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Advisory Services

Portfolio, Programme and Project Management (P3M) Capabilities in Government

- Increasing Success Rates and Reducing Costs

March 2011

Contents

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1. Background to this Report

The UK and New Zealand Governments' experience of P3M practice maturity assessments, together with international research on the value that P3M practices can provide organisations, suggests that significant opportunities may exist to increase the success and reduce the costs of portfolio, programme, and project management in Government through improving P3M capabilities.

The Treasury is looking to understand what these opportunities might be, and how an understanding of these opportunities might inform current thinking on proposals for changing the way project management and project assurance is performed in Government.

2.   The Report's Authors

KPMG in New Zealand retains a specialised team of staff who provide advice to government and private sector organisations on the management and assurance of high risk projects and programmes. The team has many years experience of Quality Assurance programme design and reviews for ICT-enabled and non ICT-projects, and in the provision of advice on effective project governance, organisational project-portfolio capabilities, and more recently the Treasury's Better Business Cases (BBC) framework.

Grant Avery, the lead author for this report, is a recognised thought leader on project-portfolio management practices and the reduction of risk in high-risk projects. Grant spent four years with the State Services Commission (2006-2010) where he was the Manager of OGC Gateway™ delivery for Government and of Major ICT Projects monitoring. Grant has twice been sponsored by the international Project Management Institute's (PMI) PMO Special Interest Group to speak at their annual international symposiums in the USA (2009, 2010). Grant is also a trained and experienced Gateway high-risk projects reviewer, and has sat on Gateway review panels for the Australian Federal Government and for the Australian State of Victoria. Grant is a regular speaker on project management topics at New Zealand conferences, has been a PMI certified Project Management Professional since 2001, and has an MBA (with Distinction) from New Zealand's Victoria University. Grant is a Director in KPMG's Project Advisory Team.

3. Scope and Approach

The scope of this report includes reviewing and reporting on the following questions:

- What data (local or international, public or private sector) is available to support a case for investing in improving P3M capabilities in New Zealand Government?

- What kind of Return on Investment (ROI) might be expected across the full P3 lifecycle (e.g. management, assurance, monitoring, and reporting) through improving P3M capabilities?

- What steps should New Zealand Government consider to achieve more effective and efficient P3M and assurance based on the data and experiences referenced above?

- What have other jurisdictions done in the above areas and what outcomes have they achieved?

The approach taken in the writing of this report has been to draw on the experience and knowledge provided by:

- KPMG's global network of Project Advisory professionals of which New Zealand is a part, and including KPMG UK, Australia, USA, and Canada;

- Leading P3M and P3M3 practice providers in the UK and Australia with whom KPMG networks;

- KPMG's facilitation of SSC's P3M3 survey of 15 NZ Government agencies undertaken in 2008;

- KPMG's leading Wellington-based Project Advisory team who regularly write and speak on project management best practice performance in New Zealand and internationally;

- International and local research on P3M practices and their value.

4. Executive Summary

There is evidence that the increasingly complex business of government is creating growing challenges which Government organisations with low project management capabilities are finding difficult to manage. The research tells us that we should expect poor performing projects and failures to continue in Government unless the maturity of P3M practice and assurance is significantly improved.

KPMG's review of international research, reports and practices applied in the UK, USA, Australia, and Canada, finds that the opportunity for more efficient allocation and better management of Crown capital and ongoing operational costs through better performance of Portfolio, Programme, and Project Management practices in New Zealand Government is significant.

We believe that avoidance of project costs averaging 3 - 6% or more of capital investment in projects and programmes should be achievable by improving P3M practices, and in some cases these avoided costs are likely to be large, because improved P3M practices will frequently stop poorly scoped or low-return projects before they commence.

We believe that the intangible losses that might be avoided in projects through improved P3M performance and the reduction of benefits leakage may be as high as 25 - 50%, with the avoidance of complete failure in some instances.

In looking at how these opportunities might be achieved we believe that increasing the use of current leading practices such as PRINCE2® (Management of Projects in Controlled Environments), MSP® (Managing Successful Programmes), P3O® (Portfolio, Programme, and Project Offices) and P3M3® (Portfolio, Programme and Project Management Maturity Model) would add significant value to the management of projects and programmes in New Zealand Government at this time.

In the body of the report we have also discussed and provided further information on reducing the risks and improving the value of Project Management Offices, the high value of Portfolio Management, the need for more coordinated Quality Assurance across project lifecycles, the increased use of Delivery Confidence assessments and Quantitative Risk Analysis, use of Gateway, and the need for better support for Sponsors (SROs) and executive-level governance of projects and programmes.

5. Sources of Value in P3M Practice

5.1 Failure and the Increasing Complexity of Government's P3M Environment

Projects in New Zealand Government and in other jurisdictions are subject to growing complexity and increasing risk of failure.

The Standish Group's 2010 Chaos report, a leading international assessment of the state of global project management, shows that project success rates are decreasing, Standish reported that only 32% of IT projects in 2010 were delivered on time, on budget, with required features and functions.

Non-IT projects in New Zealand are equally challenged. KPMG's Project Management Survey 2010, the first major survey in New Zealand of its kind, sampling practices across a wide variety of industries, found that only 36% of organisations reported consistent on-time delivery, less than 50% reported consistent delivery on budget, and nearly half reported failure to consistently achieve stated deliverables. Only 29% of organisations also consistently practice timely and accurate monitoring and reporting of project variations.

As low maturity practitioners are under-represented in the survey (P3M survey's with opt-in models favour higher-maturity practitioners) the true practice performance of New Zealand organisations is likely to be lower than the above figures indicate.

A study by Crawford and Helm published in 2009 "*Government and Governance: The Value of Project Management in the Public Sector*" identified that government organisations are increasingly working in complex and shifting networks that span organisational and sector boundaries and involve a much wider range of stakeholders than in the past. The study found that:

> "*The boundaries between administration and politics are increasingly permeable, requiring organisations to be flexible and responsive to ministerial direction and public consultation throughout their projects. This requires the ability to deal with uncertainty, ambiguity, and change while continuing to exercise control, manage risk, and demonstrate accountability and transparency.*"

The increasingly complex business of government creates growing challenges that are very difficult for organisations with low project management practice maturity to manage. Poor performing projects and out-right failures will continue to grow in Government unless the maturity of P3M practice and assurance increases.

5.2 A Major Research Work

In October 2008 the Project Management Institute published the world's first major global research on the value of Project Management ("Researching the Value of Project Management", Janice Thomas and Mark Mullaly, PMI 2008). Comprising nearly 500 pages, the final research report cost over US$2.5 million to complete, and was lead by 48 global researchers.

Important findings from the PMI Value Research are discussed below, but the report concluded unequivocally that project management delivers value to organisations.

5.3 Tangible Value Rarely Measured by Users

Although the PMI Value Research found tangible value was reported by many organisations, specific estimates of financial Return on Investment (ROI) that might result from an investment in project management capabilities was rarely quantified. The reasons for this included:

- The perceived complexity of measuring ROI, and

- The belief that project management capabilities are simply a necessary investment in organisational effectiveness.

5.4 Intangible Benefits - the Greater Value

The PMI Value Research reported that most organisations can demonstrate intangible value as a result of their project management implementations. This intangible value encompasses a number of dimensions including:

- Improvements in decision-making

- Enhanced communications and collaboration

- Improvements in effective work cultures

- Alignment of approaches, terminology, and values within the organisation

- Overall effectiveness of the organisation and its management approach

- Improved transparency, clarity of structures, roles, and accountability.

The Research notes that not only is intangible value the *greatest* value that is realised from project management implementations, it is often for organisations what highlights the most important aspect of their implementation and the results that they desired and attained from it.

5.5 The Importance of Implementation and Context Together

The PMI Value Research noted importantly that value (from P3M practice implementations) is the result of "an appropriate implementation being deployed for a specific context." Maximum value occurs when the right combination of Implementation (people, training, approach, tools) is matched with the right Context (organisation, strategy, culture, people, projects) i.e. their *intersection*. The Research reported:

> "Fundamentally, the degree of value that organisations realise is determined by how well what is implemented meets the needs of the organisation."

In order to achieve value, organisations must determine what their strategy and culture is, the nature of the projects they wish to support, and the objectives they seek to achieve before determining what type of project implementation (P3M practices etc) is best for them.

In their 2009 paper "*Exploring the Dynamics of Value and Fit: Insights From Project Management*" Mullaly and Thomas discuss the importance of "fit" between strategy, structure, and environment. They note that fit is a dynamic concept and therefore any assessment of fit must by definition be with respect to a *particular point in time.* They went on to note that because of this, fit cannot be used as a reliable predictor of future performance on its own. Mullaly and Thomas use the term "Value Direction" to describe the degree to which the project management implementation within an organisation can be expected to *continue* to deliver value in the future – the degree to which the implementation continues to "fit" the needs of the organisation.

On the importance of P3M implementations continuing to dynamically add value to organisations, the PMI Value Research concluded:

> "The act of not enhancing value appears to, in fact, destroy value."

Organisations must continuously review the appropriateness of their project management implementations through ongoing reflection and review.

6. Value in the New Zealand Context

6.1 The Potential Returns

Although the direct financial returns of project management implementations are rarely measured by organisations (organisations do not see the value in doing so – the returns are perceived to be a "given" – PMI Value Research Report), there is a significant body of research quantifying the cost of poor project performance and the opportunity that better P3M practices provide. Stephen Jenner in his book "Transforming Government and Public Services" (2010) notes the findings of research organisations such as Gartner, Forrester and Butler Group who report cost savings from applying project portfolio management (PPM) in the order of 10-20% of the total IT budget.

Jenner also references a 2004 MIT (Massachusetts Institute of Technology) report by Weill and Ross which found that organisations with superior IT governance (including of IT-enabled projects and programmes) have more than 20% higher profits than firms with poor governance given the same strategic objectives.

In 2005 KPMG undertook a major international survey of IT project management performance (*Global IT Project Management Survey*, 2005). More than 600 organisations in 22 countries participated. The survey found that for organisations who reported they had benefits management processes in place (less than half of respondents), organisations acknowledged that they obtained only 51-75% of benefits for half of their entire portfolio. This figure would be much higher were organisations with no benefits management processes able to be included.

The Standish Group's 2010 Chaos report (noted earlier), reported that project failure rates are actually *increasing*, with only 32% of IT projects surveyed in 2010 delivered on time, on budget, with required features and functions. The projects success rate reported by Chaos in 2006 was 35%.

KPMG New Zealand's own 2010 report of project management practices in New Zealand[1], across all industry types, found:

- only 36% of organisations reported consistent on-time delivery;

- less than 50% reported consistent delivery on budget;

- nearly half reported failure to consistently achieve stated deliverables; and

- only 29% of organisations consistently practice timely and accurate monitoring, and reporting, of project variations.

These figures from New Zealand and abroad suggest New Zealand Government should be able to achieve significant capital investment and ongoing operational savings by improving P3M practices.

6.2 Savings from Assurance Reviews as a Proxy for Lost P3M Value

Are the savings opportunities suggested above real? Although the financial ROI of better P3M practices are often not calculated by organisations, a number of reported assurance assessments suggest that the savings which can result from improved P3M performance are real, and significant. These include:

US Government TechStat Reviews

In 2010 the US Government's Office of Management and Budget (OMB) launched a series of high level project accountability sessions, known as "TechStat" in which OMB senior staff visited agencies to determine whether to turn around, halt or terminate problematic IT projects in government. Of 35 TechStat reviews, five IT projects were kept on track, 19 were accelerated, eight were reduced in scope, and 3 were terminated. This series of TechStat reviews were reported to have resulted in savings of about US$2 billion. With reviewed project budgets totalling $20 billion the 10% savings reported are an example of how review of project performance, through just one initiative (the TechStat Review process), has provided significant savings to the US Government.

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[1] "KPMG New Zealand Project Management Survey 2010" kpmg.co.nz, Issues & Insights; Articles & Publications

British Government OGC Gateway[TM] Reviews

In 2007, using a VfM method agreed with the UK National Audit Office (NAO), the UK Government's Office of Government Commerce reported that OGC Gateway[TM] delivers cost avoidance savings equivalent to between 2% and 4% of annual capital invested in Central Civil Government.

The OGC Gateway figures are likely to be conservative as the NAO methodology required the relevant Project Manager to sign-off on the savings figures and evidence to be provided that recommendations have been addressed in a subsequent review.

New Zealand Government OGC Gateway[TM] Pilots

The New Zealand Government State Services Commission's (SSC) independent assessment of its pilot implementation of six Gateway reviews in 2009 reported value added (including costs avoided, risks reduced and benefits saved) to projects by the Gateway review process averaging in the order of 30-40%.

6.3   Assessing the Potential Savings for New Zealand Government

Tangible Costs Avoided

The UK Government's costs-avoided figure reported from their use of the Gateway review process is a useful indicator of financial value "left on the table" through low maturity P3M performance. Costs avoided by the US Government's TechStat review process are reported in the order of 10%. That the costs avoided reported from TechStat (10%) are potentially higher than Gateway (2-4%) may in part be because Gateway operates on projects containing high-risk features (e.g. public profile, size, cost) while TechStat operates on projects whose performances have already begun to slip (as identified by the US Government's IT Dashboard.)

As a proxy for value lost through poor P3M performance we believe the reported Gateway costs-avoided figure of 2-4% is likely to understate losses from poor P3M practices because of Gateway's necessary focus on major issues[2]. The identification of low-order performance issues and risks is not usually within scope for Gateway. We believe adding 50% to the 2-4% costs-avoided figure, for a final range of 3-6%, would provide a more accurate proxy of the full costs-avoided opportunity that is lost through poor P3M performance.

The data referenced here suggests that the opportunity for more efficient allocation and better management of Crown capital and ongoing operational costs through better performance of Portfolio, Programme, and Project Management Practices is significant. We believe avoidance of project costs averaging 3 - 6% or more of capital investment in projects and programmes should be achievable by improving P3M practices in Government.

In some instances the avoided costs are likely to be large, because improved P3M practices will frequently stop poorly scoped or low-return projects before they commence.

Intangible Benefits Improved

The percentage improvement in *intangible* value (such as reduction of benefits leakage, enhanced collaboration, improved decision making and greater organisational effectiveness) which would result from the same level of P3M practice improvements is likely to be much greater than 3 - 6%.

The SSC's 2009 review of its Pilot Gateway series (refer above) found value added (including costs avoided, risks reduced and benefits saved) to projects by the review process averaging in the order of 30-40%. These figures are consistent with the scale of the failure statistics and benefits leakage losses reported in the key studies also referenced earlier in this report.

As with the UK Gateway costs-avoided figure discussed earlier, we believe that 30-40% as a proxy for intangible value "left on the table" through low maturity P3M performance, is understated by Gateway's necessary focus on major issues.

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[2] *A Gateway review runs for a maximum of five days and consists mainly of interviews with key project leaders and stakeholders.*

Working from the SSC's review figures of 30-40%, and adding a 25% margin to the top end figure[3] (conservative) for low-order performance issues not addressed by Gateway, we believe provides a more robust lost-value proxy. We believe that the intangible losses that might be avoided in projects through improved P3M performance and the reduction of benefits leakage may be as high as 25 - 50%, with the avoidance of complete failure in some instances.

6.4   Improving P3M practices in New Zealand Government

How easy might it be to improve the standard of P3M practices in New Zealand Government to achieve the percentage savings referenced above?

In 2008 the State Services Commission used P3M3[4] to assess levels of project management capability requiring support in Government agencies (effected through the facilitated self-assessment of 15 government agencies, lead by KPMG.)

The report, using the 2005 version of the model[5], found that 32% of agencies had "limited" or less than limited, P3M capabilities, and identified 10 areas of P3M capability where Government agencies demonstrated "poor maturity". The lower quality of P3M practices found by the SSC assessment is consistent with maturity levels reported by international studies. On a 0-5 point practices maturity scale, 50% of organisations are believed to be at level 1.5 or lower.

The outcome of poor P3M practice maturity is poor project and programme performance. Consistent with this, KPMG's 2010 survey of project management performance in New Zealand (public and private sectors) found similar project failure rates to those of international studies (e.g. Standish's Chaos report).

As both practice maturity and project/programme performance levels in New Zealand Government are not high, we believe the 3 – 6% avoidance of project/programme costs, and even greater associated intangible benefits saved, referenced earlier, should not be difficult to achieve through improving P3M practices.

6.5   What is the At-Risk Figure That Could Benefit From Improved P3M Practices?

The New Zealand Government's December 2010 report "*2010 Investment Statement of the Government of New Zealand*" states that total Crown capital expenditure on property, plant and equipment in 2009/10 was $6.3 billion. This figure comprises SOE capital expenditure of $2.2 billion and Core Crown (e.g. departments) and Crown Entity capital expenditure of $4.1 billion. These figures do not include the operational costs of project initiation, scoping, business case preparation and project assurance, nor the operational costs required to support the investments over their economic lives. When these operational costs are included, the actual figure "at risk" from poor P3M practice in New Zealand Government is very large.

We believe the opportunity for improving the performance of P3M practices and the consequent avoidance of costs in Government should not be limited to Core Crown and Crown Entity agencies, and nor should it exclude particular sectors or organisations. The international and local research referenced earlier tells us that failure of good practice is broad, spanning the management of Projects, Programmes, and Portfolios at all stages of the investment lifecycle and across all organisation types.

In summary we believe that the avoidance of project costs referenced earlier, averaging 3–6% or more of capital investment in projects and programmes, should be possible from improving P3M practices. We believe that the avoidance of intangible benefit losses averaging 25-50% or more should be similarly achievable.

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[3] *And 5 percentage points off the bottom end figure to reflect the high variability of intangible benefits between projects.*

[4] *P3M3 (Portfolio, Programme, and Project Management Maturity Model) is a capability assessment and improvement tool which was developed by the UK Government's Office of Government Commerce (OGC), to drive up standards and capability in public sector portfolio, programme, and project management.*

[5] *The model underwent a major revision in 2008 .*

7. Improving P3M Capabilities

This section describes several high-return P3M capability areas that we identified in our researching of this report, and important points on levering their value.

7.1 Project Management Offices (PMOs)

P3M practice "implementations" are increasingly delivered within organisations via business structures known generically as "PMOs" (Project Management Offices[6].) There is no one-size-fits-all structure for a PMO. They are often based within the IT departments of organisations (where project complexity and risk is often focussed) but may also exist at the enterprise level of the organisation, be created for a specific programme or be a part of a federation of multiple PMOs within the one organisation.

Contributors to PMO Success

In Hobbs and Aubry's 2010 book (written in conjunction with PMI) "*The Project Management Office (PMO) A quest for Understanding*" the authors concluded that PMOs are an important aspect of project management practice, and that two project-specific organisational characteristics are shown to be good predictors of PMO performance. These organisational predictors are:

- The organisation's level of maturity in project management; and

- The Supportiveness of the organisation's culture.

On maturity, Hobbs and Aubry noted that organisational project management maturity provides a significant contribution to PMO performance.

Context is also a very important enabler of PMO success. PMI's 2007 White Paper (Dr Brian Hobs) "*The Multi-Project PMO: A Global Analysis of the Current State of Practice*" notes that PMOs do not exist in vacuums but are reflections of their organisation's culture and context. This also explains why no two PMOs are alike.

As with the research referenced earlier on the success of P3M practice implementations, maximum value for PMOs occurs when the right combination of Implementation (people, training, approach, tools) is matched with the right Context (organisation, strategy, culture, people, projects) i.e. their *intersection*.

PMI's 2007 paper found that high-value PMOs are not defined by the particular functions that they perform. The PMI paper notes that high performing PMOs are perceived as filling several important functions, but the important functions that they perform must be determined by the needs of their specific organisational context.

PMI found that PMOs perceived as being low-value were often also perceived as:

- lacking expertise; or

- being too "controlling."

This finding is very consistent with the view prevailing at many PMO fora that the life-expectancy of PMOs, when they are perceived by stakeholders as "the process police", is limited.

Guidance on PMO Scoping and Establishment

The OGC's guidance on the establishment and scope of PMOs, known as P3O® ("Portfolio, Programme, and Project Offices") contains advice and guidance which addresses many of the value recommendations on improving P3M capabilities that we have referenced earlier in this report.

Particular strengths of the OGC's P3O® guidance include its advice on how to implement new, or re-energise existing PMOs, how to prepare a cost-benefit analysis for a PMO, and how to write a business case for PMO change.

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[6] *"Project Management Office" is a generic term which in common usage can also mean a structure which manages (or advises on) the delivery of Programmes and Portfolios. This is in common with definitions of the word "Project" which is in usage as sometimes also meaning "Programme".*

7.2   Portfolio Management

A "portfolio" in the P3M context is the totality of an organisation's investment (or segment thereof) in the changes required to achieve its strategic objectives (a portfolio may include any number of projects, or programmes, from the same or different business units of the organisation.)

The practice of Portfolio Management[7] is highly correlated with organisational performance.

The Value of Portfolio Management

In Reyck et al's 2005 paper "The Impact of Project Portfolio Management on Information Technology Projects", the authors found that an increased adoption of Portfolio Management has a significant positive impact on the Return on Investment of projects in the portfolio.

The OGC's recent Portfolio Management Guide[8] references the UK Cabinet Office's research paper "*Benchmarking Reliable Delivery*" which found that organisations who adopt Portfolio Management approaches realise benefits through the following factors:

*   More of the "right" programmes and Projects being undertaken;
*   Removal of redundant and duplicated Projects;
*   More effective implementation of Programmes and Projects.
*   More efficient resource utilisation;
*   Greater benefits realisation.
*   Improved transparency, accountability and organisational governance.
*   Improved engagement and communication between senior management.

Whereas in P3M practice thinking of the past there has been emphasis on "doing projects right", leading practitioners have now moved that emphasis to "doing the right projects."

Of the three higher-level practice areas[9] which are the subject of this report, Portfolio Management is commonly recognised to be the highest return - yet the most poorly done, in the majority of organisations.

7.3   Governance – Sponsorship and Executive Oversight

Another area of significant opportunity for performance improvement is that of P3 Governance i.e. the effective structuring and performance of senior-level decision making to maximise success.

The roles of, and relationships between, a project or programme's Sponsoring Group (the Owners and Funders of the investment), the Programme (or Project) Board (or advisory "Steering Committee"), the Senior Responsible Owner (SRO) and the Programme or Project Manager are frequently poorly understood or articulated in many programmes and projects.

Governance Issues a Significant Problem

In a major research project undertaken by the Queensland University of Technology (QUT)[10] entitled "Creating Value in Project Management using PRINCE2", which included parallel research on the impact of non-PRINCE2 project management frameworks, both PRINCE2 and non-PRINCE2 participants signalled their significant concerns at a lack of governance, structure, and processes within their organisations and at a lack of project leadership. The reported found:

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[7] *In its most basic form comprising the maintenance of, and regular reporting from, a database of all projects proposed, initiated, or managed by an organisation.*

[8] *At the time of writing this report the OGC Portfolio Management Guide was at the stage of Final Public Consultation Draft, expected for final publication early 2011.*

[9] *Portfolio, Programme, and Project Management*

[10] *Under the sponsorship of the APM Group UK Ltd and working in conjunction with the UK Office of Government Commerce*

"trenchant criticism directed toward Project Sponsor and Project Board competencies."

The UK Government's Office of Government Commerce (OGC) Gateway Lessons Learned Bulletin "*The SRO Role in Major Government Programmes*" (September 2009) listed a number of factors which need to be addressed in order to improve the effectiveness of the SRO role. These are:

- Better understanding of the role

- Selection of the right people to act as SROs

- Giving SROs real accountability and business authority to resolve issues

- Ensuring SROs have relevant delivery skills and experience, including commercial awareness

- SROs dedicating sufficient time to the role

- Improved continuity of the role through the project life-cycle

- Improved tools, guidance and development opportunities for SROs

- Provision of adequate supporting resources.

In our experience these factors are also significant issues in the New Zealand context. We find that support for the members and operation of Programme and Project Boards (often generically referred to as steering committees) is similarly key, and that effective training and mentoring arrangements for SROs and members of steering committees are not common.

Governance at the All-of-Government Level

Strong leadership and support is a key requirement for improving P3M performance in organisations. At an All-of-Government level in the UK, the Programme and Project Management (PPM) Council was established specifically to provide strategic leadership, direction, and decision making, focussed on collectively improving the effectiveness of programme and project management delivery in Central Government.

A key element of the council's standardisation role includes establishing methodologies and tools, which are already in use and which are known to be returning value, as "recommended standards" (the council does not though play a mandating role.)

We believe a similar, senior level body to represent, promote, and support the improvement of P3M capabilities at the All-of-Government level in New Zealand could return significant benefits.

7.4 Quality Assurance

As the complexity and risks of modern government projects and programmes is continuing to grow, the importance of effective quality assurance planning and application is becoming increasingly important.

The UK Government's Office of Government Commerce (OGC) Gateway Lessons Learned Bulletin "*Effective Project Assurance*" (June 2009) noted:

> *"Regular assurance is important to the successful delivery of projects, providing an independent challenge, bringing in expertise external to the project and helping to identify major risks. Assurance can provide comfort that a project is on track to deliver or, conversely, identify remedial action required, or even recommend that a project be halted or re-baselined."*

New Zealand Government organisations use a variety of assurance initiatives to help them increase the success and reduce the risks of projects and programmes. These initiatives span a continuum from technical audit of processes, to process and progress health-checks, to Independent Quality Assurance (IQA) and Gateway Review.

We believe from our experience of the provision of many of these services though that the increasing variety of QA tools and products which organisations have to draw on (with an increasing number of them mandatory as the risk profile of their investments increase) is increasing the risk of uncoordinated overlap of QA approaches

and the risk of reducing QA return. In some instances value is being lost when agencies lose confidence in QA and reduce their commitment to the effective application of some QA approaches.

Greater coordination of the different QA processes across the investment lifecycle is therefore required. All projects and programmes should have tailored Quality Assurance plans which contain detailed descriptions of the purpose, scope, timing and ownership of each QA phase. On many projects though, large and small, such plans either do not exist or are not of good quality.

We frequently find, because of the specialised nature of QA in high risk investments, that the purpose and application of QA in the different phases of projects and programmes is not well understood. In these instances external assistance in the design and tailoring of QA can reduce the QA costs for agencies and significantly increase success.

We are aware of some calls for the reduction of QA spending on projects and programmes in Government. We believe though that with the increasing evidence we are seeing of growing project complexity, increasing failure, and low P3M capabilities, that the appropriate response is not reduced QA spend but greater focus and coordination of existing QA initiatives.

7.5 Capability Maturity Assessments

A common theme in the findings of the research and literature that we have reviewed has been the high correlation between the *value* that P3M practices return to organisations and the capability *maturity* of the organisations that practice them.

The PMI Value Research found that tangible value is being realised from project management implementations at all levels of maturity (even those with very immature implementations).

The attainment of intangible value (refer description of these provided earlier) however requires a base level of capability for it to be realised. The report found that continued increases in the maturity of project management implementations appear also to lead to greater levels of intangible value being realised.

In summary regarding maturity the PMI Value Research concluded

> "What clearly emerged from this study is that value appears to increase in proportion to the maturity of the project management implementation that is encountered."

A number of other research papers also commented on the high correlation between the value of P3M practice implementations and the maturity of agencies' P3M capabilities.

In recent years there has been significant work done by leading P3M advocacy groups to develop capability maturity assessment models and methods which can help organisations to:

- Understand what their level of P3M capability is when compared with international benchmarks;

- Assess improvements in the value of their P3M implementations (through the proxy which capability maturity assessments provide) resulting from capability investments that they may have made;

- Identify which aspects of P3M practice capability they should be focussing on to achieve the greatest Return on Investment for their capability–improvement dollar.

Two maturity models developed in recent years include the international Project Management Institute's (PMI) OPM3® (Organisational Project Management Maturity Model), and the UK Government Office of Government Commerce's (OGC) P3M3® (Portfolio, Programme, and Project Management Maturity Model.)

The UK Government's P3M3 Assessment Model

The UK Government's P3M3 model is in wide use in the UK and Australia. In Australia the model was mandated by the Federal Government for use in major ICT Projects. P3M3 was also used by the New Zealand State Services Commission in 1998 to undertake a facilitated self assessment of the capability maturity of 15 Government agencies.

A number of New Zealand Government agencies are familiar with P3M3 and its straight forward 0-5 point assessment scale is perceived to be a strength by many organisations. The ability to benchmark P3M3 assessments (and hence the value of respective P3M practices) with Australian and UK Government agencies would also be a strength of the method if it was adopted by New Zealand Government agencies.

P3M3 scores an organisation's Portfolio, Programme, and Project Management capabilities on a 0-5 scale (0 being low, 5 being high) in each of seven different Perspective areas (Management Control, Benefits Management, Financial Management, Stakeholder Engagement, Risk Management, Organisational Governance, Resource Management.)

Typically 80% of organisations are at level 2 or lower on the 0-5 point scale, with 50% of organisations at level 1.5 or lower. Level 3 is generally recognised as being the minimum level most organisations should be working at, while those delivering IT-enabled or other complex business change programmes should be aiming for level 4, or level 5 in some instances.

We believe there would be significant value for the New Zealand Government in greater use of P3M3 by Government agencies to both accelerate and reduce the costs of capability improvement initiatives.

7.6   Quantitative Risk Analysis

Quantitative Risk Analysis (QRA) is a workshop and monte carlo-based process which is used to more accurately estimate the likely costs, or schedule requirements, of a project or programme. A key output of the QRA process is a cost-probability distribution curve showing the probabilities of different cost outcomes for a given project. QRA is sometimes confused with Quantitative Risk Management, Quality Assurance, or financial assessment of specific risks. QRA is though a unique and specific risk management process in its own right. The benefits of QRA analysis for large or high risk projects is significant. These include:

- a more accurate estimate of the likely cost outcome for an investment

- a better understanding of the sources of risk to an investment's costs

- reductions in an investment's costs, as a result of improved management of cost-risks

- a more accurate assessment of a project's contingency budget

- a more accurate sensitivity analysis.

Because QRA is not well understood we find that it is often not applied or not applied well to projects and programmes which might significantly benefit from its use.

7.7   Delivery Confidence

The Office of Government Commerce has developed a traffic-light-based assessment process of a project or programme's ability to deliver its aims and objectives within timescales and costs, and to quality requirements (including delivery of both financial and non-financial benefits) as laid down in the initiative's business case.

The process provides delivery confidence assessments of a number of key project delivery elements using a five-level traffic-light grading system (green, amber-green, amber, amber-red, red).

The process was designed to complement Gateway, but would provide benefits if used with non-Gateway assurance processes in Government e.g. on smaller project assurance reviews, or on larger reviews if applied outside the Gateway Review process.

We believe the use of Delivery Confidence as a process to be applied by Gateway Reviewers *during* their Gateway reviews, as is it is used in some other jurisdictions, needs to be carefully considered. We believe that the inclusion of a "confidence-no confidence" process as a part of Gateway itself may put at risk a key aspect of Gateway's unique value proposition i.e. that it is a series of non-threatening and in-confidence discussions with the project's SRO. Delivery Confidence's inclusion in the Gateway process (as opposed to outside of it) may

move Gateway closer to the more common assurance forms which Gateway was originally designed to compensate for.

7.8   Gateway

OGC Gateway^{TM} is a high-level Peer Review process which is applied to complex and high risk projects in Government. Gateway provides peer-to-peer advice directly to the project's Senior Responsible Owner (SRO) on how business outcomes might be increased and their risks reduced. The independence, seniority and experience of the four Reviewers used in Gateway reviews (frequently at a Partner or Senior Director level of a company) provide a level of credibility and understanding not possible in more common quality assurance reviews of process and practice.

A Gateway Review is primarily a series of 15-20 interviews spread over four or five days, with a debrief provided to the SRO at the end of each day, and a short written report provided to the SRO on the fifth day. Gateway is different from more common quality assurance reviews which look in-depth at processes and documentation, usually include a small number of interviews, and may be conducted over a period of some weeks.

OGC Gateway^{TM} was developed by the UK Government's Office of Government Commerce (OGC) to address value and risk issues which more traditional quality assurance processes were failing to address. Gateway reviews can save money, avoid costs, and add value both to their sponsoring agencies and for central government as a whole. Gateway also provides benefits by enabling the sharing of high value lessons-learned across Government.

Gateway for Middle and Lower Risk Projects

Gateway in New Zealand is currently only applied to high risk projects. There are variants of Gateway operating in the UK which were developed for medium and lower risk projects, and which are lower cost to apply for this type of project. There may be value in New Zealand Government also considering the use of these lower cost variants on middle and lower cost projects in Government here.

Gateway Charging

We are aware of growing concern from some New Zealand Government agencies at the increasing fees for Gateway reviews in New Zealand. As the benefits of Gateway reviews are frequently costs-avoided, failure-avoided, and intangible value added, the benefits of Gateway are significant and accrue to both the agencies concerned and to the centre. This value may decrease as agencies look to reduce their assurance spend in other areas to compensate for rising Gateway costs. Value may also reduce as Gateway avoidance-behaviours increase in response to the rising costs.

In other jurisdictions the risk of reducing value through direct Gateway charging is reduced by Gateway funding mechanisms which do not involve direct per-review charging. These mechanisms include full funding of Gateway from the centre, and funding of Gateway operation costs from a levy applied at business case approval. We believe there would be value in New Zealand Government considering these approaches, or variants of them, in order to mitigate the reducing-value risks referenced above.

8.   Summary of Key Points from the Case for P3M Investment

- The boundaries between administration and politics are increasingly permeable and the complexity of government project and programme change initiatives is growing.

- Studies tell us that project failure rates and benefits leakage figures are consequently continuing to grow in New Zealand and internationally.

- The opportunity to reduce government project failure rates and boost productivity through better P3M practice is significant.

- The performance of Project, Programme, and Portfolio Management in organisations is highly correlated with the maturity of organisational P3M practice.

- Avoidance of project costs averaging 3-6% or more of capital investment in Government projects and programmes should be achievable.

- Intangible non-financial benefits are a significant outcome of Government P3M implementations

- Improvements in the intangible benefits of government P3M practices which may be attained through improved P3M maturity may be as high as 25%-50%, or more in cases where total project failure is avoided.

- There are a number of initiatives which might help to improve P3M capabilities and performance in New Zealand Government.

9. Recommendations for Consideration in New Zealand Government

1. Establish a P3M Advisory Council, similar to the UK Government's PPM Council, to:

   - Agree strategy for growing P3M capabilities in Government;

   - Review and recommend P3M guidance and practices for use by Government agencies;

2. Promote the UK Government's OGC capability maturity assessment model "P3M3®" as a "recommended guidance and practice" for use by Government agencies;

3. Promote the following P3M methodologies as "recommended guidance and practices" for use by Government agencies:

   - PRINCE2

   - MSP;

   - P30;

4. Require Quality Assurance Management plans for monitored major projects to be reviewed and approved by monitoring agencies at project initiation, and at submission of IBC and DBC Business Cases. Provide guidance on content of QA plans for monitored major projects, including QA phases, scope, distribution, timing and role of:

   - Technical assurance reviews

   - Process health checks

   - Focussed "deep dives"

   - Independent Quality Assurance, and

   - Gateway

5. Consider tailoring the current mandatory QA requirements for monitored major projects, to more appropriately spread QA cost burdens from high-performing agencies to low-performing agencies, by:

   - Changing the mandatory requirement for IQA to a mandatory requirement for "Delivery Confidence" assessment (using the OGC's Delivery Confidence method) by a central-agency approved assessor/s;

   - Increasing monitoring agency scrutiny, and project QA requirements, for projects whose Delivery Confidence is assessed as low (i.e. amber-red, or red) or whose sponsoring agency has an independently endorsed P3M3 assessment of 2.5 or lower;

   - Changing the requirement for a High-Risk Project Gateway process to a requirement for Medium-Risk Gateway process (lower costs) for agencies who have independently endorsed P3M3 assessment of 3.0 or higher and whose projects have received high Delivery Confidence ratings (i.e. of Amber or better.)

6. Consider recommending that OGC's Delivery Confidence assessment method be used with smaller (non-Gateway) project assurance reviews, and that the quality of the method's use (using the UK Government's copyrighted material) be protected by approving its use only by central agency-approved assessors.

7. Prepare and promote straight forward guidance on the benefits of and the processes for completing Quantitative Risk Analysis (QRA) of project and programme costs.

8. Promote capability development support and training for project executives i.e. SROs, Sponsors, and members of steering committees and governance boards.

9. Promote, and provide guidance on, the importance of good Portfolio Management practices in achieving organisational strategy.

10. Consider funding or part-funding Gateway Review lifecycle costs, of monitored major projects, either at the centre, or upon approval of Detailed Business Cases.

11. Establish and strongly promote a P3M advisory web-site.

12. Publish and widely circulate a regular P3M lessons learned reports, including Gateway lessons learned reports from other jurisdictions.

13. Undertake further analysis to understand more fully the costs, benefits and risks of:

    • Mandatory P3M3 assessments for all capital intensive, project intensive, or high-risk project delivery agencies, similar to that currently required in the Australian Federal Government;

    • Public disclosure of project performance, for all monitored major projects, through an internet based system similar to the United States Government's "IT Dashboard";

    • Focussed evidence-based reviews of selected monitored major projects, similar to the United States Government's TechStat Reviews.

10. Appendix A - P3M Practices

There is increasing alignment of the definitions of "Portfolio", "Programme", and "Project" between the leading international organisations, including within New Zealand, who promote the better practice of management in these areas. Two of the more influential better-practice advocacy groups whose thinking and practices we frequently see in New Zealand Government are:

10.1   The Project Management Institute (PMI)

PMI state they are the world's leading not-for-profit membership association for the project management profession (for convenience PMI use "Project" to also include the disciplines of Programme and Portfolio management) with more than half a million members and credential holders in 185 countries. They have published a number of globally-recognized standards which include:

- The Project Management Body of Knowledge (**PMBoK**®);
- The Standard for **Program** Management;
- The Standard for **Portfolio** Management;
- The Organisational Project Management Maturity Model (**OPM3**®)

PMI also currently administers the secretariat overseeing development of the upcoming international ISO Standard 21500 "Guide to Project Management". Over 30 countries are participating in the development of ISO 21500 and its publication is expected in late 2012.

10.2   The UK Government's Office of Government Commerce (OGC)

The OGC is currently a part of the UK Government's Efficiency and Reform Group located within the UK Cabinet Office.

The OGC was established to help the UK Government deliver best value from its spending. It is widely lauded for the development and promotion of high value P3M practices and methodologies which include:

- **ITIL** – Information Technology Information Library (promoted as "the key to managing IT services", it is in wide use in NZ Government)

- **PRINCE2** - Projects In Controlled Environments (it is widely recognised and in growing use in NZ Government)

- **MSP** - Managing Successful Programmes, MSP was developed to respond to increasingly complex change programmes in Government which PRINCE2 alone was not intended to address. It is a relatively new but growing practice in New Zealand Government.)

- **OGC Gateway**™ – an assurance review process for large and high risk projects and programmes. It is in wide use in the United Kingdom (UK), Australia, and New Zealand Governments.

- **P3M3** – Portfolio, Programme, Project Management Maturity Model (not widespread in New Zealand at this time but is growing.) P3M3 was used by the State Services Commission (SSC) in 2008 to assess capability levels in 16 Government agencies. P3M3 assessments were recently mandated by the Australian Federal Government for all agencies submitting major IT project Business Cases for approval by Government.

- **P30** – Portfolio, Programme and Project Offices. Provides guidance on establishing support structures (sometimes known as "PMOs" in NZ) for the management of Portfolios, Programmes, and Projects.

- **Portfolio Management Guide** – guidance on the management of Portfolios in organisations.

11. Appendix B – P3M Definitions

A number of the following definitions of Portfolio, Programme, and Project are from the UK Government OGC's 2008 publication "Portfolio, Programme, and Project Offices (P3O)". The core principles of these definitions are significantly aligned with PMI's definitions of the same, and are in increasingly common usage in many NZ Government organisations.

11.1   Portfolio

A portfolio is the totality of an organisation's investment (or segment thereof) in the changes required to achieve its strategic objectives.

(a portfolio may include any number of projects, or programmes, from the same or different business units of the organisation.)

11.2   Programme

A Programme is a temporary, flexible organisation created to coordinate, direct and oversee the implementation of a set of related projects and activities in order to deliver outcomes and benefits related to the organisation's strategic objectives.

11.3   Project

A Project is also a temporary organisation, usually existing for a much shorter duration, which will deliver one or more outputs in accordance with a specific Business Case.

11.4   Project Management - a Broader Context

It should be noted that in a number of circles, including in the New Zealand Government and in the Project Management Institute, the term "Project Management" is often used in a context which includes *all* three areas i.e. management of Portfolios, Programmes and Projects.

11.5   Project Management Implementation

An organisation's approach to its delivery and support of Portfolio, Programme, and Project Management practices (or subsets of them) is referred to in some of the reference researched below as the organisation's "Project Management Implementation".

11.6   Benefits Leakage

The percentage of total benefits promised in a project's approved business case, which the project fails to deliver at completion.

12. Appendix C – P3M Practices and Other Jurisdictions

The following notes the local development and use of specific P3M approaches in other jurisdictions.

12.1 Australia

OGC Gateway™

Gateway peer review of large and high risk projects is in significant use in the Australian Federal and state Governments. The initiative was first introduced by the state of Victoria where a large number of reviews have been completed and supporting practices developed. The Federal Government has also developed a significant Gateway implementation, and both the Federal and the Victoria Governments provided assistance to the New Zealand Government during their establishment of OGC Gateway™ in New Zealand in 2008.

P3M3

P3M3 capability maturity assessments have recently been made mandatory for major ICT projects requiring funding from the Federal Government.

PRINCE2 and MSP

PRINCE2 has been in wide use in the Federal and State Governments for a number of years. MSP, for more complex transformation programmes, has come in to more recent use by a number of agencies.

12.2 UK

The Office of Government Commerce (OGC)

The OGC has lead the development and introduction of a significant number of P3M best practice management and assurance methods. These include:

- P3M3
- PRINCE2 and MSP
- P3O
- Gateway
- Delivery Confidence (a focussed, confidence profiling tool used to support Gateway)

The PPM Council

The Programme and Project Management (PPM) Council was established by the UK Government to provide strategic leadership, direction, and decision making, focussed on collectively improving the effectiveness of programme and project management delivery in Central Government.

One of the responsibilities of the PPM Council is to improve standardisation and sharing of best practice, though the terms of reference for the council note: "There is no expectation that the council will play a "mandating" role, as we recognise that departmental needs differ."

A key element of the council's standardisation role includes establishing methodologies and tools, which are already in use and which are known to be returning value, as "recommended standards." Standards formally recommended by the PPM council currently include:

- PRINCE2
- MSP

Delivery Confidence

The Office of Government Commerce has developed a traffic-light-based assessment process of a project or programme's ability to deliver its aims and objectives within timescales and costs, to quality requirements (including delivery of both financial and non-financial benefits) as laid down in the initiative's business case.

The process provides delivery confidence assessments of a number of key project delivery elements using a five-level traffic-light grading system (green, amber-green, amber, amber-red, red).

The process was designed to complement Gateway, but would also provide benefits if used with non-Gateway assurance processes in Government e.g. on smaller project assurance reviews.

12.3   USA

PMBoK (Project Management Body of Knowledge)

The UK Government's OGC P3M methodologies (e.g PRINCE2, MSP, P3M3) are not in wide use in the USA where the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBoK) provides a principles-based approach widely referenced by US organisations[11].

The IT Dashboard

In June 2009 the US Government's Office of Management and Budget (OMB) deployed a public website called the IT Dashboard. This website posts information on federal agencies' major ICT investments, including their performance against time and cost objectives.

The purpose of the IT Dashboard is to increase transparency and oversight of federal ICT spending (which the GAO (the US Government Accountability Office) reports has risen to an estimated US $79 billion for the fiscal year 2011.)

The Dashboard is one of the key sources of information that OMB officials use to determine if an investment requires additional oversight. The US Federal CIO has stated that the Dashboard has increased the accountability of agencies' CIOs and established much needed visibility.

In 2010 the US GAO reported that the IT Dashboard was achieving its goals, although improvements to the accuracy and standardisation of some information on the site were required.

TechStat

In January 2010 the Federal CIO introduced project accountability sessions called "TechStat". A TechStat is a face-to-face evidence-based review of an IT programme, undertaken between OMB and agency leaders, using information reported by the IT Dashboard. TechStat review teams work together to carefully examine programme data, with a focus on problem solving and recommendations to improve the performance of the project.

In some cases TechStat teams may agree that the best course of action is to temporarily halt or terminate a programme.

OMB officials have reported that in the first 30 TechStat sessions completed, three projects were terminated and 19 accelerated, leading to savings of about $2B.

12.4   Canada

In December 2009 a revised *Policy on the Management of Projects* was approved by Treasury Board Ministers. The policy details limits of Project approval authorities for Ministers and the requirements for project briefs and supporting business cases.

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[11] *PMBoK is also widely referenced in New Zealand, where its use alongside PRINCE2 and the other OGC methodologies is seen as complementary.*

The policy includes the direction that "*project expenditures, which are not contracts, may be made by departments when projects are within the limits established based on the class of assessed project management capacity and the assessed project complexity and risk.*"

Approval of projects is dependent upon the complexity and risks of the specific project, and the maturity of the sponsoring agency's P3M capabilities.

OPMCA (Organisational Project Management Capacity Assessment)

The OPMCA tool is a locally developed capability maturity assessment method based on PMI's Project Management Body of Knowledge (PMBoK) and PMI's Programme and Portfolio Management standards.

The tool provides the basis for determining the level of organisational capacity required to manage projects and assists in identifying areas of capacity that should be improved or maintained.

This is an approach with some similarities to the Australian Federal Government's use of *P3M3*.

PCRA (Project Complexity and Risk Assessments)

The PCRA tool is a locally developed project risk assessment questionnaire which draws extensively on the 1999 "*Continuous Risk Management Guidebook*" of the Software Engineering Institute (SEI.)

The tool provides the basis for determining a project's level of risk and complexity. The results of the PCRA assessment form the basis from which projects are approved, managed, and monitored both organisationally and from a central agency perspective.

The Independent Review Programme

This is a programme with some similarities to the UK OGC's Gateway™ review programme. Projects (IT-enabled projects and other complex projects) are monitored based on a series of Gates where deliverables and outcomes are assessed for project health and progress. The approach includes dashboards for executive reporting.

PMBoK (Project Management Body of Knowledge)

Similar to the USA, the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBoK) provides a principles-based approach widely referenced by Canadian agencies.

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13.   Appendix D - References

Andersen, Erling S (2010). *Are we Getting Any Better? Comparing Project Management in the Years 2000 and 2008.* Project Management Journal, Vol 41, No.4 4-16. Published online in Wiley Online Library.

Chatterjee, Pratap (2010). *Analysis: OMB's Five-prong Strategy Could Rescue IT Procurement.* National Journal Group, Inc.

Chief Information Officers Council, USA (2011) *What is TechStat?* cio.gov

Crawford, Lynn H; Helm Jane (2009). *Government and Governance: The Value of Project Management in the Public Sector.* Project Management Journal, Vol. 40, No.1, 73-87.

De Reyck, Bert; Grushka-Cockayne, Yael; Lockett, Martin; Carolderini, Sergio Ricardo; Moura, Marcio; Sloper, Andrew (2005). *The Impact of Project Portfolio Management on Information Technology Projects.* International Journal of Project Management 23, 524-537.

Douglas, Merrill (2010). *Federal CIO's Techstat Initiative Seeks to Diagnose Troubled IT Initiatives and Deliver Quick Treatment.* Retrieved govtech.com

Dutta, Amitava (2009). *Justifying IT Projects: Connecting the Dots from Systems to Business Value.* ISACA Journal, Vol. 2

English, Hon Bill (2010). *2010 Investment Statement of the Government of New Zealand.* (treasury.govt.nz)

Eskerod, Pernille; Riis, Eva (2009). *Project Management Models as Value Creators.* Project Management Journal, Vol. 40, No. 1, 4-18.

ExpectMore.gov (2011). *The Program Assessment Rating Tool (Part).* (whitehouse.gov)

Fernandez, Sergio; Cho, Yoon Jik; Perry, James L (2010). *Exploring the Link between Integrated Leadership and Public Sector Performance.* Leadership Quarterly Pg. 308 Vol. 21 No. 2 ISSN: 1048-9843. ProQuest Information and Learning Company. Elsevier Science Ltd.

Government of Canada, Canada (2009), *Frequently Asked Questions: Implementation of the Policy on the Management of Projects and the Policy on Investment Planning – Assets and Acquired Services. (tbs-sct.gc.ca)*

Government of Canada, Canada (2010) *Policy on the Management of Projects.* tbs-sct.gc.ca

Government of Canada, Canada (2010), *Standard for Organizational Project Management Capacity.* tbs-sct.gc.ca

Greitens, Thomas J; Joaquin, M Ernita (2010). *Policy Typology and Performance Measurement: Results from the Program Assessment Rating Tool.* Public Performance & Management Review Pg. 555 Vol. 33 No. 4 ISSN: 1530-9576. ProQuest Information and Learning Company. Sage Publications, Inc.

Gershon, Sir Peter (2008). *Review of the Australian Government's Use of Information and Communication Technology.* Commonwealth of Australia, 2008.

Halachmi, Arie; Holzer, Marc (2010). *Citizen Participation and Performance Measurement: Operationalizing Democracy Through Better Accountability.* Public Administration Quarterly Pg 378 Vol. 34 No. 3 ISSN: 0734-9149; CODEN: PAQUE5. ProQuest Information and Learning Company. Southern Public Administration Education Foundation Fall.

Harpham, Alan; Jackson, Neville. *Portfolio, Programme and Project Management Maturity Model – P3M3.* apmgroup.co.uk

Harpham, Alan; Kippenberger, Tony (2009). *Staking a Lot on Programme and Project Management.* Published as a part of 2009 PMI Global Congress Proceedings.

Hobbs, Brian (2007). The *Multi-Project PMO: A Global Analysis of the Current State of Practice.* A White Paper Prepared for Project Management Institute. Project Management Institute.

Hobbs, Brian; Aubry, Monique (2010). *The Project Management Office (PMO): A Quest for Understanding*. Project Management Institute.

Hurt, Mimi; Thomas, Janice L (2009). *Building Value Through Sustainable Project Management Offices.* Project Management Journal, Vol. 40, No. 1, 55-72.

Jenner, Stephen. *Transforming Government and Public Services: Realising Benefits through Project Portfolio Management*. Gower. Retrieved from www.gowerpublishing.com/isbn/9781409401636.

KPMG International (2005). *Global IT Project Management Survey How committed are you?* KPMG International, published in Hong Kong.

KPMG International (2008). *An Achievable Quest: High Performing Public Sector Organizations*. KPMG International, printed in the Netherlands.

KPMG LLP (2008). *Performance Agenda: An International Government Survey. Canadian Edition*. KPMG LLP, printed in Canada.

KPMG New Zealand (2009). *State Services Commission Project Capability Baseline Assessment.* KPMG International, printed in New Zealand.

KPMG New Zealand (2010). *KPMG New Zealand Project Management Survey 2010.* KPMG International, printed in New Zealand.

Lechler, Thomas G; Cohen, Martin (2009). *Exploring the Role of Steering Committees in Realizing Value From Project Management.* Project Management Journal, Vol. 40, No. 1, 42-54.

Lee, Yong W (2006). Research *Report – The Effect of PMO on IT Project Management: A Summary of the Survey Results*. Hawaii Pacific University.

Mullaly, Mark; Thomas, Janice (2009). *Exploring the Dynamics of Value and Fit: Insights From Project Management*. Project Management Journal, Vol. 40, No.1, 124-135

Murray, Andy (2010). *Using PRINCE2 and MSP Together*. The Stationery Office 2010.

OECD (2001). *The Hidden Threat to E-Government Avoiding large government IT failures.* PUMA Policy Brief No. 8. Published by the OECD, March 2001.

Office of Government Commerce (2007). *Managing Successful Programmes.* Printed in the United Kingdom for The Stationery Office, 2007.

Office of Government Commerce (2008). *Delivery Confidence – Guide for Review Teams.* OGC Gateway Process, Version 1.0 – June 2008. OGC, London SW1A 2HQ.

Office of Government Commerce (2008). *Lessons from Shared Services Initiatives*. Programmes & Projects, Bulletin 1 – October 2008. OGC, London SW1A 2HQ.

Office of Government Commerce (2008). *Portfolio Management Guide Final Public Consultation Draft.* Programmes & Projects. OGC, London SW1A 2HQ.

Office of Government Commerce (2008). *Portfolio, Programme and Project Offices.* Printed in the United Kingdom for The Stationery Office, 2008.

Office of Government Commerce (2009). *Effective Transition from Policy to Programme*. Programmes & Projects, Bulletin 3 – April 2009. OGC, London SW1A 2HQ.

Office of Government Commerce (2009). *Lessons Learned – Effective Project Assurance.* Programmes & Projects, Bulletin 4 – June 2009. OGC, London SW1A 2HQ.

Office of Government Commerce (2009). *Lessons Learned – The SRO Role in Major Government Programmes.* Programmes & Projects, Bulletin 5 – September 2009. OGC, London SW1A 2HQ.

Office of Government Commerce (2009). *Lessons Learnt – Programme and Projects Board*. Programmes & Projects, Bulletin 2 – March 2009. OGC, London SW1A 2HQ.

Office of Government Commerce (2010). *Policy to Successful Delivery*. OGC, London SW1A 2HQ.

Office of Government Commerce (2010). *Portfolio, Programme and Project Management Maturity Model (P3M3) Introduction and Guide to P3M3*. Programmes & Projects, Version 2.1. OGC, London SW1A 2HQ.

Office of Government Commerce 2010. *Lessons Learned – Communications in Major Government Programmes*. Programmes & Projects, Bulletin 6 – August 2010.

Office of Government Commerce, UK (2009). *Government Programme & Project Management Profession Recommended Methodology Standards*. ogc.gov.uk

Office of Government Commerce, UK (2009). *PPM Council Terms of Reference*. ogc.gov.uk

Piotrowski, Suzanne J; Ansah, Esi (2010). *Organizational Assessment Tools: Report Cards and Scorecards of the Federal Agencies*. Public Administration Quarterly Pg. 109 Vol. 34 No. 1 ISSN: 0734-9149: CODEN: PAQUE5. ProQuest Information and Learning Company. Southern Public Administration Education Foundation Spring.

Queensland University of Technology (QUT). *Creating Value in Project Management Using PRINCE2*. A research project undertaken by Queensland University of Technology (QUT). Brisbane, Australia.

Schwartz, Shelly (2004). *Tackling the Challenges in Government Project Management*. Retrieved from www.gcn.com/articles/2004/02/25/Tackling-the-challenges-in-government-project-m.

Shipman, Marlies (2009). *Showing PMO Value Through Reporting*. PMI Virtual Library, Project Management Institute.

Soodek, Andy (2008). *PPM Tool Selection and Implementation Considerations*. PMI Virtual Library, Project Management Institute.

Spalek, Seweryn (2010). *Report on: "The Survey of Reasons for Establishing PMO and their Influence on PMO Operational Success"*. Silesian University of Technology.

Sprouse, Lore (2010). *The Influence of the Efficacy of the Program Management Office on IT Project Success Rates*. A dissertation Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Management in Organizational Leadership. University of Phoenix.

Sternstein, Aliya (2010). *Now You See It*. Government Executive Pg. 13 Vol. 42 No.7 ISSN: 0017-2626; CODEN: GVEXAW. ProQuest Information and Learning Company.

The Standish Group (2010). *Chaos Summary for 2010*. The Standish Group International, Inc, Boston MA 02109.

Thomas, Jane; Mullaly, Marc (2008). *Researching the Value of Project Management*. PMI Research Conference, Warsaw, Poland.

Thomas, Janice; Mullaly, Marc (2009). *Exploration of Value: Perspectives of the Value of Project Management*. Project Management Journal, Vol. 40, No. 1, 2-3.

Treasury Board of Canada Secretariat, Canada (2009) *Organizational Project Management Capacity Assessment Tool*. tbs-sct.gc.ca

Treasury Board of Canada Secretariat, Canada (2009), *Project Complexity and Risk Assessment Tool*. tbs-sct.gc.ca

Tucker, Richard (2009). *Using PRINCE2 to Manage US Federal Government IT Projects; Applying the PRINCE2 Project Management Method to Support Capital Planning and Investment Control (CPIC)*.

United States Government Accountability Office (2007). *Best Practices: An Integrated Portfolio Management Approach to Weapon System Investments Could Improve DOD's Acquisition Outcomes*. Washington, DC 20548.

United States Government Accountability Office (2010). *OMB's Dashboard has Increased Transparency and Oversight, but Improvements Needed*. Report to Congressional Requesters. Washington, DC 20548

United States Government Accountability Office (2010). *Streamlining Government: Opportunities Exist to Strengthen OMB's Approach to Improving Efficiency*. Washington, DC 20548.

University of Quebec in Montreal, Montreal, Canada (2009). *Identifying Forces Driving PMO Changes: Summary Report*. University of Quebec in Montreal, Montreal, Canada.

Vowler, Sue. (2008) *Portfolio, Programme and Project Offices A Practical Introduction.* Presented at Best Practice User Group Workshop, 2008.

Weill, Peter; Ross, Jeanne (2005). *A Matrixed Approach to Designing IT Governance*. MIT Sloan Management Review, Vol.416 No.2.