increased by 272 per cent.
- Victoria Police's Link project, which would cost over three times the original budget if it was completed.

The investigation also identified significant wastage:
- VicRoads spent $50 million on RandL over three years – at the time of the report, the project had not made it past the design phase and was yet to receive funding for project delivery.
- Victoria Police spent $59 million on Link over five years – the project has now been cancelled and this money is lost.

The additional money spent on these projects represents many foregone hospital beds, teachers, trains, police and child protection workers.

The investigation identified five common themes across the projects:
1. Leadership, accountability and governance
2. Planning
3. Funding
4. Probity and procurement
5. Project management.

Generally, these issues are not new – they had been raised in previous reports by the Ombudsman and the Auditor-General and in national and international literature. In many way, this makes the Ombudsman's conclusions more concerning as agencies should have been aware of the key issues in ICT-enabled projects and taken steps to address these.

Leadership, accountability and governance
The Ombudsman concluded that roles and responsibilities for ICT-enabled projects were often not clearly defined, acknowledged or accepted. Even where it was clear who was responsible for project shortcomings, agencies seemed reluctant to hold them to account and the Ombudsman saw very little evidence of staff movements as a result of poor project performance. Too often there was muted acceptance that all ICT-enabled projects go wrong.

Senior officers also appeared reluctant to make critical decisions about projects. There was a failure to make key 'Go/No Go' decisions. Faltering projects developed their own momentum and good money was thrown after bad.

The Ombudsman identified that some project steering committees did not have the requisite expertise, which limited their ability to challenge the relevant project manager about failure to meet milestones and to ask the hard questions in order to drive the project to success. For example, the initial myki board lacked ticketing and technological experience.

The Ombudsman also considered that the Department of Treasury and Finance (DTF) could have taken a more pro-active role in many of the projects and that the effectiveness of DTF's Gateway Review process was limited by its reliance on agencies engaging in and being supportive of the process, which often was not the case. For example, projects like myki did not go through Gateway, while other projects completed only some Gateway Reviews. In the case of the Department of Education and Early Childhood Development's (DEECD) Ultranet project, Gateway Review advice was ignored.

The Ombudsman also concluded that there was limited publicly available information about the government's 'high-value and high-risk' process, introduced in December 2010. The process signalled the government's intention for DTF to be more involved and accountable for major projects; however, at the time of the Ombudsman's report (almost one year after the process was announced) some witnesses from DTF and departments remained unclear about it.

Planning
None of the projects investigated by the Ombudsman were well planned. Agencies failed to commit the necessary time and effort into planning and business case development, which led to significant differences between the planned and actual time, costs and outcomes.

In some cases, optimism bias led to costs and timelines being based upon hope, rather than evidence or comparisons with similar projects and in spite of advice from experts and vendors. Optimism bias is a well recognised 'tendency for project appraisers to be overly optimistic'[2] about costs, timeframes and objectives.

In the case of DEECD's Ultranet project, the department ignored industry and Gateway Review advice, which indicated the project could not be delivered within the budget and timelines. Ignoring this advice in the planning stages led

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[2] Her Majesty's Treasury, *Optimism Bias* (2011) <www.hm-treasury.gov.uk>.

to a failed tender that cost around $5 million and set the project back by a year. In the case of myki, the business case indicated the project would be completed within two years; however, no comparable project had been completed in less than five years.

The Ombudsman identified that agencies often gave the government no choice other than to invest in the agency's preferred option and failed to provide government with adequate advice to make an informed decision. In the case of HealthSMART, the department gave the government two options – invest in HealthSMART at a cost of over $300 million or do nothing. The 'do nothing' option was described by the department as negligent. The only disadvantage or risk identified in relation to investing in HealthSMART was the cost of the project.

Business cases for many of the projects were not updated throughout the life of the projects and, in some cases, they were not read by key people.

Insufficient attention was also given to managing or mitigating risks. For example, in March 2008, the Link project team identified that there was a risk that the level of effort required for systems integration (ensuring the new system could communicate with the old system) would be greater than expected. However, it was not until February 2010 that Victoria Police identified that this risk had materialised and that an additional $50 million and an extra year were needed for this task.

Funding
The Ombudsman concluded that the current model for funding needs improvement. He identified that agencies often felt the need to create 'big vision' projects to capture the government's attention, which increased complexity and risk. The Department of Justice's ICMS project is one example of this.

In some cases the Budget and Expenditure Review Committee (BERC) only partially funded projects, but agencies failed to revise the scope of the projects to fit within the allocated budget. For example, the VicRoads RandL project sought $156 million from BERC, but it was only allocated $114.7 million. VicRoads did not consider that it could complete the project within the allocated budget; however, it continued with the project as planned.

Public announcements of major project funding decisions prior to business case development resulted in business cases being rushed and projects being 'shoe-horned' into the published funding ceiling. An example of this was the Victoria Police Link project. The consultants engaged by Victoria Police to write the business case admitted that it was written to fit the funding already allocated – rather than after a detailed analysis of the existing system and Victoria Police's needs. In 2011, Victoria Police identified that the project was underfunded by around $100 million.

The Ombudsman also concluded that the costs and timelines of comparative projects were sometimes ignored (the example of myki, in this regard, was highlighted earlier) and that agencies were unable to identify the cost of significant projects with any accuracy.

In addition, the Ombudsman identified that projects funded internally were not subject to the same level of scrutiny as BERC-funded projects.

Probity and procurement
Agencies appeared to pay limited regard and expended minimal funds on probity advice and audits. Victoria Police ignored probity advice on the PALM project regarding the composition of two related tender evaluation panels. This gave rise to a perception that the tender decisions for each project were not made independently.

In addition, agency and probity practitioner responses to conflict of interest issues sometimes failed to recognise the importance of the perception of a conflict of interest. In relation to Ultranet, one vendor developed the pilot of the system at the request of DEECD. That same vendor was a bidder at the request for tender phase and was chosen as the preferred vendor. In myki, the winning bidder had been engaged by the Transport Ticketing Authority prior to the tender process to assist with the design philosophy for the project. These issues raised concerns (perceived or real) about the probity of both projects.

The Ombudsman's investigation identified that agencies tended to purchase off-the-shelf systems and customise them to such a degree that the inherent benefits of the system were lost to government. For example, the Victoria Police Link project team made over 100 changes to the off-the-shelf system. Had the project been completed, Victoria Police would have had its own version of the system, which is likely to have been unmaintainable through standard upgrades. Victoria Police should have re-engineered its business processes to fit the new system, rather than trying to make the system fit Victoria Police's processes.

The investigation highlighted that large vendors are well-versed and experienced in contract negotiations and that this puts relatively inexperienced government staff at a disadvantage. Agencies generally sought to transfer risk to the vendor; have adequate penalty clauses in the contract for failure to meet targets; have fixed costs; and have a single vendor responsible for project delivery. However, this was not always the case. In the HRAssist project, the contract initially failed to include abatement clauses and included time and materials based elements: combined these factors resulted in cost and delivery overruns. In the case of the HealthSMART clinical application contract, there were limited penalty clauses. In the case of the CRIS project, the government contracted to five separate vendors for the project. This was difficult to manage and introduced compatibility and timing issues.

Project management
Several agencies failed to act with enough urgency to address potential problems and in doing so allowed problems to escalate. For example, Victoria Police did not act quickly enough to address issues that arose in both the Link and PALM projects and it was slow to act on advice that the projects were going off track.

It was also evident that there is a shortage of skilled senior project managers with relevant ICT experience in government. The Ombudsman identified that to

compensate for this, agencies often appointed expensive contractors or inexperienced public sector staff.

Managing vendor and user relationships can be a complex exercise and agencies adopted differing approaches to this problem with varying degrees of success. For example, the delivery of the HealthSMART clinical application was made difficult by a complex three-way relationship between the vendor who was developing a system to departmental requirements, but delivering it into hospitals operated independently by other health service providers.

The Ombudsman's investigation also highlighted that approaches to training staff were varied and not always effective. For example, after the roll-out of CRIS, the Department of Human Services had one trainer for the ongoing training of 2000 staff. As a consequence the CRIS users my investigators interviewed were unable to use the system effectively. In the case of HIIP, the system took so long to deliver that staff had to be re-trained.

Recommendations
The Ombudsman concluded that the framework within which agencies seek funds, manage and review ICT-enabled projects needs to be improved. The scale of the problem suggests that significant ICT-enabled projects should be treated as a special case at least until the bureaucracy is sufficiently experienced to handle these projects well.

The Ombudsman developed a framework that builds on current guidance and advice from the Auditor-General and DTF and provides a practical solution to many of the problems commonly encountered. The framework contains 42 recommendations based around the five common themes. While the Ombudsman has suggested his recommendations be implemented for all ICT-enabled projects over $20 million, most are also applicable to smaller ICT projects.

The Ombudsman recommended increasing the oversight and accountability of Ministers, departmental secretaries and executive members. This should include briefings to the relevant minister and secretary at key stages so they know the status of the project and can make timely decisions. Key staff should also be identified in the business case and their performance plans should reflect their accountability for successful project delivery.

In addition, the Ombudsman recommended enhancing the role and accountability of DTF by ensuring it is represented on all steering committees and that it develops its capacity to provide advice to agencies on project management, procurement and risk management etc.

The Ombudsman also recommended changes to capitalise on the value of Gateway Reviews, including making them mandatory and requiring that critical recommendations be provided to the relevant secretary and minister to increase accountability for addressing any concerns raised by the Gateway reviewers.

Recommendations in relation to funding practices provide that agencies should seek funding and undertake projects in stages with clear deliverables and

benefits. This will increase the likelihood that they will deliver the expected functionality at the expected cost. The Ombudsman also recommended that project budgets are not finalised, or announced, until after the procurement process, which will enable agencies to test their assumptions about project costs, timeframes and deliverables.

Another recommendation arising out of the report was that DTF examine the 'competitive dialogue' procurement process (mandated in the United Kingdom for ICT projects) as an alternative to traditional procurement methods. This 'competitive dialogue' approach requires that the agency and tendering vendors work closely together during the tender period for both parties to gain a better understanding and appreciation of what is required and what the vendor can offer.

A key concern of the Ombudsman was the shortage of ICT experience in government. To address this issue, the Ombudsman recommended examining strategies to attract skilled ICT staff, including a government graduate program, an ICT skills allowance and a skills database to enable agencies to find public sector employees with relevant ICT skills.

The Ombudsman also recommended that the public sector engage with the Victorian Government Solicitor's Office (VGSO) in relation to large ICT-enabled projects in order to protect the State's interests and to provide a mechanism for lessons learned across the public sector in ICT procurement and contract management to be shared. He recommended the VGSO be briefed early in the project and endorse all contracts.

Conclusion
In conclusion, it is important to note that there is no panacea for the difficulties which face governments in the management of ICT-enabled projects. Many strategies have been tried with varying degrees of success. What the research shows is that this is an evolving and changing environment and as such, the strategies adopted to tackle the issues equally need to be flexible and adaptable to meet these changing circumstances. Any arrangements put in place would benefit from a review in two years time to ensure their effectiveness, ongoing relevance and practicability.