Implementing the ICT Strategic Vision

A report for the Secretary of the Commonwealth Department of Finance and Deregulation on the draft ICT Strategic Vision

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Terms of Reference

A report for the Secretary of the Commonwealth Department of Finance and Deregulation on the draft ICT Strategic Vision, considering:

- The alignment of the vision with government ICT work and structures in similar jurisdictions with Australia and in relevant other countries, such as the USA, the UK, New Zealand and Canada

- The balance in the vision between improving government business outcomes, particularly public sector productivity, and managing the government’s effective and efficient use of technology as core issues for senior managers in government

- The interface between the program of activities outlined in the vision and other high level government programs, such as the NBN and e-Health

- The degree of cultural change required across government to implement the program of work outlined in the draft vision.

- The role and mission of AGIMO in implementing the draft vision.
Executive summary

The Strategic Vision for the Australian Government’s use of ICT provides a comprehensive account of the major issues for government in seeking to improve public sector productivity through the effective management of technology. The Vision document and its accompanying implementation plan are pitched at a high level of generality however that provides insufficient guidance on how the vision is to be achieved.

The Australian strategy is captured in a more cohesive document than the policies of some of the international peer jurisdictions but lacks their specificity. There is a much stronger emphasis in international strategies on managing the costs of large ICT projects that are high risk, and on very directive governance powers and detailed cost reduction initiatives.

The potential for productivity improvement through intelligent use of ICT is recognised as a driving force by government internationally. Efficiency measures designed to assist in reducing budget deficits by cutting ICT expenditure are a feature of policies in other jurisdictions. While these measures do produce savings, productivity improvement is derived from a combination of technology and high quality management.

The Vision in its current draft version would benefit from a fuller account of the scope and influence of other major government projects, in particular that of the National Broadband Network (NBN). There also needs to be stronger recognition of the role of transformational projects involving several agencies in achieving the extent of cultural changes required for process and service redesign.

AGIMO has a strong record of achievement in implementing the recommendations of the Gershon report and should continue to be the primary consolidated source of technical advice on ICT to the Government. The broader scope of the Vision in using ICT to improve the conduct of the business of government, including providing different and better services, requires access to the full capability of expertise across government.

It is recommended that SIGB review current governance arrangements to ensure that it is able to draw on the expertise of the senior government officials responsible for policy and program delivery in its oversight of the implementation of the Vision. SIGB should in particular consider the formation of a dedicated strategic policy unit to provide it with advice. The formation of reference groups drawn from the APS 200 is recommended to assist SIGB in framing priority business issues that would benefit most from ICT investment.
1. International alignment

The alignment of the vision with government ICT work and structures in similar jurisdictions with Australia and in relevant other countries, such as the USA, the UK, New Zealand and Canada

1.1 The Australian Vision in context

Detailed direct comparisons between national ICT policies and strategies are limited by the different social, commercial and government contexts in which each has been framed. A more fruitful approach is to examine where there are overlaps and omissions between the Australian Strategic Vision and the approaches of other peer jurisdictions.

One significant overall difference from our international peers is that the Australian approach seeks to present a comprehensive framework covering service delivery, open government and ICT operations in a single document. The result is a more cohesive document that seeks to link these three streams of activity into a framework that reveals their linkages. From this perspective it represents a complete, internally consistent set of objectives in achieving best practice in government ICT.

Discussions in the course of this review with Commonwealth Secretaries, agency heads and senior executives have generally confirmed their satisfaction with the Strategic Vision as a good high-level account of the issues facing government in obtaining more effective use of and value from ICT. It is however, the high-level nature of the Strategic Vision that invites concern about how it is to be translated into constructive action.

Among the concerns raised in interviews for this report is a perceived lack of specificity in the vision, which is cast in very general terms and, unlike the Gershon report, does not commit agencies to specific commitments. There has been similar concern expressed on the related matter of more detailed timelines that commit agencies to deadlines against which their performance can be assessed. The level of authority required to ensure that the broad objectives of the strategic vision are achieved is also seen to require sharper definition.

1.2 The Australian Strategic Vision

The Draft Strategic Vision for the Australian government’s Use of ICT is built around three “Strategic Priorities” that together are directed at increasing public sector productivity.

The three Priorities are:

- Delivering Better Services
- Engaging Openly, and
- Improving Government Operations.

Two “Strategic Actions” support each of the three priorities:

- Enabling better services and building capability (Better Services)
• Creating knowledge and collaborating effectively (Engaging Openly), and
• Investing optimally and encouraging innovation (Improving Operations)

These six Strategic Actions are expanded in the document and are themselves supported by a total of 23 specific “Actions”:

Building capability
• Improving the use of existing technology capability
• Integrating technology and policy
• Improving program delivery capability
• Developing ICT workforce and skills

Enabling better services
• Delivering easy to use online services
• Greater use of personalised services
• Simplifying government websites
• Increase automation of services

Creating knowledge
• Building business intelligence
• Using location based information
• Developing analytical tools
• Releasing public sector information

Collaborating effectively
• Strengthening external networks
• Building collaboration across government
• Creating the necessary channels

Investing optimally
• Improving investment governance
• Developing a portfolio approach
• Extending coordinated procurement
• Sharing computing resources and services

Encouraging innovation
• Fostering innovation in ICT
• Delivering better ICT- enabled services
• Increasing awareness and early adoption
• Adopting new and emerging technologies

All of the Actions are supported by at least one and in a number of cases by two or more “Activities” at a more specific level, making up 32 in total.

The activities identified in the Implementation Road Map are framed at a very general level, as are performance measures, deliverables and milestones. Of a total of 32 activities:
• 13 are to be implemented from “2011 onwards”
• 13 are to be implemented by 2012 or “2012 onwards”
• 6 are to be implemented by 2013 or “2013 onwards”
1.3 Key international themes

The central theme of the series of measures introduced by the US Government is that improving the efficiency of ICT would produce a consequent improvement in productivity and that achieving both paved the way for the future. That future was tightly focused on improving existing and introducing new services to the clients of government by taking advantage of emerging techniques and technologies that were attuned to changes in consumer behaviour.

The objective of deriving better value from ICT investment was prosecuted through rigorous scrutiny of major projects that were both large in scale and scope and long in delivery times. A powerful alliance of the President, through the use of mandatory executive orders, the Office of Management and Budget and the White House-appointed CIO ensured that efficiency measures were put into practice.

Poor productivity was linked to a ‘grand design’ approach to large ICT projects. The risk involved in those over-sized projects needed to be reduced by tackling them as a series of sub-projects that produced service improvements more quickly. From a technology viewpoint the simultaneous encouragement of cloud computing and a rigorous campaign to reduce the number of data centres reduced the incentive to undertake ‘grand design’ projects. The use and procurement of ICT was also simultaneously streamlined and integrated more closely into customer service planning by agencies.

The UK Government ICT strategy bears a strong resemblance to many of the initiatives implemented by the USA. Both strategies arise from a similar analysis of what is wrong with the current state of government ICT. They share a concern with the limited interoperability of systems, the low rate of reuse and adaption across agencies, poorly integrated infrastructure and too many data centres, inadequately used. They also focus on the responsibilities of the senior leadership group of the public sector to pay closer attention to how ICT is used in service delivery and in the efficient running of government.

Like the US, Britain sees the need for greater central control, is sceptical about the capacity of large ICT projects to deliver on time and budget, and sees the necessity for better procurement practice and use of open standards and open source technology. It is also concerned to ensure that there is greater Ministerial and senior Civil Service accountability for ICT.

Also like the US, the UK recognises that delivering services for less cost releases savings for investment in strategic ICT projects that are sized for fast delivery and which reduce the risks that come with complexity. Firmer central governance and leadership is needed to reform current inefficient practice, especially in applying a continuous scrutiny to ‘at risk’ projects, with the power ultimately to close down those that are under-performing.

The major preoccupation of the Canadian Government is with its ageing legacy systems which needed replacing by the most cost effective means possible. To do so, greater central governance was to be provided to agencies on ICT, including a sharper focus on the oversight of major projects. It was recognised that the replacement of older systems required the public sector to have better project management skills and to accept the necessity for independent reviews of progress.
Like other governments, Canada sees individual agency-centric approaches to ICT infrastructure and systems as a barrier to greater efficiency and is thus seeking to develop a portfolio rather than agency view of ICT investments. It has also initiated an aggressive program to reduce the number of data centres and to increase the utilisation rates of those that remain.

The **New Zealand Government** has implemented both new directions and adopted new priorities for ICT and located them within a governance framework designed to embed accountability at the highest levels of Ministerial and public service authority. While many of the initiatives outlined in the NZ Government policy are familiar in an international context, its strong approach to governance at the most senior level reflects most closely the approach taken in the UK and the USA.

The NZ policy recognises that a more ‘directive’ approach is necessary to achieve the ambitious change program to reform government ICT. To that end, chief executives are assigned specific accountability for implementing government ICT policy within their agencies, a role reinforced by an obligation on Ministers to ensure that this occurs. The resulting three-tier governance structure is tasked with ensuring that implementation occurs.
2. **International models**

The two most influential models in government ICT strategy and policy are the United States and the United Kingdom, which are both undertaking major reform programs built around imperatives for greater efficiency and productivity. To a lesser extent the US and UK initiatives are mirrored in the Canadian Government and to a similar extent by the Government of New Zealand.

A major reason impelling both the USA and the UK to undertake radical reform in government ICT is a desire for greater efficiency and better value for money from their ICT investments, in an environment of very severe fiscal pressure necessitated by the global financial crisis. They warrant more detailed examination as points of reference Australia.

2.1 **USA ICT Strategy**

The direction of government ICT in the USA is led by the White House-appointed Chief Information Officer Vivek Kundra, who has focused closely on extracting greater efficiency from the massive public sector investment in ICT (of which 30 per cent is spent on data centre infrastructure).

By establishing a transparent approach to public spending on technology through the publicly available online Federal IT Dashboard, the US has cast a spotlight on the continuing performance of major projects. That scrutiny of delivery achievements measured against projected timelines has revealed that one-third of current projects ‘needed attention’ and that there were ‘significant’ concerns about five per cent of them.

Agencies are required to seek savings by examining how a better return on ICT investments can be achieved. In the case of the Department of Veterans’ Administration (DVA), cited as an example of good agency practice, this scrutiny has resulted in 45 projects being halted and of them 12 terminated entirely. The savings generated by DVA as a result of this process is put at $54M. The US Government as a whole has reviewed 50 high priority ICT projects and in half those cut the target delivery times, in the process saving $3B.

2.2 **Productivity improvement**

The work of the US Government CIO is complemented by the US Chief Performance Officer, Jeffrey Zients, who is also the Office of Management and Budget (OMB) Deputy Director for Management. At a White House forum in April this year Zients contrasted the annual US private sector productivity improvement of 1.5 per cent year on year with that of the public sector, which was considerably less than half that rate.

As the US Government ceased collecting statistics on public sector productivity in 1995 there was no reliable current data but there was also little expectation that the differential between private and public sector had narrowed. The relationship between improved productivity and the level of ICT investment has been identified as a cornerstone of US Government ICT policy. The US has linked the overall cost-saving strategy to improving its use of technology as the key to increasing productivity.
2.3 Implementation Strategy

The US Government CIO released in December 2010 a 25-point Implementation Strategy aimed at reforming federal information technology management.

The $600B that had been spent over the last 10 years by Government on ICT showed meagre productivity improvement compared to the private sector. In general, Federal Government ICT was perceived as being over budget, behind schedule and failing to deliver. A significant cause of these failures was attributed to what was described as a ‘grand design’ approach that delivers functionality every few years instead of every few months.

Some of the projects reviewed took as long as six years to deliver functionality, compared to the 18-24 months regarded as best practice for ICT projects. To remedy this situation, agencies were required by the plan to have release cycles of no more than 12 months for the delivery of new functions. In addition, there must be a demonstrable benefit to users within an 18-month period. The solution was nominated as breaking projects into manageable chunks and timing the delivery of new functionality every few quarters rather than years.

The objective of the 25-point Implementation Plan was to seek to remove the obstacles that held back agencies from leveraging their ICT investments to create more efficient and effective government. The plan made recommendations for ICT reform directed at both operational efficiency and large-scale ICT program management.

Its three central priorities were:
- Data centre rationalisation;
- Delivery of services using cloud technology; and
- Streamlining government.

Explosive growth had occurred in US Government data centres, rising from 432 in 1998 to almost 2,100 in 2010. A review of public sector data centres showed that the average utilisation rate across more than 2,000 locations was running at 40 per cent of capacity. As a result 137 government data centres, categorised as under-utilised, were closed. The Government announced that a further 98 public sector data centres would be shut during the course of 2011 and that the target reduction figure for federal data centres is 800 by 2015.

2.4 Executive direction

A US Presidential executive order issued in April 2011 laid out the rationale for focusing on greater efficiency in the acquisition and use of critical infrastructure such as data centres. It argued that:

- Advances in technology and in the delivery of services in other sectors of the economy meant that community expectations about government services continued to rise
- It is imperative that the Government learn what is working well from the private sector and apply best practice to deliver public services better and faster
- In particular, the public sector needed to incorporate the use of increasingly prevalent, low-cost, self-service options accessed via the Internet or mobile
phone; there also needed to be improved processes that reduce the need for customer inquiries and complaints.

The executive order laid out a series of concrete action required to improve the use of ICT in Government:

- All agencies should in conjunction with OMB develop and publish a customer service plan about how to streamline service delivery, within six months
- Each agency must nominate one major new initiative that used technology to improve the customer experience
- Mechanisms must be put in place to facilitate feedback that enables the improvement of service, and
- Innovative technologies needed to be identified that would lower costs, decrease delivery times and improve the experience of agency customers.

While these measures were focused on increasing efficiency and improving productivity they were seen as a necessary precursor to the wider introduction of services that took advantage of changes in technology and consumer behaviour.

An “Apps Store” (Apps.gov) has been established by the US General Services Agency (GSA) that enables government users to download a series of applications software releases directed at business efficiency, improved productivity and social media. The GSA provided Cloud IT services to support the government’s “Cloud First” policy, which obliged agencies to explore cloud computing options in all new projects.

### 2.5 UK ICT Strategy

The British Government’s *ICT Strategy* issued in March 2011 by The Rt Hon Francis Maude MP, Minister for the Cabinet Office, begins with a startlingly frank first sentence: “Government information and communications technology (ICT) has a really bad name”.

The frankness of this assessment does not detract from its accuracy, as the analysis of UK Government ICT reveals a familiar pattern of poor project planning and implementation within a culture of limited cooperation. The strategy lists what it describes as the major challenges facing government in ICT:

- Projects are generally too big, which increases risk and complexity
- The large scale of projects limits the number and variety of suppliers that can respond to tenders
- Government agencies rarely reuse and adapt systems
- ICT systems are seldom interoperable
- Infrastructure is insufficiently integrated across and within agencies
- There is substantial over-capacity in data centre space
- Procurement processes are too long and costly
- Too little attention is paid to big ICT projects at senior official and Ministerial level

To remedy these deficiencies in the planning and implementation of ICT, the UK Strategy sets out a comprehensive change program that includes measures designed to increase consistency and efficiency:
• More explicit central agency control to ensure greater consistency and integration across agencies
• The use of mandatory powers by central agencies to remove excess capacity, especially in data centres
• The introduction of conditions that provide for greater equity in the acquisition and use of open source software
• Redesign of procurement to streamline processes around outcomes rather than inputs
• Introduction of a general presumption against ICT projects with a lifetime value of more than £100M
• The adoption across the public sector of compulsory open standards in interoperability and security
• Establishment of a comprehensive ICT asset register
• Creation of a public sector Applications Store
• Agency boards required to hold Ministers and senior officials regularly accountable for the progress of ICT projects

The specific issues nominated as critical in UK Government ICT and the measures proposed to resolve them underpin a broader general strategy consisting of three themes.

The first is acceptance of the proposition that delivery of better services for less cost enables ICT to release savings by increasing public sector productivity and efficiency. These savings can be re-invested strategically and their progress externally monitored.

The second is based on recognition that agencies acting independently in ICT have created an expensive and fragmented ICT infrastructure, which duplicates solutions and impedes sharing and reuse. Unless this issue is addressed through a strengthened central governance structure and greater transparency provided by regular and open reporting, it will continue to hamper reform in ICT.

The third is that Government will commit to moving away from large ICT projects that are slow to implement or have a high failure risk in favour of smaller projects with more manageable levels of risk. Lead departments will have delivery responsibility for strategic ICT projects assigned to them that are already aligned with their core functions. Implementation targets within projects will be required to be very specific with the great majority of deliverables in a timeframe of six to 12 months and to be subject to strong governance.

2.6 Review of major projects

A key focus of the 2011 UK government ICT strategy is the task of streamlining government and undertaking closer monitoring of major ICT projects. This process began in 2010 when the UK Government conducted a review of major projects as part of its overall Budget reduction program. Many of these projects had large elements of technology spending associated with them and some were exclusively ICT projects. The UK Major Projects Directorate estimated that four in 10 of the large projects identified as ‘at risk’ in the review were ICT projects.

The review led by the UK Cabinet Office and Treasury was aimed at assessing what savings could be made on projects costing £50 million or more, including the ICT costs. The initial tranche of 80-plus target projects was then reduced to less than 40.
During the course of the assessment process there was a freeze on contracts and new projects where ICT was a key element and cost more than £1 million. The only exceptions were those projects relating to the London Olympics, Defence and Security projects and ICT investments necessary to implement tax measures.

Projects targeted in the review include those designated as high risk; with uncertain impact despite their high value; or with a significant potential for savings. In some cases existing computer systems were identified for decommissioning under shutdown arrangements agreed with departments.

Following completion of the initial review, a new entity, the Major Projects Authority (MPA), was announced in January 2011 as part of the Efficiency and Reform Group program in the Cabinet Office aimed at improving assurance of high-risk projects. The MPA oversees a mandatory process that can initiate interventions in projects at risk; it is also tasked with propagating lessons learned from projects, for the guidance of agencies.

The MPA can require publication of project information in the interests of transparency and work with agencies to build project and program management capability. All central government funded projects requiring Treasury approval are in scope and each project is required to develop an integrated ‘policy-to-delivery’ assurance and approval plan. Where necessary, the progress of particular projects can be escalated to Ministers, for example where their early termination or re-scoping is under consideration.

### 2.7 Canadian Government ICT

A *Government of Canada Information Management Strategy* produced three years ago comprised a very general set of objectives that are consistent with the broad aims of the more detailed ICT reform programs being undertaken in the US and the UK. Since then, specific measures have been introduced to tackle some of the issues identified internationally.

An Administrative Services Review announced in 2010 expressed concern that many critical systems are ageing and that a major wave of system modernisation would be necessary to replace them. In that process, it was necessary for the Government to seek to maximise its return on expenditure on ICT. Arrangements introduced to achieve this included greater central guidance to departments on ICT and increased oversight of major projects. In addition, a project management framework containing advice and tools for senior program executives was developed that included independent project reviews, and guides and templates reflecting industry best practice.

A government-wide risk assessment of systems was begun as a prelude to developing an enterprise application portfolio view of ICT with which to assess and mitigate risk and identify new investment targets. Prime among those priorities was a modernisation project to provide a common human resources platform for federal departments and agencies and replacement of the previous online authentication systems for citizens. More than 200 data centres across government were to be progressively reduced to 15.
2.8 New Zealand Government

The New Zealand Government released in 2010 a Set of Directions and Policies for ICT that imposed obligations on both Ministers and agency chief executives to improve coordinated implementation of projects. The new policies reflect many of the elements of the strategies adopted by other countries, such as support for open and transparent government and better-integrated service delivery.

The strengthening of cross-government capability by rationalising the acquisition and use of ICT infrastructure and software, reducing duplication and introducing better training and recruitment were also signalled. Operational management of ICT was to be improved by better legacy system management and closer engagement with the supplier industry.

In contrast to the policy adopted by the previous NZ Government in 2006, much more directive central governance arrangements were adopted, in particular the requirement that agency chief executives provide stronger leadership of ICT investment and performance. Agency ICT strategies are to be aligned with the ICT Directions and Priorities strategy and funding models are to be developed to provide incentives for collaboration across the Government.

A stronger role was outlined for Ministers, who were requested to ensure the adoption of the directions and priorities as government policy and to engage with their chief executives to set performance expectations in ICT projects. In some cases, Ministers were requested to provide “directive leadership” for specific ICT initiatives. Chief executives themselves were required to commit to collective leadership and to participate where appropriate in initiatives to provide common capability. A lead agency was to be appointed for each major cross-agency project and its chief executive held accountable for delivery.

To help ensure that business issues gave direction to ICT policy, the Government established a Business Reform Group of agency chief executives that provides advice and a system overview across government. An ICT Strategy Group consisting of agency heads was re-formed as a sub-committee of the Reform Group and a Government ICT Council of senior officials established with an independent external chair.

2.9 International priorities

The two key themes that dominate the measures addressed in the ICT policies and strategies of international peer countries are the much greater scrutiny of large ICT projects and the establishment of more powerful and governance arrangements providing greater accountability.

There is general opposition to what is referred to in the US as ‘grand design’ projects in ICT, which are characterised by unrealistic ambition in their conception and by inadequate execution. Implementation failures were primarily attributable to project scope constantly expanding, deadlines missed and budgets blown. Very stringent measures to scrutinise at risk projects have been adopted, particularly in the US and UK, to bring existing projects to heel and to more tightly manage new ventures. Real savings have been derived from re-scoping or stopping non-performing projects entirely, savings that are in some cases redirected to strategic ICT investment.
Considerably more powerful governance structures for ICT have been adopted in the US, UK and NZ, with the aim of exercising more directive central control to ensure greater consistency, coordination and resource sharing across agencies. Measures to introduce higher levels of accountability for implementing ICT policies have been introduced at the most senior political and administrative levels of government, together with powers to enforce mandatory compliance. In the US and UK particularly, these powers are used to drive aggressive data centre consolidation programs, against specific targets and timelines.

2.10 International alignment of the Vision

The most common concern expressed in interviews with Secretaries, agency heads and senior executives in the course of this review is the question of how the Australian Strategic Vision is to be implemented. There is a widely recognised gap between the generally sound objectives of the Vision and practical measures needed to commit government agencies to specific implementation measures. There is concern that without visible means of implementation an otherwise constructive document could be suspended in a vacuum of good intentions with limited practical import.

It could be argued in defence of the Strategic Vision that it is primarily intended to provide high-level guidance to agencies and to lay out the Government's general approach to managing its ICT investments. In the process however, the vision raises justifiable expectations that its implementation will be transparent and that progress can be measured and monitored. Goals framed so generally and without very specific performance targets are difficult to assess, especially where even partial compliance can be represented as having met requirements.

A second concern is the scope of the implementation task, which to a great extent echoes the current AGIMO work plan and mandate. In the absence of direct agency accountability to deliver the program of reform outlined in the Strategic Vision, the weight of the implementation task appears likely to fall to AGIMO. Its current status as a business unit of the Department of Finance and Deregulation and its current resources are seen as limiting its capability to ensure that agencies implement the strategies presented in the Strategic vision.

The effect is that the scope of implementing the vision is limited by AGIMO’s current capability and its dependence on the power of persuasion in enlisting agency support. A more robust whole-of-government approach backed by an authoritative governance structure would bring to bear the totality of capability available to Government in implementing the vision. This is very clearly the approach taken internationally.

As it currently stands, the level of governance authority in Australia has not been strengthened in comparison to other countries. A test of whether Commonwealth ICT governance is fit for purpose in an international context is whether the full range of activity proposed in other countries could be successfully implemented under current Australian arrangements. In the absence of firm directive powers, and strong leadership, even the most optimistic reading would be hard put to make this claim.
3. Public sector productivity

The balance in the vision between improving government business outcomes, particularly public sector productivity, and managing the government’s effective and efficient use of technology as core issues for senior managers in government.

3.1 ICT and productivity

There is a generally agreed causal link between improvements in productivity and investments in information and communications technology, despite difficulties in agreeing appropriate methodologies to measure the extent. The most commonly cited source of productivity improvement is the declining cost of storing, processing and exchanging information, with a simultaneous increase in computing power.

One recent Australian study (ICT as a Driver of Productivity, a Report prepared for Telstra by ACIL Tasman in 2009) cites US reports that attribute improved productivity to the availability of escalating computing power per dollar. The ACIL report notes that there have been several studies on the impact of ICT on productivity at macroeconomic and industry level commissioned by the Australian government, but few studies at a micro-economic level. Assembling definitive evidence has been hampered by the absence of consistently applied measurement and the lack of a common methodology.

Investment in technology alone does not of course guarantee that productivity benefits automatically flow. The improvement is derived from the combination of appropriate ICT and its effective management within organisations that recognise how work can be done more productively. As senior managers have become more technology-literate and the level of ICT funding in their organisations rises, the task of extracting the best value from their investments becomes a more pressing issue. As the ACIL report notes ICT is a necessary but not sufficient condition for productivity growth.

Organisations that respond to the management challenge of extracting better value from technology are the major beneficiaries of increased levels of productivity. General knowledge of how ICT can be put to use in enabling work to be done differently is a precursor to the specific task of planning and implementing organisational change at the level of business processes. This mix of managerial and technical skill is difficult to accurately capture and measure in a set of specific metrics. There does however appear to be general support for the linkage between productivity improvements and ICT investments, while acknowledging that methodologies to accurately quantify the link need to be refined.

3.2 Efficiency measures

This caution about measuring productivity at an organisational level has most recently been reflected in a review of Commonwealth Government agency efficiency dividend. The Report of the Review of the Measures of Agency Efficiency released by the Department of Finance & Deregulation in March 2011 noted in passing the lack of an accepted method of measuring public sector productivity. The absence of a “statistically valid approach” to measuring public sector productivity is consistent with studies on organisational productivity.
Although the focus of the Finance report is on the Commonwealth efficiency dividend rather than productivity improvement, it does point to issues that are relevant to ICT in both reducing costs and increasing performance. ICT is cited as being by a considerable margin the major single contributor, at $1B over four years, to cost savings as a result of the Gershon Review process. By contrast there were savings of $160M over four years for travel and $47.6M over a similar period for property.

Additional potential sources of efficiency are identified as back office systems, where the integration of common business functions by the private sector is cited, as well as standardising common processes and introducing shared services. Although issues of scale in shared services are recognised, the development of an enterprise financial management information system is nominated as an initiative to increase efficiency.

The report does acknowledge however the two most significant impediments to making investments aimed at improving both efficiency and productivity in Government. The first is the absence of ICT investment funds to resource both the acquisition of technology and the organisational change programs that deliver efficiency and productivity benefits. The lack of funding for upfront business re-engineering costs, especially in major ICT projects such as finance systems, is identified as an obstacle. The second issue is what the report terms a “lack of leadership from the centre” in addressing barriers to progress in extracting the potential benefits from ICT.

The twin issues of funding and leadership are at the core of the relationship between increasing business performance, improving public sector productivity and the managerial task of realising benefits from ICT. Put more simply, it is difficult to see in the absence of investment funding and quality leadership how significant productivity gains can be made.

### 3.3 Funding innovation

The availability of funding for ICT projects was an issue consistently raised by Secretaries and agency heads interviewed for this report. The combined effects of successive and increasing efficiency dividends and the Gershon savings targets were cited as impediments to investing in ICT. Different approaches have been taken by agencies to secure funds for major projects and the notion of sharing resources across portfolios of interest to reap savings was being actively explored.

Among strategies for securing funding was agencies partnering with a cohort of their peers in order to save ICT costs. This approach would be encouraged if it were possible to negotiate with the central financial agencies a means of quarantining savings from efficiency dividend requirements. There is need for what one Secretary described as “a pragmatic model” to break the investment logjam.

A commonly quoted funding model based on a collaborative approach was that used in the Department of Defence Strategic Review process, which saw a series of ‘companion reviews’ undertaken of all four Services, based on the relationships between units. Instead of each unit procuring, deploying and managing its ICT independently, the model aimed at moving the four separate Services on to a single technology infrastructure backed by supplier contracts for commodity items such as desktops on a portfolio basis.
Similar opportunities for greater inter- and intra-agency cooperation to release savings for future investment have been initiated in the Attorney-General’s Department under a CIO with portfolio-wide responsibilities moving agencies on to common infrastructure using common business applications.

The cluster of agencies involved in border protection is also exploring the approach of collaborating on the basis of a business model covering agencies with common interests. By examining similar business processes across agency clusters, for example inbound passenger risk assessment; bespoke systems could be progressively replaced with a single standardised, co-designed and developed information environment using common networks.

With the exception of initiatives that are directly funded by Government, such as the funds provided in the 2011 Commonwealth Budget to the Department of Human Services, the inability to retain a substantial proportion of savings for reinvestment in ICT is an impediment to greater innovation. Direct funding mechanisms involve priorities and choices based on a whole-of-government view and can only meet some of the demands for investment.

The constraint of tight availability of central funds may however push agencies to accept that in many cases ICT delivery systems can be developed through the alternative approach of sharing resources across and between agencies. Appropriate recognition of this strategy in funding arrangements would certainly lend weight to these initiatives.

3.4 Senior leadership

The issue of cross-agency cooperation carries with it inherent governance risks and considerable challenges to the quality of leadership required of senior levels of the public service. One immediate danger that needs to be managed in formal agreements that govern agency collaboration is that collaborative initiatives can serve to blur individual responsibilities and accountabilities.

In the words of one of their number, “the accountability of Secretaries essential”, in guarding against a diffusion and dilution of responsibility. Collaboration should also be firmly based on business issues, to which Secretaries and agency heads should formally commit. The collaborative process should not be founded on a proposed technology solution as its starting point but on shared business processes in which there is both a collective and agency-specific benefit in standardising.

The additional challenge of initiating a series of major projects based on cross-agency collaboration is that they can fall into the category of large and complex, multi-party ICT ventures that are likely to be assessed as high risk. Large ICT projects are currently scrutinised at their initiation through the Gateway and two-pass investment assurance processes. In the absence however of the ongoing scrutiny and accountability of their progress from conception to completion which comes with the measures adopted by the US and UK toward major projects, it is difficult for that level of risk can be effectively mitigated.

Senior agency executives hold direct responsibility for the major issues associated with improving the outcomes of government business processes, increasing productivity from ICT investments and ensuring the efficient use of technology. In some peer international jurisdictions this responsibility has been formally recognised by holding senior government officials explicitly accountable for these matters. In this
regard, the residual tendency among some senior public servants to regard technology matters as the sole province of the IT department represents a considerable risk.

Explicit recognition of the role of senior managers in improving public sector productivity through efficient management of resources and investing in technology to enables business process change is essential. The modification of executive performance agreements for these essentially managerial responsibilities would strengthen accountability and should be considered by Government as part of its broader productivity agenda.
4. Other government programs

The interface between the program of activities outlined in the vision and other high level government programs, such as the NBN and e-Health

4.1 National Broadband Network (NBN)

The Strategic Vision makes a number of references to the NBN, describing it as “a critical enabling platform for further improving the delivery of both current and future government services”. NBN’s capacity to provide online services to people and businesses, including those in rural and regional Australia, is mentioned in passing. The NBN is also cited briefly in conjunction with cloud computing as an example of how innovative services to people, communities and business can be delivered.

These references are surprisingly cryptic for what the Vision Strategy itself describes as “the largest single investment in infrastructure undertaken in Australia”. While it could be argued that the installation of the NBN fibre optic cable has only just begun and will continue to roll out over a number of years, it will clearly have important consequences for how agencies deliver services and manage their operations.

The Department of Broadband, Communications and the Digital Economy (BDCBE) in its Submission to the House Standing Committee on Infrastructure and Communications published a very detailed case for Government to use the NBN to deliver services in March 2011. The submission examines the potential for online service delivery generally by Government and more specifically in health, education and built and natural resources.

There has also been an inter-departmental committee under the leadership of the Department of Prime Minister and Cabinet considering how the NBN can be applied to improve Government operations and services. In late March the Prime Minister foreshadowed a national strategy that she promised would provide a roadmap for leveraging the NBN for Australia to “become a world leading digital economy by 2020”.

In view of the central importance placed on the NBN by Government and the opportunity it represents for agencies to re-think and re-shape how they deliver services and operate, its rather cursory acknowledgement in the Strategic Vision difficult to explain. The NBN should clearly sit front and centre in any serious consideration of future service innovation and planning in the Australian public sector.

4.2 E-health programs

Whereas the NBN is mentioned in passing in the Strategic Vision, reference to e-health is entirely absent. While the national e-health program of activity is, unlike the NBN, a collective responsibility between the Commonwealth, states and territories, the Department of Health and Ageing is the dominant policy and funding agency.

The range of potential innovation that the NBN could help to unleash in the provision of health care is detailed in the BDCBE submission to the House Standing Committee. It includes providing services to people in their homes, using technology that measures vital signs such as blood pressure, heart rates, blood sugar levels and
providing remote access to electronic health records. The inclusion of telehealth services in the Medical Benefits Schedules from July 2011 rewards doctors in regional areas for participating with their patients in video consultations with specialist practitioners in the major cities.

The availability of a universally accessible national high bandwidth communications network has the potential, in concert with advances in diagnostic and consumer technology, to redesign how healthcare is provided. Newer models of clinical care that put the patient at the centre require greater coordination of the services provided by a range of clinicians and allied health professionals. Those models of care also anticipate the increasingly proactive engagement of patients in managing their own health care. In this context, the NBN may provide a spur to innovation, to reduce costs to patients and the Commonwealth and other governments and to contribute to greater productivity across the health system.

The inclusion of more detailed consideration in a national ICT strategy of the potential of the NBN to provide a critical piece of national technology infrastructure for improved healthcare does appear to be warranted. Even at this point in its establishment, thinking and planning has begun around delivery of a wider range of services in health and better quality and greater efficiency in other areas such as education and skills, teleworking and the management of energy grids.

4.3 Human Services

There should be provision in a strategic vision for reference to what is possible, not just what is currently proposed. Signs of creative thinking are evident in developing portfolio approaches involving multiple agencies with common business issues capable of shared resolution. An example is the cooperation between a cohort of border protection agencies that focus on common issues; another is the cluster of national security agencies cooperating to implement a common IT road map.

In the case of human services, a single Department has been created around four previously separate agencies, Centrelink, Medicare, Child Support and Rehabilitation Services. Substantial resources were provided in the 2011 federal Budget to fund the development of integrated computing and communications infrastructure that will serve as the technology platform for implementing common applications.

The integration of the infrastructure requirements of these four organisations represents a model for how other cohorts of agencies can provide develop common platforms by sharing resources. Rather than seeking cross-agency cooperation on the sometimes random basis of the alignment of administrative boundaries a more fruitful approach may be to build portfolios of interest on the basis of shared business imperatives, and common clients.

4.4 The DHS model

The DHS model is demonstrating, in addition to very substantial central funding, that aggregating the ICT of four agencies can produce cost savings that free up internally generated funds for investment. Global budgets across portfolios of agencies have a better prospect of realising savings by rationalising back office operations, consolidating data centres and finding savings from the reorganisation of people and work than if they acted alone. Cooperation enables investment funds to be created from savings derived from organisation-wide change, not just by combining four IT budgets into a single funding line and attempting to do more with less. On the basis
of size and function, DHS does constitute a very significant government program with the potential to influence the strategic planning of many other service delivery agencies. Although it is not cited in the Strategic Vision as a program with the importance of the NBN it does represent a model for significant change in how services are conceived and delivered.

The Service Delivery taskforce set up following the release in 2010 of the APS Blueprint for Reform has endorsed DHS as the lead agency in providing authentication services that can be applied across government. There are many instances in the interaction between agencies and citizens and businesses where online users need a process to confirm that they are who they say they are. It is counter-productive for the clients of government to be forced to serially authenticate themselves across different agencies and for government to oblige them to do so.

4.5 Generalising the model

Having one very large agency for which user authentication is its core business in paying benefits through Centrelink or Medicare or in interacting with the customers of Child Support and Rehabilitation Services, makes it easier to generalize shared business processes across government. It could also pave the way for the further step of nominating DHS as the payment agency for other departments to pay their clients and eventually becoming the Commonwealth’s universal payment agency.

The role that DHS already has as the dominant payment provider and its potential extension to other agencies, is mirrored in the role of the Australian Taxation Office (ATO), the dominant collector of moneys for the Commonwealth. The ATO estimates that it already is the collection point for more than 90 per cent of the payments made to the Commonwealth by citizens and businesses.

The establishment of a single paying agency matched by a single collecting agency faces significant challenges at a policy, service delivery, operational and technology level. Some consideration of these kinds of transformational projects with cross-government applicability does however appear to be warranted in any Commonwealth strategic vision for ICT.

The integration of common functions such as paying and collecting through single large agencies requires large and complex ICT projects, which have the potential to repeat the mistakes of the past by exceeding their scope, timelines and budgets. The big service delivery agencies would need to be transparent about their plans, commit to periodic reporting and to external scrutiny of proposed investments in technology. They are precisely the projects that would require not just initial close scrutiny through Gateway and two-pass processes but continual independent monitoring.
5. Cultural change

The degree of cultural change required across government to implement the program of work outlined in the draft vision.

5.1 Assessing change

If there is a correlation between the ambition of a vision for ICT and the extent of cultural change required to implement its program then the Strategic Vision, while broad in scope, does not fundamentally challenge many of the deeply entrenched cultural characteristics of the Australian Public Service.

The extent of real challenge to public sector culture will only be able to be assessed when some of those high level objectives in the Vision document are implemented in change programs. Measurement of progress will be unreliable in the absence of specific goals, implementation timelines and completion dates.

One central difficulty in seeking to assess the cultural change required for implementation of the work program outlined in the Vision is its high level of generality. A very general objective such as the delivery of “simple and easy to use online services” can be fulfilled at a very basic level by simply moving existing customer service processes online. That could mean – and often does – that forms previously filled out by hand and posted or faxed to agencies are instead populated on a screen and emailed.

It is difficult to argue that simply moving forms from paper to computer screens requires substantial cultural change in service delivery organisations, whether they are in the public or private sector. Using ICT in such a fashion to produce a relatively mild improvement in the quality of service experience by the customer hardly constitutes a disruptive threat to existing organisational culture. A low threshold of both technology and process change leaves the status quo comfortably undisturbed.

5.2 Technology and process

It could be argued that putting forms online is a useful first step toward redesigning how government is able to use technology to improve interaction with its clients. This point only has force however if the next steps have been mapped out. If it is not a precursor to a process of continual evolution of online service improvement that meets the expectations of customers, it produces only modest benefits. In a world where the culture and pace of consumer behaviour in social media is evolving at an extraordinary rate, the culture of government service provision is under severe pressure to respond.

The efficiency benefits of moving existing processes online are finite and may in the short terms produce modest gains. Redesigning business processes to produce qualitative change driven by consumer behaviour appears in contrast to currently have no limits. The extent of the reach of possibilities in transforming government operations and its provision of services cannot be predicted with confidence. What can be predicted with confidence is these developments will be disruptive not just in a technology sense but in the challenge they represent to the current business processes and internal culture of government departments.
Any strategic vision for ICT prepared in this fast-changing environment is deficient if it does not acknowledge the extent of the challenge involved in implementing projects that make a real difference to government and citizens. Unless the change program is implemented in conjunction with specific projects and timelines, it is difficult to judge whether the extent of cultural change involved is either set too low or too high. Developing a vision in which cultural change is not anchored in specific projects, suspends it as a high level objective, not anchored in workplace practice. Cultural change presented in this way as a desirable, if ill-defined, attitudinal objective invites the scepticism with which it is often treated.

5.3 Change ownership

Where elements of the strategic vision are implemented in a fashion that is sufficiently rigorous to challenge existing processes there is an issue in assigning responsibility for leading organisational cultural change. A common response within the public sector in particular to the implementation challenge of even a significant technology-based initiative is that it is “just another IT project”. This dismissive assessment appears most often to be prompted by unwillingness at senior executive level to take responsibility for managing the risks associated with projects that are highly dependent on ICT. To the extent to which this attitude persists it has the effect of weakening accountability and constitutes a significant challenge to cultural change.

The Strategic Vision implementation road map assigns a “significant role” in a number of initiatives to AGIMO. Among them are coordinated ICT procurement, Gov 2.0 activities, consolidation of data centres and “ICT investment management”. AGIMO is also tasked with working with agencies to develop “implementation approaches”. The assignment of these specific responsibilities to AGIMO should not obscure the reality that the greatest burden for implementing substantial change falls on agencies.

Leading and managing the change process involved in implementing substantial ICT-enabled programs across government is clearly a large and challenging task. It is unrealistic to expect that a primarily technical business unit in the Department of Finance and Deregulation can carry more than its fair share of the load involved. It is no more appropriate within Government for AGIMO to lead these large change programs than it is within agencies for executive responsibility to be delegated to the IT department. While AGIMO is able to offer expert technical advice and support, responsibility for major change programs within agencies should clearly reside with Secretaries, agency heads and their senior executive group.

5.4 Executive responsibility

While the extent of the cultural change required within organisations implementing significant ICT programs varies, the demand for consistent oversight from the highest levels of authority does not. Leadership from the top is as important as the resources and skills required to implement the individual and collective elements of the program. Just as the technical projects are planned from the stages of collecting business requirements through to testing and going live with systems, so too is planning the accompanying cultural change program.

Many of the sources of resistance to change that can be described as cultural are not difficult for chief executives and their senior teams to anticipate. They include ‘go it alone’ attitudes from units seeking to avoid collective responsibility; in technology
areas, the tactic of erecting technical barriers designed to protect patches; and in business owners seeking to retain existing processes by demanding bespoke software. Any effective cultural change program would include identifying the behaviours such as these that if not modified represent risks to the successful implementation of projects.

These challenges to change are intensified where programs seek to redesign the way that services are provided and where staff members are required to work in substantially different ways. It is however these types of projects that also hold the most promise of productivity improvement by changing how work is organised more intelligently, rather than just seeking to lower costs. These are matters that require the leadership and serious attention of chief executives and business owners within agencies.

In a number of interviews conducted in the course of this review, Secretaries raised the importance of what were described as the role of transformational projects in driving cultural change. Despite concerns about the difficulties of managing large change initiatives, especially those involving multiple agencies, these projects were seen as opportunities to change the internal cultures of the participating organisations.

The Strategic Vision highlights an excessive focus on individual agency technology priorities as a major issue within the Australian Public Services. Change programs that cannot be implemented without collaboration between business owners in different units or agencies have the effect of consolidating around collective rather than individual needs. The achievement of common business objectives through a collaborative model by agencies has the potential benefit of revealing sources of savings that enable projects to be self-funding.
6. AGIMO role and mission

The role and mission of AGIMO in implementing the draft vision

6.1 Purpose of the Vision

The management of information by government is the core concept at the heart of the Strategic Vision, including its collection, storage, modification and dissemination.

There are basic questions that need to be addressed in any vision for the future of the use of ICT and they take precedence over any consideration of technology. They are questions such as these:

- What information does the government need to run the business of governing, including the delivery of services and the development of policy? The answer to that question will vary from agency to agency depending on its role, although the information needed across government may also be common, such as financial management information.
- How is this information to be organised – collected, stored, protected, enhanced, distributed? These are the classic questions for information management and were issues before any suggestion of computerisation; technology has both amplified them and offered new answers.
- What are the business requirements that determine processes for managing information in all these manifestations? Information does not exist in a vacuum, it is the lifeblood of public administration and it flows with greater or lesser efficiency in the business processes of everything that government does.
- How are effective processes to be developed to deliver the business requirements by government? The effectiveness of the vast information flows needed to sustain the business of government is regulated by the efficiency of the processes that manage them.

The primary set of questions about business requirements and processes serves to prepare the way for considering how best technology can enable their implementation. Guidance about what the business owners in agencies need to improve their management of information is the first priority. Technologists can then provide advice on the best available technologies to enable the processes that deliver business outcomes. They can also develop project proposals about how information technology, including hardware, software and communications, can be best deployed in the most efficient, timely and cost-effective way.

The complexity of the relationship between information and technology in organisations has produced many methods seeking to map their interaction. A simplified model adopted by AGIMO distinguishes the key areas of the relationship in a stack of four elements reading from top to bottom as:

Business
Process
Data
Technology.

AGIMO sees the bottom two elements of this hierarchy as its core area of expertise. The use of the term data rather than information generally reflects the technical
perspective that all information is data to computers, if not to human beings. In reality
best practice cooperation between technology professionals and business owners is
more iterative than this set of functions suggests but it is a useful guide to the core
sets of responsibilities involved.

6.2 Information governance

If information management is at the core of the Strategic Vision then the issue of
information governance in government is not far behind. The scope of governance
responsibilities for managing information is clearly wider than just the task of
managing ICT. To consider the job of managing technology in isolation from how
business requirements and processes are governed would distort any proposed
implementation plan for the Vision.

The central role mapped out for AGIMO in the Strategic Vision needs to be
considered in the context of the roles of other components of a whole-of-government
information governance structure. In particular, the responsibility of the Secretaries
Information Governance Board (SIGB) for ensuring that the vision is delivered and its
alignment with AGIMO’s role.

6.3 AGIMO and Gershon

The independent review of the implementation of the Gershon report conducted in
2010 made a series of observations and recommendations about AGIMO’s role that
are also relevant in implementing the Strategic Vision.

The review concluded that in general the governance arrangements for implementing
the Gershon recommendations were not achieving their business objectives and that
sustained leadership by Ministers and top officials in Government was required to
strengthen them. Most of the focus in implementing the recommendations was on
ICT as cost containment rather than investment, with the result that strategy
development was somewhat crowded out. The independent review concluded that
there was too great a weight of expectations imposed on AGIMO in implementing
Gershon.

The influence of AGIMO as a catalyst for change, as envisaged by Gershon, was
undermined by its role in enforcing savings on agency ICT budgets. Post-Gershon,
AGIMO needs to redefine its agenda, work program and role.

In many respects, the need for a new agenda has been met by the development of
the Strategic Vision, just as the recommendations of the Gershon report collectively
comprised a work program for ICT in government. The practical experience of
implementing the Gershon reform program contains lessons in how best to
implement the work program of the Strategic Vision.

A key area of concern to emerge from the review of Gershon was the need for better
governance to support AGIMO in meeting the objectives of a substantial reform
program. A redefined governance structure would more clearly describe the
respective roles and responsibilities of:

- Ministers
- Secretaries and chief executives
- Senior agency line executives
- Chief Information Officers, and
• (AGIMO)

6.4 AGIMO’s current role

AGIMO can claim a significant record of achievement in implementing the detailed recommendations of the Gershon report. Of the 42 activities recommended by the Gershon, AGIMO categorises 39 as complete and the remaining three are scheduled for completion by September and December 2011 and September 2012 respectively.

The savings targets in ICT expenditure set by Gershon were met, with a total of 51 agencies returning $1 billion of savings to the Budget over 2009-2013 on ICT business as usual expenditure and a further $176.5 million per annum beyond then. The Government in July 2010 committed to return $447.5 million of those savings to 2013-14 Budget, and to allocate $231.3 million to fund 44 ICT projects in agencies.

AGIMO also developed a number of whole of government policies on ICT that are currently being implemented, including an Australian Government data centre strategy, an ICT career structure and strategic workforce plan and an ICT sustainability plan. In addition a total of 17 other whole of government ICT policies were developed, with agencies able to exercise ‘opt out’ arrangements from them.

In procurement management, AGIMO negotiated a volume sourcing arrangement with Microsoft for desktop equipment which has saved more than $50 million on government retail pricing since January 2009 and will continue to reduce costs at the rate of $15 million per year for the remaining two years of the agreement. A telecommunications invoice reconciliation panel was set up, as was a panel for commodities, carriage and associated services. Panels for Internet-based network connections and telecommunications lifecycle management services were under evaluation.

AGIMO provides operational support to agencies in Gov 2.0 activities, where it is the lead agency for adoption across Government. It also manages data centre consolidation and reviews agency ICT investment proposals through the Gateway and two-pass processes.

The set of activities from the Gershon period that are most relevant to AGIMO’s role in implementing the Strategic Vision include working with agencies “to develop detailed implementation approaches that deliver the strategic priorities and improve productivity”. It also saw its role as advocating “strategies to SIGB and the Government for endorsement”. Its general role in implementing the Vision is described as “working with agencies and governance boards to ensure that the vision is delivered”.

6.5 The Implementation task

The high level of generality at which the Strategic Vision is cast is reflected in the general nature of the implementation plan that accompanies it. The lack of specificity in both the vision and the plan flows through to AGIMO’s description of its role in implementing the vision.

The areas where AGIMO certainly has experience and expertise is in procurement management of ICT panel arrangements, in conjunction with other divisions of the Department of Finance and Deregulation. It also produces a substantial number of detailed technical policy documents and, working with other agencies, workforce and sustainability plans. In operational support areas such as assisting agencies with
Gov 2.0 policies and in managing aggregated information sites, AGIMO has provided a constructive role that has been widely recognised.

The contrast between the quite specific recommendations and work program of Gershon and the high-level objectives of the Strategic Vision has the effect of shifting AGIMO’s responsibilities from the particular to the general. While AGIMO has a sound track record in delivering the specific elements of the work program laid out by Gershon, it does not have that same record of performance in delivering the more challenging policy development required by the Vision.

The challenge of stepping up to the more ambitious task of implementing the strategic vision is a collective responsibility of agencies, not simply that of AGIMO. Implementation of the strategic vision through “the Government’s work program” involves more than implementing AGIMO’s current work plan, which is ultimately dependent on the willingness and capacity of agencies to put the strategic vision into practice. It requires a more detailed plan in which relevant activities are assigned to agencies in what is genuinely a whole of government work program.

6.6 Business requirements

In its current version the implementation plan for the vision has a somewhat ‘technology first’ approach rather than an emphasis on defining business requirements and processes that deliver them effectively.

The absence of a mechanism by which input can be solicited from the senior executives who constitute the business owners in agencies substantially limits the effective implementation of the vision. Advice from CIOs based primarily on technical perspectives is no substitute for a process that focuses first on agency business requirements before the technology deployed to deliver them. The value of AGIMO and agency CIOs is as a source of advice about what the technology options are to implement business and process change.

There is an inherent tension between the tactical functions of designing and providing operational support and the strategic approach necessary for policy formation that obliges agencies to undertake specific actions. To conflate the level of authority and type of expertise required for the former with the level of authority required for the latter blurs the governance model and weakens accountability.

This distinction between tactical technology questions and strategic policy formation that sets the course for ICT has direct implications for agencies. While agencies do need to be involved through their CIOs (as they are through the CIO Council and CIO Forum) they also need the involvement of their senior executives and chief executives. Secretaries and agency heads are represented on SIGB but the level of senior management that typically sits between CIOs and Secretaries does not have a similar forum to provide input on cross-agency business issues and priorities.

The business needs of agencies provide greatest direction and momentum to implementation of the Australian government strategic vision, making a formal means of capturing this input a necessary part of any governance structure. The implementation plan should be dictated by the vision for the business as the basis on which to identify what projects should lead specific initiatives and where responsibility and accountability should reside.
The important supporting role for AGIMO is in providing guidance to agencies to support the design and implementation of the technical aspects of business initiatives. In its current form, the most effective part it can play is in facilitating rather than leading cross-agency and whole of government projects. If it is to move beyond that role AGIMO needs to be given substantially greater authority, resources and skills than it currently has.
7.0 Governance Arrangements

7. There was recognition in the independent review of the implementation of the Gershon report that AGIMO had been asked to take on a heavier load without the concomitant heft to carry the burden of devising and implementing ICT policy across government. It derives authority and ultimate policy development approval from SIGB but a broader governance model that included senior business owners would produce a more effective structure.

7.1 Governance model

There are four broad requirements of a governance structure to provide oversight of and drive the implementation plan for the Australian government’s strategic vision for ICT:

- The model should be based on recognition that it is essential to involve Secretaries, agency chief executives and their senior line managers in the ICT reform agenda
- Major policy objectives need to be identified as priorities at the most senior levels of the APS in order to have sufficient authority to be implemented within agencies
- A central theme of the next reform phase in ICT is how to promote productivity improvement through innovation enabled by technology
- There needs to be a means to enable senior executives to consider the major business issues to be resolved and to propose strategic options that enable them to be addressed.

These governance arrangements enable all three levels that comprise it to contribute to key matters that are central to implementation of the strategic vision for ICT. The implementation plan for the Vision should be positioned as the next stage of Government ICT reform following implementation of the Gershon initiatives. A central theme would be identifying priorities for productivity improvement and innovation that can be applied on a cross-agency basis. This requires serious consideration about where across government investments in ICT are likely to produce the greatest return.

7.2 Role of Secretaries

SIGB constitutes the central anchor point of information governance in the Australian Government. It has as its members Secretaries and chief executives of a number of the largest and most important agencies engaged in providing services and developing policy. As a group, its collective authority makes it one of the most powerful governance entities in Government.

The reality is that it is however a body composed of busy people, with a wide scope of responsibility within their portfolios and agencies and many demands on both their time and attention. The management of information in delivering the many functions of government, and the technology involved in doing so, constitutes only a small part of their working lives.
The independent review of the implementation of the Gershon report observed that SIGB would benefit from the availability of strategic advice and that should be provided as a dedicated resource separate from AGIMO. There were two primary reasons for this approach.

The first was that demands placed on AGIMO of performing its operational role in a largely technical sphere were considerable. Seeking to also to be the primary source of strategic advice to SIGB on what are essentially business issues was however a stretch from its core responsibilities. The second reason was that SIGB required greater depth and spread of advice from across government to do justice to its mandate.

Secretaries interviewed for this review identified the potential for senior-level consideration of fundamental questions for government as a feature of SIGB that gave it particular value. Examples cited were consideration of how the nature of work will continue to change in the public service as increasingly advanced technologies and sophisticated consumer behaviour come into play.

If this is to be a legitimate function of SIGB, its members need to be provided with greater capacity to identify policy issues in the management and governance of information and to proactively pursue the development of options. A more rigorous approach to high-level policy formation also requires a process by which policy options are thoroughly tested with agencies before they are brought to SIGB for consideration.

7.3 SIGB role

The status of SIGB as the top-level forum for considering and testing ideas about how best to respond to the challenges of the continuing rapid evolution of how information is used in government has an additional benefit. In an environment where there are cultural, administrative and sometimes political barriers to mandating policies across government, a more collaborative approach can produce better results. As one Secretary put the matter – “carrots work better than sticks”.

One of the appeals of this approach applied to SIGB is that it draws on the powerful influence at Secretary level of a culture of peer review to build consensus around policy. The structure would however, where SIGB’s efforts to encourage collaboration by agencies in implementing policies failed, allow for escalation instances of non-compliance to Ministers.

A further recommendation of the review of the implementation of the Gershon report was that two additional heads of government agencies be appointed as members. One of those heads has already been appointed to SIGB and consideration of how a second position could be best filled may be timely. One obvious candidate, in view of the agency’s very central role in shaping the provision of services, is the Secretary of the Department of Human Services.

A second recommendation of both the Gershon report and the independent review of its implementation is the appointment of external members to SIGB to bring additional perspectives to the Board’s work. This recommendation has not been implemented and should be re-considered. Apart from widening the spread of knowledge and experience on SIGB, external membership would assist in mitigating any perceived conflict of interest involved balancing agency against cross-government interests. A recently appointed Government ICT Council in New Zealand
is also a possible model where membership is drawn from the senior levels of agencies, chaired by an external independent member.

7.4 **Strategic policy**

There are two strands of support that SIGB requires to assist it in providing adequate leadership across the Commonwealth public sector. The first is the establishment of a small strategic policy unit dedicated to providing expert advice to Secretaries. Although this unit would draw upon AGIMO’s technical expertise in developing its advice, it would also draw on the business expertise existing in agencies. The second supporting element is introducing a means of gaining policy input from the senior executive levels of government.

A dedicated support unit to SIGB would require modification of existing arrangements in which AGIMO is effectively the Board’s secretariat. A separate strategic policy unit would have:

- A strategic policy development function distinct from the operational activity of implementation, removing any potential conflict of interest involved in conflating the two roles
- A range of capability available to it broader than a narrowly technical base, through senior executives with responsibility for resolving business rather than ICT issues
- A core complement of skilled secretariat staff but not a large permanent establishment
- A means of calling on the policy development expertise in agencies on a project basis in order to frame business issues and explore ICT solutions to them.

These ‘outreach’ activities to other agencies would be directed from a single unit responsible directly to SIGB serving as the engine room for the development of strategy and policy. This structure recognises that the supply of talented individuals necessary to conceive and develop high-level policy is not abundant and where it exists is almost certainly at senior executive level. A strategic policy unit would realistically be no more able to recruit these executives than would AGIMO. Another approach suggested in the *Blueprint for the Reform of the Australian Government*, points the way to resolving this issue.

7.5 **Senior executive role**

The proposal in the *Blueprint* to draw on the breadth and depth of expertise and knowledge across the senior levels of the public service to address specific issues has already produced results in cross-agency consideration of major issues. The *Blueprint* envisaged drawing on this senior group, which it referred to as the APS 200, for advice on a range of matters across government. Technical experts could also support working groups commissioned by Secretaries to address specific matters where necessary.

Applying this model to information governance would see the formation of reference groups at the behest of SIGB to frame policy issues and options against tightly defined responsibilities and firm timelines to complete their work. The provision of improved policy support to SIGB could serve both the interests of information governance and of the agencies from which APS 200 members are drawn. SIGB
would benefit from having access to advice from very senior levels of government and APS 200 participants would take shared knowledge back to their agencies.

This approach would overcome the difficulty of seeking to recruit very senior executives directly into small policy units while providing access to business owners brought together in communities of interest. Participants would be recruited on a part-time basis and in their work on these reference groups would be required to set individual agency interest aside in considering issues from a whole of government perspective.

SIGB would retain expert advice under its own direction through the strategic policy unit working with APS 200 reference groups in balancing individual agency interests and whole-of-government considerations. SIGB would commission a limited number of reference groups on a specific subjects selected on the basis of their importance to government. As well as being used to kick-start consideration of priorities, reference groups have the capacity to stimulate cultural change through undertaking projects that can only be completed by sharing ideas and resources.

7.6 Governance road map

Formal authority in an organisation as large and complex as the Australian Public Service comes from the top. This holds as true for the governance and management of information, and for the technology that enables its use, as it does for many other aspects of government. Despite that, responsibility for managing information and technology tends to be demoted to a second-order issue at the level that should provide strategic direction – the top. The exercise of this responsibility needs to be made explicit in the governance model for ICT.

The logic of locating responsibility at the top defines a governance structure in which decisions about the strategic direction of technology should rest at the most senior levels. The body that exercises the strongest level of administrative authority in the APS is the Secretaries Committee, chaired by the head of the Department of Prime Minister and Cabinet. A broad-based committee at this level of government has multiple simultaneous issues to consider, of which strategic technology policy is only one.

The particular challenges of technology are recognised in the governance arrangements outlined in the APS Blueprint for Reform, released in 2010, which assigns that role to a sub-group of the Secretaries' Board described as the ICT governance sub-committee. While that sub-committee does not explicitly designate the Secretaries' Information Governance Board (SIGB) for this role, it is the logical candidate. Making this reporting relationship explicit would clarify SIGB’s status in government and provide where necessary endorsement and reinforcement of its key decisions.

SIGB’s more formal role and its function as the fulcrum of whole-of-government information management policy requires it to develop a means to ensure that its decisions are well-founded and supported by detailed policy work. Under current arrangements SIGB relies on AGIMO to perform this function. SIGB’s requirements for policy advice would be broadened under this proposed governance model to tap into other sources of expertise, in particular in tackling the substantial business issues that take precedence over technology solutions.
SIGB should be resourced with a small, high-level strategic policy unit located within the Department of Finance and Deregulation and reporting to its Secretary, in his role as SIGB chair. The unit would provide secretariat services to SIGB and assist it in identifying major cross-agency priority issues that require detailed policy consideration. The resources of the unit would not permit it to undertake this work by itself. Instead, it should act as a broker on SIGB’s behalf to enlist the assistance of senior executives drawn from across government.

The approach proposed in the APS Blueprint of tapping into the expertise of the group it dubbed the APS 200 should be applied to support SIGB and ultimately the Secretaries’ Board. SIGB’s strategic policy unit should, with the Board’s approval, seek to define critical issues that require resolution and to recruit executives to a small number of time-limited reference groups to consider them. This approach has already produced substantial results in the process initiated through the Prime Minister’s Department implementation of the Blueprint.

The strategic policy unit, the APS subject-specific reference group and SIGB itself would continue to seek advice and tap into the expertise of AGIMO under these arrangements. AGIMO’s particular role in leading the identification and consideration of technical issues in conjunction with CIOs would be more sharply focused in this model. The result would be a clearer understanding across government of AGIMO’s primary function as a central repository of technical advice and policy available to all departments and agencies.

The logic of this governance road map is captured in this structure:

- Secretaries Board
- SIGB
- DFD Strategic Policy Unit
- APS 200 Reference Groups
- AGIMO/CIO Council and Forum
8. Recommendations

The structure of information and technology management governance in the Australian Government should be modified to ensure that:

8.1 The Secretaries Board assigns explicit responsibility to SIGB for the strategic direction of information management and technology across government

SIGB should initiate the following measures to strengthen governance arrangements to effectively implement the Strategic Vision:

8.2 Ensure that implementation of the Strategic Vision is the responsibility of all agencies and where necessary assign specific responsibility to individual agencies for leading elements of its implementation

8.3 Require the further development of the implementation plan for the Strategic Vision to provide specific goals and timelines, in conjunction with AGIMO and agencies

8.4 In conjunction with the relevant agencies ensure the scope of the implementation plan is extended to more fully take account of the role of all major government ICT projects

8.5 Introduce a process of ongoing scrutiny of major departmental ICT projects by conducting regular independent reviews of the progress of major projects against their original objectives, led by the Department of Finance

8.6 Consider the role of cross-agency transformational projects as a means of securing savings that can be re-invested in collaborative ICT projects

8.8 Initiate with Treasury and Finance discussions about an effective means of ensuring that savings from cross-agency ICT projects can be redirected to reinvestment

8.9 Adopt a governance structure to implement the Vision comprising SIGB, a dedicated strategic policy group, executive reference groups, AGIMO and the CIO Council and Forum

8.10 Consider adding the Secretary of the Department of Human Services as a member of SIGB, as well as re-examining the case for external membership

8.11 Ensure that AGIMO has the appropriate resources and capability to in conjunction with the CIO Council and Forum continue to provide technical expertise and advice to SIGB
Acknowledgements

In addition to substantial documentation on ICT strategic approaches in Australia and internationally, more than 20 interviews with senior officials were conducted in the course of this review. The interviews were conducted on the basis that opinions expressed would not be attributed to individuals or their departments. My thanks to those who contributed to what were invariably interesting and informative discussions. Senior executives were interviewed from these organisations:

Australian Customs and Border Protection Service
Australian Government Information Management Office
Australian Information Industries Association
Australian National Audit Office
Australian Public Service Commission
Australian Taxation Office
Department of Broadband, Communications and the Digital Economy
Department of Energy, Resources and Tourism
Department of Families, Housing Community Services and Indigenous Affairs
Department of Finance and Deregulation
Department of Health and Ageing
Department of Human Services
Department of Prime Minister and Cabinet