



HELMSMAN

30 May 2008

Mr David Mortimer

Defence Procurement and Sustainment Review
Defence Material Organisation
Russell Offices
Canberra ACT 2600

Dear Mr Mortimer

Re. Defence Procurement and Sustainment Review

We submit this proposal in response to the Government consideration of further potential reforms to ensure the efficient and cost-effective delivery of acquisition and through-life support programs for defence equipment. We make this submission from a research and implementation perspective.

Introduction

- **The Helmsman Institute**

The Helmsman Institute is committed to improving project governance and project performance in Australia through world class research, education and professional development. The Institute draws intellectual rigor and insight through its associations with a number of leading universities and education institutions across Australia.

- **Objective:**

The Helmsman Institute is coordinating an Australia wide research effort to determine the governance factors that prevent project blowouts.

This effort is intended to define the tools need by program auditors, boards and governing bodies to ensure programs remain on track.

Executive Summary

Helmsman in its research into project performance across industries such as Finance, Telecommunications, Mining, Energy, Government and the Defence sector has had exposure to multiple projects in multiple organisations.

As part of our research and engagements we have had the opportunity to compare projects in the defence sector and compare them to other industries on a first hand basis.

We have observed that while this sector demonstrates excellent performance in cost management, schedule performance is lacking.

Our research and observations show that the continued issues around schedule performance are created by three external factors (factors imposed on the DMO), and two factors driven by the technology environment faced by this sector.

We would encourage the Government to support the DMO in creating initiatives to address these five issues.

The external issues are:

- 1) Implementation of governance criteria via the ANAO which do not evaluate the correct project management factors that drive success in projects.
- 2) Shortage of skilled capability in the sector due to demand in other sectors



- 3) Inability for the DMO to engage and retain the highly skilled project managers due to salary constraints placed on the department

Environmental issues

- 1) Increasing requirement for soft systems engineering capability to manage the sociological and management challenges created by new and different capability
- 2) The software development and integration project management skills to manage the rapidly increasing software component in new platforms.

Helmsman would encourage the Government to fund the DMO, Finance and the ANAO to undertake the activities needed to research and resolve the impact of these issues.

Detailed issue description

External Issues

1) ANAO Audit:

Helmsman has conducted a review of the most recent audit reports on some of the key projects conducted in the recent past. We have compared the findings with some of the standard review elements used in other sectors and found the reports missing key elements relating to project performance prediction. The audit reports did cover process compliance, contract structure and delivery performance. Key project performance drivers such as project management systems, project schedule structure and complexity, accountability clarity and similar issues were marked in their absence. Direct interaction with some of the projects that Helmsman has conducted found a considerable disconnect between the project realities and the audit findings.

Recommendation: The ANAO develop a specialised skill area staffed with experienced project professionals, and that the ANAO conduct research activities to define the critical governance factors for project success

2) Skill shortages:

In 2007 Helmsman Institute commissioned a survey "Australia's Project Resource Constraints – A Cross Industry Issue. Australia continues to face delivery risks to its project pipeline due to resource constraints. These constraints are arising due to a dramatic and unprecedented increase in capital expenditure across multiple sectors of the economy. Total demand for Capital Infrastructure projects is set to increase on average \$20-30bn annually from 2005-06 to 2010-11. This is a 100-150% increase over the previous 5 years. The steady growth in tradespeople has flattened since 2002, with an average annual growth rate of 21% before 2002, and a much more modest average growth rate of 5% after 2002

Recommendation: The Government look towards facilitating the movement of skilled trades and professionals from other sectors that have less demand (Telecommunications, Automotive, Finance and IT)

3) Salary Constraints:

Helmsman is conducting our 2008 annual project management survey and initial data has indicated that in other sectors the average salary earned by project managers handling the projects of the size comparable to the DMO's most complex projects is three (3) to four (4) times higher on average. It is our understanding that the DMO is constrained from hiring sufficiently capable project managers because of this constraint. A number of senior project managers have indicated to us that while they would like to work in Defence, the sector is notorious for not being able to provide sufficient incentives.

Recommendation: The Government commission a salary review to establish the correct salaries and hiring packages to create the incentives for the top performing project managers available in Australia.



Environmental Issues:

1) Soft system issues

As Australia begins to invest in new capability that is driven by leading edge technology the sociological impacts of the new capability are becoming deeper and deeper. In more and more cases new capability requires new cognitive and mental models to operate correctly. Examples of new capability that drives such sociological issues are AEW&C systems, joint systems, and UAV systems. When such new systems are introduced, the lack of corporate memory increases the risk of failure dramatically. This is created as requirement and designs take excessive time to stabilise. In addition acceptance and testing cycles are increased as users adapted to the new capability

Recommendation: The DMO invests in soft system capability to support the more complex projects.

2) Software development

The revolution in technology is only beginning to hit the average defence projects. Until recently software development was based at unit level development. That is, only the software needed by discrete units, in generally standalone functionality was needed. As defence capability moves towards network and system integration complexity, increased strain on DMO capability will occur. Other sectors have a much longer history in these areas, especially Finance (with the global financial ATM and other networks) and Telecommunications (with the global management of the internet). The experience and knowledge from these sectors around software development project management has not yet been captured in defence.

Recommendation: DMO undertake research into the approaches, skills and capabilities used in other sectors to increase skills in project management of software integration and networking.

We hope that these submissions create a level of applicability and interest and lead to increased performance for defence projects. We believe that these enhancement will only add to the dramatic improvements achieved by the DMO since their implementation of the Kinnard reforms.

Yours sincerely

Bruce Ferguson
Chairman

Contact Details

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