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Harnessing the power of **government**

A new approach to creating public and private value

*Innovation comes from methodically analysing...areas of opportunity. —
Peter F Drucker*

*In order to see a new idea there is a need to create it first in the brain as a
possibility, a speculation, an hypothesis or a construct. — Edward de Bono*

Harnessing the power of government

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Setting the stage

The purpose of this paper is to contribute to the process of consultation initiated by the Government 2.0 Taskforce. This paper proposes design criteria for a possible future model of government and recommendations for the taskforce.

The Government 2.0 Taskforce is looking at “finding ways of accelerating the development of Government 2.0 to help government consult, and where possible actively collaborate with the community, to open up government and to maximise access to publicly funded information through the use of Web 2.0 techniques.”¹

This approach concerns me a little, because it appears to focus on the means, rather than the ends, thus creating the potential for a journey to Abilene, with the nefarious consequences such journeys usually produce.² So, I am leaving to others the task of developing the means – I will try to provide context, by focusing on the ends, which means understanding how government 2.0 can be used to create more public and private value for Australia and Australians.

However, at the end of the paper (appendix A, page 45) I do provide recommendations for the taskforce. It may be desirable to read those first and then to return to this point in the paper.

As I have said, I have chosen to focus on the ends of government and then to return to the means. My view is that addressing directly the means (social networking and so on) is not the optimum way to re-design how to

*make government information more accessible and useable, to make government more consultative, participatory and transparent, to build a culture of online innovation, and promote collaboration across agencies in online and information initiatives.*³

My view is that the focus should be on how the business of government might be conducted a few years from now and then to work back to consider how best to make use of various technologies, soft and hard. The first part of the

1 Details of the work of the Taskforce can be found at <http://gov2.net.au/>.

2 In 1974, Jerry Harvey published a paper titled “The Abilene paradox: The Management of agreement”. Harvey used an example from his own life, a trip to Abilene, to set the scene for his thesis. Harvey saw the management of agreement as a greater problem than the management of conflict, partly because the existence of the former problem was not recognized.

3 From *Towards Government 2.0: An Issues Paper*, retrieved from <http://gov2.net.au/consultation/2009/07/17/towards-government-2-0-an-issues-paper/#0>.

paper sets the scene for consideration of proposed design criteria for a new model of government.

This paper has also been written noting that the Australian Government's 2006 e-Government Strategy, *Responsive Government: A New Service Agenda*, committed the government to "establish Principles for online engagement to support a consistent experience for everyone engaging with the government electronically." The principles have been developed and endorsed by Government.⁴

Lastly, in writing this paper I have been mindful of the review of the APS recently commissioned by the Prime Minister, which will see an advisory group provide recommendations to the Government by early 2010. The advisory group has published a discussion paper and is seeking public input, which it will use to generate a "blueprint" for change.⁵

It is to be hoped that the work of the Government 2.0 Taskforce and of the advisory group will be integrated sooner, rather than later, to avoid confusion and to maximise opportunities to deliver useful change. In developing the blueprint the advisory group has said that it will consider reforms to improve the performance of the public service in delivering:

- a values driven culture that retains public trust;
- high quality forward looking and creative policy advice;
- high quality, effective programs and services focused on the needs of citizens;
- flexibility and agility; and
- efficiency in all aspects of government operations.
- The work of the advisory group may generate a desired future position (see recommendations below) towards which the work of the taskforce could then be directed.

Can we get there from here?

The demands on government are constantly changing. Government has to be able to re-direct and re-focus available resources as priorities change, without hindrance from technological, information and organisational structures. Meeting these demands is placing greater reliance on agencies data and information and the ICT systems that underpin them. It is also requiring stronger levels of connectivity in ICT systems among government agencies and their trusted private sector partners. Ensuring trust and security across these exchanges of information and compliance with privacy also remains a core focus of government.

⁴ See <http://www.finance.gov.au/e-government/better-practice-and-collaboration/principles-for-ICT-enabled-citizen-engagement.html>.

⁵ See <http://www.dpmc.gov.au/consultation/agareform/discussionpaper.cfm>.

These expectations can be met only if Government uses information at its disposal efficiently and effectively, within privacy parameters, overcoming departmentalism and technology-driven decision-making. Citizens and business demand choice of service channel and expect high quality government. Their use of technology and services is constantly changing. To meet these challenges the public sector must be able to adapt its approach to fit within a culture that embraces productivity, customer focus and higher levels of collegiality. Public servants must collaborate, share and re-use, and produce tangible value for money services that work for citizens and government.

Before considering possible futures, I think it is necessary to consider where we are now and where we might end up if things stay as they are. Given present settings, several scenarios are possible. The scenarios below depict possible trajectories that reflect my understanding of important environmental factors, combined with relevant strategic measures by government.

1. *Bottling fog* — regulating the online world, but leaving it alive, energetic and challenging. In this world, there will be maximum freedom to make choices to suit particular circumstances, but there may also be a high level of unpredictability and instability, as concomitants of freedom of choice.

2. *WIKI government* — where proprietary enterprises and proprietary government morph into network enterprises and network government. In this world, the emphasis will be on being connected and anyone or any organisation that sits out on its own will be at risk of marginalisation, although there may be significant prizes for those who succeed in carving their own way forward.

3. *The corporate state*, where the organs of the state become vestigial appendages to the corporations. In this world, the corporations will be the primary source of power, as the great Dutch and British mercantile companies of the seventeenth and eighteenth centuries were. Consumerism and faux choice will be the primary characteristics, since the profits will go to those who can keep selling the same stuff to the same people over and over again and keep them happy...bread and circuses worked for Imperial Rome, remember?

4. *The grey option*, the sclerotic cloud, where government regulates technology and its impact to such an extent that its value is both eroded and trivialised. This is a world where the state is the nanny and people cannot make choices that involve any risk to them, giving us a twenty-first capitalist version of twentieth century communist East Germany or the electronic equivalent of Trabants for all!

All these scenarios are possible, each with endless variations. My personal preference is to strive for a mix of one and two, which I think is also where the Government 2.0 Taskforce wants to go.

Towards government 2.0, 3.0 or just business as usual?

There has been much discussion in Australia and elsewhere about the changing nature of government, about the actual or foreshadowed shift to

government 2.0 and what that might mean. The words used, especially by politicians are usually grand, the tones lofty. But the essence of the message is not new, as this quote from 1970 illustrates.

*(There)...will be less government, and better government, carried out by fewer people. Less government, because its activities will be related to a long term strategy aimed at liberating private initiative and placing more responsibility on the individual and less on the State. It will be better government because the tasks to be done will be better defined and fewer in numbers, requiring fewer ministers and fewer civil servants to carry them out.*⁶

This may not sound like government 2.0, but it is, in 1970s-speak. The only way to reduce the number of tasks and the number of people required is to streamline the design and delivery of programs and services, by breaking down silos and facilitating collaboration across organisational boundaries.

This is what the present government is after also, as illustrated by what the Prime Minister said recently, when he delivered the John Paterson oration at the Australian and New Zealand School of Government...

*...new, collaborative approaches to policy making across departments, across Commonwealth, state, territory and local governments...often require partnerships with the private and community sectors...they also require us to work with governments abroad (and) they require innovative, urgent and practical policy thinking - great ideas, but also ideas grounded in the real world.*⁷

Of course, the ultimate objective in 1970 was subtly different. Making government smaller is not an issue now. The objective now is more efficient and effective government, rather than shifting responsibilities from the state to the individual. What is common to both cases is that the government of the day wants to extract more value from the investment by taxpayers into the public service.

The focus on value is usually limited to public value. I would like to amplify that focus to include consideration of how the capabilities of the APS could also be leveraged to increase the rate of private value generation in Australia. This is why this paper is written on the assumption that the role of the Australian Public Service (APS) is to create public value and to facilitate the creation of private value by others. Allow me to explain what I mean.

Creating value

Arguments are often put that the character of non-commercial government activity is intrinsically and materially different from that of private sector activity and that the effectiveness and efficiency of the public sector cannot be measured by using private sector yardsticks. A quick scan of some of the potential causes of differentiation produces little support for this view.

⁶ The Reorganisation of Central Government, Cmnd 4505, 1970, London: HMSO, p. 4. Available from The Stationery Office.

⁷ See <http://news.anu.edu.au/?p=1596>.

It is at least arguable that there is no a priori reason to differentiate between services provided to government and services provided directly to the public. For example, the need of Ministers for monitoring of the media is done by private contractors. The only boundary that could be placed around this issue is related to policy development, which most would still see as a core function of the public sector.⁸ However, aspects of policy development are in fact being contracted out through the increasing use of consultants in the design and implementation of policies and programs.

Similarly, it is hard to see why a differentiation should be made between new and existing services. One exception may be where there is a strategic reason for government to assume the risk for initiating a service, where the private sector is unprepared or unwilling to do so. A middle way would be for the risk to be shared through some sort of partnering agreement, as is the case with the National Broadband Network (NBN), for example.

I agree with Alford when he says that there is no single answer to the question of whether public and private sector management are the same or not. I would go further and say that the question, as shown by the seeming sterility of the debate thus far, is unhelpful and potentially misleading. Alford suggests that we go deeper, to consider issues more essential to the efficiency, effectiveness and value of an organisation operating in the changing and unstable environment in which we find ourselves.

Thus, private and public sector managers face similar circumstances insofar as they both utilise resources to produce value for actors in their environments. Where they differ is in the types of value, environments, resources and productive capabilities, as developing strands of theory and practice underscore.⁹

This approach places boundaries around public sector activity that are dictated by values and circumstances and does not imply or necessitate moving towards a smaller or larger public sector. Where they differ is in the means of achieving the goal and in the source of their income.¹⁰ A private sector firm *sells goods and services*,¹¹ whereas a government agency *provides*¹² *services* (or, less often, goods), usually at no direct cost to the recipient.¹³

The other fundamental difference is that the firm can go broke and, as a consequence, disappear, whereas government agencies do not. This creates distortions in the market for public goods and services, because wrong strategic and operational choices are often allowed to “survive” for far too long. In turn, this creates forces that propel government agencies towards a

⁸ Even the Thatcher Government, in the United Kingdom, acknowledged that policy formulation is best left in the hands of the public sector.

⁹ Alford, J. (1993), pp. 138-9.

¹⁰ I am using the word “income” in its broad sense.

¹¹ For large firms, that is not necessarily achieved entirely by selling products or services; in the 1980s, many companies used their corporate treasury to make money through investment. Some did well, many did not.

¹² I am including purchaser-provider arrangements under this rubric, for the purposes of this paper.

¹³ The extent of income through user pays arrangements remains relatively small for most departments though the impact on individual clients may be quite high.

state of endemic inefficiency and, more importantly, towards a state of impaired effectiveness.

The cure for this is, from time to time, to have a grand review of the APS and then to re-structure it. This is not the best way to keep the APS aligned with the strategic and operational requirements of the environment in which it and the Government have to operate. I will later propose an alternative to this stop-start model. For the moment, let us conclude the discussion about value creation.

In the public sector, as in the private sector, the function of an organisation is to create wealth (or value) by using the factors of production to best advantage. The main difference is that the private sector is concerned with creating *private value*, while the public sector is concerned with creating *public value*. There is a strong case for assuming that the objectives of private sector organisations and of non-commercial public sector organisations are indistinguishable in their nature, though they may differ in form and in presentation.¹⁴

Both private and public sector organisations are about creating value for buyers, an approach reflected in the purchaser/provider model. Having said that, defining value in the public sector is not a simple task, because, as Mark Moore explains below, the role of government is not merely to deliver services and programs. If it were so, then the individual service recipient would be the best qualified to judge whether the government has delivered value for money.

We say the government is in the business of delivering services, but actually the government is more often in the business of delivering a combination of services and obligations.

*In medicine, for example, we provide services with obligations attached, because we understand that the patient actively participates, or fails to participate, in the production of the desired outcome - getting healthy. Sometimes that is about exercising and eating better. Sometimes it is attached to a particular treatment.*¹⁵

In the public sector, value is assessed by reference to a constellation of stakeholders, which changes from situation to situation and from time to time. Also, the public sector underpins the economy as a whole, as illustrated by the events that followed the recent global financial crisis. This means that the complete value proposition offered by the public service should be understood by reference to its impact on the whole of economy and society and not merely by reference to individual or sectoral objectives.

This complexity should not surprise us, because the public service mirrors the complexity of the role of government in the 21st century.

¹⁴ The convergence between private and public sector values is illustrated in an interview with Rushworth Kidder (Freeman 1997). Kidder is president of the Institute for Global Ethics.

¹⁵ From <http://www.management-issues.com/2007/11/5/mentors/mark-h-moore-on-public-value.asp>.

The purpose of Government

Stripping aside the rhetoric of politics, the purpose of government is to provide peace, order and good government. This is a tall order, in a complex, difficult world, because it means that a government must:

- provide a governance framework that is inclusive, free of corruption and capable of adapting to changing social, moral and cultural expectations;
- manage that framework accountably, without wrapping itself up in so much red tape that nothing ever happens — a hospital without patients while it might be a bureaucrat's dream, is not much use to anyone;
- enable civil society to develop and thrive, to both complement and challenge government, thus keeping it honest to itself;
- enable the economy to develop and grow sustainably;
- safeguard individual rights, within a framework of mutual obligations;
- protect and manage the commons so that they are sustainable and sustaining of the whole. ¹⁶

And, preferably, get re-elected.

Figure 1,¹⁷ presents a model of an ideal society, adapting a model of personal needs created by Abraham Maslow. ¹⁸ In Maslow's model, the higher needs in the hierarchy become relevant as a motivator of behaviour only when the lower needs are satisfied. Once an individual has moved upwards to the next level, needs in the lower level will no longer be a priority. This model is applicable at the societal level as well. At the bottom of the pyramid, we can see that society needs to be protected from external and internal threats, like foreign enemies or terrorists. Then, society needs an adequate supply of food, clean water and clean air, to meet the physiological needs of its constituent elements.

When those needs are satisfied, psychological needs – or, more appropriately, wants – become motivators. This is the role played by the economy. At the next layer up we find good governance and then we rise up to the level of civil society, with the spiritual layer next and last, where the pursuit of happiness promised by the US founding fathers finds a home.

¹⁶ My definition of the commons is an element of physical, intellectual or virtual property for which no single individual, corporation or state is responsible. the definition includes traditional village commons, open source software, religion and spirituality, office kitchens and outer space, by way of providing examples.

¹⁷ From *Compliance and Regulation in the International Financial Services Industry* (2008).

¹⁸ "A Theory of Human Motivation", *Psychological Review* 50 (1943):370-96.

To influence what happens at a particular level, we must work at the level above it. For example, to push and prod society towards economic arrangements that are appropriate to the times, we must provide good governance. To move society towards a different direction, we must engage with people on and about fundamental values. The model works in reverse also. It is difficult to provide good governance without solid economic foundations and it is not possible to appeal to us to act on the basis of values if our civil society is weak or non-existent. How these elements fit together in a cycle, rather than as a static pyramid, is shown in figure 2.

Figure 1: hierarchy of needs to be satisfied by the state

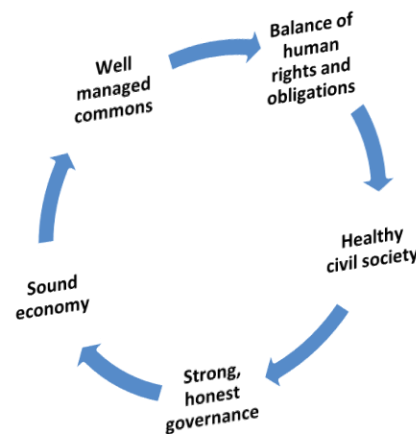


As in Maslow's theory about individuals, we find that once a satisfactory level of prosperity is achieved through a functioning economy, society will tend to focus on higher layers as priorities for criticism, for dissatisfaction, driven by a desire to remedy real and perceived flaws. Security is self-explanatory; it is about protecting the borders from enemies and maintaining order internally. Governance is about making the right decisions, the right way. Effective governance requires a functioning political system, an effective civil service, a strong civil society, including independent media, an independent judiciary, and rules appropriate to the prevailing social, economic and cultural conditions.

The rules, the body of regulation, is the capstone, if you like, that keeps this complex structure steady, creating the level of predictability and stability that both society and the economy require as a condition precedent to prosperity and development. Governance creates trust between the governors and the governed, giving the state the legitimacy it needs to use state power to achieve public ends. Without good governance there is no trust and when there is no trust, good governance becomes impossible and the state becomes unviable, as witnessed by events in failed states like Zimbabwe or the Solomon Islands. You may notice that I have not mentioned democracy in this discussion. That is because democracy, at least as we understand in the West, is not an essential element of a successful state, though it may be a very desirable one. It is possible to have good governance without what we in the West understand democracy to mean.

An independent judiciary, a strong civil society and an effective bureaucracy

Figure 2: a virtuous cycle model of government



are far more important to social stability and economic development than the application of Jeffersonian, Hamiltonian or Westminster principles. The examples of Singapore and Italy come to mind. Singapore is not a democracy, as Americans or Australians understand the term. Yet, it is a stable, secure, prosperous state, with no indication of incipient revolt among its citizens against its institutions or its values. Italy, on the other hand, is a prosperous, stable state despite the continuing failure of its democratic institutions in the six decades since the Second World War. Singapore has effective governance despite its lack of democratic zeal, while Italy has effective governance despite its attachment to democratic values.

Of course, governance is not sufficient in and by itself to support a modern state. A modern state requires many things, such as human and financial capital, a secure environment, internally and externally, access to dependable and sustainable resources, such as food, water, clean air, and raw materials, and quality health and education infrastructure. It also needs connectivity, physical and virtual, in the form of road, rail and air transport networks, and ubiquitous high speed broadband. Last, but certainly not least, it must have an

effective and efficient financial system, capable of supporting economic, social and cultural life at a standard sufficient to satisfy at least the majority of the population. These are represented in figure 2 as a virtuous cycle, with all elements required so that individuals, businesses and communities can build the future they want.

Crafting future opportunities

*Jobs, knowledge use and economic growth will gravitate to those societies that are the most connected, with the most networks and the broadest amount of bandwidth - because these countries find it easiest to amass, deploy and share knowledge in order to design, invent, manufacture, sell, provide services, communicate, educate and entertain. Connectivity is now productivity.*¹⁹

The chief ingredients of a recipe for success in the 21st century are connectivity, interoperability, predictability and security. Connectivity to enable speed and ease of connection, to create a space for entrepreneurship and the ingredients for social cohesion.

Interoperability is needed to cut costs, to generate synergy and to accelerate the process that brings innovations to market. Predictability and security are essential to give individuals, families and communities the confidence, to plan, to invest, to take calculated risks.

This is what is needed to have peace, order and good government, noting that the same few ingredients can be mixed in many different ways that would deliver the desired result.

How we work and how we relate to each other is increasingly driven by the adoption of existing and emerging information and communication technologies. In my opinion, this process of change will (or should?) occur symbiotically with the changes driven by the growing desire for clean and green. Let us learn from history.

The industrial revolution did not merely transform the nature of work, turning peasants into factory workers. It also changed rural dwellers into citizens and transformed the landscape of entire nations. Before the industrial revolution, England was a land of villages and farms, with few roads and few cities of any consequence. Power was vested in the rural aristocracy and especially in absentee landlords, who perpetuated a form of feudal rule well into the eighteenth century. The power of the political class and of the middle classes was limited.

Most people worked on farms and few were employed for pay, which meant that the economy was still fundamentally reliant on barter. Few were educated beyond the basic skills of reading and writing and the church, in its various manifestations, remained a powerful political force. England's empire was primarily made up of its earliest conquests, Scotland, Ireland and Wales.

¹⁹ T. Friedman, *The Lexus and the Olive Tree*, London, HarperCollins, 2000.

With the industrial revolution, England, and in parallel Great Britain as a whole, became a country of cities, with a workforce increasingly locked up in poorly ventilated and unsafe factories, and with power moving to the middle classes, which controlled trade and finance, in alliance with a few of the aristocratic families that had managed to transition from a barter economy to an economy that relied on money, trade and profit.

More and more of the urban middle classes were educated, the country was united by canals, roads and railroads, and a fledging modern state started to emerge, albeit still defined by the trappings of the past, inherited from the landed aristocracy, such as the monarchy and the House of Lords, and peculiar titles for its political office holders, such as the Chancellor of the Exchequer, for example.

Britain's empire, supported by the industrial and bureaucratic machine build to run the domestic empire, now straddled the world. This is why I say that the industrial revolution changed how and where we lived and worked and learned and related to each other and what started in England, soon spread to what we know as the West (and at least to some of its colonies, such as Australia).

Technology and our growing desire to be clean and green will have similar impact, but on a global scale. This means that there will be grand opportunities for those who engage with governments, businesses and communities to develop new cities that accommodate new ways of working and interacting.

For example, soon it will be as unusual to see a city without ubiquitous free wireless internet as it is now to see a city without electricity or paved roads. Everyone is talking about optic fibre as the endgame for connectivity, but I think they are wrong. History and my experience tell me that people will want cheap, ubiquitous portable connectivity and that they will trade off a little privacy and security to achieve that. Wireless internet will kill the wired internet, just as cell phones killed fixed phones in the home and wireless radio killed cable radio.

Within a decade or a little more, depending on where you are, fibre or cable internet will be relegated to specialized uses, within offices, apartment buildings and where a high level of security is required.

My argument is simple. Human intellectual productivity results from four factors. In the recent past, I was responsible for advising the Australian Government on the adoption of new communication technologies, at the then National Office for the Information Economy. My predictive record made me unpopular with some colleagues, but earned me respect in the industry.²⁰

These are the four factors. First, intelligence — the level of grunt, the number of neurons, processing power, speed and accuracy. Second, cycle time — speed of thought, turning thought into action and learning from the reaction. Third, individual spirit — personality, the “animal spirits” that inhabit all of us. And

²⁰ To sample my thinking, you may want to read “Making Connections”, *InformationWeek*, November 2003.

fourth, the environment — how the world reacts to you and what you do (or fail to do). The first three factors compound each other, in a positive sense, while the last can undo the lot.

This is also true for a national economy, and in the knowledge era, these are the things that make a nation or an enterprise or a city or a public service productive and innovative:

1. The quantum (and quality) of thinking infrastructure.
2. Cycle time, how often do ideas come up? How rapidly are ideas turned into action, dreams into products and services that customers will buy? How quickly does the system learn?
3. Culture, openness to risk, flexibility, acceptance of diversity, future orientation.
4. The environment, how plugged in are we? How accepting is the world of our ideas, of our products and services? Are we players or spectators?
5. Trust, creating value from social capital.

The objective of reforming the APS, by whatever means, should be to optimise all these factors. I say optimise, rather than maximise, because I am mindful of Herbert Simon's cautionary words on the nature of human rationality. Simon developed a behavioural theory based on "bounded rationality".

The theory is simple. People face uncertainty about the future and costs in acquiring information in the present (I would add that information is also imperfect and often not available). This limits the extent to which people can make rational decisions. What we do, according to Simon, is to exercise "bounded rationality", setting an aspiration level which, if achieved, will be enough to "satisfice" us, which will be almost certainly short of the theoretical optimum towards which *Homo Economicus* is supposed to strive. Of course, a first year student in psychology could tell you that, as could any parent or manager or, indeed, anyone at all out there in the real world.²¹

A fundamental requirement for any reform of the APS, in a networked world, is connectivity, which in an online world increasingly means online connectivity. This is as much the case for government activity as it is for the economy more broadly, and applies both within and between business enterprises that inhabit a shared value chain. An investment in ubiquitous, cheap, fast, reliable and appropriately secure connectivity, with the elements listed above, will lift productivity, innovation and speed to market.

At present, connectivity in the APS is regarded as a cost and a risk. It is rationed, controlled and poorly allocated. This must change if we want to avoid the more unpleasant scenarios I sketched at the beginning of the paper.

²¹ The concept of bounded rationality has been validated by extensive empirical research. As Michael Shermer ("The Prospects for Homo Economicus", *Scientific American*, July 2007) explains, humans are irrationally loss averse. See also Tversky, A. (2004).

My recommendations are to look out for opportunities to exploit connectivity infrastructure provided by others or to collaborate with others to build or to get access to appropriate infrastructure, either for use within the APS or to take service offerings to the community.

Fortunately, because of the NBN and general industry trends, the unit cost of online connectivity is about to take a big dive, as returns from the infrastructure per se will fall in line with other utilities. Some say that the profit pool is moving into content, but I think that train has already left the station. The next train to leave the station will be for services that enable people to exploit the virtual worlds that increasingly sophisticated ICT will enable. I don't mean *Facebook* or *Twitter*, though there are hints of the future there and getting involved in those spaces may offer you opportunities to see what the future might bring or might need.

Think of the stock market and tell me where the bulk of the action is now; it is in derivatives, in illusions of reality that are given solidity by their usefulness as a sophisticated method to manage risk. . . if used properly. Within a couple of decades, the same thing will happen to the economy as a whole. It is not possible now to see how that might happen, anymore than IBM or Xerox could have predicted in the 1960s and 1970s that the personal computer would revolutionize the world.

They let that one go by them, didn't they, and Steve Jobs and Bill Gates cleaned up as a consequence. Bill Gates missed the internet bus also to start with, though he managed to scramble on later. And look what Google is doing and is about to do to Microsoft...the same thing Microsoft did to IBM, Xerox and later to Apple. So, as this applies in the public sector as much as it does in the private sector, my advice is not to try to read the future, but to be prepared for it, to be positioned for it and the way to do it is to invest in connectivity and to free up the productive and creative capacity of your people, together with the value hidden in your stakeholder networks.

This can be done by implementing a few rules – and I mean few. Why am I arguing for a few rules only? First, to keep overheads low, for government, for industry and for everyone else. Red tape costs money and time and also acts as a wet blanket, stifling opportunities and the fire of innovation. Second, research shows that we humans can keep only so many concepts in our heads at any one time and that we are more likely to remember and to comply with rules if they are few and simple. Third, a thicket of rules actually helps those who prefer to avoid scrutiny and supervision.

This is because complex rules are more likely to generate inconsistencies, obscurities, loopholes and gaps, creating nooks and crannies where the dishonest and the crooked can hide and creating excuses for weak or incompetent regulators, when prosecutions fail or never even start. Fourth, research establishes that complex systems can be designed and run with only a few rules and, as an aficionado of Ockham's razor, I fail to see why more would be better, if this is the case.

A framework based on a few simple rules to govern how government uses information and provides access to information can be designed and deployed effectively if we understand how complex systems operate and evolve, if we

accept that the APS, for example, is in a sense alive. As such, it functions just like us, through a complex mixture of reason and emotion, of science and superstition, of fear and greed. We also need to remember that humans tend to behave irrationally, despite the contrary claims of orthodox economics, and that our individual irrationality is accentuated dramatically when we form a mob, when we become prey to the famed animal spirits, which, at their peak, can overcome any rational safeguard.

We also need to be cognisant of the trap that awaits us if we assume that someone else is going to mind the commons, if we act as if somehow, things will turn out all right. Lastly, we need to be aware that bad or excessive regulation will choke the goose that gives us our golden eggs.

Suggested guiding principles for APS reform

I propose these guiding principles, drawn from the experience of e-government in Australia and internationally:

Government should provide interactive, responsive and accountable services, meeting citizens' needs and legitimate expectations with standardised solutions – re-using, before buying, before building new systems – thus providing value for money, more functionality for the same cost.

These principles should be underpinned by:

Understanding individual needs and wants. The idea sounds elementary, but individuals in large organisations are often so focused on the everyday work that they do not have time to analyse whether they are missing something in serving their clients. The system must be capable of learning from the experience of its constituent elements, embedding best practice into automated, mass production processes.

Tailoring the delivery process to individual needs. This is sometimes called mass-customisation. It is the personalisation of products and services to meet individual needs, at a mass production price. In the private sector, interactive technologies such as the internet allow customers to interact with a company and specify their unique requirements, which are then produced by automated systems.

This way, the costs of production are kept low, while client satisfaction is high. Mass customisation has a dynamic system feedback loop, which generates the demand for a multitude of products and services.

Thinking beyond current practices to develop innovative delivery solutions. People's needs and expectations change constantly and this process is accelerated by new technologies. A service delivery organisation must have the capacity to take in feedback from users, reflecting it in new, tailored ways of delivering services and in new products and services.

Clients participating in the design process. Recipients of government services should be engaged in constant dialogue to design unique products that meet their requirements.

As Clayton Christensen notes in *The Innovator's Dilemma*, well-managed firms excel at providing "sustaining technologies". These firms generally follow a

predictable path, anticipating the needs of mainstream customers and investing in technologies designed to satisfy those needs. Disruptive technologies create a very different market environment. They fly unseen under the radar, emerging with seeming suddenness and great impact, usually a destructive impact to start with. I think the APS should learn from these firms: sustainable success in business is founded on productivity and on making wise use of disruptive technologies.

Competitiveness=Productivity=Competitiveness

The hallmark of success in a globalised economy, especially in a troubled economy, remains competitiveness. Competitiveness depends on productivity – the value of output produced per unit of labour or capital or, to look at it another way, innovation plus process efficiency. The continuing challenge is to grow productivity, but the growth in productivity must be sustainable, factoring in externalities such as environmental degradation. This is true for economies, industries and enterprise, a truth forgotten by companies such as Enron, for example, to the ultimate detriment of many. The objective of Enron’s executives, it seems, was not to be productive, to produce value, but to produce wealth for executives and shareholders.

Because wealth should be a consequence of the exploitation of capital and not its ultimate purpose, our purpose here is to identify the main drivers of productivity in the economy and to lay the foundations for an agenda at the national level, maximising opportunities and minimising risk. Significant barriers to progress are discussed under the heading of management of risk. Such an agenda would not be exclusive to government, as government’s role is to enable innovation by facilitating collaboration and by acting as a catalyst for positive change. However, it is expected that government would have a leading role in transforming into reality the concepts discussed here.

The process of transformation in government should focus on:

- customising service (and program) delivery around standardised products and services;
- creating products and services to meet individual needs, at a mass production price;
- providing point-of-delivery customisation, allowing client service staff the flexibility to meet individual needs as they find them, within a system of standards;
- providing quick response capability throughout the value chain; and
- modularising components, to customise products and services.

None of this is entirely new to the APS; across the almost two hundred agencies in the Australian Government almost all these strategies are deployed, to some extent. A greater degree of coherence and systematisation will help to realise the benefits of mass-customisation.

The challenge is to grow the culture of productivity improvement within the Australian Public Service and to codify best practice across the public sector. That culture should be underpinned by:

- shared business components – developed and implemented by all, created once and used many times;
- generic business components – standardised service modules supported by a generic system but operated independently to the same standards; and
- unique business components – specific to an agency function, but able to be re-used by others if appropriate.

We already see this process in highly ICT dependent businesses, such as the banks, where generic platforms, such as automated teller machines, are common.

Too often still in the APS applications are uniquely developed for use by the individual agency. The pervasive nature of ICT demands approaches that are more sophisticated. Unique systems, while still appropriate in some circumstances, must be complemented by shared and generic components to realise the productivity benefits offered by ICT.

These include improving how the public service deals with matters that cut across agency or jurisdictional boundaries and growing the capacity for reuse and continuous improvement of government systems.

Articulated standards, with business workflow tools, will hasten the capability for transferring data between systems and will lead to greater innovation in public sector services. These components enable timely reconfiguration of business systems and services to create new services, processes and applications across and within agencies. Importantly, they can speed up the response time to implement Government policy decisions and Government increasingly requires that the APS be quick, innovative and responsive – with no mistakes. This is a reflection of the demands that are being placed on Government itself.

A vision of future government

The chief objective of the leaders of a country should be to capture a disproportionately large share of the global benefits of the information economy, for the benefit of all who live there. To do that one must position the national economy as a knowledge economy of the twenty-first century, in a world where competitor economies are catapulting over historical barriers to speed up their development.

Standing still is not an option, because those who stand still in effect will go backwards. For example, New Zealand used to be level with Australia, but is now way behind Australia economically. Similarly Argentina, powerhouse of the early 20th century and consigned to the economic doghouse in the early 21st century – thought there are now signs that this may change for the better.

Of course, it is even worse when governments, rather than failing to act to move the economy forward, actually make the wrong choices. I have already touched on the example of Zimbabwe. Countries have a clear choice: to go forward, as the Chinese, the Malaysians or Dubai have done, for example, or to stand still, as Argentina has done, or to go backwards, as is the case with Zimbabwe.

The knowledge economy is a global economy. Each country is in competition for the resources needed to make the transition from a traditional to an information economy. Each country has global competitors, such as the US and the EU – with India and China on their way – and regional competitors.

The resources needed, particularly financial and human capital, are becoming more mobile. As a result, policy and industry changes abroad are being transmitted more quickly into the national economy and society, increasing the pace of domestic change and decreasing the time for government policy responses. So, how do we move in the right direction?

What is the knowledge economy? Why does it matter?

In the words of Michael Krokenberger, the 21st century will require us to build a “cool, light and dry economy”, based on “innovation, knowledge, doing more with less, value adding, being clever”.²²

Drucker was a strong advocate of the importance of knowledge in the world of business and spoke of the *knowledge economy*. That term refers to the emerging state of economic development in advanced economies, which differs from the condition we have been in since the Industrial Revolution in Great Britain in the 18th century, known as the industrial economy.²³

A tangible way of examining the transition that developed economies have undergone is provided by the SKE in a report titled *Intangible Drivers of Organisational Productivity and Prosperity*, published in 2006. On the home page of its website, the SKE states that,

Over the last three decades, the world has witnessed historically unprecedented levels of economic liberalisation resulting in the increased flow of people, goods, capital and money between nations, markets and economic spheres. This seemingly irreversible process has simultaneously slowed down and facilitated economic growth and productivity in different parts of the globe, changing the nature of societies, their labour markets and national economies themselves. The impact of the newly globalised and technology-driven economy on developed societies has been profound. No longer locality-dependent, its manufacturing bases have steadily moved to

²² *The Bulletin*, 30 April 2002, p. 26.

²³ Sometimes you will see that economists and authors refer to our present state as post-industrial. While this is an accurate observation, since we are now past the industrial era, it is not very helpful terminology, because it tells us nothing about the differences between now and the past. The term knowledge economy, in my opinion, makes good that deficiency.

cheaper labour markets leaving developed nations to focus on the development of knowledge-intensive economic structures. ²⁴

The process of transformation is shown at table 1. ²⁵ The SKE argues that transformation has been driven by “the growth in service-based industries in which intangible resources, be they *relational, structural* or *human*, constitute the main part of the value creation process”. The SKE quotes figures from the World Bank that attribute (in 2005) sixty-eight per cent of global GDP to service-based industries, up from sixty-one per cent in 1990; manufacturing had lost share, from thirty-four to twenty-eight per cent, as had agriculture, from five to four per cent.

The concept of intangible asset is covered by the International Financial Reporting Standards (IFRS). The IFRS are standards and interpretations adopted by the International Accounting Standards Board (IASB), which is an independent, privately-funded standards body based in London. The IFRS are generally accepted as the model for accounting in business and in government across the OECD and beyond.

According to the IFRS, an intangible asset is a “nonmonetary asset without physical substance.” To be recognised on the balance sheet, an intangible asset must be identifiable, controllable, reliably measurable and provide future economic benefits (such as revenues or reduced future costs). An intangible asset is identifiable when it is separable (capable of being separated and sold, transferred, licensed, rented, or exchanged, either individually or as part of a package; or arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations.

This is a limited and limiting view of intangible assets as a category. The IFRS, because they do not account adequately for intangible assets, distort investment decisions and are a negative influence on the global economy.

Table 1: economic transformations

	Economic activity	Factors of economic production
Agricultural economy (Pre-1800)	Harvesting	Land Land owners and workers
Industrial economy (18 th to 20 th century)	Manufacturing	Labour Machinery Raw material

²⁴ From <http://www.ske.org.au/>, retrieved on 31 January 2009.

²⁵ See <http://www.ske.org.au/downloads/Australian-Guiding-Principles.pdf>. This report was commissioned by the (then) Australian Government Department of Finance and Administration.

Knowledge economy (20 th century and onwards)	Mediation of knowledge and services	Relational capital
		Structural capital
		Human capital

The SKE report also cites a study conducted by Accenture in 2003, which sought the views of executives from twenty-seven countries and nineteen industries on what they considered to be the drivers of wealth creation. Forty-nine per cent of those surveyed considered intangible resources to be the most important factor in the creation of shareholder value; only twenty-five per cent of executives surveyed said that they relied primarily on tangible assets for shareholder value creation.²⁶

It seems that increasingly our jobs, our wealth and our lives are firmly rooted in the creation and exploitation of information, which is effected through the management of knowledge, rather than agriculture or manufacturing (see table 1). In the USA, according to *America.gov*, services produced by the private sector accounted for 67.8 per cent of US gross domestic product in 2006, while federal, state, and local government accounted for 12.4 per cent, adding up to about eighty per cent. Manufacturing contributed 12.1 per cent, construction 4.9 per cent; oil and gas drilling and other mining, added up to 1.9 per cent; and agriculture was less than one per cent.²⁷

A similar picture emerges when considering employment data. For example, the proportion of manufacturing jobs was 10.7 per cent in 2005, while service industries accounted for 83.4 per cent of nonfarm employment in the same year.²⁸ What is true of the USA is true of all developed economies, with differences only at the margins. We need the food our farmers grow and the goods our manufacturers make with the raw materials produced by the miners, but our wealth, our workplaces and our societies depend on services rendered.

The value produced by service industries is made up of several factors, but the dominant factors are knowhow (or knowledge) and information. The quality of food in a restaurant or of service in a bank or the success of government policy, all depend on the knowhow of the workers involved in the process and on the quality of information flows. Both elements, knowhow and information are essential. For example, a competent waiter who does not understand the language of a customer is more likely to give poor service. On the other hand, an incompetent waiter who is fluent in the language of his or her customers is also more likely to give poor service.

²⁶ The original source is "A New Paradigm for Managing Shareholder Value", Accenture Institute for High Business Performance, July 2004.

²⁷ From <http://www.america.gov/st/econ-english/2008/April/20080415222038eaifas0.9101831.html>, retrieved on 14 March 2009.

²⁸ From "The American Workplace - The Shift To A Service Economy", at <http://jobs.stateuniversity.com/pages/16/American-Workplace-SHIFT-SERVICE-ECONOMY.html>, retrieved on 14 March 2009.

Knowhow is also a factor in farming and manufacturing, of course, as is information, but they are not dominant factors, often playing second fiddle to capital and capital goods, such as machinery and raw materials, or are dependent on the quality of the land and the vagaries of climate. Because of the twin requirements of knowhow and information, service industries are the natural home of knowledge workers.

According to Peter Drucker, “The terms “knowledge industries”, “knowledge work” and “knowledge worker” are only forty years old. They were coined around 1960, simultaneously but independently; the first by a Princeton economist, Frits Machlup, the second and third by this writer.”²⁹ Knowledge workers make their living primarily by thinking, rather than doing, which means that not all who work in an office are knowledge workers and not all knowledge workers are to be found in office buildings.

In economies like these and most others in the OECD, between three and four of ten workers are knowledge workers. And, of course, the financial services industry is the knowledge industry par excellence. The value of trading in the stock exchange in New York in 2008 far exceeded the value of the US GDP for that year – and nothing physical was transacted, since even share registries these days are computerised. Why is this important? Our wealth is not now due to the land, to machinery or even to the physical efforts of workers, the traditional elements of capital. Intellectual, relational and other forms of intangible capital matter far more. The antonym of tangible is intangible, but because I am uncomfortable with the term intangible capital, I prefer to speak of knowledge capital.

Knowledge capital seems tangible enough to me when capitalism looks to be on very shaky ground, when an investment bubble bursts and stock markets and economies crash. When a bubble deflates, the same factories, houses, roads, ports, markets, workers and financial institutions are there that were present the day before the bubble burst. And yet, large and sometimes huge amounts of wealth, of capital, have been almost instantly destroyed by the burst and by what follows the deflation of the bubble. We need more solid foundations.

Demand is the key to the future

Generally, most government and private sector activity focuses on the supply side of the knowledge economy equation. For example, governments have tended to deregulate telecommunications markets, to facilitate the deployment of telecommunications infrastructure and the development of new communications products and services. Governments may also provide financial assistance to commercially disadvantaged communities, to enable the deployment of telecommunications infrastructure and to bridge the communication divide between rich and poor.

These measures are necessary, but not sufficient for success. In recognition of the potential demand that exists in a less regulated environment, industry is

29 “The Next Workforce. Knowledge workers are the new capitalists”, by Peter F. Drucker, *The Economist*, November 1, 2001, from http://www.druckerinstitute.com/whydrucker/why_articles_nextworkforce.html, retrieved on 14 March 2009.

likely to develop new products and services for electronic commerce, security and authentication, mobile communications and general information management. The telecommunications carriers are likely to deploy infrastructure (including broadband), but will probably do so only in response to known demand. Large investments require certainty and predictability – societies that present a high level of uncertainty will find it difficult to attract capital.

If we want continuing economic growth and if we want to foster increasing connectivity at community level, the emphasis must shift to the demand side, to focus on the needs of users of the technology, rather than the suppliers. That is likely to create a more certain, predictable economic climate.

One of the main challenges for industry and government is to identify value propositions for users. New products and services need to be tailored to the community and be compatible with users' lifestyles. The technology must integrate itself into the cultural and social fabric and at the same time immerse people in it. This kind of top down and bottom up integration is not easy to achieve.

However, the development and widespread adoption of compelling applications in fields such as health, education, community development and entertainment will drive the further development of the information economy. But to achieve this, application providers need to go beyond “digitisation” and automation of existing services, to exploit new capabilities. We need to move beyond applications and content generated for the high user audience of adolescent males aged 13-25 years, those working in the high tech sector and white collar workers in ICT intensive industries.

For this to happen, it will be necessary to tap into the needs and lifestyle expectations of retirees – a fast growing group with an interest in leisure and quality of lifestyle and recognise the trends in consumer demand towards greater customisation and interactivity, giving communities the skills and tools to directly participate by making their own content. After all, what is relevant for many people is what's happening in their local community.

This level of online adoption would embed the technology into the day-to-day lives of families and communities. The development of “compelling applications” will require increased interaction between the technology and the creative sectors - between the scientists and engineers and the designers and artists – to encourage innovation and creativity.

Challenges

There are two main challenges facing government and industry in the identifying and development of compelling applications: a shortage of widespread, affordable broadband infrastructure and the lack of commercially viable market for new, high-bandwidth content products. The former challenge is being addressed by the establishment of the National Broadband Network, but the latter challenge remains formidable, especially in the public sector.

Telecommunications carriers will deploy broadband infrastructure only where there is sufficient demand and few risks would be taken with demand

forecasts. Content publishers will purchase high-bandwidth, sophisticated content only when it is profitable to do so. These challenges give further emphasis to the need for application developers to identify and provide products that are culturally relevant and compatible with people's lifestyles and have high levels of embedded value – these are compelling applications.

There is also a challenge for government in this, to ensure that the decisions made in the past do not continue to shackle us as we travel into the future. Existing networks of interests, public and private, will come under pressure, as the new economy reshapes value chains. Relying on rules and regulations may have served a country well in the past, but the future will be better served by focusing on innovation, creativity, and on forming partnerships across traditional boundaries. This is what the Prime Minister is asking of the APS now and for the future, to increase its capacity to create value.

Lastly, whatever is done must increase the capability of individuals and communities to hold the Government accountable. It is essential that government focus on creating value, but wealth is a necessary and not sufficient condition of accountable government. Transparency is also required.

Ten years ago I published a book based around the question – is Australia an open or a closed society? In that book, which was titled Open Australia, I argued that every major debate about Australia's future could be understood by reference to this simple question. (Lindsay Tanner, Minister for Finance and Deregulation)³⁰

Secrecy is the enemy number one of accountable government, just as it is incompatible with the application of the rule of law. It is imperative that governments and courts act in the open, under the scrutiny of all, at least as a matter of principle.³¹

Accountability is linked to the concept of public trust. It is an essential element of any governance framework in the public sector – and increasingly in the private sector. Networks and federated governance structures tend to take the form of representative committee structures that operate outside traditional accountability mechanisms. The result may be an accountability vacuum and diminished transparency or at least a perception that this is so.

As a result these structures are susceptible to conflict of interest issues (e.g. vendors advocating a single platform approach, closed source software and so on) and “pass the buck” attitudes, where agencies tend towards inaction or a minimalist approach because roles and responsibilities are not delineated clearly. There is a need to ensure that any given framework provide for the establishment of strong and clear lines of accountability by supporting cross-department funding and reporting on shared outcomes.

³⁰ From a speech given at the Ethnic Communities of Victoria history launch, 24 September 2009, retrieved from http://www.lindsaytanner.com/index.php?categoryid=19&p2_articleid=63.

³¹ In extreme circumstances, such as war, secrecy may be justified to protect the nation and the people, but this must always be for a limited period and government must ensure that secrecy is used to protect and not to hide mistakes (or worse).

When networks are formed, the network needs to agree on a clearly articulated role and purpose for the network, the roles of those involved, and their responsibilities and reporting mechanisms and processes. Access to quality, timely information is essential to the workings of government. Its availability, exchange, quality and timeliness are essential within any network or federated governance structure.

Networks and federated systems depend on their information flows between stakeholders and their capacity to analyse and interpret information. The underpinning infrastructure, the information flows and the willingness and motivations of stakeholders raise risks that will impact upon the benefits that can be gained from a networked environment.

Access, real and perceived, to quality and timely information is crucial. The “protect your patch” behaviour evident in some agencies may affect the information provided by advancing certain interests. Capacity to interpret and undertake sound analysis and arrive at good policy decisions may be lessened due to a lack of expertise, knowledge of the context, history, stakeholders and so on.

Where the network is closed (or perceived to be closed) and the decision making process is not transparent, decisions may be based on misinformation or flawed analysis or even groupthink. We saw this happen over and over again during the last decade, as the 2005 book by Marr and Wilkinson, *Dark Victory*, makes plain.

Government cannot be truly accountable if it is not responsive to the people it serves. I am not talking about democratic principles (or “e-democracy”). The observations I am about to make apply regardless of the system that is used to determine who is to govern.

Responsiveness is about providing customer or citizen focused services and about empowering individuals and communities to take charge of their own destinies. The degree of responsiveness required in this century will demand that public administration be reformed radically, as we will see later. The public service will need to develop a networked approach to policy development and service delivery.

Elements of networked government

Networked government needs to operate across three spheres, which themselves overlap and intersect:

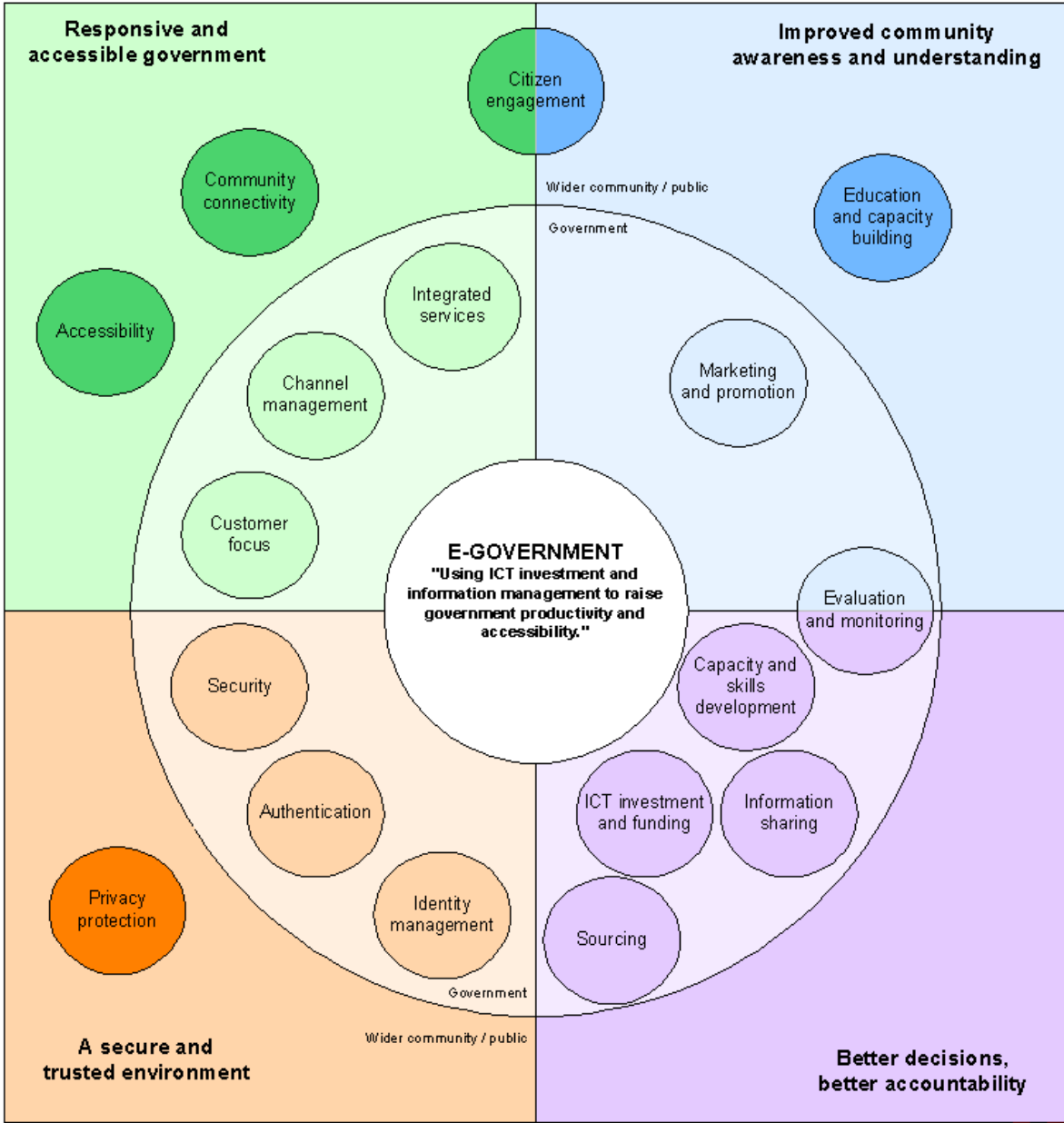
The physical sphere, which relates to the capital infrastructure, including ICT, required to support government policy and programs. In this environment all of the fundamental elements of enterprise architecture must be robustly networked to achieve secure and seamless connectivity.

The information sphere, which relates to the software applications and human capital that create, manipulate, share and communicate information. In this environment managers and employees need to have the capability, where required, to share, access and protect information to better delivery policy and program outputs and outcomes. This area also relates to knowledge management standards.

The cognitive sphere, which relates to the policy development processes where leadership, analysis, direction and evaluation reside. Ministers, senior executives and operational managers must have the capability to develop and decide policy and synchronise action from a shared high level awareness of the dynamic environment.

These elements are brought together in the model at figure 3, which was developed at the former National Office for the Information Economy. All these elements are needed to make public administration work as it should. Note that these elements must be incorporated in processes to give us manageable value chains (see figure 4).

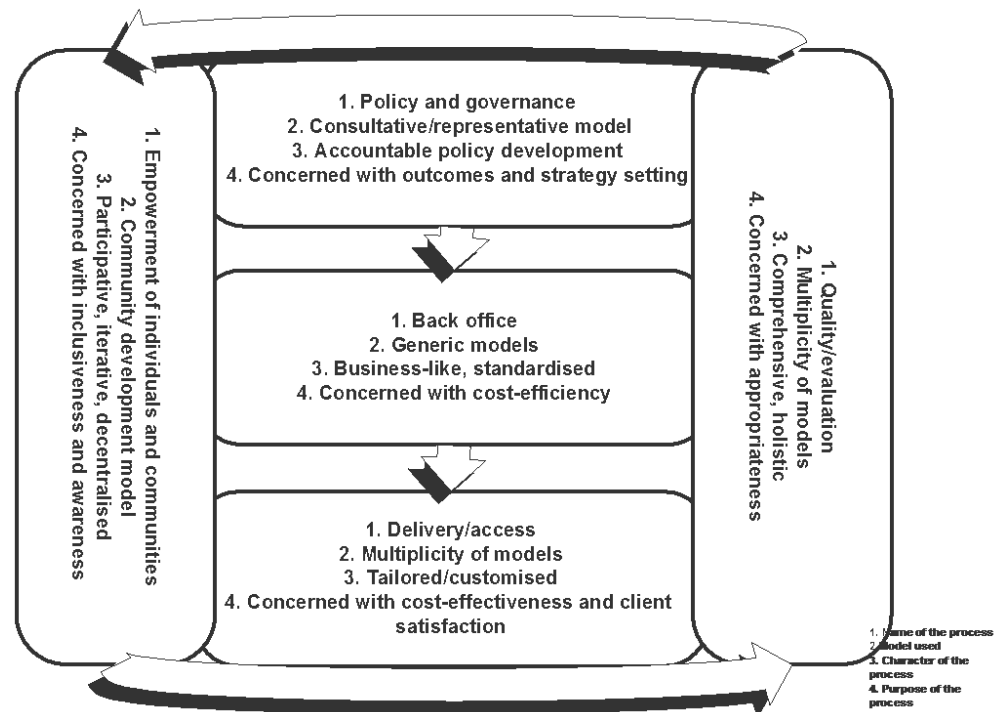
Figure 3: model of e-government



How does the public service create value?

The strategy and objectives outlined here can be met by developing a process model of government (figure 4). This model will work in any economy, regardless of its character, or stage of development, where the focus of government is to enable the development of a competitive information society. By process I mean a sequence of steps, tasks or activities that converts inputs to outputs, starting with policy and ending with delivery of services to the community.

Figure 4: value chain model of government



The focus should be on understanding *value chains* that government uses to create public and private value and on designing *architectures* that best suit those value chains. That will then enable the design and deployment of new solutions to old problems.

The model comprises five fundamental processes:

1. The policy-making or strategic direction setting process, concerned with outcomes and the longer term.
2. The back office process, where programs, services and products are developed and data are processed. The concern here is the cost-efficient production of outputs.
3. The service delivery or fulfilment process, concerned with satisfying client needs and expectations in a cost-effective manner.

4. The capacity building (or empowerment) process, where the measures of success are inclusiveness and awareness at the enterprise, community and individual levels.
5. The process of measurement and evaluation, concerned with ensuring that the appropriate outputs and outcomes have been delivered and with understanding the reasons for any failure of the system, with a view to inform the first four processes – thus gradually improving the capability of the system as a whole.

This model captures all government business, even defence. The civilian arm of defence is no different from other agencies. The military arm provides policy advice – albeit of a highly specialised type – and delivers services:

- protecting the territory
- safeguarding the constitution
- projecting power

The means may be, again, highly specialised and the risk profile for the staff may be higher, but the role is intrinsically the same as the rest of the public sector. The point here is that, as with any value chain, the best way to increase productivity is to re-engineer business processes and business models. This is a possible future we can now explore.

A possible future: re-engineering the public service

ICT makes it possible to re-engineer business processes so as to focus business processes on delivering end products (or services), rather than intermediate outcomes. As with any disruptive technology, ICT has affected private economic activity in line with a predictable pattern, in three phases:

- phase 1: greater efficiency
- phase 2: greater effectiveness
- phase 3: re-engineering and re-design

The impact of ICT has not yet been felt in the public sector as much as it has been in the private sector. The public sector, for a range of reasons, is still somewhere in phase 2. In phase 3, whole layers of intermediary activities are generally reshaped or even removed altogether. Examples of this in the public sector are few and far between, especially since the former (Coalition) government moved the APS away from program management, adopting instead an output and outcome model that was deeply flawed from its inception, because of the almost complete absence of meaningful means to measure success.

The public service of the future could be much smaller and more effective. It would retain control of strategy and of the network of data and information it needs, as well as over security of data, information, installations and intellectual capital. It would source (mostly) externally the hardware and

applications it needs to support its activities and programs and most direct service delivery. It would be focused on outcomes, rather than outputs. It would bring together the best people from within and without its ranks to work on projects to deliver agreed outputs, growing and expanding in size and scope to reflect shifting government priorities. It could be as small as 65% to 70% of its present size, given current responsibilities.

At present each agency has its own objectives and strategy, which do not always align with those of other agencies that contribute to the eventual achievement of a government outcome. For example, DEEWR, Human Services, the ATO and FaHCSIA are all part of the process of enabling an unemployed person to remain a viable member of society and of the economy. Yet, while they share responsibility for producing a common outcome, their business processes remain separate, sometimes overlapping, sometimes duplicating, sometimes leaving gaps that ought not to exist.

Similarly, when it comes to policy, the process ought to be common across agencies, including gathering data, analysing data, understanding the present and future environment, identifying and quantifying risks and opportunities and generating options that are more likely than not to bring about a desired future position. Yet, while a common process would deliver greater quality, reliability, and efficiency, each agency labours to create its own way of doing it, inventing the wheel over and over again and creating artificial barriers to the transfer of ideas, resources and people. This is most evident in ICT shops in the larger agencies.

The falling costs of computing power and network bandwidth will make it possible in the future to connect almost anything. Once that is achieved everything and anything has the capability to be a node in a network delivering information and services. In this environment competitive advantage would give way to collective advantage.

The Government has the opportunity to take advantage of knowledge economy concepts and technologies, particularly new business models and information technologies to drive new public value and cost effective service delivery. The ultimate objective should be to develop and implement approaches to public administration that harness and synthesise the separate capabilities of the APS (leadership, workforce, physical and intangible infrastructures and service delivery assets) to achieve whole of government outcomes that create public value at lower unit cost.

The potential benefits

The potential benefits of this approach come from the additional value that can be created through enhanced functionality, reliability, convenience and reduced costs. The outcome of these enhanced capabilities for users of government services and policy are:

- better synchronisation of separate government initiatives when applied to major issues;
- increased responsiveness to those problems, with the hallmarks of responsiveness including speed, quality, value and efficiency; and

- integrated service delivery to clients of disparate agencies and programs.

Developing a new business model for the APS: design characteristics

Best practice in the private sector is leading to new organisational models such as sense and respond models. These are a combination of “... *adaptive system design and a governance system that provides context and coordination for empowered teams.*”³² Haeckel argues that

Sense-and-respond firms will require a modular, fluid, organic organisation to respond effectively to dynamic non-linear change . . . this means networks of skills, assets, cross-functional processes, information and knowledge that are linked to capabilities, which are in turn linked into processes for creating product and service responses to customer needs.

This he calls a “synergy strategy”, a method for integrating sub-systems within the organization, while allowing management of the content of those sub-systems to remain with the people who work within them.

An adaptive system design is a framework that ranks strategic options and sets boundaries for behaviours, expressed as sets of processes, rather than a plan. Context and coordination are the replacement for the command and control model typically used by industrial age enterprises.

Putting this into practice requires an organisation to articulate “governing principles”, the reason for the existence of the organisation and a statement of its guiding values. It also requires a hierarchy of key accountabilities, the “governance model” and a process of governance, “the way in which the governing principles are updated, and by which they are embedded in the essential operating process of the enterprise”.

The design criteria and recommendations I propose later in the paper are along these lines. The aim is to:

- maximise the capacity of the APS to execute – to implement government policy and programs;
- increase efficiency in the APS, thus generating resources that government could direct to other purposes using information and communication technologies to extract the greatest potential from the public sector;
- maximise contestability within the public sector;
- minimise the cost of fixed assets of government while creating a more flexible and responsive capability platform; and
- leverage social and economic development in the broader economy through the APS – by strategic use of business processes common across the APS, such as procurement, channel management and so on.

32 Haeckel, S. H. (1995) 'Adaptive Enterprise Design: The Sense and Respond Model', *Planning Review* May/June.

These objectives are consistent with those set out in the advisory group discussion paper (see above). Achieving these objectives will require the capability to:

- map the many products and services generated by government and the processes that deliver these to client groups and communities;
- identify the cluster/overlaps in people, processes and products (market segmentation);
- generate the strategic options for distribution strategies which harvest the potential benefits of network enabled integrated or synchronised distribution processes and the new distribution channels necessary; and
- identify the information infrastructure capabilities and requirements to support such a revised distribution strategy and associated channel management approaches; and
- develop an appropriate transition path and program.

Any solution or solutions must be suitable for implementation in and by the APS, which has a long history and a well entrenched culture. Ideally, the potential capability of technology should be designed into business processes. However, it is rare for public sector managers to be given a “green field” opportunity. Agencies must manage around both legacy systems and legacy processes and political timetables. Therefore, managers are faced with two choices in deploying technology to existing business operations.

They can:

- elect to graft new technologies onto existing procedures; or
- transform their business process(es) around both the new business opportunities and the technology capabilities.

While the first process is safer and often the path of least resistance, it is not always the most sustainable or cost effective, in the long run. Equally, while the second approach can be better in the long run, there are sound reasons why evolutionary change is preferred to revolutionary change. Bringing together the needs of business and the potential of technology into a successful synthesis is an iterative process and not a one-shot or big bang exercise.

Design criteria for future government

To nudge us towards the more acceptable of the scenarios set out at the beginning of the paper, the following adaptive design principles are suggested for the APS of the future, recognising its fundamental role, which is to assist and enable government to meet the requirements set out in figure 1:

1. *Build the whole into all the parts*, focusing on culture, governance systems, structure and roles.

2. Design a degree of *redundancy*, “excess capacity that can create room for innovation and development to occur”.³³
3. *Requisite variety*, “the internal diversity of any self-regulating system must match the variety and complexity of its environment if it is to deal with the challenges posed by that environment”.³⁴
4. *Minimum specs*, a “degree of “space” or autonomy that allows appropriate innovation to occur”.³⁵

Adopting these principles would make it easier to ensure that:

1. Everyone in society has *access* to the information they need to meet present and future needs of clients, colleagues or business partners, as well as their own.
2. People understand the *value*, in the form of knowledge and wisdom, which can be generated from the information they use and also the cost of that information.
3. Everyone is entitled to the *training and development* needed to develop this understanding.
4. There is *standardisation* of data collection and data management insofar as standardisation is required to meet efficiently people’s data needs.
5. Data are collected in a *consistent* manner and should not be isolated in stand-alone systems.
6. Information is treated as a *resource* and expenditure in information management is an investment, not a cost.
7. Everyone receives a *reasonable rate of return* from investment in information management, adopting a very broad view of what different stakeholders value as a “return”.
8. *Business needs*, as defined in agreed planning documents, drive information management and information technology decisions.
9. Information is *available* to those who need access, when they need access, and should be secure.
10. Data are input once and *used* many times.

Having dealt with the challenge to create more public value through there-engineering of the APS, what about the potential to also leverage capabilities and information resources of the APS to create more private value?

³³ Morgan G (1998) *Images of Organisations*, p. 101.

³⁴ *Ibid.* , p. 103.

³⁵ *Ibid.* , p. 105.

Building private value on public foundations

Government infrastructure has been used for *nation building* in different ways in Australia's history, with varying success. It is often argued that government should use its *purchasing power* to generate industry or economic outcomes or to encourage innovation or to reward good practice...and the list goes on endlessly.

The reality is that government in Australia is fragmented across three levels and hundreds of instrumentalities and that different instrumentalities and different levels of government often use their own purchasing power at cross purposes. The signals to business are mixed, at best.

Government activities are often of such a scale that they can generate successful patterns of activity or facilitate the emergence of clusters of positive activity. The problem is that there is no direct causal connection that can be mapped and deployed ahead of time. Wisdom comes only after the event and a pattern that has succeeded once may not be amenable to replication later or elsewhere.

As the 21st century grinds on, the development and execution of strategy will place the capabilities of mid-size economies like Australia under great strain, but we seem to lack the understanding and the tools to determine with sufficient precision what the level of strain will be, where the risks are and what could be done about it. This is evident by the somewhat lame attempts by the Government to come up with a viable national innovation strategy.

In a silo driven public sector, the capacity to do this sort of work is fragmented and there is no overall approach to the problem. Also, the private sector must be involved, as the public sector does not hold all the relevant information and wisdom and because ultimately a national strategy cannot be other than the cumulative (and preferably integrated) result of actions by companies (and some influential individuals). There is no effective integrative process to do this now.

The inescapable conclusion is that the infrastructure of government must be made more flexible, more amenable to constant reshaping that is driven by need, rather than by prior intent. The infrastructure of government and the operational infrastructure of business and of our civil society must be made to simultaneously *complement and challenge* each other, to the benefit of the future.

The boundaries between public and private economic and social activity must become even more blurred than they are now, even at the risk of losing their separate identities. In a convergent world, government has a very great responsibility, charged with the task of engendering an ideal *vision of the future* and with fostering *cohesive values* in a diverse culture.

Meanwhile, the private sector could be responsible for generating wealth for all, within that diverse culture and those cohesive values, and civil society would continue to act as the engine for altruism, the guardian of individuality and the repository of our moral and spiritual values.

I propose these strategic objectives for Government:

- First level objective: *increase* Australia's economic and social wellbeing, by improving the *competitiveness* of Australian industry, as *measured* by ROI and appropriate soft indicators (e.g. sustainability, health status and so on).
- Second level objective: *maximise* the potential of information and communication technologies to transform the Australian economy, by *increasing* productivity, productive capacity and quality.
- Third level objective: *optimise* use of ICT as a transformational factor, by *transforming* the operations of government, at all levels, so as to enable a broader, faster and deeper process of transformation of the Australian economy.

To operationalise this, I recommend these principles be adopted:

- openness, transparency, predictability, accountability and responsiveness to changing circumstances and expectations. To ensure public confidence in government decisions;
- the approach should be collaborative, including national and international stakeholders;
- the method of operation should rest on a standards-based approach, where a standard is a set of specifications and procedures designed to ensure products, services and systems are safe, reliable and perform as intended.

The focus should be on developing a strategy that is focused on transformation and contains the following elements:

1. Stepping up efforts on:
 - Getting the *framework* right – regulation, financing, infrastructure, skills and so on.
 - Helping companies to grow, develop and deploy new *business models* appropriate to emerging circumstances.
2. Transforming government so as to enable faster and better transformation in the broader economy.
3. Maintaining efforts on technology and adoption of technologies.

By transformation, I mean a qualitative change that changes significantly and permanently the nation's overall capacity to compete *and* the capacity to compete of single components and sectors of the economy.

Developing areas of focus

The way of success in business these days is signposted by selected *areas of focus* and progress is measured by specific and relevant *performance information*. Similarly in developing and implementing public policy we must know what drives change and we must be able to measure success or failure

quickly, to refine constantly our direction and our chosen means to build the future.

Shaping or developing any aspect of a modern economy is not purely an economic exercise. Success depends also on social, cultural and political factors – a complex set of factors that orthodox economists classify as externalities. Analysing these factors demonstrates how they link with the traditional factors of production in ways that are not obvious.

Let us now examine each suggested area of focus.

Scale v connectivity

Connectivity is of vital importance in an information economy, to enable speed and ease of connection, to create a space for entrepreneurship and the ingredients for social cohesion – and to overcome disadvantages due to lack of scale.

In a globalised information economy size (or scale) is important, but not determinative, as the number of *connections* and the ease of *connectivity* provide an alternative route to success. This is a significant observation, as, given these parameters, Australia may be able to compete with the USA. Then, a successful information economy needs content appropriate to its economic and cultural needs; content that is dynamic and responsive.

For example, it has been estimated that next generation broadband could produce economic benefits of \$12 billion to \$30 billion per annum to Australia.³⁶ This assumes that broadband is adopted as universally as the telephone over the next 25 years. A policy of encouraging widespread broadband adoption could deliver accelerated economic value within years rather than decades.

Broadband technologies make a range of networked communications possible, many of which are not apparent using first generation internet technologies. The “always-on” network effect will also change business and user behaviour and revolutionise the way content and services are delivered and managed. Innovative use of broadband connectivity will be critical to Australia’s ability to participate and compete in the global economy.

As Thomas Friedman has said:

*Jobs, knowledge use and economic growth will gravitate to those societies that are the most connected, with the most networks and the broadest amount of bandwidth - because these countries find it easiest to amass, deploy and share knowledge in order to design, invent, manufacture, sell, provide services, communicate, educate and entertain. Connectivity is now productivity.*³⁷

³⁶ Accenture, Innovation Delivered - Broadband for Australia, An Economic Stimulus Package, 2001, p8.

³⁷ T. Friedman, *The Lexus and the Olive Tree*, London, HarperCollins, 2000.

Interoperability

Interoperability is needed to *cut costs*, to generate synergy and to accelerate the process that brings *innovations to market*. Interoperability is the ability to transfer and use information in a uniform and efficient manner across organisations and information technology systems. It underpins the level of benefits accruing to enterprises, government and the wider economy through e-commerce.

Predictability

Predictability is essential to give industry, communities, families and individuals the level of confidence needed to plan, to invest, to commit to long-term priorities.

History suggests that commerce depends on a range of externalities before it takes hold and develops in a particular society. For example, without insurance and the law of contract (whether the common law or the Napoleonic version), the mercantilist societies of Europe, on which modern capitalism is built, would not have been possible. This is true of the information economy also.

Without the trust that is placed in contractual instruments, large transactions would be possible, but would remain infrequent or would be hedged with such caution that entrepreneurial activity would be stifled. If individuals and enterprises lack trust in a system, that system will remain unused or underused or even be stillborn, as happened with the “Australia Card” proposal in the 1980s and with the “Access Card” more recently.

There are signs that this is what is happening with e-commerce today. Individuals and enterprises have not developed the level of trust in existing systems and processes that is required to unleash the full force of commercial initiative that exists in Australia. This is despite significant initiatives undertaken by the Australian Government and by the private sector.

Government has a unique role in developing an efficient, flexible and adaptive regulatory framework, where significant reliance is placed on appropriate standards to guide behaviour. Government also has a role in aligning education and training with future needs. In such an environment, the complex web of factors required for e-commerce to take hold may crystallise more easily.

Enabling people to feel secure

Confidence, trust and security are powerful online enablers. The Australian Government is working to build public trust and confidence in going online, and addressing barriers to consumer confidence in ecommerce and other areas of online content and activity.

Society must have the confidence to go about its business without fear, fear of terrorism, of deficient infrastructure, of breakdowns of major components of the financial system, of the weakening of the rule of law.

If communities, enterprises and individuals perceive that the globalised information economy is not serving their particular needs or if they perceive

that the benefits flowing from that economy are distributed in a grossly unfair manner, the acceptance and trust in the new technologies will wither. And the national economy and community life will also wither.

To avoid this, we need to know what communities, enterprises and individuals need, what they want, and what they expect. If there is congruence of needs, wants and expectations, it is more likely that there will be greater confidence in the information economy and in its tools. We need a level of confidence such that people and enterprises will feel safe in making investment decisions and in using those tools.

Developing a successful and sustainable information economy requires a social as well as a political consensus as a prerequisite. Then, a mechanism to integrate private and public interests is essential for the maintenance of that consensus. The problems emerging in the industry deregulation process illustrate how a painfully constructed consensus for change can quickly dissipate when the pain of change starts to affect private interests.

The value to the public interest can easily be lost among the multiple private interests that exist in such circumstances. The challenge is to bring about change that satisfies both public and private (or regional or sectoral) objectives and, most importantly, to do it in a way that is perceived to be fair to all those interests. This is where culture intrudes and its influence cannot be ignored.

Managing a range of complex factors over time to maintain a consensus for change and to retain control over direction requires the capacity to integrate the needs of many and a high degree of flexibility. This marriage of integration and flexibility enables an organisation or a country to be responsive to the developing environment and to the changing needs of its constituent parts.

Also, security and predictability are essential if Australia is to attract and retain the level of foreign investment it is likely to need. Our need for investment cannot be satisfied by domestic sources alone. Let us deal with these issues, in turn.

Maintaining a consensus for change

The value to the public interest can easily be lost among the multiple private interests that exist in such circumstances. The challenge is to bring about change that satisfies both public and private (or regional or sectoral) objectives and, most importantly, to do it in a way that is perceived to be fair to all those interests. This is where culture intrudes and its influence cannot be ignored.

Managing a range of complex factors over time to maintain a consensus for change and to retain control over direction requires the capacity to *integrate the needs of many* and a high degree of *flexibility*. This marriage of integration and flexibility enables an organisation or a country to be responsive to the developing environment and to the changing needs of its constituent parts. This can't be done without taking culture into account.

Managing cultural issues

We need to strike a balance between *competition* and *collaboration* and that does not come naturally in this country – it is not part of the Australian way of doing business. This is a barrier that needs to be overcome. On the other hand, Australians respond well to change agendas that provide them with a cause for their involvement, and respond best to clear guidelines – “just tell me what to do”³⁸. The catch is that those agendas must be pitched to a broad range of interests that are not always coherent, requiring enormous flexibility to align values and aspirations. A successful change agenda must reflect how Australians see and understand themselves.

If we maintain social and cultural cohesion and if we build greater connectivity we create a fertile and receptive environment for innovation. In turn, the enhanced level of innovation is likely to attract the level of investment we need to build up our productive capacity and our productivity. This theme is explored further in the discussion on connectivity and participation.

Investment

Australia needs investment, local and from offshore, to keep building its productive capacity and to generate innovation, but it must use what it has to best effect, as there is never enough to cover all demands and expectations. In looking at the economy as a whole we risk missing the point. To understand what drives productivity and productivity growth we must understand what is going on in leading industries and segments of industries, distinguishing between production and productivity.

Australia may produce and export more or less beef year on year, but those figures are saying nothing about tomorrow’s productivity, though they are telling us a lot about production. On the other hand, the level of production in ICT today may tell us quite a bit about productivity tomorrow, as can the extent of use of ICT products. This is because in a globalised information economy ICT industries are an instrument of productivity growth – enhancing innovation - as well as an instrument of production.

Home grown ICT capacity is an indicator of creativity, innovation and productivity in the global information economy, which means that investment in the ICT industry could be used as a leading indicator of productivity. Moreover, foreign investment in Australia’s ICT industries would serve as an indicator of our perceived level of competitiveness. A caveat here is that to focus on quantity at the expense of quality would be counterproductive. Massive investment in microchip production would not indicate that Australia is an innovative economy; rather, it might indicate that Australia has become a low cost producer, which in turn might be a sign of falling living standards, rather than a harbinger of prosperity.

The quality of the investment must be high and it must be selective, linking the output from that investment to the overall chain of value creation in Australia, to the *infrastructure for innovation*.

³⁸ Research by the Australian Quality Council, *Cultural Imprints* (1994).

Infrastructure for innovation

Government should not focus on specific industries, to pick winners or to support sectoral interest. Industry policy should be used at the macro level to shape the Australian economy as a whole, as an integrated social, economic and cultural construct. This would not mean that individuals or enterprises would be restricted in what they may choose to do.

However, government should turn its intellectual and research capacity to indicate which line of business contributes to the national wealth and which does not, to identify leading sectors of the economy and to remove barriers that stand in their way. This would make industry policy an issue of competitive intelligence and of sophisticated measurement, perhaps as a combination of what happens now in the Treasury and in the Productivity Commission, together with the Industry portfolio. The outcome would be the identification of leading sectors of the economy, which can be used as engines for growth and innovation across the whole economy.

Within the ICT industry itself another outcome would be the emergence of clusters of innovation capable of generating self-sustaining growth. Such clusters can attract other businesses, skilled labour and capital in a cycle of “cumulative causation”.³⁹ In turn, in a virtuous cycle, these clusters of innovation could potentiate the effectiveness of strategies for development of the leading sectors of the economy. This will be discussed at greater length later, as part of the way forward, when we will also consider the potential dark side of cumulative causation and clustering.

Identifying leading sectors of industry

Predictability, security, interoperability, connectivity and a clear path to the market should be all that an enterprise needs from government to take its chance to prosper from the globalised information economy. However, the information economy has increased greatly the level of difficulty and complexity of running a successful business. It is easier to come up with an innovation, which means, paradoxically, that it is harder to be innovative. It is harder to get access to the human and financial capital required to get the innovation to market quickly enough.

If you cannot be innovative, then size and scale, while not determinative, are fundamental to survival in a commoditised world – but how do you get sufficient size and scale, especially in a relatively small economy? From the point of view of the average business, this is a Schumpeterian age of predators, where it is literally a case of the quick or the dead.

Faced with this reality, governments can take one of three routes:

- allow natural processes to take their course – with the attendant political and social risks;

³⁹ There is a body of theory to support this, originating from work by Nobel Prize winner Gunnar Myrdal.

- fight the trend, by propping up or supporting enterprises that would otherwise cease to exist, with the accompanying economic costs and placing national competitiveness at risk; or
- facilitate the process of transition for enterprises and for individuals whose lives depend of those enterprises – allowing nature to take its course, but making sure that productive capacity is not wasted and lives and communities are not damaged irreparably.

The first alternative could be dubbed as economic rationalism, the second as economic nationalism, while the third and last alternative is a pragmatic response, typical of the Australian way of doing things and in line with community expectations. The last alternative sees the human and other capital redeployed quickly to another productive purpose with minimum financial, social and individual cost.

The taxation system offers a powerful mechanism to help achieve this – or alternatively, it can serve as a powerful barrier to much needed change.

Using the tax system as a stabilising mechanism

Governments use taxation policy as a vehicle to collect revenue or to restrict or to make impossible behaviours that are deemed to be undesirable. Both those purposes are legitimate, but this is only a part of what can be achieved by the proper use of taxation.

In an economy where there is rapid change, where productive capacity is constantly reshaping itself to meet changing exigencies and to exploit opportunities, there will be significant ebbs and flows of capital and of income, for individuals, for enterprises, for regions, and for industries or sectors of industries. These shifts can be very damaging and can be very destabilising at the macro level.

If used cleverly and strategically, taxation policy can serve as a powerful stabiliser for the twenty-first century innovation economy, almost in the same way that insurance and reinsurance served as an essential stabiliser for nineteenth century mercantilism. The Henry review provides an opportunity to do this and more.

The risk to be managed here is to the integrity of the revenue base. However, it is possible to use the taxation system to smooth out revenue flows for individuals and enterprises, for defined periods, without threatening the system itself.

This can be done through the use of tax credits. The liability remains and there is no addition to the complexity of the system, but the particular individual or enterprise is able to retrain, re-equip and reposition so as to remain a viable productive unit. Such a proposal would encourage entrepreneurial risk taking, which is a precursor of innovation. In the USA being a bankrupt can make you a good prospect for venture capitalists, along as you are seen as an innovator with a chance of success the second or even third time around.

That is not what happens in Australia. We need more risk takers and more innovators and a tax system that facilitates or even encourages this would

help us to change our risk averse approach. Other means of encouraging confidence in making investment decisions are discussed later in the paper.

A place for Australia in global agendas

In a world where markets can make or break enterprises and even whole economies and where the movement of ideas, people and capital is free of major encumbrances, how an enterprise or an economy is perceived can be the difference between survival and prosperity or survival and disaster. Selling Australia's wares to the world is very much dependent on selling Australia to the world or, more precisely, to the opinion makers and influencers in the world.

There has been a long-running debate about perceptions of Australia; is it seen as old economy or as a new economy? The belief is that the latter perception would get us the credibility and investment we need, while the former perception would leave us with a mediocre future. Neither statement represents the whole truth.

Being seen as a new economy is worth little if we do not match reality to the perception. On the other hand, being seen as an old economy – as most observers would opine we are – seems to have done us no harm, as ours is the only OECD economy that has continued to grow over the last decade, despite severe external shocks.

The thesis pursued in this paper – and elaborated below – is that our competitiveness depends on being as well as being seen as a society that uses technology to innovate and to connect its people. Our success depends on making good use of all our capital, including our social capital.

Capacity building – building social capital

A key driver of productivity in Australian culture is the concept of the *fair go*, interpreted as a desire that everyone should have the opportunity to compete on fair terms. Most cultures have a similar expectation, though sometimes it remains inchoate or is suppressed.

People expect government to take responsibility for ensuring that there is an environment conducive to the creation of social capital, just as it is responsible for ensuring that there is an environment conducive to the creation of economic capital.

The importance of productivity as the driver of competitiveness for the nation and for the economy as a whole has already been discussed. We have also discussed how the interests and welfare of communities can be served by developing the connective capacity of the information economy. However, if enterprises and individuals perceive that the globalised information economy is not serving their particular needs or if they perceive that the benefits flowing from that economy are distributed in a grossly unfair manner, the acceptance and trust in the new technologies will wither. And the national economy and community life will also wither.

To avoid this, we need to know what enterprises and individuals *need*, what they *want*, and what they *expect*. If there is congruence of needs, wants and expectations, it is more likely that there will be greater confidence in the

information economy and in its tools. We need a level of confidence such that people and enterprises will feel safe in making investment decisions and in using those tools.

The role of education and training

In a world where we cannot predict what kind of work people will be doing ten or twenty years hence, we need to refocus the purpose of the expensive infrastructure that these institutions require. People need to have a fundament of basic skills needed to navigate the future, so that they can sense the coming need and respond to it, rather than react to it after the event. People also need effective just in time training, so that industry can get the job done at minimum cost and within decreasing timeframes.

If schools, universities and TAFE in their present guise cannot do this, then they must change so that they can and it should be future needs that drive that change, not present perceptions of the recent past. There is a strategic role for government here, but how would we measure our success? A hallmark of success might be to have a broad range of substantial and sustained exports to a variety of countries. It is dangerous to focus on few industries and it is just as dangerous to have trading relationships with few partners.

If many other countries are buying our goods and our services and if they continue to do so over decades, it is safe to assume that we are exploiting and sustaining our competitive advantage.

To achieve this, we need to achieve a place for Australia in relevant global forums and agendas, but we also need to manage internal factors that could have significant negative repercussions for our positioning strategy.

Looking after the home front

We need to manage the tensions and expectations that arise from the interaction between the new technologies and other forces that are shaping our society and our culture, such as urbanisation.

It has been assumed that the new technologies (such as the internet and the World Wide Web) would enable or even promote decentralisation. The rationale for this assumption is predicated on the belief that, if distance is no longer a barrier to conducting business, people (and businesses) will increasingly choose to move away from metropolitan areas.

It is true that in the information economy, at least in principle, one can do business from anywhere, as long as the business consists of electrons, rather than atoms. The phenomenon of telecommuting is spreading, as a result.

However, history suggests that, as communication technologies improve, the result is a greater aggregation of people and resources, rather than disaggregation or decentralisation. Urbanisation has been a universal trend of the agricultural and industrial eras and there is no evidence that the post-industrial era will see this trend reversed or even halted.

There is evidence to suggest that the new technologies are aggregating or centralising technologies, as illustrated by the phenomenon of clusters. Headlines such as "Edinburgh Science Park could create 5,000 jobs" are

common nowadays, as new technology enterprises congregate in sympathetic spaces.

Clustering is not a new phenomenon, but it has become a much more significant phenomenon in the new economy. Silicon Valley is the best known exemplar.

It is not only enterprises that congregate, capital does the same. As innovations very quickly become commodities, it becomes more and more expensive to innovate, driving capital – including creative resources – to concentrate. There are also cultural forces that bring like together with like and it potentiates the clustering effect.

If this is so, then the new technologies may combine with long-term trends to produce even faster and greater levels of urbanisation, pulling people and resources away from regional and rural areas. This is not inconsistent with the phenomenon of telecommuting, which will enable a few of the richer and more independent individuals to live lives away from the great urban areas, if they wish to do so.

If these observations are correct, a difficult series of challenges are posited for government in Australia. If government wants to influence the trend towards urbanisation, it needs to take positive action to reverse or to modify a deep historical trend. If government wants to resist the aggregating effect of the new economy, it may risk its place in the global economy. If government does not meet the legitimate needs and expectations of regional and rural Australia, it risks losing the consensus needed for Australia to thrive in the global economy.

The same observations can be made about the place Australia occupies in the global market. The potential of the new technologies to aggregate people, resources and ideas applies across international boundaries, as illustrated by growing fears that Australia is becoming a branch office economy.

Looking outwards

To attract investment, to attract the right attention from the markets, to attract and to keep the best minds, we need to project Australia

- as a *connected country*, because connectivity is to the information economy what the railways were to the Western frontier of the United States in the 19th century;
- as a country where the *rate of innovation* continuously speeds up as does the speed of commercialisation, clearing away any barriers that stand between a good idea and a prospective purchaser;
- as a country that makes wise and ever more efficient use of its *intellectual property*, of the explicit and implicit knowledge that is held within the minds of its people and in government and private organisations;
- as capable of *diversifying the productive capacity* of its economy so that the proportion of new economy products and services increases and so that the total number of products and services Australia can export increases;

- as a country whose people feel safe in the new economy, *safe to invest and to use*.

We can project this image by traditional marketing, but it is difficult to sell Australia as a new economy when the tourism industry promotes Australia as a land of beaches and hedonism. We need to harmonise the messages we are sending to our current and potential international partners and customers so that they see Australia as a sophisticated, multi-layered society, innovative and creative in all aspects of life.

We also need to reach the crucial decision-makers directly – individuals and institutions. We must have people representing us in forums, conferences and in boardrooms who are capable and willing to do this. We must produce high quality research that illustrates how we understand the issues, understand where we stand and where we need to be – and how to get there.

We must also match rhetoric and reality, which is why connectivity and interoperability are so crucial. A wonderful marketing company cannot sell a poor product, not for long anyway.

Recommendations for the Government 2.0 Taskforce

Step 1. *Develop a desired future position.* What kind of government and supporting structures are we likely to need to meet the challenges and expectations of the next decade. What performance standards should we apply to public administration, what success indicators?

Step 2. *Determine what kind of supporting organisational and governance structures you want.* At this step, it is necessary to determine which type of organisation we are dealing with. This used to be described as “determining your core business”. That terminology has proved less than helpful, stimulating a lot of academic and consultant hot air and burning holes in corporate wallets – without providing much useful guidance.

I suggest a different question: what is it that consumes your resources? Is it moving money from place to place to pay for service or to provide a benefit or providing a service the public or providing advice to business or to government, just to give some examples.

I suggest that there are four generic types of organisation in the APS: policy formulation, regulation, service delivery and a hybrid type. In a hybrid different business units may pursue different strategies (e.g. one may pursue a *policy formulation* strategy, another *service delivery*, another *regulation*). Some mixing of types occurs in all agencies, but in a true hybrid no type predominates.

Examine how resources are allocated, both financial and non-financial, and that will tell you what type of agency you are dealing with. A more sophisticated analysis would require you to ascertain what it is that the agency does that creates value. In service delivery, for example, it is the delivery of the service that creates value. Everything else is a cost centre, including any policy work that is needed to support service delivery. On the other hand, in a policy agency it is the provision of policy advice that creates value and anything else is ancillary to that and constitutes a cost centre.

The answer from this type of analysis ought to be same as with the heuristic guideline I have suggested.

Understanding this question is fundamental in making sourcing decisions. One would be unwise to outsource the activity that creates value, while one *may* find it useful to outsource anything that is a cost centre. Note that that a choice has to be made even about the latter, which is why the core/non-core debate proved to be sterile. Management must make choices, informed choices. How such choices are made is covered in the next steps, starting with the step after the next.

Note also that *elements* of a process, such as policy, may be legitimately outsourced or otherwise made contestable.

To give you some notice of what may drive you to outsource or not, you need to ask yourself: what competencies do you rely on to create value for your clients or customers? If the activity covered by a certain cost centre is included under this rubric, it would be risky to your organisation to outsource it. Note that a judgment is again required: it may be risky, but, taking all relevant matters into account, it may still be preferable.

Step 3. Determine your trajectory. Having determined where you want to be and the mechanisms you need to get there, the next question is, how do you get there? This is more difficult in government than it is in the private sector, as the future is in the hands of future governments and is ineffable as a consequence.

Note that a valid answer here may be that you want to keep your options open. This can be accommodated, though you will find that, as with everything in this life, there is a price to be paid for this kind of flexibility.

In summary, at this step there are four possible trajectories: static – you plan to stay as you are; evolutionary – you may change, but not radically, relying more or less on the same competencies; radical – you want to transform your organisation into something quite different, probably requiring a different constellation of competencies; open – for very valid reasons, not through indecision, you want to keep your options open.

It is possible to craft supporting strategies to accommodate any of these trajectories, but first it is necessary to consider the circumstances in which the organisation is required to operate.

Step 4. Understand your environment. A government agency should be equipped to deal with its environment, present and projected, and good governance requires that a board or a CEO take steps to map and understand likely future circumstances.

In this context, there are only four broad categories that matter and they echo the discussion under the previous heading: steady state – minor or no changes from the present environment; predictable – there is change and it may be significant change, but the nature and pace of the change can be determined with reasonable confidence; turbulent – the environment is likely to be choppy, difficult, even threatening; unstable – the environment is inherently unstable to the point that it may change radically (or not), perhaps with little or no warning.

Occasionally these characteristics may appear in a mixed, hard to define to form. In such a case, treat your future environment as if were unstable. This amounts to sound risk management and will enable (or force) you to keep your options open and to be on your guard.

Now that you know what you are, what you want to be and what the world is likely to look like, you are ready to consider what business strategy you ought to be pursuing. You may already know this and be confident of your approach, but I would ask you to do a quick review of that approach against your findings so far, before moving on to step 5.

Step 5. Determine your business strategy. This is what makes your organisation, your value proposition, unique. This is the reason (or reasons) why your clients or customers choose you from the many options at their disposal or the reason why the government has granted (and allows you to retain) a monopoly.

For example, McDonalds attracts adults for one of two reasons: because of its reputation for convenience or because of its reputation as a fun place for kids (or perhaps a blend of these). McDonalds does not attract customers (with few exceptions one suspects) because of the quality of its food. On the other hand, people will travel to a particular destination for no reason other than the reputation of for quality food and service of a certain restaurant. In this latter case, we are not dealing with convenience or fun for kids.

McDonalds and Tetsuya's – substitute your own locus of culinary heaven here - are not competitors; they do not occupy the same ecological niche - or business space - although they are both ostensibly in the "restaurant business". Having said that, it is sometimes possible for organisations that are not direct competitors to cause great damage to each other. For example, Woolworths and the local corner store are not in the same ecological niche. One goes to the former for range and price and to the latter for convenience and customer service. It should be possible for both to carry on safely in their own business space.

However, the mere presence of a giant Woolworths supermarket in the neighbourhood may take away sufficient business from the corner store to make it unviable. This is comparable to the impact humans have on other species. We are not competitors with koalas or with tigers for food. On the other hand, by using portions of the habitat used by these species as cultivated forests and leaving them only with small segments of native forest, we may be causing their extinction.

In the APS, it is worth remembering the potential detrimental impact that an agency may have on the business of another (or on the private or voluntary sectors) merely by executing its chosen business strategy.

Coming back to the matter at hand, by now you have identified what your organisation does, whether you are likely to stay in that line of business and what it is that makes your organisation's value proposition unique. These are all assets that must be preserved – if not enhanced – by means of a sourcing strategy.

Now comes the time to craft such a strategy. You may already have such a strategy, perhaps prompted by someone's call to cut costs, which seems to be the principal driver of change in public administration, aside from changes of government, that is. If so, please review that strategy now, in the light of your conclusions from steps 1 through to 4, before moving on to step 6.

Step 6. Craft a sourcing strategy. The first thing to be said here is that every organisation should have one, because good governance demands that a CEO or a board secure the critical assets the organisation is likely to need in the foreseeable future. This includes access to ICT infrastructure and to tools such as those captured by the label of Web 2.0. Your strategy should be sympathetic

to your organisation: what you do, what you intend to do and how you create value for your clients or customers.

How important is ICT to what you do, what you intend to do and how you create value for your clients or customers? If you run a small policy agency, not much, one could safely say. If you run a nationwide service delivery agency with hundreds of service delivery points, multiple channels of delivery, a static range of products and services and a steady state environment, it is vital to your effectiveness. You cannot run a *low margin, high volume*, logistics dependent, *7x24* business without *solid, reliable* ICT infrastructure.

In these circumstances, the ICT sourcing strategy must have KPIs that focus on these success criteria: efficient, scalable, reliable, redundant infrastructure – and price sensitivity. The strategy will probably support large investments by the organisation and/or its ICT supplier(s), because there will be a guarantee of reasonably predictable high volume traffic.

Let us consider another example, a *service delivery* agency with *hundreds of service delivery points, multiple channels* of delivery, a *dynamic range* of service offerings (driven by client/customer expectations) and operating in a *turbulent environment*. Again, the key characteristics of a sound approach for the business are derived by analysing the underlined words.

The agency relies on multiple suppliers to support its value chain and is likely to require ICT to manage a complex web of interactions with suppliers and perhaps among suppliers. The agency will need access to ICT tools that support innovation, culturally and operationally. Quality, agility, responsiveness and reliability are paramount, price is less important, and the KPIs should reflect these attributes.

These are only examples and each board, CEO, CFO or business unit manager will have to do this analysis ad hoc, focusing on the unique characteristics of the agency, rather than on generalities. However, this is a field where it is possible to acquire quality advice and where there are many instructive case studies available for study and analysis.

Step 7. What about culture? This question is important and should arise when considering possible suppliers. In this context culture is defined by shared values, by similarity (or at least compatibility) in how the organisation and its supplier(s) see the world. It is not so important if one is dealing with commodities. So, cultural fit is of little or no importance in considering where to purchase PCs or fixed telephony or, generally speaking, any hardware or even packaged software (e.g. Microsoft Office).

However, if the agency is purchasing packages of services or outsourcing whole business processes, for example, cultural fit with the supplier is essential – lack of it means that both parties (as well as your clients or customers) will suffer.

The concept of culture may seem vague, but it can be made concrete by considering this question: can the supplier meet its ROI targets by helping you meet your business objectives?

If the answer is positive, it is likely that there will be a cultural fit. If not, this will provide another, significant risk to be factored into the overall equation.

On to the last step, doing it, rather than just talking about it.

Step 8. Execution. This is where many grand and not so grand strategies come to grief. It need not be so. There are very good implementation models in the marketplace and program and project management expertise can be bought or grown (if you have the time). I have suggested a possible implementation model at appendix B.

What will help you considerably at this point is to adopt the principles of “sense and respond”. This means that you must be able to anticipate, adapt, and respond to continually changing customer or client needs and expectations, as well as environmental changes.

Office of Public Sector Reform (OPSR)

Day 1

Announce amalgamation of AGIMO and the APSC (including the offices of the Public Service Commissioner and of the Merit Protection Commissioner), incorporating elements of the

Department of Education, Employment and Workplace Relations that look after APS industrial relations and the Office of the Information Commissioner.

Announce that OPSR will answer to a Minister assisting the Prime Minister and that a council including thought leaders from the public sector, private sector, voluntary sector and academia will inform its strategy and operations. OPSR will be headed by a CEO, with the Australian Government CIO, the Public Service Commissioner, the Merit Protection Commissioner and the Information Commissioner, forming a board to assist the CEO in the management of the agency. The CEO of the National Archives of Australia would also be a member of the Board.

Announce that x has been appointed to lead the process of amalgamation and reconstruction, as acting CEO. The position of CEO to be advertised after one year.

Remit of OPSR:

1. Oversee the application of information and communication technologies to government administration, information and service provision to:
2. Enable effective and efficient implementation of government policy and delivery of government services and programs.
3. Deliver a return at least equal to the Ten Year Treasury Bond Rate from the investment in government ICT and information and data held by the Australian Government.
4. Design and implement a model of public administration for the Australian Public Service that will meet the requirements of government over the next decade.
5. Develop and maintain a process to ensure that the Australian Public Service has the capability to meet existing and projected government needs.
6. In collaboration with the Department of Finance and Deregulation, design and implement a framework of accountability and reporting for departments and agencies that delivers optimum efficiency and effectiveness, in line with benchmarks to be approved by Cabinet.
7. In collaboration with relevant agencies, design and implement a service delivery strategy for the Australian Public Service.
8. Design and implement a secure electronic communications network for the Australian Government.

9. In collaboration with the Department of Finance and Deregulation, design and implement a procurement process for the Australian Government that will meet expected needs of departments of agencies efficiently and effectively.
10. Oversee the management of the Australian Government's presence online.
11. Oversee the application of the Public Service Act to ensure compliance with the objectives of the Act.
12. Develop a collaborative framework with other tiers of government in the areas covered by this remit.
13. Manage complex projects on matters covered by this remit, as directed by Cabinet.
14. Undertake such tasks related to the above functions as the Minister may require from time to time.

Day 1 plus 1 week

Establish five streams of work within OPSR:

1. Effect amalgamation and rationalisation of structure and staffing. Realise savings to fund first phase of streams 3-5. Timeframe:
 - a. Implemented 1 month from commencement.
 - b. Reviews at 6 and 12 months.
2. Manage ongoing activities (8 and 9 in remit).
3. Hard infrastructure (6 and 7 in remit). Timeframe:
 - a. For 6, design in 6 months and implemented in Canberra within 9 months. Other capital cities covered within 18 months.
 - b. For 7, design in 6 months and implementation for 2011-12 FY, provided Day 1 is no later than 31 December 2010.
4. Soft infrastructure (1, 4, 5, 10 and 11 in remit). Timeframe:
 - a. For 1, immediate.
 - b. For 4, design in 6 months and implementation for 2011-12 FY, provided Day 1 is no later than 31 December 2010.
 - c. For 5, design in 6 months and implemented within 12 months.
 - d. For 10, design in 3 months and implemented in 6 months.
 - e. For 11, project management office staffed within 3 months.
5. Creating the future (2 and 3 in remit). Timeframe:
 - a. For 2, design in 6 months and implementation to commence at that time.

- b. For 3, design in 6 months. Implementation to commence at that time.

Budget, May 2010

Detailed, costed proposal to roll out remainder of reform agenda. Likely cost ±\$40 million over three years.

Savings opportunities

Five streams of savings. 1 is short-term, 2 and 3 are medium term (one year) and 4-6 are medium to long term (one to three years):

1. From amalgamation/rationalisation (stream 1 above). Savings of \$5-7 million likely – will fund first phase of reform agenda.
2. From (immediate) reforms of procurement focusing on both price and benchmarks of consumption across agencies. Savings of \$50-100 million likely. This scenario (real data) illustrates:
 - Paper (GSM 80) purchases across surveyed agencies range in price from \$4.33 to \$6.05 per ream. Larger agencies are paying higher prices. If largest agency were to secure lowest price it would save \$200,000 pa, effective immediately. All purchasers surveyed were happy or very happy with price paid.
 - There are no benchmarks for consumption and no data on per staff consumption. Experience from private sector and other countries suggests that there is much waste and duplication because of lax procurement practices and the almost complete absence of benchmarking and performance monitoring within and across agencies.
 - From further (post-Gershon) rationalisation of ICT procurement and management (shared services, for example) across agencies. Savings of >\$200 million likely.
 - From soft infrastructure initiatives (above). Savings of \$1 billion plus are achievable.
 - From creating the future initiatives (above). Up to 30% of current expenditure – \$3 billion plus.

References and suggested reading

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