# Australian Institute of Project Management

**Project Management** 

some reflections on the management of projects in the Australian Public Sector

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With thanks to Ron Richards of my Office for his assistance in the preparation of this address

> Ian McPhee Auditor-General for Australia



## I Introduction

Thank you very much for the invitation to present this key note address at your national conference.

Project management has been simply defined as '*the management of a series of interrelated activities with defined start and end dates, designed to achieve a common and agreed objective*'<sup>1</sup> — that is, it's not management as usual but management with a specific defined deliverable or set of deliverables to meet established goals within defined constraints of time, resources, and quality.

Managing projects requires a disciplined process in the planning, organising, monitoring and controlling all aspects of a project, including the application of skills, tools, and techniques, and the balancing of competing demands of product or service specifications, time and cost. <sup>2</sup>

How well projects are managed and implemented is an important issue for the public sector because it is tasked by government to deliver projects (at times large and complex) for the benefit of Australian citizens utilising public resources. And of course, implementation of new government programmes exhibit the same challenges as projects, and thus should be considered in this context.

It goes without saying that government programmes or policies need to be delivered on time, on budget and to expectations — this is no easy task given the complexity of the environment in which public administration is delivered<sup>3</sup>. The same goes for projects which contribute to the delivery of outcomes.

As the implementation and delivery of Australian Government policy initiatives is one of the key responsibilities of government agencies, I welcome the opportunity to speak on this topic today — one that has received extensive coverage by the Australian National Audit Office (ANAO) over the years as well as generating significant interest with the press and the public generally.

Over the last decade or so the ANAO has reviewed the implementation of systems, the acquisition of capability, the sale of assets and even the subject of project management in large government agencies (for example, assessing the effectiveness of project management in Centrelink<sup>4</sup>). As you would expect, our audit reports cover the spectrum of outcomes, from the delivery of large and complex projects, to some 'belly flops', to projects not getting off the ground despite the investment of significant amounts of taxpayers' funds.

If you look across all of those reports an important message is that, while project management may be the centrepiece, governance arrangements, people skills, stakeholder involvement and 'score keeping' systems that give visibility to the status of major projects are key variables in the equation as well. And, the most disappointing project outcomes demonstrate that not paying constant attention to any of these variables puts projects at risk.

The business environment is also becoming more complex. The world doesn't stand still. And boundaries between previously discrete organisations, organisational units and functions are becoming more porous. This means that projects and programmes need to deal with a greater level of interconnectedness and all of the technological enablers. So, while the fundamentals of project management may not change significantly, the risks to successful implementation are higher due to the more complex nature of our environment and the extent of uncertainty.

The extent of these interdependencies also brings their own issues and costs if implementation doesn't go according to plan. Interdependencies are many and varied but of significance are project partners that can play a significant role in whether a project is successful or not; and then there is the effect on down stream parties that are reliant on projects being delivered on time. So aside from all the technical skills required, the successful project manager needs to be a good relationships manager and have a temperament to manage the pressures that inevitably come with the management of larger projects. I notice Kim Gillis mentioned also that 'self-awareness is very important'<sup>5</sup> – something that project managers and auditors might both require!

The good news is that the importance of project management and implementation in the Australian public sector is now getting greater recognition in a range of different ways, for example: the operational separation of the Defence Materiel Organisation (DMO) from the Defence Department in recognition of its key role in acquiring defence capability, the establishment of the Cabinet Implementation Unit to track the implementation of key new programmes and budget measures, the focus on Gateway reviews to improve on time and on budget delivery of major projects, and the joint Better Practice Guide issued by the ANAO and PM&C titled *Implementation of Programme and Policy Initiatives: Making implementation matter.* <sup>6</sup> Developments such as these recognise that effective project management is a key driver for success in the delivery of public services. There is a better understanding of the linkage between projects and outcomes.

The other positive development is a significant investment in skills and training to enhance the prospects of success in organisations like DMO and the Department of Immigration and Citizenship (Immigration).

Despite the positives, a review of history shows there has to be caution in saying we have 'turned the corner' on project management and programme implementation. The best we can expect is that we learn from history and from developments in project management, and increase the rate of project successes.

It is very apparent today that CEOs need to take a close interest in major projects because of the risks to delivery and reputation but also because the

leadership of CEOs has been demonstrated to have a very positive effect on project and programme performance.

### II Shaping Project Management in the Australian Public Sector

For me, there are four significant influences that are shaping project management in the Australian public sector for the better, namely:

- Greater recognition of the importance of project management in delivering outcomes for government
- Methodologies better designed to manage the risk to successful delivery
- Making a greater investment in developing project management skills to staff, and
- Better understanding of the success factors in managing projects.

# Greater recognition of the importance of project management in delivering outcomes for government

The Australian public service is responsible for the delivery of government projects, services and programmes and good project management is the key for turning a government's aspirations into results. That said, the public sector faces implementation challenges somewhat different from, and perhaps more complex than those confronted in the private sector including issues such as: agency demarcations, overlapping jurisdictional responsibilities, legislated deadlines and public accountability within an environment of intense scrutiny. In such an environment, leadership is critical to success.

In this context, one of the more interesting management books I have seen lately is *Good to Great* by Jim Collins.<sup>7</sup> While it is not possible to do justice to the research and the framework of concepts developed in the book in a short period of time, there were some particular insights that struck a chord with me that bear on project management. They included:

- **Leadership** The type of leadership required to turn a good company into a great one was, surprisingly for the researchers, not the big personalities but self-effacing, quiet, reserved even shy leaders who are a paradoxical blend of personal humility and professional will.
- **First who.....then what** The researchers expected that good to great leaders would begin by setting a new vision and strategy but found instead that they first got the right people on the bus, the wrong people off the bus, and the right people in the right seats and then figured out where to drive it.
- **Confront the brutal facts, yet never lose faith** The message is that you must maintain unwavering faith that you can and will prevail, regardless of the difficulties. At the same time, you must have the discipline to confront the brutal facts of your current reality.

• A culture of discipline – When you have disciplined action stemming from a disciplined culture, you don't need excessive controls.

Due to the complexity of projects today, it seems to me that it is critical to place the emphasis on the managerial aspects of project management.

As far back as 1979, the Joint Committee of Public Accounts' (the forerunner to the Joint Committee of Public Accounts and Audit – JCPAA) inquiry into MANDATA (a major computer system designed to assist with personnel administration in the Australian Public Service) highlighted the importance of sound project management in delivering a successful project.<sup>8</sup>

The Committee's report in commenting on the project came to the view that the prime focus was on the tendering process and the operational reliability of equipment rather than the managerial and strategic aspects of MANDATA. The Report went on to say that given the low level of experience that existed in 1973 and the lack of public sector experience generally in large system development it was surprising that a strong warning note was not given to the Public Service Board about '*the difficulty of the project nor question the Board's ability to undertake it*'. <sup>9</sup>

It is noteworthy that nearly 30 years later, the managerial aspects of projects are still often underdone. Better project and programme management cannot be left as a technical task for specialists. *Better implementation needs to be consciously driven from the top down. It requires continuing executive oversight and support.* <sup>10</sup>

Senior public sector managers, who are charged with the oversight of major programmes and projects must know the right questions to ask, who is responsible for answering them, and how to assess the validity of those answers. With this in mind, the ANAO (in conjunction with PM&C) recently issued a better practice guide to implementing government programme and policy initiatives, referred to earlier. <sup>11</sup>

The guide is not primarily a *'how to'* manage projects and programmes, rather it provides a checklist of the types of questions that need to be asked and the assurance that needs to be given to CEOs, to the senior officers responsible for oversight of projects and to the project managers themselves. Such a systematic approach is the key to driving the structural and behavioral changes needed in organisations if good intentions are to be turned into better outcomes.

Agencies have responded reasonably well to the increased emphasis on project management. Dr Shergold, the Secretary of PM&C, reports that a clear lesson from the new requirement for agencies to provide implementation plans (on key initiatives) is that this project management capacity needs to be spread more widely, not only to the management of procurement and infrastructure but to the delivery of services. More agencies should have the integrated information and financial management systems to support project management. Training and accreditation needs to be more widely available, and tailored to the challenge of programme delivery. <sup>12</sup>

Government agencies are entrusted with significant resources to be used for public purposes including the delivery of government services, programs and projects. In our system of government, agencies are accountable for the way they deliver these services and financially accountable for their use of public monies — accountable to Parliament through the responsible Minister.

The 2005 KPMG project management survey set out some golden rules for successful project management, two caught my eye:

- **Govern to achieve** by establishing an integrated governance framework (end-to-end) driven by the top executive starting with the business case and ending with measuring the actual value; and
- **Hold to account** by clearly defining individual accountability for realizing the anticipated outcomes.<sup>13</sup>

The important message here is to ensure that there is end-to-end governance as the project progresses through its various phases — that is the governance does not 'fall away' after the rigour usually associated with the initial phases.

Although our accountability requirements can, at times, appear burdensome to the outsider, rules and procedures should be used to set out the organisational tolerances to guide performance. They are not intended to make life difficult but to give confidence that organisations are operating as expected by those charged with governance of the organisation. That said, rules and procedures should contribute to the organisational performance and conformance responsibilities, and if they do not appear to do so then they should themselves be subject to review. Rules and procedures should pass the test of being reasonable risk mitigation responses.

# Appropriate methodologies designed to manage the risk to successful delivery

There is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new system

Machiavelli

More broadly, a risk management methodology is required to assist project managers in developing a structured approach to planning risk management. Risk associated with projects has to be treated in a positive and proactive way. The other significant contribution to managing project risks is, of course, to employ an appropriate project management methodology to plan, record and monitor project performance.

Compared with project work done in the past, projects today are more risky: they are more complex (i.e. those where it is difficult to undertake accurate, detailed long-term planning<sup>14</sup>), time-constrained, pose greater technical and IT challenges, and are not always adequately resourced.

Keeping a project on track involves dealing with the uncertainties associated with its delivery. Sound project management should assist in turning uncertain events into more certain outcomes — that is, a key element of project management should be risk management. A focus on the management of uncertainty and risk is critical for the success of any project and, if undertaken well, will flow through to how well other processes, such as scope, schedule, and spending are managed. Importantly, risk management plays an important part in securing value-for-money for the Commonwealth.

It is not always easy to get visibility around risks. With the recent home mortgage situation in the United States of America, there has been a significant repricing of risks around many securities as the market has realised that investors weren't getting sufficient return for the risks of owning securities. And yet, there is a whole industry that is expected to be knowledgeable about such matters. On one reading, it appears the strong and stable global economy began to lull investors and their advisors into a false sense of security. As a column in a recent edition of the Financial Times observed '*If there is one lesson to be learnt from this summer's events, it is that it pays to think hard about (nearly) unthinkable risks.*'

Against this background, the project managers in the APS could be excused for thinking that there might be more tolerance displayed when they occasionally miscue on a risk assessment – this is a decision for others, but we would all agree it is best that risk assessments properly calibrate the likelihood and potential impact of risks, and keep such assessments under review. Perhaps this is where the auditing profession can make a contribution to project management through our 'professional scepticism' – in other words, don't take things for granted or allow soft positions to be advanced. Put the blowtorch on critical risk assessments and technical judgements.

A common thread running through successful projects is a forward-looking approach to the management of projects. Project risk management needs to anticipate and address uncertainties that threaten the goals and timetables of a project. This calls for a coherent and comprehensive project management approach that looks forward and takes appropriate actions for accepting, avoiding, and mitigating risk as well as analysing the effects on other processes associated with managing projects.

#### Addressing risk in complex projects

In introducing this paper, I flagged the growth in complex projects. For example, many of the major Defence projects have large technical and integration risks.

The reduction of technical risks was key theme of the Kinnaird Review into Defence's capital acquisition processes. This led to the 'two pass' government approval process with the aim of de-risking the project between the two passes. Dr Steve Gumley (the DMO's CEO) has indicated that the work being done in the discovery phase of a project (prior to the 'first pass' approval) together with the 'de-risking' process undertaken between the 'two passes' has had a major impact on the way Defence does business with industry in working to remove those risks and in understanding schedules. The goal here is to make decisions with all the risks on the table.

#### The Australian Government Gateway review process

On a broader front, as mentioned earlier, the Australian Government has introduced the Gateway Review Process (Gateway) to improve the on-time and on-budget delivery of major projects undertaken by FMA Act agencies. As you will be aware, it is a project assurance methodology that involves short, intensive reviews at critical points in the project's lifecycle by a team of reviewers independent of the project. This provides an arm's length assessment of the project against its specified objectives, and an early identification of areas requiring corrective action.

Gateway applies to new agency projects that require Cabinet approval and which satisfy certain financial and risk thresholds. The current financial thresholds (to be reviewed at regular intervals) are:

- \$10 million and over for information technology (IT) projects; and
- \$20 million and over for other procurement and infrastructure projects.

Gateway was phased in from the 2006–07 Budget, focusing initially on a representative cross-section of projects that satisfy the financial thresholds and are identified as high risk. After the 2006–07 Budget, all projects over the financial thresholds seeking approval from the Government must complete the Gateway process.

#### Embedding a risk management culture

It is noteworthy that many of these new measures to improve project performance have an explicit focus on risk management. While the importance of risk management may be well understood, equally important is embedding a risk management culture into an organisation. A culture is not as visible or tangible as a plan, and thus the inputs are less certain. That said, however, there seem to be some factors that stand out:

- a vision and a set of values that define organisational goals;
- leadership that articulates the goals and strategies to achieve them;
- a disciplined approach to achieving results, with the latitude for managers to operate within agreed parameters in managing risks, resources and results; and
- appropriate reporting, monitoring and accountability arrangements.

A central theme running through successful organisations is: disciplined people, disciplined thought and disciplined action. <sup>15</sup>

The ideal risk culture is one that is committed to approved processes while also maintaining a balance that fosters initiative and innovation. <sup>16</sup> It goes

much further than a checklist of hazards to be avoided or insured against. It involves: a conscious assessment of risks, prudent decisions on how best to manage those risks and a willingness to be held accountable for our assessments and decisions'.<sup>17</sup>

While most of us have been in situations where risks could have been better managed, it doesn't pay to be over-confident in assessing an organisation's ability to manage risk. I recall the comment by Rick Buy, Executive Vice President and Chief Risk Officer, Enron in 2000:

A rattlesnake may bite us every now and again, but we knew it was there and how much it might hurt.

The quote was in a publication by Arthur Anderson, *Managing Risk, Managing Value.* <sup>18</sup> A rather sobering reference, given neither organisation has survived.

To assist agencies in managing risks in particular areas of public administration the ANAO has issued Better Practice Guides on:

- *Developing and Managing Contracts* (2 February 2007)
- Implementation of Programme and Policy Initiatives (16 October 2006)
- Fairness and Transparency in Purchasing Decisions Probity in Australian Government Procurement (August 2007)

# Making a greater investment in developing project management skills to staff

It is critical to have suitability qualified and experienced staff available to both the public sector and industry.

As is apparent from the AIPM's website, there is a wealth of training available on project management conducted by a wide range of providers, including: the ACPM (Australian College of Project Management), AIM (Australian Institute of Management), TAFE, Universities and private sector providers offering training ranging from short courses, to courses at the certificate, diploma, graduate diploma and masters levels.

As we are in Tasmania, I note that the Institute of TAFE Tasmania is offering a Diploma in Government Project Management covering areas such as: the design, management and closure of complex projects, the Values and Ethos of the Public Service, promoting compliance with legislation in the public sector and the co-ordination of risk management.

#### Some Defence initiatives

On the government side, organisations such as Defence have recognised the need to have a highly trained workforce and have sought to professionalise its

workforce through: the accreditation of individual staff by nationally recognised bodies, establishing in-house courses or attendance at overseas institutions. More recently Defence has initiated programs such as the collaborative Defence Industry 'Skilling Australia's Defence Industry' (SADI) program. This program is aimed at developing a range of skills, including project management, to sustain Australia's major weapons platforms.

Defence has also embarked on providing its staff with business acumen training — I understand it is hoped to eventually train some 3, 000 DMO staff to enhance their understanding of commercial and business issues including contracting, scheduling, intellectual property and risk.

A further initiative was announced in February this year by the Minister Assisting the Defence Minister, Bruce Billson. His press release concerned the inaugural meeting in Canberra of the Fellows and Officers of a new international management institution, the <u>College of Complex Project</u> <u>Managers</u>. The aim of the college is to improve the success rate of complex projects around the world.

Mr Billson went on to say that the establishment of the college reflects a growing concern about a global shortage of trained complex project managers. He said:

In Australia the Department of Defence is taking a leading role in addressing the demand for complex project managers. The department is developing a competency standard for complex project managers and is supporting the establishment of the College of Complex Project Managers.

The establishment of the College represents a positive move towards addressing the need to increase the investment in project management training, especially for complex projects. Here at the ANAO we are also doing our bit and a number of my staff have just completed Prince II training to ensure they have the skills to manage our important business IT projects.

While on the subject of training, it is worthwhile to flag the importance of promoting organisational values. In the Australian Public Service, we have a set of values set out in the *Public Service Act 1999* that provides a sound basis for public administration. These 15 values signal to all members of the APS the expectation that the APS, amongst other things, will be impartial, professional, of the highest ethical standards, and openly accountable for its actions within the framework of Ministerial responsibility to the Government, the Parliament and the Australian public.

I now want to mention some of the factors that contribute to successful projects by referring to the work the ANAO has done in reviewing government projects and making suggestions for improvement.

#### Better understanding of the success factors in managing projects

While we may not have all the answers now, through continuous learning we can improve our performance in managing projects.

Attachment 1 to this paper revisits the main JCPA findings of two older projects to see if there are any themes that still resonate today, some 30 years later. Secondly, the Attachment briefly canvasses some more recent projects and some of the key issues arising.

Looking at the cross section of projects discussed in Attachment 1, we could draw the conclusion that, for large projects, the inability to meet all the success criteria (meeting requirements, deadlines and budget) is still quite a challenge. What can we draw from these examples as the drivers for project success?

| Perspective                          | Focus   |
|--------------------------------------|---|
| Senior Management<br>Involvement     | <ul> <li>The role of senior management is vital — senior<br/>management must become closer to the issues of<br/>project management and their roles as project<br/>sponsors and steering committee members must<br/>adopt a 'hands on' approach</li> </ul> |
|                                      | • Steering committees may have once simply acted<br>as review groups however with the broad<br>organisational impact of large projects the steering<br>committee must act as a strategic problem-solving<br>group   |
| Project Management                   | <ul> <li>Having the right team structure and organisation<br/>in place as well as having and maintaining a<br/>motivated project team</li> </ul>  |
|                                      | <ul> <li>Developing good project management skills</li> </ul>   |
|                                      | • Communication at all levels in a project is critical  |
|                                      | • Ensuring problems are discussed and addressed as early as possible  |
|                                      | <ul> <li>Having the right support tools and technology in<br/>place</li> </ul>  |
|                                      | <ul> <li>Formal and highly disciplined project management<br/>techniques are mandatory for large complex<br/>projects</li> </ul>  |
|                                      | • Quality assurance mechanisms are critical   |
| Meeting Stakeholders<br>expectations | <ul> <li>Ensuring the requirements of the project are well<br/>developed</li> </ul>   |
|                                      | <ul> <li>Having disciplined and detailed planning and a<br/>continual review of the project</li> </ul>  |
|                                      | <ul> <li>Stake holder management — locking in the<br/>sponsors of the project and ensure they are<br/>informed of developments</li> </ul>   |
|                                      | • Where possible, adopting a modular approach<br>which allows achievement of 'quick wins' with early<br>delivery of 'products' to minimise the exposure to<br>long time-frames  |
|                                      |   |

| Project Delivery | 0 | Ensuring risk management is proactive and robust   |
|------------------|---|--|
|                  | о | Avoiding scope creep   |
|                  | 0 | Ensuring that the <u>right</u> contract is in place and<br>sound contract management practices are<br>adopted— refer to the ANAO's Better Practice Guide   |
|                  | 0 | Ensure there is a sound accountability framework<br>in place including having robust reporting and<br>monitoring systems in place  |
|                  | 0 | Recognising that projects involving significant<br>engineering development tasks require the use of an<br>integrated set of progress measurement techniques<br>covering project costs, schedule and systems<br>engineering requirements achievements |
|                  |   |  |

The University of Dundee in England has also published a project management checklist which I have included as an attachment to this paper (<u>Attachment 2</u>).

It is important though that checklists be viewed in the context of an appropriate management model and an understanding of the key drivers for success.

On this latter point, the Standish Group International published their CHAOS Ten success factors (2001) which they believe continue be a valuable tool in estimating a project's success potential. The CHAOS Ten success factors are reproduced in the following table.

#### The Chaos Ten

| Factor   | Weighting |
|--|-----------|
|  |           |
| <b>Executive Support</b> — influences the process and progress of a project  | 18        |
| <b>User Involvement</b> — even if the project is delivered on time a project will fail if it does not meet user needs or expectations. | 16        |
| Experienced Project Manager  | 14        |
| Clear Business Objectives  | 12        |
| <b>Minimising Scope</b> — Scope impacts on schedule and by minimising scope, time is reduced and the chances of success increases      | 10        |
| <b>Standard Software Infrastructure</b> - while requirements may be in a state of flux the infrastructure needs stability              | 8         |
| Firm Basic Requirements  | 6         |
| Formal Methodology   | 6         |
| Reliable Estimates   | 5         |
| Other factors  | 5         |
|  | 100       |

Interestingly, the Standish Group reports that *'there's less development chaos today'*<sup>19</sup> with 35% of software projects started in 2006 categorised as successful (completed on time, on budget, and met user requirements). This was an improvement from their 1994 survey with only 16.2% labelled as successful. The reported success factors were better project management, iterative development and emerging Web infrastructure.

In looking at more recent developments in project management, two trends caught my eye.

#### Measuring project maturity through a formal assessment process

Measuring maturity through a formal assessment process gives an organisation a benchmark on their current environment, how the project is progressing and most importantly, where to focus improvement efforts.

In our audit of project management at Centrelink<sup>20</sup> we mentioned project management maturity and referred to the Portfolio, Programme and Project Management Maturity Model (P3M3) developed by the UK's Office of Government Commerce (OCG). The model provides a descriptive reference model that organisations can use as guidance for improving their project-related processes.

Defence has implemented a project maturity assessment process. The Project Maturity Score is an initiative of the DMO and was implemented following the 2003 Defence Procurement Review. It aims to quantify, in an easy and understandable manner, the risks in capital equipment projects as they move through the capability definition and capability delivery stages.

The score is made up of seven attributes, namely: schedule, requirements, technical understanding, technical difficulty, commercial, and operations and support. These attributes are assigned a score between one, representing the lowest level of maturity, and 10, representing the highest level of attainment.

The Maturity Score has a series of benchmarks at various lifecycle gates of a project. For example, a benchmark Maturity Score of 42 is expected at the completion of contract negotiations and just prior to contract signature. Final contract acceptance score has a score of 69 while the project completion score is the maximum 70.

In the performance audit work undertaken by my Office considerable attention is given to the maturity progress of a project, particularly from contract signature to delivery into service. Over time, not only will this measure have widespread use in reporting within DMO and Defence, but also in informing Parliament on the status of projects.

DMO and my Office, with encouragement from the JCPAA and positive signs from Government, are working on the form of a joint report on the Top 30 Defence acquisition projects which will report on schedule, cost and performance. This will allow a portfolio perspective on the Top 30 projects, which both organisations see as a positive development.

#### The introduction of the Project Management Office (PMO)

Some agencies have set up a PMO as a centralised body to provide project management support and services. The Australian Government Information Management Office (AGIMO) believes that an effective Portfolio, Programme or Project Management Office (PMO) is a common feature of organisations with sound project management.

In the United Kingdom, agencies adopted PMOs or Centres of Excellence (CoE) to improve their performance and distil best practice management across their organisation. Under the United Kingdom model, PMOs build an agency's capability and provide the means to review performance for continual improvement. Research shows that there is no one size fits all design for an effective PMO and the roles and functions of a PMO will evolve when the organisation's project management practices become more mature.

AGIMO is assembling information on PMOs as they operate in both the public and private sector.

#### Staying focused

When I reflect on all the developments in project management and all the war stories of projects past, it strikes me as very important to stay focused on the fundamentals; the deliverables, the stakeholders, the staff and the reporting systems. We can certainly learn from experience with other projects, but need to work with a proven management model that is well known and understood to inform on project status, and highlight risks and exceptions that require attention.

### **III Concluding Comments**

We currently have a large number of significant projects under way in the APS which go to the core business of government. And agencies have responded by investing significant amounts of both time and money to improve project management.

In today's environment many organisations require employees to manage multiple projects with competing priorities and critical deadlines, making everyone a project manager in some respect. There is certainly a greater emphasis given to the importance of project management in delivering outcomes for government.

Government programmes, policies and projects need to be delivered on time, on budget and to expectations. And, while sound project management may well be the centrepiece in achieving this, other factors such as governance arrangements, people skills, stakeholder involvement and monitoring systems are key drivers for success. In this regard, some of our audit reports might be useful reading to inform project managers about projects that are undertaken or about to be undertaken.

Finally, if you are involved in project management, then it is inevitable that storm clouds will cross your skies from time to time. The main thing is to know that by following accepted methodologies, you and senior organisational management will be aware of the possibility of this outcome through your forecasts and have a plan to address the challenges along the way. The implementation of projects make the difference to the quality of outcomes delivered by government as they bridge the aspirations and concepts to the delivery of better capabilities and services. It is important work and I wish you every success with it.

Thankyou

### Attachment 1

#### Early project management in the public sector

#### The MANDATA project

The MANDATA project was the subject of critical comment from the ANAO and the Joint Committee of Public Accounts (JCPA). Although this project relates to the 1970s, it was at the time a landmark project.

The head of MANDATA, Brian Falconer, described the project to his staff when it was cancelled as: *Ill conceived and overly ambitious.*<sup>21</sup> Why was this so? The JCPA Report drew the following conclusions:

- The PSB did not fully face the prospective changes to the workforce that may result from technological change. <sup>22</sup>
- There was uncertainty as to the responsibilities of non-technical policy makers (PSB and agency heads) in initiating and directing complex technical projects.<sup>23</sup>
- During 1997 and 1998 and possibly earlier the PSB was not well informed of the project's progress and had not been effectively reviewing and controlling project development. <sup>24</sup>
- There was no evidence to suggest that the Inter Departmental Committee –IDC- (a vehicle used then to co-ordinate whole of government initiatives) played a role in preventing, reducing or even foreseeing the many difficulties which plagued the project. <sup>25</sup>
- Project objectives required better definition concern was expressed whether the goals were worth while and whether management had the ability to use the information generated from MANDATA.<sup>26</sup>
- For much of its life the project was poorly managed and directed <sup>27</sup> with significant slippage – some 3 years behind schedule when the project was reviewed by the JCPA. <sup>28</sup>
- Significant costs could have been avoided if the system development had been planned and managed in accordance with best current practice. Cost increases resulted from:
  - Delays in reaching project milestones due to lack of resources and the inefficient application of those resources.
  - Premature acquisition the mainframe and minicomputer units. (the mainframe computer was delivered five months before a contract for its supply was executed and the mini computers, seven months before). Further, some computer equipment was acquired that was not required at all.

- Ordering the computer equipment without sufficient attention being given to its accommodation requirements.
- Unproductive system planning effort.<sup>29</sup>

#### The 1983 Audit Report on Defence Major Capital Acquisitions

Moving forward, the JCPA picked up on our 1983 audit findings and conducted its own inquiry into Defence's management of its major capital equipment acquisitions. <sup>30</sup> The resulting report, tabled in 1986, showed that of the sixteen projects examined, eleven failed or were likely to fail to be completed on time, to budget or to technical requirements — this was due in large part to ineffective project management, inefficient decision-making procedures and resource management within the department.<sup>31</sup>

The report made the point that 'Sound project management practices are important on materiality, risk, and cost effectiveness grounds as well as for the proper maintenance of the defence capability.'<sup>32</sup>

The JCPAA has a continuing interest in Defence projects devoting considerable time considering quite a few ANAO reports (on individual defence acquisitions) as part of its current enquiry into the financial reporting and equipment acquisition at Defence and the DMO.

#### Some more recent projects with challenges

#### The Review of the Integrated Cargo System – Customs <sup>33</sup>

The audit found that the management framework that Customs had in place to support this project lacked many of the basic fundamentals necessary to successfully implement a large CT project. Examples included:

- The outcomes to be achieved and the expected benefits from the project were never clearly defined.
- There was no overall project plan, financial management plan, project budget or proper assessment of the risks facing the project.
- There was also a lack of supporting documentation surrounding contractual arrangements.
- Delays in the early years of the project had major repercussions for the latter stages of the project.
- Project teams were continually under pressure to meet tight deadlines, which were not achieved —delays with the project necessitated three amendments to the legislated implementation date.
- Customs underestimated the complexity and the risks associated with the project and failed to properly respond to emerging issues and changes in risks.
- The implementation was not supported by a coordinated implementation strategy or adequate business continuity planning.

- Inadequate end-to-end testing of the system testing with live data would have highlighted many of the issues that manifested when the system when live.
- Customs did not have quality assurance mechanisms to assess the readiness of third party software providers, the quality of their software or the preparedness of industry participants.
- The project involved significant changes in system design, operating procedures, working relationships, business processes, skill levels and attitudes. The extent of these changes also meant that the impact on industry stakeholders would be substantial.

#### The Edge Project – Family and Community Services / Centrelink <sup>34</sup>

Project Edge was a joint project between the Australian Government Department of Family and Community Services (FaCS) and Centrelink to develop an expert system for the Family Assistance Office (FAO). Edge was a processing application, for the administration of claims and payments for people applying for entitlement to family-related payments. The business case recognised that implementing a large expert system on this scale was a high-risk project.

At the commencement of the project, FaCS was the principal policy formulating and advising body in the portfolio. Centrelink was the service delivery agency in the portfolio, delivering a range of Commonwealth services, such as pensions, benefits and allowances to the Australian community. The project was characterised by changes to the 'ground' rules and tensions between the major stakeholders.

The ANAO concluded that the governance of the project was not as effective as it should have been, in that:

- predictions given to the agencies' Executives of the number of customers that could be processed through the system were optimistic, and never met;
- advice that a high level of claims processed through ISIS could have been avoided using Edge, was optimistic and potentially misleading;
- the FaCS governance committee with responsibility for IT was not involved in the project;
- it was not clear that the FaCS Executive Board and Centrelink Board of Management were informed of the lack of progress on agreeing the MOU;
- the joint FaCS-Centrelink Steering Committee did not meet during the latter two years of the project;
- responsibility for the project was split between the two agencies, with no Senior Responsible Owner identified ;
- an MOU between FaCS and Centrelink was never agreed, and hence funding and savings were never agreed; and

the project plan was not maintained, and there was no formal development methodology.

### The PMKeyS Project – Defence <sup>35</sup>

PMKEYS was to become Defence's core management information system for personnel management for both civilian and military staff. The project was to encompass to full gambit from leave to training, career management and workforce planning—in other words an ambitious project.

Looking at this project, it follows a not unfamiliar story:

- the project suffered extensive schedule slippage;
- major outcomes had not been delivered;
- projected savings of \$100m per annum were not demonstrated (six months after the project was closed the system was yet to demonstrate a return on investment);
- the project exceed budget costs by 150%. (there was not an effective control over project costs and outcomes).
- project approval was not inline with government requirements and the project was not managed as a strategic procurement activity nor was it managed as a Major Capital Equipment project.

The lessons learnt from the PMKeyS include:

- The need for project approval processes for IT systems to comply with Government and departmental requirements to ensure improved project governance arrangements;
- Defence incurred significant project and infrastructure related expenditure in excess of the original funding allocation. To improve relative project cost and schedule outcomes, future management information system projects should be based on realistic estimates of project costs and system infrastructure requirements that have been subject to close analysis and review, prior to project approval;
- The need for a structured process of periodic management review following the awarding of contracts to provide additional assurance on schedule, cost and performance outcomes being;
- Project management business processes should accord with sound management practice for contractual and financial management, and for the retention of appropriate records, to ensure legislative compliance and that project outcomes meet with end-user needs; and
- Meaningful and measurable key performance indicators should be implemented to assist Defence in the monitoring of the effectiveness of management information system remediation initiatives.

#### High Frequency Communication Systems Modernisation Project - Defence <sup>36</sup>

The modernisation of the High Frequency communication system is a complex Project involving the upgrade and construction of facilities and infrastructure; systems engineering; software development; and platform integration.

The ANAO found that:

- At the execution of the Prime Contract in late 1997, requirements were not clearly identified
- The risks associated with requirements' instability, software development and systems engineering while identified at contract signature, were inadequately addressed during pre-contract negotiations. These risks subsequently had a significant impact on the project schedule and the capability delivered by the contractor.
- Difficulties were encountered in achieving project deliverables associated with systems engineering and software development — a number of significant scope changes were made to the prime contract over this period that were not resolved with the Prime Contractor until the Contract was re-baselined in 2004.
- The contractual costs of the scope changes were largely offset by cost reductions associated with capability and the removal of nine of the 10 types of mobile platforms to be upgraded later in the Project — effectively representing a deferral of capability and expenditure.
- ➢ This Project identified the need to carefully control risks associated with projects that have a large developmental component.
- Key areas where the Project outcomes may have been improved include:
  - the identification and resolution of risks in the pre contract phases;
  - the transition of risk into the contract; and
  - the management of risks as they transpired in the post contract phase.

#### **Examples of more successful projects**

#### Construction of the National Museum of Australia 37

In late 1996 the Government announced the decision to build the National Museum of Australia and the Australian Institute of Aboriginal and Torres Strait Islander Studies with a scheduled opening date of 12 March 2001 — an extremely tight timeframe.

A unique feature of this project was the adoption of 'project alliancing' where the government shared the project risks and rewards with the contractor. The ANAO assessed that appropriate financial incentives were in place to encourage 'best for project' behaviour from the responsible government agency and the commercial alliance partners to achieve the cost, time and quality requirements of the project. The Commonwealth and the commercial alliance partners had sound practices and procedures in place to monitor the progress of construction and manage the time, cost, quality requirements and other project risks in a timely manner. The project was well managed and opened on time on 11 March 2001 at Acton Peninsula in Canberra, to coincide with Australia's Centenary of Federation.

The audit report recommended that other government agencies consider using the project alliancing methodology for major construction projects.

# *'Wedgetail' Airborne Early Warning and Control Aircraft: Project Management — Defence* <sup>38</sup>

Defence's Wedgetail project is at the leading edge of technology with significant risks in system engineering and contingency management requiring concerted efforts to identify and manage them.

A whole chapter of the report dealt with risk and issues management.<sup>39</sup> The audit found that Defence and the contractor had placed considerable emphasis on risk management by focusing on risk sharing arrangements and pre-contract risk reduction strategies by seeking to define and reduce project risks as far as possible before contract signature.

Post-contract risk reduction activities were addressed through prototyping and incremental build and testing strategies. At the time of this audit, the ANAO found that the key elements were in place for the successful management of this project.

# **Project Management Success Checklist**

Project Management Newsletter by Andy Munns Division of Civil Engineering University of Dundee, Fulton Building, Dundee

#### The Potential for Project Management Success

Answer each of the questions yes/no. Score 2 points for each yes answer, and 0 for a no. The maximum score is 100, your potential for success will be a proportion based on your total score. Please note that this is only a potential, we cannot guarantee success, but I believe that if we score highly in all ten areas we increase our chances of being a success. Each area has a maximum score of ten, weak areas will have a lower score. If we are to be successful we will need to target some resources to the areas with a lower score.

#### 1 - Clearly Defined Goals

- Is there a clear and written down objective for the project?
- Are the main tasks structured?
- Has the scope of the project been agreed?
- Does the team know and agree with the goals?
- Are there clear milestones along the way?
- 2 Project Manager Ability
  - Is the project manager skilled and experienced?
  - Does the project manager have a plan and budget?
  - Does the project manager have technical knowledge in the area of the project?
  - Does the project manager have leadership skills?
  - Can the project manager motivate the team?
- 3 Team Member Skills
  - Do we know what skills are required on this project?
  - Does the team have all these skills?
  - Is there a training programme for team members?
  - Is there a range of skills and experience on the project?
  - Are people there because of what they bring to the project and not due to their position in the organization?
- 4 Top Management Support
  - Is there support from top management for the project?
  - Does the project have a champion in top management?
  - Have adequate resources been allocated to the project?
  - Does top management have a stake in the outcome of the project?

- Does the project fit with organization objectives?
- 5 Project Planning
  - Is there a clear method for achieving the project?
  - Has a plan for the project life been prepared from this method?
  - Is there good short term planning?
  - Is progress measured against plan?
  - Is the plan adjusted to match progress?

#### 6 – Communication

- Are there clear channels of communication to all parties on the project?
- Can team members discuss issues openly?
- Can team members communicate their opinions on decisions?
- Do team members get feedback on performance?
- Do team members trust each other enough to communicate freely at all times?

#### 7 - User involvement

- Do we know the end users of the project?
- Have the end users been involved in setting the project outcomes?
- Is it easy for end users to get involved in the project?
- Do the end users give feedback on progress?
- Do the end users have ownership of the solution?

#### 8 – Commitment of team

- Are team members behind the goals of the project?
- Do the team members own the project outcome?
- Are team members involved in decision making?
- Can team members make suggestions about improving and changing the project?
- Do team members go beyond their job description for the good of the project?

#### 9 – Control Systems

- Does the project have a control system?
- Do we check planned time and cost against actual duration and expenditure?
- Are checks carried out early enough to detect problems and correct them?
- Do we feedback progress to the team?
- Do we check that action on feedback is effective?

#### 10 - Risk Management

- Have key risks on the project been identified?
- Has the effect of each risk been measured?
- Have responses been decided for key risks?
- Have action plans been prepared for each response?
- Does the team have a plan for managing unexpected risks?

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### Notes:

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- <sup>2</sup> *Ibid*, pp. 10
- <sup>3</sup> ANAO & PM&C, 2006, *Better Practice Guide, Implementation of Programme and Policy Initiatives: Making implementation matter*, October, Foreword.
- <sup>4</sup> ANAO Audit Report, No. 28 2006-07, *Project Management in Centrelink*, 22 February 2007.
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- <sup>7</sup> Collins, J. 2001. *Good to Great Why Some Companies Make the Leap...and Others Don't*. Random House Inc, London
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- <sup>9</sup> *Ibid*, p.43
- <sup>10</sup> Ibid
- <sup>11</sup> ANAO & PM&C, 2006, *Implementation of Programme and Policy Initiatives: Making implementation matter*, Better Practice Guide. Op.cit
- <sup>12</sup> Dr Peter Shergold, Secretary, Department of the Prime Minister and Cabinet, Plan and Deliver: Avoiding Bureaucratic Hold-up, National Press Club, 17 November 2004
- <sup>13</sup> KPMG, 2005, *Global IT Project Management Survey*, p. 5
- <sup>14</sup> Dr Dombkins discusses the difference between complicated and complex projects in his paper, *Complex Project Managers*, presented at the Defence Partnerships Conference, London, 4-6 June 2007
- <sup>15</sup> Collins, Jim, 2001, Good to Great: Why Some Companies Make the Leap and Others Don't, Publisher: Collins, October 16, p. 11
- <sup>16</sup> *Globisation creates new risks for all corporates*, Australian Risk management, Volume March 2006, p. 3
- <sup>17</sup> Shergold, Peter, 2003, COMCOVER CEO Breakfast Forum, 19 August, p. 3
- <sup>18</sup> See Deloach, James W, Partner, Arthur Anderson, 2000. Executive Briefing: An Executive Summary of Enterprise-wide Risk Management. Strategies for linking risk and opportunity
- <sup>19</sup> Standish Group Report: There's Less Development Chaos Today, reported in the SD Times, 1 March 2007, found at www.sdtimes.com.article/story-20070301-01.html
- <sup>20</sup> ANAO Audit Report, No. 28 2006-07, *Project Management in Centrelink, Op cit*
- <sup>21</sup> This quotation is sourced from Ray Perdriau (who was a member of the MANDATA team) in discussions with Ron Richards of my Office.
- <sup>22</sup> The Parliament of Australia, Joint Committee of Public Accounts, 175<sup>th</sup> Report, Use of *ADP in the Commonwealth Public Sector The MANDATA Project, Opcit*, p. 4
- <sup>23</sup> *Ibid*, p. 4
- <sup>24</sup> *Ibid*, p. 31
- <sup>25</sup> *Ibid*, p. 41

| 26 | <i>Ibid,</i> p. 41  |
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| 27 | <i>Ibid</i> , pp. 5-20  |
| 28 | <i>Ibid</i> , p. 76   |
| 29 | <i>Ibid</i> , p. 5  |
| 30 | Joint Committee of Public Accounts, Report 243, <i>Review of Defence Project Management</i> , Volumes 1&2, 10 February 1986.  |
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