**Discussion Paper**

To: The Hon Kelly O’Dwyer MP

Minister Assisting the Prime Minister for the Public Service

**[ALSO SUBMITTED TO PMC/APS REVIEW PANEL – 10.5.2018 pending advice on how panel submissions will be received]**

From: Dr John White

Mr Peter Farley

Mr David Gillett

Mr Chris Stoltz

Date: 25th April 2018

Subject: **Wasted Capital in Major Projects Development**

Introduction

This discussion paper sets out the concern that capital is wasted in major project development across business and government.

It is endemic across Australia and the appointment of a new Minister Assisting the Prime Minister for the Public Service provides an opportunity to initiate a required step-change in the performance in the government sector with knock on effects to pressure the state governments and business to achieve a similar required step-change in performance.

The Issue

The issue is as follows:

* Capital is wasted in major projects across business and government. It is endemic across Australia. It’s a drag on our standard of living and shareholders and taxpayers indirectly pay the huge cost.
* Corrective action to curb and then eliminate waste of capital in capital project development would be a major innovation.
* The Australian Public Service plays a fundamental role in shaping and framing business case development, project approval and execution for all government projects.
* At this time, when wasted capital in major projects is so prevalent and preventing Australia from performing to full capability, a new Minister with Public Service coverage can exert a very positive and powerful influence for a service-wide step-change in performance in capital project development and execution.
* Actions to bring about a step-change in government capital project performance will also help pressure state governments and business to do likewise.
* The problem is primarily a cultural problem across both business and government requiring in the first instance widespread acceptance that it is a problem – and then accepting something can be done about it.
* There is a relatively widespread recognition of the problem but that recognition must be in the right places before meaningful change will occur.

Good examples of projects where capital has been (or is still being) wasted include:

* National Broadband Network
  + It is widely believed the project was justified on the basis of numbers scribbled on a drink coaster.
  + The first CEO of NBN Co, Michael Quigley, upon developing the initial NBN Co strategy, estimated NBN Co would grow to a staff of 760. It has been reported that NBN Co currently employs over 5,000 employees. We do not know if that includes the hundreds or thousands of consultants from Accenture, IBM, Cyient (and other Indian companies), Boston Consulting Group, McKinsey, Partners in Performance and the many vendor companies supporting OSS/BSS.
  + Poor management of the design and construction contracts by NBN Co lead to a number of companies losing hundreds of millions of dollars ($60m by Silcar, $150m by Servicestream, est. $180m by Vision Stream) and the withdrawal of contracts by NBN Co from Syntheo.

* Queensland Department of Health
  + A contract for $6m eventually cost the Queensland government $1.2billion:- <http://www.abc.net.au/news/2016-04-07/ibm-case-formally-dismissed-queensland-health-payroll-disaster/7306528>
* Superannuation IT Projects
  + A group of superannuation companies lead by IT service company, Superpartners (who subcontracted the work to Indian company TATA), wasted hundreds of millions of dollars on a failed IT system:- <https://www.businessinsider.com.au/this-180-million-it-disaster-for-australian-funds-shows-why-speed-is-so-important-in-modern-projects-2014-7>
* Defence Expenditure
  + The current submarine acquisition program could end up costing Australians $150 billion more than it should over the life of the submarines - if they ever get built.
  + The purchase of the fighter aeroplanes from the US that are going straight into mothballs.
  + The $2 billion Seasprite Helicopter project that never flew
  + Acquiring helicopters that now have to be ‘marinised’ in order to be able to take-off and land (and be stowed) on our ships.
  + Many other examples of poor procurement…
* National Electricity Market
  + Victoria’s economy was built on affordable and reliable electricity - the result of visionary Sir John Monash – now the second most expensive in the world and unreliable. Australia now has an integrated electricity network of generators, distributors and retailers that manages to provide electricity that is neither affordable nor reliable.

Suggested Path Forward

A suggested path to reducing/eliminating future wasted capital in major project development is as follows:

* There is a need to start talking a lot about the problem.
* The Public Service learns and uses the consistent language of project development and execution.
* Public Service departments build sufficient project shaping, technical, estimating, cost control, contract/procurement, financial, execution, strategy, management expertise and corporate memory to be able to effectively specify and manage projects. This does not translate into complete inhouse engineering outfits. It is enough to form an ongoing core covering all important business case risks.
* Get the culture right in terms of Ministers with capital approval responsibility, understanding the components of an integrated business case and talking only in terms of stage-gated approvals and associated estimates - loose talk is not to be tolerated.
* All agencies to adopt a capital project development procedure – largely common across the Public Service.
* All agencies to have organisation charts, personnel selection processes and staffing numbers which reflect capital project development as part of their core business.
* All agencies to be encouraged to employ skilled people instead of engaging external consultants - reliance on external consultants for project development is fraught with danger and only used under specific exceptional conditions as defined in the agency procedure.
* Understand each agency’s history of success in project development and use that as a tool for exerting the right pressure for the step-change – implement systems to keep project close-out reports and summarise performance.
* Understand how each agency gathers lessons learned and uses these to inform the next project – implement systems to gather and use lessons learned.
* Understand how each agency will tackle the next project and why will it deliver a successful outcome.
* Use the understanding gained of each agency’s current performance in capital project development and execution to inform specific actions to be taken to reduce/eliminate wasted capital.
* This is such a large problem (in Defence alone it is huge) that perhaps picking off one or two best agency targets will get the ball rolling after setting the over-arching agenda across government that ‘Step-Change is Required’.
* The Minister may set up a small specific task force in her Office to get this cultural change rolling and implemented.

Cost/Benefit

The scale of the problem could be $20 billion per annum wasted, in each of the government and private/corporate sectors, when both the capital and maintenance/through-life-support/operating cost exceedances are considered.

An even greater cost to the economy and community is incurred due to the lack of delivered capacity and inefficiencies in infrastructure and essential services. This has demonstrably driven up the underlying costs in our economy/society (eg, congestion, energy prices/reliability, communications) and made all businesses and government services less cost effective (with many moving offshore).

We are therefore dealing with an issue that could be around 5 percent of government expenditure and the same impact on GDP.

Australia needs to revert to the teams of skilled, experienced and respected professionals that existed in most relevant State and Federal government departments/sectors in the 1990s (eg, for roads, rail, electricity, water, telecoms) - with ‘corporate memory’ and independence/authority to influence government on analysis, planning and implementation of infrastructure requirements.

Rebuilding sufficient capability may eventually require about 2-3,000 professionals at a cost of about $1billion per annum across government.  This is a tiny fraction of the, for example, average annual $8 billion spent by the public service on consultants in “Management and Business Professionals and Administration Services” category over the last 5 years (refer ANAO report 19 Table 3.1), much of which, including other categories covered by Table 3.1, could be eliminated.

One could strongly argue that this will more than pay for itself in reduced consultants’ costs but more particularly save, say, half of the waste identified above in the government sectors (let’s say $10billion/annum). This saving will flow through, by example, to the private sector and we will also see economy wide reductions in underlying operating costs that will deliver productivity gains and growth, and more tax revenues.  So, we could conservatively double the benefit to the economy (GDP) - let’s say $20 billion/annum net benefit.

This is a good return on $1billion/annum invested in the re-skilling of the Public Service organisations.

The main point is that the suggested ongoing increase in core public service capacity skills knowledge and effective service delivery could be available for no net increase in ongoing cost.

There are two major points of emphasis

* 1. The findings of the ANAO and the following enquiry shows that overuse of consultants by the PS essentially masks the size and ongoing cost of delivering PS obligations
  2. The recent Innovation and Science Australia Report – Australia 2030: Prosperity through Innovation. dated January 2018, has a Summary of Recommendations starting on page 105 and we especially draw your attention to Recommendations 14, 15, 16 and 18. Note that Recommendation 18 reads “Conduct a review of the Public Service with the aim of a greater role and capability for innovation in policy development implementation and service delivery”

Recommendation 18 goes to the essence of this paper regarding capital wasted in capital project development and the role for the public service in more effective government spending.

Summary

Across business and government, Australia is currently wasting billions of dollars each year in undertaking projects in which there is wasted capital. This waste of capital might be as much as $20 billion per annum. There are many examples.

The new Minister Assisting the Prime Minister for the Public Service has available to her the resources to develop an innovative strategy based upon possible solutions for reducing/eliminating wasted capital in capital project development in the public sector and also thereby pressure state governments and business to do likewise. This aim is very much aligned to the recommendations (especially recommendation 18) from the Innovation and Science Australia Report released in January 2018.

Whilst the cost of implementing a Capital Waste Reduction Strategy might, at first gasp, appear expensive at about $1billion per annum, the return on investment is very high at $20billion per annum.

It must be noted that the recent findings of the ANAO indicate that current spending on consultants could be reduced to finance a no-net-cost increase in the core public service cost – the emphasis of this paper is on the necessity to re-establish core ongoing public service capability, skills, knowhow and effectiveness in relation to project shaping, project business case development and project execution to maximise capital investment effectiveness which is directed by government via the public service.

Recommendation

The recently appointed Minister Assisting the Prime Minister for the Public Service consider that:

* Wasted capital in capital project development across all government agencies is a major drag on our standard of living.
* This paper outlines the nature of the problem and an approach to tackling it across all agencies (picking likely first targets).
* Establish a small Task Force reporting to the Minister to develop and initiate a program for government agencies to reduce/eliminate Capital Wasted in Capital Project Development.
* This recommended plan is supported by the findings of the Innovation and Science Australia report Australia 2030: Prosperity Through Innovation dated January 2018 and the Australian National Audit Office report dated December 2017.

*Note: Authors of this paper are:*

* *Dr John White has a civil engineering degree from Adelaide University and a PhD from Cambridge University. His extensive career achievements are set out in the attached brief career summary.*
* *Peter Farley has degrees and economics and mechanical engineering. He built a world-leading machine tool company which exported 70% of its production, competing successfully against German, Japanese and US competitors. Peter also worked for large companies including Boral, BOC and Westinghouse and the department of the Navy.*
* *David Gillett is a mechanical engineer and accountant who has spent a working life since the 1970s in the assessment and development of projects mostly related to the mining/mineral processing industries as well as infrastructure and building. This work was mostly carried out while employed with engineer-constructors, consultants and mining companies.*
* *Chris Stoltz is also a civil engineer with broad engineering leadership experience in water utilities, manufacturing, agribusiness, the Murray Darling Basin, geospatial information technology and Australia’s national broadband network. A brief career summary is attached.*

*INITIAL AUTHOR CONTACT*

*D. Gillett*