



**Review 09**  
**Procurement Process Review**

Prepared by  
Aurecon  
Old Bank Chambers  
102 Customhouse Quay  
Wellington

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Document prepared by:


Aurecon New Zealand Limited  
Old Bank Chambers  
102 Customhouse Quay  
Wellington 6011 New Zealand

**T:** +64 4 472 9589

**F:** +64 4 472 9922

**E:** jenkins@ap.aurecongroup.com

**W:** aurecongroup.com

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# 1. Introduction

## 1.1 Acknowledgements

In undertaking this assignment, the Review Team would like to acknowledge the very valuable assistance and support from a wide range of individuals both within the Ministry of Defence (MoD) and New Zealand Defence Force (NZDF) and elsewhere.

Without exception our discussions with the wide range of stakeholders have been conducted with a considerable level of enthusiasm and support for the objectives of the review. We very much appreciated the readiness of individuals to engage openly and honestly with us on a range of sometimes sensitive but nevertheless significant issues as well as the generosity of particular individuals in the time they were able to devote to assisting us with our enquires.

In this regard we would like to record our appreciation to Minister Mapp and Associate Minister Roy, for their support as well as the Secretary of Defence Mr John McKinnon and Chief of Defence Force Lieutenant General Jerry Mateparae. The team would also like to acknowledge the assistance provided by the Defence 09 Review Secretariat for the access we have been afforded.

## 1.2 Scope Purpose of Review

The Defence Procurement Review forms part of the Defence 09 Review which was commissioned by the Secretary of Defence (Sec Def) in consultation with the Chief of Defence Force (CDF) under Section 24(2) (c) of the Defence Act 1990. The Review Team's Terms of Reference are detailed at Annex 1 to this Report. In pursuance of these Terms of Reference the Review Team examined:

- Government (i.e. Cabinet and Parliament) and stakeholder requirements and expectations;
- what governance, management and decision-making functions are required for Defence procurement and through life support, and how these can best be structured and resourced, including any legislative implications;
- the processes involved in developing capability system requirements, procuring equipment, managing the through life support, and subsequent disposal;
- how and by whom these processes can best be performed;
- the optimal structure to support the required processes, including the mix of skills required;
- whether a change program is required to achieve the recommended structure and processes, and how this might be affected and resourced.

## 1.3 Stakeholders Interviewed

The Review Team has conducted face to face interviews with a broad range of stakeholders including the two Ministers, senior executives within the MoD and NZDF organisations, Treasury, MED, State Services Commission and the Office of the Auditor General. Interviews were also conducted with the Head of Australian Defence Capability Division and the Australian Defence Materiel Organisation. In addition submissions were received from one industry association and one individual.

A complete list of stakeholders interviewed and submissions received is detailed at Annex 2 to this Report.

## 1.4 Methodology Employed

Given the compressed timeframe associated with the procurement review, our methodology focussed primarily on an examination of relevant documentary material and data extraction followed by a series of individual interviews with the range of stakeholders in order to identify key issues. In some cases, we conducted several interviews with the some individuals in order to ensure that issues identified were thoroughly explored and analysed. All interviews were conducted on a confidential and non attributable basis.

The Review Team also examined best practice examples within international jurisdictions with a particular focus on Australia and the United Kingdom. Our focus was to identify best practice elements of these systems that could be readily adapted and translated to the New Zealand environment taking into account the difference in size and scale of operations of the New Zealand defence environment compared to these other jurisdictions. In the UK context, the Review Team assessed documentary material only while in the case of Australia, in addition to documentary material, the opportunity was taken to clarify a number of aspects of the DMO operation with the DMO and ADF senior leadership. We have not discussed specific lessons learned from these jurisdictions in a comparative sense; rather we have made reference to them in the context of our recommendations pertaining to the new suggested governance model.

We also looked for examples of best practice governance within the MoD/NZDF organisation since these models, where they exist, provide valuable internal examples for the organisation to evaluate and potentially adopt on a wider scale across the organisation.

Throughout the review we have been very conscious of the need to work within the somewhat unique set of organisational factors that impact upon the New Zealand Defence Force which can be summarised as:

- Resource limitations (both financial and human) associated with a Defence Organisation of the size of the New Zealand Defence Force.
- The implicit recognition that the New Zealand Defence Force will always “have to do more with less”.
- The recognition that any recommendations arising from our review will need to be pragmatic given the real restraints on manpower and funding.
- The significant level of organisational change that is already occurring through such initiatives as the Defence Transformation Program

Accordingly the Review Team has focussed its efforts on identifying a set of recommendations that are:

- Realistically implementable in the context of the above noted factors
- Focussed on reducing the significant level of process overhead (transactional cost) that should be avoidable in a relatively small organisation such as the NZDF
- Focussed on implementing elements of best practice noted in other similar jurisdictions
- Directed at ensuring that to the maximum extent possible the organisation’s relatively small size contributes positively to the maintenance of an agile, responsive and pragmatic culture
- Focussed on avoiding the introduction of further change that cannot be demonstrably proven to be in the NZDF’s best interest given the level of organisational change that is already taking place

## 1.5 Context of the Review

The Defence 09 Review and in particular the Procurement Review comes at a time when the NZDF is facing an unprecedented challenge to its operational model in terms of addressing the issues associated with both

implementing and sustaining its strategic capability over the next 20 years. In general, these challenges arise from but are not necessarily limited to:

- A new Government with new agendas, expectations and priorities
- Significant pressures on capital and operational budget needed to sustain the NZDF
- Continuing challenges in recruitment and retention of qualified personnel
- Significant levels of organisational change already occurring in the NZDF
- Previous reviews of the NZDF; the recommendations from which (for various reasons) were not implemented
- A legislatively imposed organisational structure that is less than optimum for coping with these pressures

The Government has high expectations from the MoD/NZDF with regard to governance and process transparency standards. It understandably expects that capability planning, acquisition and through life management is undertaken with high levels of professionalism, commercial acumen and strategic focus across the whole capability portfolio, embracing the entire capability life-cycle, not just the acquisition of the specific mission system.

At the same time the MoD/NZDF must achieve this within an environment of sustained pressure on its operational and capital expenditure budgets with the added impact on recruitment and retention of qualified personnel that this entails. In terms of timing, the review has also come at an opportune hiatus in new capability system acquisition with any further major capability programs postponed pending finalisation of Defence's new White Paper and Capability Plan.

The Review Team was also sensitive to the significant level of investment in organisational change currently being undertaken within the NZDF environment with particular reference to the Defence Transformation Plan (DTP).

## 1.6 Previous Reviews

While a number of previous reviews in relation to the MoD/NZDF environment have been conducted over the past 20 years, the Quigley Review<sup>1</sup> in 2000 and the Hunn Review<sup>2</sup> in 2002 stand out in terms of their relevance to and influence upon our Review.

The Quigley Review was the most significant in terms of the impact it had on the NZDF. The structure and responsibilities of the MoD/NZDF as they are today are the direct result of the Quigley Review and elements of its implementation under the Defence Act 1990. A key initiative from this review was the discontinuation of the diarchy relationship between the Secretary of Defence and the then Chief Defence Staff (CDS) under the former Ministry of Defence and the creation of separately defined roles and responsibilities under separate MoD and NZDF organisational structures. While the rationale underpinning this initiative appeared to be sound at that time, in hindsight such separation would appear to be one of the major factors affecting good governance of the capability system acquisition environment. This issue and our recommendations for change are dealt with in our report.

The Hunn Report of 2002 was of major consequence in terms of its substantial body of analysis and insight. It addressed a range of governance related issues which had arisen since the Quigley Review. Of particular note

<sup>1</sup> Quigley, Hon. D.F., *New Zealand Defence, Resource Management Review 1988*, Strategos Consulting Limited, Wellington, 1988

<sup>2</sup> Hunn, D. K. CNZM, *Review of the Accountabilities and Structural Arrangements between the Ministry of Defence and the New Zealand Defence Force* 30 September 2002



to this Review Team was the identification of a number of key governance deficiencies in relation to how the two organisations (MoD and NZDF) transact their business. These deficiencies are still in existence today. Hunn made a key observation when he said:

***“Structures and role separation (established under the Quigley Review) were designed to minimise co-operative tendencies, when the reality was (and still is) that both needed to work together for each to achieve effective results. Structures which set out to deepen the differences between civilian and military cultures by placing them in permanent opposition to each other are bound to result in disfunctionality and, ultimately, poor quality advice.”<sup>3</sup>***

While the level of disfunctionality resulting from the current structure has been minimised in recent times by the good will and cooperation of a number of key individuals within both organisations (including both the Sec Def and the CDF), the structure under which both organisations operate and which was criticised by Hunn still endures today.

## 1.7 Stakeholder Observations

The Review Team noted that some views conveyed to us by a number of stakeholders peripheral to MoD/NZDF were somewhat dated in terms of what was currently occurring within the organisation. This is understandable given that there have been no recent major acquisition projects which has reduced the level of interaction between these individuals and the MoD/NZDF. The level of dysfunctional behaviour described by some stakeholders external to the MoD/NZDF was considered by the Review Team to be significantly less in reality. This has been due to the appointment of new staff which has positively impacted the level of cooperation between MoD and NZDF, in particular the recently appointed Deputy Secretary Acquisition deserves particular mention in this regard.

While the Review Team noted various frustrations expressed by some key stakeholders on the manner in which business is conducted within the Executive Leadership Team (ELT), it was considered that such matters were not significant governance issues. On the whole the governance process and secretariat support associated with the ELT was considered to be well managed and documented and are considered to be a useful example of a model upon which governance arrangements supporting the recommended revised structure could be based in contrast to those associated with the Executive Capability Board (ECB) which appeared to the Review Team to be less directed to ensuring decisions were reached.

<sup>3</sup> Ibid Page 32 section 6.5



## 2. Fundamental Observations

The Terms of Reference detailed in Annex 1 directed the Review Team's focus on "major issues currently facing Defence Procurement". These Terms of Reference were further clarified during our initial briefings to also include aspects previously detailed in Section 1.2.

Very early in the stakeholder interview process it became obvious to the Review Team that identified difficulties and criticisms of the Defence Procurement process could not be directly attributed to a faulty or deficient acquisition process in itself; rather a reflection on how the overall Capability System Life-cycle is addressed and managed. Notwithstanding, there were some acquisition process deficiencies which are identified and discussed in Section 6.

Best-practice paradigms define Capability in terms of its fundamental components: UK MoD uses its Defence Lines of Development (DLoD) whereas the Australian Defence Force adopts its Fundamental Inputs to Capability (FICs). It is important to note that the capability system components as defined in the NZDF Capability Management Framework (CMF) are similar to and generally accord with those utilised by comparable Defence jurisdictions. The NZDF capability system components are:


- Personnel;
- Research and Development;
- Infrastructure and Organisations;
- Concepts, Doctrine and Training;
- Information; and
- Equipment.

In order to realise and sustain a particular capability, these fundamental components must be tightly integrated and managed holistically within a defined or constraining financial envelope. Furthermore, a deficiency in any one component affects the whole.

The process of combining these fundamental components of capability and managing them in an integrated manner across the capability system life-cycle (CSL), of which procurement is but one element, has to date been the major challenge facing the MoD and NZDF and is reflected in the significantly less than optimum outcomes as perceived by various stakeholders associated with a number of major high profile capability system acquisitions such as Project Protector and the NH90 Helicopter Project.

The common underlying factor contributing to these sub-optimal outcomes relate to a fragmented and dislocated governance and management arrangement that applies across the full spectrum of Capability System Development. In particular, Ministry of Defence Acquisition branch (MoD-A) will focus principally on containing the capital acquisition within the approved budget and at times will trade-off schedule and reduce capability in pursuit of this financial objective. Any consequential end-user impacts, specifically in respect of personnel, training, infrastructure, and support are not taken into account as part of the trade-off analysis; accordingly the costs to redress these consequences need to be absorbed by the Single Services. It is clear that under this current framework, capability systems development and delivery is not managed in an integrated and focussed manner resulting in gross inefficiencies. Furthermore, given that the full cost of capability systems is not captured, it is extremely difficult to assess whether or not value-for-money has been achieved.

It is essential that the acquisition phase of the Capability Systems Life-cycle be regarded as an integral, but not dominant element of the overall Capability Systems Life-cycle (CSL). The organisational structure that was instituted as a result of the Quigley Review is not consistent with the symbiotic relationship that is necessary to achieve optimum capability system outcomes. The Review Team considers that a fundamental restructure of the manner in which the CSL is both governed and managed across the MoD and NZDF needs to be implemented. Accordingly our analysis and recommendations have inter alia focussed on governance arrangements supporting the CSL as well as a revised merged organisational structure to support it.



Our conclusions in respect of a revised governance and merged organisation structure are supported by the overwhelming view of the stakeholder group and are also consistent with the submission received from the public and also the previous Hunn Review, the recommendations of which were never fully implemented.

In addition to the revised governance and organisational initiatives recommended by the Review Team, we have also recommended the merger of fragmented elements of capability management and acquisition that are currently spread across the MoD and NZDF organisations to give a connected, comprehensive Through Life Capability Management process

These initiatives together with a recommended renewed focus on training and up skilling to address key organisational deficiencies will, in the view of the Review Team, form the basis for a significant improvement in the outcomes associated with the CSL.

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### 3. Executive Summary

Early in the data collection and analysis phase of this assignment, it became apparent that review of Defence Procurement could not be effectively achieved in isolation from the overall Capability System Life-cycle. Efficient and effective operation of Defence Procurement is intrinsically linked to the functionality and efficiency of the overall process within which it functions. Accordingly, while the procurement process itself has received significant attention from the Review Team in the context of its analysis and recommendations, the issues regarding the Capability System Life-cycle have been our predominant focus given its significant impact on the procurement process and its vital strategic significance to the future of the NZDF.

We have defined the term Capability System Life-cycle as a process that begins with the identification of the need to address a current or potential capability gap, its progressive translation into a functional capability system, and the operation and sustainment of that capability system throughout life of type. Within this life cycle there are phases that have different primary foci, and we use different terms for these.

Our report addresses five principal areas of concern relating to:

- Governance and associated organisational structure across the MoD & NZDF organisations;
- Capability System Development which focuses on defining the embodiment of the policy and military analysis that led to the demand for enhanced capability
- Capability System Acquisition which focuses on the processes around procurement of the elements required for the new or enhanced capability
- Capability System Management which focuses on the integration of all aspect of the new or enhanced capability into the operations of the NZDF
- Financial Management; and
- Related issues.

Although our recommendations are fundamentally directed at improving the capability system acquisition process and outcomes within the MoD/NZDF, they will also have a broader benefit to the organisational governance of the MoD and NZDF.

#### Governance

Governance and management of the Capability system Life-cycle across the two organisations is highly dysfunctional and disjointed. While the level of cooperation has increased in recent times, it has been a direct result of the good will and collaboration by a number of key individuals within both organisations (including both the Sec Def and the CDF) rather than through any formalised changes to the governance process itself. This dysfunctionality has been observed as far back as 2002 with the Hunn Review.

These disconnections to a large degree inhibit the environment for continuous improvement in the planning, budgeting and implementation of capability system development and are in part responsible for the poor outcomes associated with some recent acquisition programs.

A key issue contributing to the current level of dysfunctionality is the functional separation between the Secretary of Defence and the Chief of Defence Force legislated under the Defence Act 1990. Removal of this legislative separation would in effect establish a diarchy between the Sec Def and CDF which would assume a joint responsibility for the NZDF environment while still retaining responsibility for their individual organisations.

#### **Recommendation 4-1**

The relevant sections of the Defence Act 1990 be amended to remove the current sole responsibilities of the Secretary of Defence and the Chief of Defence Force and redefine them as prime responsibilities in the case of previously specified sole responsibilities with the remaining responsibilities being defined as shared responsibilities along the lines as detailed in Table 1. (Page 19) to allow both organisations to remain as separate entities but to act together with common goals and success factors.

The management culture is dominated by management committees which has led to a noticeable lack of responsibility and accountability amongst senior management. The present committee system imposes a significantly higher transactional cost without adding value to the capability acquisition process.

We are of the view that the ECB, as presently constituted does not provide effective governance to the Capability System Life-cycle.

#### **Recommendation 4-2**

The existing Executive Capability Board be abolished and replaced with a new formally constituted Capability Board. The membership of the Capability Board should consist of the Secretary of Defence and the Chief of Defence Force alternating as Chair, supported by two independent directors appointed by the Minister with relevant business skills in financial, commercial and risk management.

The delegation of the Capability Board to approve capital acquisitions may need to be addressed in the context of the merged organisational structure and consistent with the range and value of emerging capability programs.

#### **Recommendation 4-3**

The delegated authority of the Capability Board to approve capital acquisitions should be addressed.

We also consider that the Integrated Capability Management Committee (ICMC), as presently constituted also does not provide effective governance and should be replaced by a Program Management Steering Group (PSMG) which will effectively serve to create an integrated program management focus across the full capability life-cycle that is not present under the existing structure. In making this recommendation it is recognised that the Single Service Chiefs through their appointed Capability still retain ultimate responsibility and accountability for their capability projects.



#### **Recommendation 4-4**

The ICMC be abolished and replaced by the Program Management Steering Group to be responsible for program and project governance of all capability system development, acquisition, management and sustainment projects within the capability system life-cycle.

The Review Team considers that the currently existing relationship between the CDF and Single Service Chiefs under their respective Warrants needs to be addressed in order to clarify and emphasise the single point of accountability that should exist between the CDF and the Minister in relation to the three Single Service Chiefs.

#### **Recommendation 4-5**

The relevant sections of the Defence Act 1990 be amended to clarify the role of the CDF in relation to the Single Service Chiefs and that the Warrants of the three Single Service Chiefs also are accordingly amended.

The Review Team also considers that using a standardized nomenclature to categorize projects as they move through the oversight and approval process will assist stakeholders, including industry, to understand the status of a project and allow them to undertake the necessary planning in anticipation of the next phase of the project's maturity lifecycle and in the process improve market engagement, data and market intelligence gathering and enhanced Ministerial visibility.

#### **Recommendation 4-6**

A standardized terminology should be adopted to provide a clear indication of the status of a capability system project during its lifecycle that will be understood within both industry and government.

In addition to the introduction of standardized terminology the Review Team consider that formal Government approval points should be implemented to reflect this revised terminology.

#### **Recommendation 4-7**

Formal government approval should be sought at the following points in the project life-cycle.

- Transition from Emerging Project to Endorsed Project.
- Transition from Endorsed Project to Approved Project.
- Transition from Approved Project to Committed Project.
- Transition from Commissioned Project to Decommissioned Project

## Capability Management Framework

Although the Capability Management Framework manual identifies and describes the role of the Capability Owner, in reality this role does not exist. The Capability Owner is fundamentally important in terms of the visibility and influence it can deliver across the entire Capability System Life-cycle in its role of representing the interests of the end user, usually the Single Service.

### Recommendation 5-1

The concept of a Capability Owner should be implemented to represent the end user's interest throughout the capability system life-cycle.

Capability system development, acquisition and management are chronically under resourced with capability development resources being disparately managed across each of the three Single Services as well the Development Branch. The Single Services not only undertake elements of capability planning associated with major capital acquisition but also planning associated with the minor capital acquisition program. This arrangement effectively constricts the Development Branch of the resources it needs to effectively undertake capability system through-life planning.

### Recommendation 5-2

The existing resources associated with capability system development and minor capital acquisitions within each of the Single Services should be merged with those of the Development Branch in order to address the prevailing resource shortages. Development Branch should also be appropriately resourced with recognised skills-sets and competencies in cost estimation, project management and technical risk management.

Capability System Development is fundamentally strategic to the NZDF and deserves the full time attention of a 2-star equivalent position that reports directly into the CDF. Elevation of the current AC Dev position to a 2-star equivalent and in the process creating the role of Chief of Capability Development would in turn elevate its importance and visibility within the NZDF organisation and chain of command and place it on a similar footing to the counterpart Single Service Chiefs. It would also provide the additional status and credibility needed to successfully execute this role in a joint environment. Given the importance of building and retaining a requisite minimum level of skill sets and corporate memory, the Chief of Capability Development appointment should be for a minimum of four years.

### Recommendation 5-3

The existing role of Assistant Chief of Development should be re-designated as Chief of Capability Development at a 2-star equivalent level reporting directly to the CDF. The term of appointment should be for a minimum of 4 years.

To overcome many of the stakeholder issues, the Review Team consider that there is a need for a comprehensive Through Life Capability Plan which identifies and records the key issues that are essential to the successful introduction and operation of any new capability. The plan will require regular review and endorsement by the Capability Board.

### Recommendation 5-4

A Through Life Capability Plan should be developed for all proposed capability system developments and acquisitions that will provide a clear set of objectives and critical success factors, a framework for management of the capability system, a transparent basis for accountability, a basis for reporting, an enduring corporate memory, and a mechanism for informed Ministerial overview.

Consistent with the diarchy relationship existing between the CDF and Sec Def, a similar relationship should also exist between the newly designated Chief of Capability Development and a proposed newly designated Dep Sec Materiel Division. Under this relationship the two individual organisations are inextricably linked to and responsible for the management of the CSL.

### Recommendation 5-5

Given their re-defined responsibilities for the Capability Systems Life-cycle, a diarchy relationship between the Chief of Capability Development and the Deputy Secretary Materiel should be implemented. The Chief of Capability Development and the Deputy Secretary Materiel should also be indirectly accountable to the Minister for the management of Capability across the NZDF.

There is a need to implement a simple but robust rapid capability system acquisition process that can respond to the need for urgent acquisitions that arise from time to time. While the process for dealing with rapid acquisitions is already mentioned in the CMF, it needs to be reviewed in the context of the revised Capability System Life-cycle approval process. The review team consider that with adequate resources the rapid acquisition system will not require special systems, just prompt processing and a recognition that potentially increased levels of cost and risk that may need to be closely managed.

#### **Recommendation 5-5**

The process of managing rapid capability acquisition projects needs to be reviewed to ensure that it is consistent with the Review Team's recommended Capability Life-cycle Process.

### **Capability Procurement**

Procurement activity within the NZDF is currently dispersed across 5 separate organisations covering MoD Acquisition Division, the 3 Single Services which also undertake through life support contracting, and Organisation Support. This fragmentation has resulted in a significant loss of critical mass, competitive advantage and negotiation leverage for the NZDF that otherwise could have been realised. Lack of critical mass is especially significant within the current MoD Acquisitions Group which has in part been responsible for some of the relatively controversial acquisition outcomes over recent years.

Merging the resources responsible for all major and minor capital acquisition programs together with through life support and disposal under an integrated project management and acquisition organisation should redress the lack of resources. It is suggested that the merged organisation be designated as the Materiel Division in line with the nomenclature used in other equivalent jurisdictions.

#### **Recommendation 6-1**

Capability procurement under both the Major and Minor Capital Acquisition programs should be merged under a newly designated Materiel Division. This merger should also include responsibility for procuring the Through Life Support (sustainment) arrangements which should be negotiated as an integral part of the Capital Acquisition.



### Recommendation 6-2

A new centre of excellence for acquisition should be established under a newly formed Materiel Division. This will require a significant investment in:

- Establishing and nurturing a program management culture within the group, supplemented by standard project management principles, processes, procedures and tools
- Development of recognised competency based training regimes linked to professional career path development within the organisation.
- These competency based training programs should cover accepted project management disciplines and also more specific procurement skill sets and competencies
- Implementation of recognised qualifications as a pre-requisite for assuming Program and Project Management responsibility for capability system acquisition; such pre-requisites being either project management qualifications or recognised skill-sets gained from experience on equivalent programs.
- Where recognised project management skill sets for particular acquisition programs may be lacking, Materiel Division should source the required competencies from external contractors pending the training or recruitment of MOD/NZDF resources.

### Recommendation 6-3

A realistic and appropriate budget should be allocated to achieve the objective behind these recommendations. Funding could be sourced in part from potential head-count savings.

## Financial Management

### Separately Managed Systems

The MoD and the NZDF each have their own financial and management information systems and as a consequence, personnel in one area are not able to gain the benefit of information held in the other system. As a result, essential data needed by the NZDF to manage capability across its life-cycle is gathered and collated manually by the MoD and passed to NZDF for manual entry into their system. This is a resource intensive process and creates the potential for errors in data translation.

#### Recommendation 7-1

The MoD and NZDF should adopt a common financial management platform with the following characteristics:

- An appropriate level of integration, reporting and access to financial information across the entire capability life-cycle, taking the separate statutory reporting requirements into account.
- Access to historical operating and vendor data which can be used by the Development Branch to more accurately compile and project the total cost of ownership for any given capability.
- A project-based financial reporting function that will support the management of scope variation which is an essential component in value-for-money assessments.
- A work breakdown structure (WBS) based project reporting system that allows aggregation within each capability program and the entire portfolio

## Variation Management

The current variation management system is essentially an adversarial process which spans the two organisations. As a result development of the capability system and the requirement to incorporate modifications to leverage technological advances, adjust financial or operational aspects or resolve ambiguities or omissions, conflicts with the Procurement Division's imperative to deliver against the approved budget.

#### Recommendation 7-2

All variations to the capability system as defined in the Through Life Capability Plan must identify technical, schedule, benefit and cost impacts across the full capability life-cycle and be referred to the PMSG for approval.

## Risk Management

The process of risk identification, allocation and management has been formally implemented in accordance with AS/NZS 4360 but does not appear to the Review team to have become an intrinsic and influential element of the program management framework, and the benefits of the system did not seem to be realised. Assessment of technological risk was weak, particularly in regard to advances in technology. This could be resolved by greater involvement of the Defence Technology Agency (DTA) throughout the process which would, as a consequence, drive increased process accountability for the technical elements of the delivered capability.

### Recommendation 7-3

It is recommended that the importance of the Risk Management process be emphasised for all major acquisitions and that a well founded quantitative risk management be progressively introduced as an integral part of program management framework.

## Defence Technology Agency

Analysis and management of technological risk is a critically important function in the capability system development process, given that technology half-life is now quite short. Early involvement by the Defence Technology Agency would certainly add benefit to the process. The recommended governance framework reflects this approach with the DTA Chief Scientist being nominated as a member of the advisory panel to the Capability Board and DTA representatives also nominated as advisors to the PMSG.

Also the current DTA cost recovery arrangements could present an unintentional disincentive for their engagement by Capability Development during the early stages of capability definition process.

### Recommendation 8-1

The DTA Chief Scientist should be a nominated advisor to the Capability Board. Representatives of the DTA organisation should also be nominated advisors to the PMSG on an as required basis.

Funding arrangements should be reviewed to ensure that DTA cost for participating in the capability system development and acquisition process are specifically identified and provisioned.

## Defence Estate

The Defence Estate function, currently located within the Capability Development group although essentially an independent function within NZDF, should be incorporated into the existing NZDF Organisation Support Group. The need for continued close consultation between Defence Estate and Capability System Development remains, given that the two activities are closely linked and new capability systems typically require modifications or additions to the assets managed by the Defence Estate.

### **Recommendation 8-2**

The Defence Estate function should be relocated within the NZDF Organisation Support Group.

### **Change Management**

Introduction of the recommendations of the Review Team will involve significant and complex organisational change across both the NZDF and MoD environments. The changes will involve significant levels of resource reallocation, rationalisation, organisational restructure, legislative changes, changes in management information and control systems and training and up skilling. To be effective and sustainable the changes will in turn have to be supported by an underlying adjustment to the organisational culture of the two organisations including the Single Services in order to effectively inculcate the necessary attitudinal change in organisational thinking. The complexity and size of such a task should not be under estimated

A dedicated change management team that is not encumbered by business as usual responsibilities will be fundamental to the success of the initiative. These changes will require detailed definition, scoping, agreement and scheduling of a broad array of initiatives in support of the implementation of these recommendations

### **Recommendation 9-1**

A full time Project Team should be established to oversee and coordinate the required change management initiative. The Team should be led by a suitably experienced independent organisation with relevant domain knowledge of the MoD/NZDF organisation and culture. The Project Team should also have seconded to it representatives of key stakeholder groups.



## 4. Governance

### 4.1 A Dysfunctional Organisation

The Review Team's focus on governance has been in the context of assessing its effectiveness in guiding and overseeing the process of capability system development, acquisition and management. While the Review Team's recommendations are fundamentally directed towards improving the capability system acquisition process and outcomes within the MoD/NZDF, they will no doubt have wider effect on and benefit to the organisational governance of the MoD and NZDF. Before dealing with the Review Team's recommendations on a revised governance structure we thought it important to first provide the Review Team's observations of the governance process under the current environment.

The present organisation and associated governance structure is derived from the Quigley Review of 1988. A key recommendation was the discontinuation of the diarchy relationship between Secretary of Defence and the then Chief Defence Staff (CDS) under the former Ministry of Defence and the creation of separately defined roles and responsibilities under separate MOD and NZDF structures. While at the time the logic substantiating this initiative appeared to be sound, in hindsight it has proven to be one of the major factors affecting good governance of the CSL environment.

The organisational disfunctionality described by Hunn in 2002 is still evident today and accounts for a large part of the governance deficiencies in relation to the manner in which capability system definition, acquisition and management is undertaken between and across the two organisations. As Hunn observed, the formal separation of the powers of the Sec Def from the then CDS under the provisions of Section 24 and 25 of the Defence Act 1990, while intended to create a stronger culture of contestability, in retrospect has created some unintended consequences in relation to the operation of the two organisations. These unintended consequences among other things involve significantly increased organisational tensions and transaction costs. The resultant decrease in communication and cooperation between these two organisations has been the contributory factor to organisational disfunctionality.

While Hunn suggested that the MoD and NZDF organisations needed to be merged and that legislative amendment would be required to this effect, he believed that the legislative process could be held in abeyance for approximately 12 months. This would allow Ministers the opportunity to reassess the level of cohesion achieved by senior management working more cooperatively over that period and to establish whether or not merging the two organisations was appropriate. Ironically the ensuing 4 years post-Hunn has been regarded as one of the most divisive periods in the MoD/NZDF relationship in terms of personality clashes, lack of trust and general organisational discord. This environment had a noticeable and lasting negative impact on governance of the two organisations in regard to management of the CSL.

While the level of cooperation has increased in recent times, it has been a direct result of the good will and collaboration by a number of key individuals within both organisations (including both the Sec Def and the CDF). However, the structure under which both organisations operate and which was addressed by Hunn still endures today with the potential for the good work and progress achieved by these incumbents to be undermined by successors who do not enjoy the same level of good will and cooperation. It can be argued that a dysfunctional system can be overcome in part through good will and cooperation of key individuals however such goodwill and cooperative efforts should not be a substitute for, but rather complement a sound governance framework and associated processes.

The level of disfunctionality as observed by the Review Team is evident in the observations made by the vast majority of stakeholders operating at senior levels across both organisations. These observations relate to:

- A noticeable lack of authority and accountability across key executive positions.
- A culture of management-by-committee which is very consensual in operation. This can result in individual decisions being stalled by a particular committee member not agreeing with an otherwise urgent issue and being held over to the next meeting.
- A pervasive approval process involving numerous organisations and committees and particularly the Executive Capability Board (ECB) and Integrated Capability Management Committee (ICMC) which is generally not regarded as adding value.

- Portfolio management of the CSL has been effectively subdued through a silo-mentality resulting from a separately constituted MOD Acquisitions group and the level of independence still afforded the Single Services through their individual Warrants.
- The role of the CDF in relation to the Single Service Chiefs and in particular, the lack of status afforded the CDF as the single point of accountability for the NZDF.
- The poor level of communication across the 2 organisations is exacerbated by instituting confidentiality agreements with single service members seconded into the MOD to assist in the acquisition process. These confidentiality agreements promote an environment of divided loyalty and create a degree of tension between seconded personnel and their parent Service in relation to procurement matters. They are also considered to provoke a rather circuitous and inefficient communication process and are a major contributor to the level of discord.
- There is no formal Risk Management process which proactively and continually addresses program management across the CSL.
- An environment where previously, personalities were allowed to dominate and in the process create further levels of disfunctionality across the two organisations.
- The lack of trust created by and reflective of the division between the two organisations.
- The Capability that is eventually delivered through the Acquisition process is generally less than that originally requested.

Our analysis identified a highly disjointed capability acquisition process. The key observation was that the majority of disconnections traversed the MoD and NZDF boundary and that they prevailed across the full capability system development and acquisition cycle. These disconnections to a large degree inhibit the environment for continuous improvement in the planning, budgeting and implementation of capability system development. Furthermore, they contribute to tensions between the two organisations which subsequently affect the enthusiasm with which new capability systems are accepted and implemented by the operating services.

As mentioned previously, despite these observed deficiencies, there was a general consensus that the relationship between the Secretary of Defence and the Chief of Defence Force was significantly better than has otherwise been the case and that the good relationship between these two has assisted in improving the level of cooperation between their respective organisations.

## 4.2 Governance by Management Committee

The management culture of the MoD/NZDF organisation is one which is dominated by management committees. This culture has either led to or been responsible for a perceived lack of accountability and responsibility which would otherwise have been vested in senior individuals. Apart from perhaps the Sec Def and the CDF, the Review Team was unable to identify any one individual in the capability acquisition and management environment that considered that had clearly defined accountabilities and responsibilities in relation to their job roles.

The current committee system within the MoD/NZDF environment imposes significant transactional costs without adding any real value to the overall capability acquisition process. The observation made by a several stakeholders was that the organisation was predominantly focused on “reviewing rather than doing” and that it was “process rich and outcomes poor”. This is certainly a view that is supported by the Review Team. The inclusion in the CMF of numerous direct management or review bodies and potential review or consultation bodies (Annex 3) is totally disproportionate to the size of the MoD/NZDF. It is considered unsustainable, particularly when the level of effort involved in supporting such a system has to be borne by a relatively few number of individuals actually involved in delivering the required capability. As an example, the combined

number of members involved in the committee review structure developed for Project Protector overshadowed those actually engaged in delivering the program by a significant margin.

The organisation appears to have a propensity to create additional committees to either address issues not resolved by existing committees or to address unique project related issues which should have otherwise been addressed under an effective governance system. This proclivity is evident at various levels of the management structure as exemplified by initiatives taken within Development Branch and MoD-A to establish both a Capability Delivery Executive (committee) and a Capability Development Executive (committee) because they found that the ICMC was an ineffective forum to address specific project-related issues. The Executive Capability Board (ECB) itself created a separate management committee in response to the Coles Report.

Given the limited time available, the Review Team has not embarked on a detailed review and evaluation of each committee or review process, rather it has focused on two committees that are central to the management of the capability acquisition process; the ECB and the ICMC.

The Review Team is of the view that the ECB as presently structured does not provide effective governance of capability management within the NZDF. Key areas of deficiency as confirmed by stakeholder input relate to:

- The process of ECB deliberations being vague and undefined.
- A procurement-centric focus with little attention being devoted to other equally important aspects of capability system development and capability system management.
- Lack of focus and rigor in evaluating and managing key project risks.
- It has a consensual-based culture - robust discussion seems to be discouraged and the objection of one individual can potentially stall the decision making process resulting in a situation where contentious issues are either not addressed or are expected to be considered off line.
- Inability to make prompt decisions - otherwise urgent issues can be deferred from meeting to meeting without a decision.
- The ECB meetings are typically less than 2 hours in length, with limited time available for reports and projects to be effectively scrutinized and exceptions properly evaluated.
- Verbal reports are accepted which introduces an inappropriate level of informality and reduces the prospect for consideration of issues in advance of the meeting.

Governance is further diluted by the role of the ICMC. While its primary purpose is to “monitor project and program progress against agreed dimensions, risk mitigation and communications”, it has no delegated decision making powers or responsibilities and in effect appears only to serve as a filtering mechanism for the ECB. Apart from its value as an information sharing body, examination of the ICMC minutes confirmed that it does not impart any value to the good governance of the projects which it reviews.

Moreover, the ICMC exacerbates the problem of good project governance. It requires project reports to be prepared and submitted but in many cases fails to act on the identified problem areas, deferring the matters in question to the ECB for resolution adding further delay to the process. There have been examples where some relatively straight forward issues which were capable of being resolved by, and within the delegation of, individual ICMC members, were not addressed but rather deferred to the ECB for consideration.

Although the Review Team was hard pressed to elicit positive comments on the MoD/NZDF CSL governance structure, it was somewhat pleased to observe an example of best practice governance within the Organisation Support Division. This organisation appears to possess a range of good governance attributes that could be readily adopted within the capability management framework, in particular:

- A strong project management culture
- Concentration on achieving operational savings through a range of bottom-up initiatives



- A strong secretariat to support the deliberations of the ELT
- Use of a significant level of civilian subject matter experts, including use of external consultants where necessary.
- A commitment to develop and maintain project management and procurement skills within the organisation

While there were some negative views expressed by some stakeholders regarding the conduct of business within the ELT, the good governance attributes within its supporting secretariat are worthy of adoption and have been addressed within the recommended governance arrangements detailed in Section 4.3.2

## 4.3 Initiatives to Address Governance Disfunctionality

### 4.3.1 Merge the MoD and NZDF Organisational Structure

Given the identified deficiencies in governance, the Review Team is of the strong view that the separation of the MoD and NZDF organisations legislated under the Defence Act 1990 needs to be removed to allow the organisations to function more effectively under a joint diarchy arrangement. Our intention is that the two organisations remain separate in terms of the State Sector Act to preserve some of the separate systems, financial and information flows that are important to key stakeholders, but work together with common goals and success factors so they work as one organisation in form and in practice. The only legislative change we are contemplating in this area is the removal of the exclusivity relating to the functions specified in the Defence Act 24 (2) d,

In merging the functions of the two organisations under the proposed diarchy arrangement, it is intended that the identity of the two organisations be maintained similar to the Australian Department of Defence/ADF model in which the CDF and Secretary of Defence still have individually defined responsibilities.

While the Review Team recognises that this model in some respects represents a return to the past, we never the less consider that it is a necessary one in the context of adopting best practice standards in capability management that are similar to other comparable jurisdictions. This initiative obviously has broader implications than just dealing with the issue of more effective management of the CSL however the strategic importance of the improved management of capability system development and delivery warrants its introduction alone. As previously identified, this merger was also endorsed by the Hunn Review.

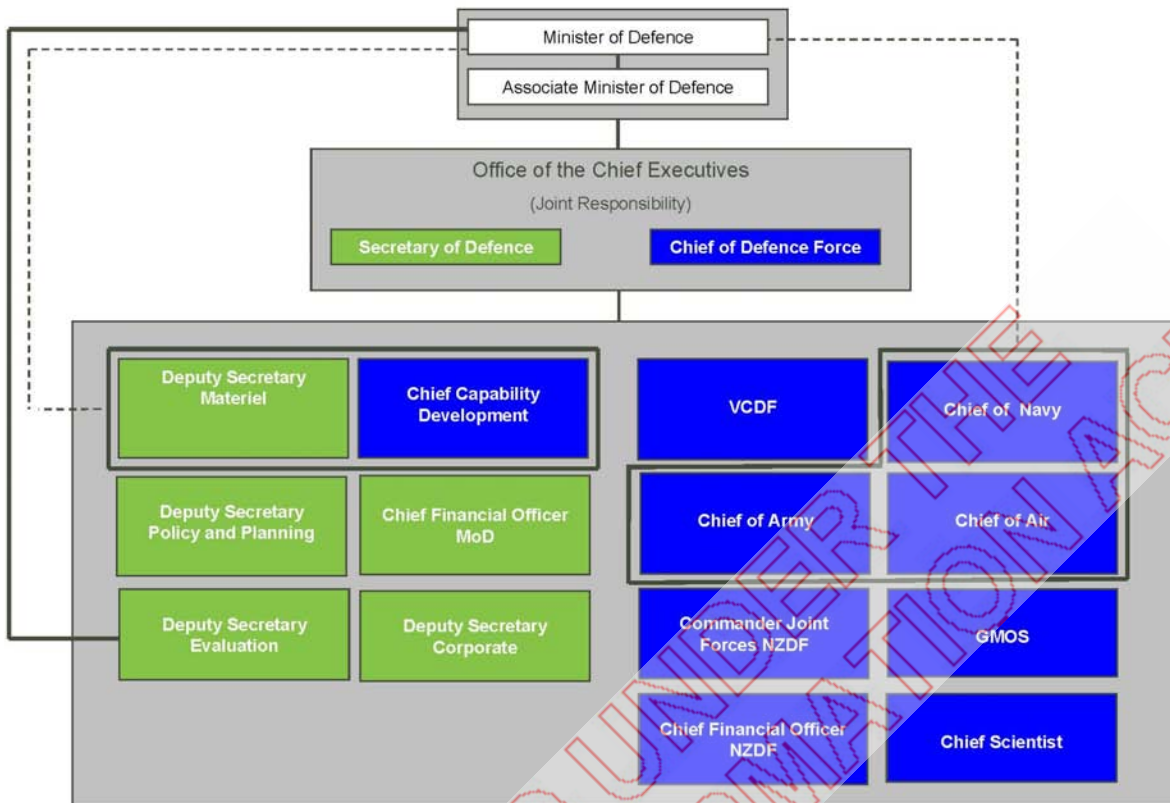
This initiative should not significantly affect the individual responsibilities except that the currently defined Sole, Prime and Shared responsibilities be recast into just Prime and Shared Responsibilities. The important change in focus is that both individuals should in the future exercise joint responsibility for the operation of Defence and are jointly responsible for its success. A suggested revised responsibility matrix based on the original matrix in the Hunn Report is detailed at Table 1.



	Prime Responsibilities	Shared Responsibilities
<b>Secretary of Defence</b>	<ul style="list-style-type: none"> <li>Formulating advice on defence policy and international defence relations policy and strategies at the governmental level</li> <li>Purchase advice on NZDF outputs policy effects</li> <li>Managing Capability Systems Acquisition</li> <li>MoD resource management</li> <li>Evaluation of and accounting for MoD outputs</li> </ul>	<ul style="list-style-type: none"> <li>Conducting analyses of the strategic environment</li> <li>Analysing and setting military capability requirements in accordance with Government Defence Policy</li> <li>Defining a joint future capability vision</li> <li>Drafting long-term development and medium-term output plans for the Defence organisation</li> <li>Developing security scenarios and planning guidelines from defence policy and strategy</li> </ul>
<b>Chief of Defence Force</b>	<ul style="list-style-type: none"> <li>Commanding the NZDF</li> <li>Commissioning new equipment into service</li> <li>Supporting, supplying and maintaining NZDF capabilities</li> <li>Conducting military operations</li> <li>NZDF Resources management</li> <li>Evaluation of and accounting for NZDF outputs</li> </ul>	<ul style="list-style-type: none"> <li>Preparing investment cases for acquisition proposals</li> <li>Preparing and maintaining the Capital Asset Management Plan</li> <li>Evaluating Defence organisation outputs and contributions to national security outcomes</li> <li>Formulating international defence relations strategies and outputs at the military level</li> <li>Advice on military responses to security crises</li> <li>Analysing military capability gaps, testing options and refining solutions</li> </ul>

**Table 1: Revised Sec Def and CDF Responsibilities under Merged Organisation**

The review team also recognises the importance and value placed by the Minister on his ability of to obtain independent and contestable advice as required and the suggested organisational structure makes allowance for this while making it completely clear where accountability lies. A suggested organisation structure is detailed at Figure 1 below.



**Figure 1: Proposed Organisational Structure**

Assimilation of the Sec Def and CDF roles will also establish the framework for the newly merged organisation as a whole to holistically manage the CSL in a totally integrated and efficient manner.

**Recommendation 4-1**

The relevant sections of the Defence Act 1990 be amended to remove the current sole responsibilities of the Secretary of Defence and the Chief of Defence Force and redefine them as prime responsibilities in the case of previously specified sole responsibilities with the remaining responsibilities being defined as shared responsibilities along the lines as detailed in Table 1 to allow both organisations to remain as separate entities but to act together with common goals and success factors.

**4.3.2 Reconstitute the Management Committee Structure**

A related and equally important issue to the merging of the Sec Def and CDF roles is the reconstitution of the review committees that oversee the CSL. For the reasons previously identified at paragraph 4.1, the Review Team considers that the entire committee system that is responsible for the CSL needs to be overhauled and simplified. Both the ECB and the ICMC, and other subsidiary reporting committees, should be abolished and replaced with a simplified and more effective governance structure as detailed in Figure 2. The revised governance structure has two key elements viz, the Capability Board and the Program Management Steering Group. Below this structure there should be a defined program management culture led by Program Directors drawn from both NZDF and MoD on a best for project basis that will be responsible for delivering the capability systems. The complexities associated with the variously required inputs to the review and approval process

should become their responsibility. The extent and complexity of that process should be determined by the PMSG on a project by project basis.

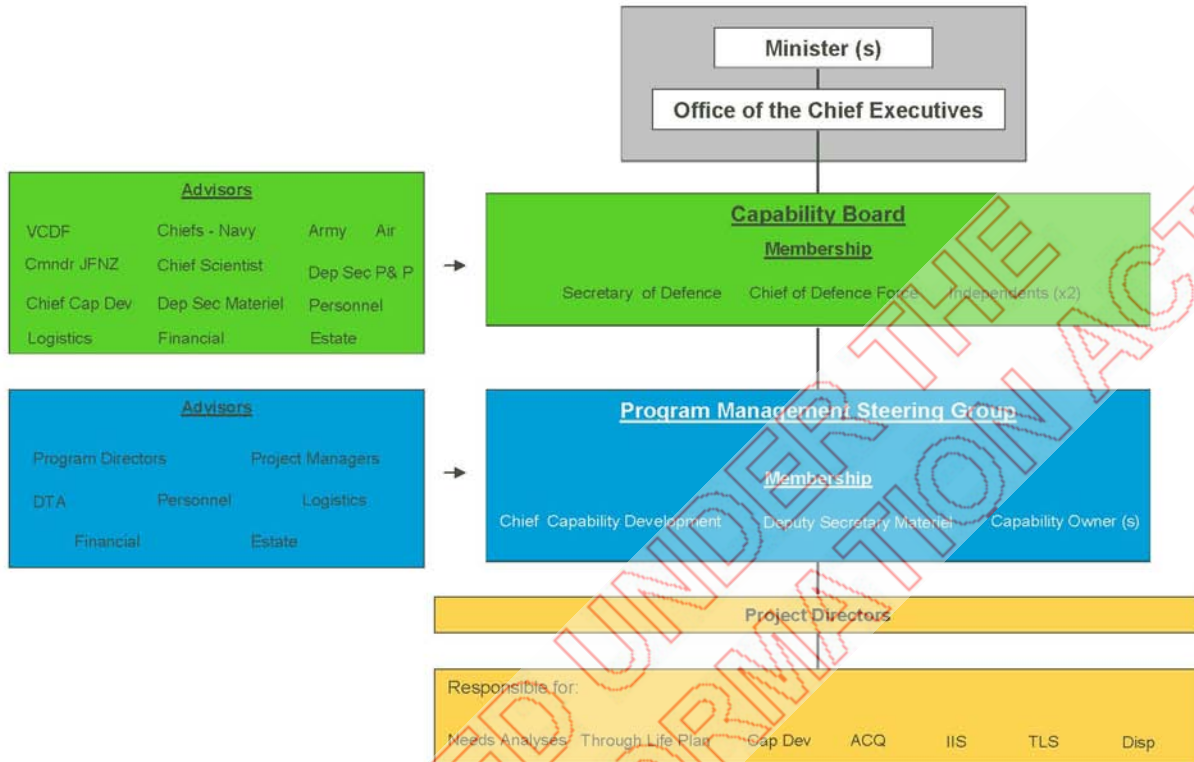


Figure 2: Revised Governance Structure

### Membership of the Capability Board

The Capability Board should be a formally constituted Board of Management charged with the oversight and coordination of the NZDF CSL. The Capability Board should be appointed by the Minister and comprise the Sec Def and CDF as alternating Chair plus the addition of two independent board members. The independent board membership should be comprised of two experienced individuals with relevant business skills in financial, commercial and risk management. These independent members should exercise the necessary level of scrutiny and guidance to balance the policy and operational views contributed by the Sec Def and CDF. The independent members will provide the basis upon which to thoroughly scrutinize or “challenge” aspects of the various capability projects brought before it in the context of the recommendations issuing from the Coles Report.<sup>4</sup> Under this arrangement, the Chair would have the casting vote in the event of a split-decision, thus ensuring that control of Defence Capability remains with those who are accountable for it.

As illustrated in Figure 2, the Capability Board should also be supported by a range of advisors comprising the VCDF, the Single Service Chiefs including and Commander of Joint Forces as well as the Chief Scientist, Dep Sec P&P, the Chief of Capability Development (existing AC Dev) and the Dep Sec Materiel (existing Dep Sec Acquisition) as well as other executives whose areas of responsibility either impact on, or will be impacted by, Capability Board decisions. These advisors should act in an ex-officio capacity, subject to the specific requirements of the Capability Board members.

The Capability Board should be briefed to take a portfolio approach to the capability systems of the NZDF making sure that at all stages of the life cycle of all the NZDF capability systems there is consistency of purpose and cross system synergy delivered within the fiscal, risk and policy constraints of Government.

<sup>4</sup> Coles, John Report of the review of Safety and Functionality of HMNZS Canterbury 2007 p3ff



#### Recommendation 4-2

The existing Executive Capability Board be abolished and replaced with a new formally constituted Capability Board. The membership of the Capability Board should consist of the Secretary of Defence and the Chief of Defence Force alternating as Chair supported by two independent directors appointed by the Minister with relevant business skills in financial, commercial and risk management.

The delegation of the Capability Board to approve capital acquisitions may need to be reviewed in the context of the merged organisational structure and consistent with the range and value of emerging capability programs.

#### Recommendation 4-3

The delegated authority of the Capability Board to approve capital acquisitions should be addressed.

#### The Program Management Steering Group

The Program Management Steering Group (PSMG) as a replacement for the ICMC will effectively serve to create an integrated program management focus across the CSL that is not present under the existing structure. Within defined levels of delegation, it will be fundamentally responsible for the sound project management of all stages of the CSL. Under this model, the procurement process, while an important activity, will only be a part of the overall holistic management of the CSL, taking its place beside the other equally important functions of capability system development, introduction into service, through life support and disposal.

In recognition of this, membership of the PMSG should be consistent with those who are collectively responsible for the capability life-cycle. These are AC Dev and Dep Sec Acquisition jointly responsible for the management of the Capability Life Cycle process and accountable to the Capability Board for the delivery of the entire capability portfolio. Also present on the PMSG should be the Capability Owner (refer Recommendation 5-8) representing the interests of the owner and eventual user (typically the Single Service) of the particular capability project under management. In the event that there is a disagreement between the Capability Owner and the remaining members of the PMSG in relation to a particular capability project, the issue should be referred to the Capability Board for resolution. Reporting to the PMSG will be individual program or project directors responsible for the capability project at the relevant stage in its life-cycle.

The PMSG would also subsume the functions of the Capability Development Executive and the Capability Delivery Executive and as a consequence these two committees should also be abolished along with any other ad hoc committees that exist. If required task forces or working groups with limited tenure should be used.

The PMSG would have the responsibility to manage capability system acquisition programs within approved budgets on the understanding that progress on these programs would be periodically reported to and reviewed by the Capability Board. Scope variations may need to be approved by the Capability Board or Cabinet as appropriate, depending on the nature and value of the proposed variation.

The role of the PMSG and Materiel Group during the sustainment phase will be to support the relevant Program Director who has responsibility for the logistic and materiel support of the capability system.



#### Recommendation 4-4

The ICMC should be abolished and replaced by the Program Management Steering Group that is to be responsible for program and project governance of all capability development, management acquisition and sustainment projects with the capability system life-cycle.

### 4.3.3 Further Clarify the Relationship between CDF and Single Service Chiefs

The Review Team is also of the view that the currently existing relationship between the CDF and Single Service Chiefs under their respective Warrants needs to be addressed in order to clarify and emphasise the single point of accountability that should exist between the CDF and the Minister in relation to the three Single Service Chiefs. This issue was identified by Hunn<sup>5</sup> and continues to be an impeding factor in the efficient management of the CSL.

In a joined environment where the Sec Def and CDF are ultimately responsible for the NZDF, the potential for that continuity in governance to be disrupted by Single Service Chiefs choosing to exercise the powers available to them under their Warrants should be addressed. This is not to say that any of the current Single Service Chiefs would act against the wishes of the CDF but the possibility to do so never the less exists under the existing Warrants.

The primacy of the CDF in relation to his Single Service Chiefs is a well established concept in other comparable jurisdictions including Australia and UK. Implementation of these arrangements will also require legislative adjustment.

This initiative should not be seen as any attempt to remove the fundamentally important access and consultative arrangements that the Minister presently enjoys with the Single Service Chiefs but rather a clarification of communication lines and accountability in accordance with Figure 1

#### Recommendation 4-5

The relevant sections of the Defence Act 1990 be amended to clarify the role of the CDF in relation to the Single Services Chiefs and that the Warrants of the three Single Service Chiefs also are accordingly amended.

## 4.4 Government Approval and Oversight of the Capability System Life-cycle

Figure 3 shows a generic capability system life-cycle and outlines the stages at which the Review Team recommend that Government endorsement in the form of either Cabinet or Ministerial approval be obtained in relation to specific stages of the life-cycle.

The capability system life-cycle in relation to a specific project can be readily divided into six stages.

These stages are:

- **Emerging Project** - where the ongoing analysis of military capability combined with the analysis of government policy indicates the need for a new, modified, or enhanced capability.

<sup>5</sup> Ibid para 6.33 ff

- **Endorsed Project** - where a particular capability has been appropriately defined and endorsed by the Capability Board, and has Ministerial endorsement to proceed to detailed capability option definition.
- **Approved Project** - where the government has approved proceeding into fully detailed analysis of defined capability options under the auspices of an agreed market engagement strategy.
- **Committed Project** - where the government has endorsed an Approved Project to enter into contract negotiations with a preferred supplier following a detailed rigorous evaluation of tendered capability options.
- **Commissioned Project** - where the project has been successfully delivered and introduced into service and is in the sustainment phase.
- **Decommissioned Project** – where the CLS has been decommissioned and is undergoing disposal activity.

Using a standardized terminology to categorize projects as they move through the oversight and approval process will assist stakeholders, including industry, to understand the status of a project in relation to its maturity level with the CSL. It will allow these stakeholders to undertake the necessary planning in anticipation of the next phase of the project’s maturity lifecycle and in the process improve market engagement, data and market intelligence gathering and enhanced Ministerial visibility.

**Recommendation 4-6**

A standardized terminology should be adopted to provide a clear indication of the status of a capability system development project during its lifecycle that will be understood within both industry and government.



Figure 3: Government Oversight and Approval as Related to Capability System Life-cycle

At all stages in the capability life-cycle the Capability Board will maintain governance oversight of that particular capability project with additional periodic briefings as required to the Minister. This is reflected in the communication lines shown in the organisation chart in Figure 1. In addition to this general oversight the Review Team consider that the following formal Government approval points be implemented:

- **Transition from Emerging Project to Endorsed Project** - Ministerial endorsement is sought through a ministerial note which should include the first draft of the Through Life Capability Plan
- **Transition from Endorsed Project to Approved Project** - Ministerial or cabinet approval is sought based on a Through Life Capability Plan that includes robust market based data detailing capital cost and through life support costs and financial and technical risk analyses.
- **Transition from Approved Project to Committed Project** - Ministerial or cabinet approval is sought based on firm market costings, a detailed tender evaluation, including an assessment of the recommended solution against the capability definition and through life implementation plan, and updated financial and technical risk analyses. The Government authorises its delegate to sign contract following the completion of contract negotiations.

#### Recommendation 4-7

That formal government approval should be sought at the following points in the project life-cycle.

- Transition from Emerging Project to Endorsed Project.
- Transition from Endorsed Project to Approved Project.
- Transition from Approved Project to Committed Project.
- Transition from Commissioned Project to Decommissioned Project.



## 5. Capability Management Framework

### 5.1 Fragmented and Disconnected

Capability management operating across the MoD/NZDF environment is defined and governed by the New Zealand Defence Capability Management Framework document which has been designed to describe and manage the CSL from initial inception and definition through the successive stages of acquisition, introduction into service, through life support and eventual disposal. The document aspires that the capability acquisition process should be “a seamless collaborative pathway to acquiring and managing capabilities”.<sup>6</sup> However, in reality the capability acquisition and management process is somewhat fragmented and disconnected with key elements such as acquisition and through-life-support being undertaken by separate elements of the MoD, NZDF and Single Services in what appears to be a non-integrated and reactive manner.

This is further compounded by the current legislative separation between MoD and NZDF and the lack of accountability inherent in this separation. The disconnect that arises from this separation severely limits the necessary coordinated commercial approach required for the cost-effective and successful introduction of capability. This is because the MoD Acquisition Group has its own criteria for success which is not intrinsically linked to the successful introduction of capability within the NZDF. The MoD’s success in acquisition is primarily measured and reported in terms of meeting project acquisition budgets rather than for example being held accountable for schedule delays, delivery of a reduced capability, high operational costs or a significant premium for ongoing sustainability throughout life of type.

There is also no clear linkage between the capability system definition process and force interoperability. This has resulted in unintentional capability gaps whereby, for example, the need for interoperability with counterpart civilian organisations has been overlooked.

The key issue impacting the capability management framework within the NZDF is that it is not effectively elevated to the level of strategic importance within the NZDF organisation unlike other comparable jurisdictions where its strategic significance is well recognised in terms of its level of resourcing and organisational prominence. This lack of strategic recognition manifests itself in a number of aspects:

- The lack of any real strategic road-map in Development Branch which clearly defines and allocates responsibility and accountability
- The fact that Development Branch reports through the VCDF and not directly to the CDF downgrades its importance within the “chain of command”. Furthermore, in the role as the Deputy CDF, the VCDF cannot allocate an appropriate amount of time compared to other assigned responsibilities duties to ensure that the Capability Development role within NZDF is properly managed and appropriately staffed.
- The fact that Capability Development is not recognised as a 2 star position with equal visibility and authority to the other CDF direct reports. The role of the Assistant Chief Development as a 1 star within the NZDF environment effectively reduces his status to that of a “Chief of Staff” in attempting to negotiate and reach consensus with his 2 stars on a range of capability priorities. The fact that this role reports into the 2 star VCDF thereby downgrading its importance in a “chain of command” environment does not assist the situation. The VCDF also performs the role of CDF when required and given this responsibility together with the numerous other functions encompassed by the VCDF role it would be difficult for any incumbent to provide the necessary close and sustained attention to the vital task of effectively staffing capability system definition and assessment.
- The widely accepted observation that Development Branch is chronically under resourced, particularly at the capability system development stage, with each Single Services being pre-occupied with their own capability development work and failing to provide the necessary levels of expertise to the Development Branch. This results in the capability definition phase being poorly executed in terms of data analysis, cost estimation, acquisition planning (with the MoD failing to provide sufficient resources here), introduction into service, through life support (including mid-life enhancements) and eventual disposal.

<sup>6</sup> Draft Master Capability Management Framework Version 3.1 p 12



- The two year posting process creates a high level of discontinuity, corporate memory loss and organisational competency issues. This generally results in key personnel being posted soon after they have become proficient in their roles thereby limiting the creation of capability experts with much needed specialist skills in what is typically a highly complex environment. This pervasive corporate memory loss destines organisations to repeat the same mistakes.
- The fact that Single Service organisations retain their own capability development teams which can overlap with and frequently undermine or duplicate the work of joint capability development within the NZDF.
- Capability trade-offs within the acquisition process are not transparent. This manifests itself in capability sacrifices being made at the Single Service level because of budget limitations rather than being addressed on a force-wide basis at the strategic NZDF level. The consequence is that trade-offs are not fully visible and understandable across the NZDF capability spectrum and the resultant impact on other Single Services has not been addressed in an integrated manner. Moreover, this lack of transparency spawns ill-informed decisions the costs associated with new capability projects, particularly when through life support cost implications are not fully recognised, analysed and quantified.
- Major and minor capability analysis and acquisition being separately managed with the consequent loss of visibility and potential operational and commercial efficiencies that this entails.
- Lack of a designated Capability Owner resulting in progressive loss of definition in capability over the various life-cycle phases
- Both the Defence Technology Agency and the MoD Acquisition Group (for reasons discussed later) have not been actively engaged in the early stages of the capability system acquisition process.

When viewed across both the MoD and NZDF environments, the striking reality is that there is no collective or holistic ownership and management of the capability life-cycle. This is particularly surprising given the relatively small size of the MoD/NZDF organisation and the resultant benefits that should otherwise be realised in terms of communication and effective management of strategically important issues. This lack of holistic focus is in part responsible for the challenges faced by the NZDF in the ongoing management of its capability over the next 20 years.

## 5.2 Lack of Capability Owner

Although the CME identifies and describes the role of the Capability Owner, in reality this role does not exist. The Capability Owner is fundamentally important in terms of the visibility and influence it can deliver across the CSL. Currently the CME allocates capability ownership for all elements to AC Dev. This is not realistic as AC Dev is neither owner nor user of the required capability. The Capability Owner must be a Service Chief or designated appointee.

The Capability Owner must be responsible to and reflect the interests of the end user and be accountable for a designated capability across its full life-cycle. The lack of a designated Capability Owner is a significant weakness within the NZDF capability management framework. It limits the ability to develop a fully integrated CSL management model with an improved quality across the through life capability system planning and acquisition process.

The role of Capability Owner is central to the good governance of the capability life-cycle as it provides the vital link with and represents the interests of the particular NZDF customer through the entire life of a capability project. Given its importance, the Capability Owner(s) is a member of the Program Management Steering Group (PMSG) discussed previously at Section 4.3.2.

### Recommendation 5-1

The concept of a Capability Owner should be implemented to represent the end user's interest through the capability life-cycle.

## 5.3 Capability Management Chronically Under-resourced

The Review Team considers that Capability Management is not viewed strategically within the NZDF organisation and is disparately managed across each of the three Single Services as well the Development Branch. The Single Services not only undertake elements of capability system planning associated with major capital acquisition but also undertake capability system planning associated with the minor capital acquisition program. This arrangement effectively constricts the joint capability development function of the resources it needs to effectively undertake capability system through-life planning. Currently there are 33 vacancies in the 71 posts in the Development Branch yet we understand there is in excess of 100 staff involved in capability development at the Single Service level. There are further shortfalls in the staffing of temporary postings to projects where specific single service expertise is required which is also a very significant contributor to the problems at all stages in the capability life cycle.

The Review Team was surprised at the lack of support provided to the Development Branch within the NZDF given its strategic importance. Single Services do not appear to regard the resourcing of the Development Branch with the best available staff as a priority compared to their own Single Service demands. It appears that the Single Services consider it essential to maintain their own capability development staff to support and substantiate the bidding process for financial appropriation and to rectify what is envisaged as degradation in capability that generally occurs during the dislocated acquisition process over which they have limited control or visibility. This is a direct by-product of the organisational separation between MoD and NZDF as well as between the CDF and the Single Services.

A merger between the Development Branch and existing Single Service capability development resources will provide the necessary resources and domain expertise. Development Branch is responsible for addressing the total cost of ownership, including personnel, training, in-service support, infrastructure, facilities and of course the mission system itself and accordingly requires strong skill sets to support these activities; recognising the specialised nature, some skill-sets would most appropriately be obtained from civilian sources. Technical risk analysis and management should be provided by the Defence Technology Agency. The multi-faceted nature of the activities associated with the Capability Development process, inevitably requires strong project management skills, processes and supporting tools to effectively manage the somewhat ambiguous nature of capability system life-cycle definition.

## 5.4 Merge NZDF Capability Development Activities

Given previous discussions, the Review Team considers that capability development activities of the Single Services and their associated resources in the major and minor capital environment should be merged with those of the existing Development Branch. This would realise a number of immediate benefits as follows:

- It would recognise the strategic importance of the joint capability development function to the NZDF and promote strategic prominence over Single Service interests which currently prevail.
- It would create the critical mass necessary within Development Branch enabling it to apply the appropriate resources to the vitally important informative phase of capability trade-off analysis, requirements definition and whole of life costing, resulting in significantly improved data output with which to better inform and develop the Through Life Capability Plan.

- It would significantly improve the visibility and transparency of the trade-offs in capability system options that are a necessary part of the capability system development process.
- It would provide the necessary linkage between major and minor capability system development and avoid the current scenario where unplanned shortfalls in major capability acquisition are shoe-horned into the minor capital program with the reduced visibility of overall program cost and the inability to determine true value for money outcomes.
- It would avoid role-duplication and overlap across the NZDF enterprise and promote additional synergies and possible head count savings that could be released back to the Single Services, or at the very least, used to properly resource the joint Development Branch.
- It would facilitate the development and maintenance of organisational competencies within a larger Development Branch that are less susceptible to resource churn resulting from the current posting cycle.
- Specific long term capability development issues that impact Single Services should also be considered in the joint environment, to allow proper analysis and consideration on a force-wide basis.

Capability planning must take account of, identify and dimension future information and communication technology (ICT) requirements. Similarly, proposed changes to the NZDF ICT architecture, platform and environment will need to be considered by the Capability Development Branch to assess possible impact on existing or proposed capability. The review team is not advocating that the ICT Group report directly to Development Branch, rather that a framework be established to ensure that the appropriate interchange of planning information occurs between both groups to ensure that the significance of ICT platforms is not overlooked or understated and harmonises with the NZDF capability requirements.

#### Recommendation 5-2

The existing resources associated with Capability System Development and minor Capital Acquisitions within each of the Single Services should be merged with those of the Development Branch in order to address the prevailing resource shortages. Development Branch should also be appropriately resourced with recognised skills-sets in cost estimation, project management and technical risk management.

### 5.5 Create New Role of Chief of Capability

Capability Development is fundamentally strategic to the NZDF and deserves the full time attention of a 2-star equivalent individual that reports directly into the CDF. It presently reports to the VCDF who, in addition, has a very broad range of other responsibilities in his role as deputy to the CDF. Given these numerous functions, it would be difficult for any VCDF incumbent to provide the requisite close and sustained attention to the vital task of capability definition and assessment. Elevation of the current AC Dev position to a 2-star equivalent and in the process creating the role of Chief of Capability Development would in turn elevate its importance and visibility within the NZDF organisation and chain of command and place it on a similar footing to the counterpart Single Service Chiefs. It would also provide the additional status and credibility needed to successfully execute this role in a joint environment. This position would then be able to provide the leadership of the NZDF's joint capability definition process as well as being responsible for management of the Long Term Development Plan. The Review Team considers that this rank is appropriate given the fundamental and strategic importance of capability development and is consistent with the relative status afforded to this role in other comparable jurisdictions such as Australia and UK.

Given the importance of building and retaining a requisite minimum level of skill sets and corporate memory, the Review Team recommends that the appointment be for a minimum of four years. While it is highly



preferable for the Chief of Capability Development to be sourced from a military background, in which case his deputy should ideally be a civilian, the overriding criteria for appointment should be the person most qualified for the role. In the event the Chief of Capability Development is a civilian, the corresponding second in charge should be a military appointment.

The Review Team also considers that the newly constituted Capability Development Branch should over time have a stronger civilian mix within the organisation. This would further assist in developing greater continuity, retaining corporate memory and the creation of recognised centres of excellence and technical competencies central to capability development.

### **Recommendation 5-3**

The existing role of Assistant Chief of Development should be re-designated as Chief of Capability Development at a 2-star equivalent reporting directly to the CDF. The term of appointment should be for a minimum of 4 years.

## **5.6 A new approach using a Through Life Capability Plan**

To overcome many of the stakeholder issues, the Review Team consider that there is a need for a comprehensive Through Life Capability Plan which identifies and records the key issues that are essential to the successful introduction and operation of any new capability. The plan will require regular review and endorsement by the Capability Board.

This Through Life Capability Plan is designed to provide a definitive record in a single document of the development of the project from inception to disposal. It is intended that the plan will dynamically follow the capability through each of its various life-cycle stages. It will provide the mechanism whereby the Capability Owner's requirements can be clearly expressed and will also establish the framework against which performance can be assessed.

A comprehensive through life document with a defined framework will provide the basis to capture the required information as well as establish an audit trail for future reference. This will provide a record that will assist all stakeholders to understand the history and intent of the capability. It will also establish the tool for integrating all components of the capability process and the basis for the introduction into service and through life support plans and estimates.

The Through Life Capability Plan will not be a static document, but will develop and mature as the details of the capability emerge. It will also be refined in particular areas as more reliable information transpires. Accordingly, each section should have an indication as to the robustness of content, particularly the financial section which will inevitably be a best-efforts estimate in the formative stages but will be progressively refined as the capability system definition matures and as cost fidelity improves.

Retaining prior versions of the document provides the required audit trail allowing external agencies to examine the progress of the plan, basis of decisions and estimates provided to stakeholders.

A suggested outline for the content of the Through Life Capability Plan is at Annex 3

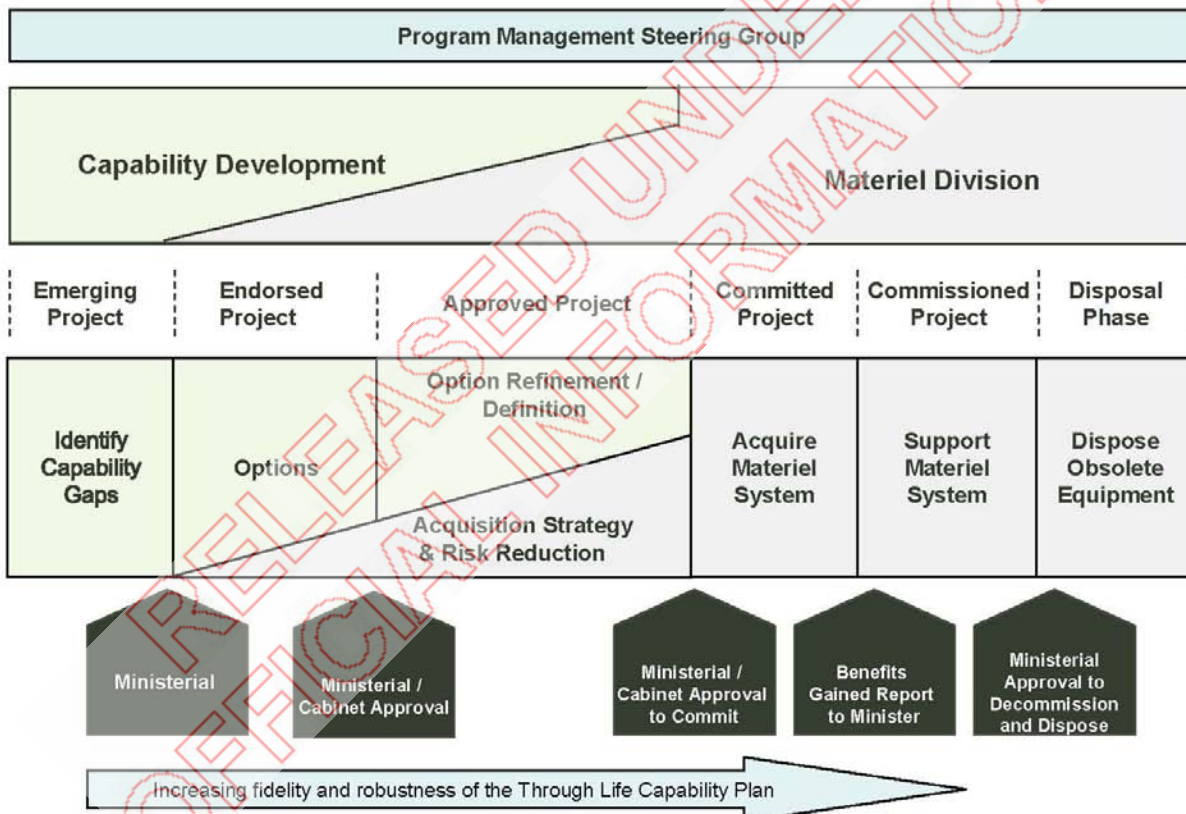


#### Recommendation 5-4

A Through Life Capability Plan is developed for all proposed capability system developments and acquisitions that will provide a clear set of objectives and critical success factors, a framework for management of the capability system, a transparent basis for accountability, a basis for reporting, an enduring corporate memory, and a mechanism for informed Ministerial overview.

### 5.7 The Relationship Between Capability Development and MoD Acquisitions

Consistent with the diarchy relationship existing between the CDF and Sec Def, the Review Team also considers that a similar relationship should exist between the newly designated Chief of Capability Development and a restructured MoD Acquisitions Division which as detailed in Recommendation 6-1, should be re-designated as the Materiel Division Under this relationship both organisations are inextricably linked to and responsible for the management of the CSL as illustrated at Figure 4.



**Figure 4:** Diagram outlining the Relative involvement of the Capability Development Branch and the Materiel Division during the capability system life-cycle. This diagram does not show the role of the capability owner who will still be responsible for the operation of the capability including logistics. (Note that while each stage of the project is identified using the standardized terminology the project itself is managed through its life cycle as a single project.)

Joint responsibility should be exercised in conjunction with the Capability Owner under the auspice of the PSMG as the program governance body responsible management of the CSL. This has a number of practical benefits, as follows:

- Chief of Capability Development still retains management control of the capability system requirements during the definition phase
- Management responsibility progressively shifts to the Materiel Division during the acquisition and introduction into service phases.
- Management responsibility for capability sustainment (through life support) and disposal progressively shifts to the end user following successful introduction service.
- There will be a single point of accountability for the performance of the project in the Project Director through out all phases of the Project.
- The Materiel Division will provide commercial support to the capability system across its life-cycle.
- Capability Development Branch will provide technical support to the capability system across its life cycle
- The capability system definition, acquisition and sustainment life-cycle (unlike the current arrangement) will be fully visible and accountable to the PSMG.
- The need for confidentiality agreements limiting the flow and visibility of vital information back to the end user will no longer be necessary.
- While there may be necessary changes to the identity of the Program Director and his project team managers throughout the three major phases of the capability life-cycle based upon the specific skill sets needed at the time, the governance reporting arrangements established through the PSMG will remain unchanged.

Underpinning this relationship should be a Capability Acquisition Memorandum (CAM). This document is derived from the Through Life Capability Plan and reflects a joint understanding between the Capability Owner, Capability Development Division and Materiel Division of the performance standards in terms of functionality, quality, cost and schedule that are required to be met by the designated Program Director in the delivery of the capability across its life-cycle. The performance of the Program Director should be judged against the performance requirements defined in the CAM.

This joint accountability model will also necessitate the Materiel Division being involved earlier in the capability definition process (see Figure 4 above) which will ensure that:

- the quality of the capability option(s) under consideration is enhanced through the provision of more reliable and realistic industry data;
- the appropriate acquisition strategy options are considered taking account of introduction into service and through life support implications;
- a thoroughly researched through life support plan is developed that will serve as the road-map and define project performance standards, critical success factors and govern the conduct of the capability system implementation and management over its life-cycle.

Under this governance model the Dep Sec Materiel and Chief of Capability Development, would be indirectly accountable to the Minister(s) for the CSL and be in a position to provide them with advice on capability issues as requested from time to time. For clarity day to day reporting responsibility is through the Capability Board to the Sec Def / CDF. This relationship is analogous to the Australian environment where the Chief of Capability Development and the CEO DMO also share a diarchy relationship exercising joint project governance over the capability acquisition process.

#### **Recommendation 5-5**

Given their re-defined responsibilities for the Capability Systems Life-cycle, a diarchy relationship between the Chief of Capability Development and the Deputy Secretary Materiel should be implemented. The Chief of Capability Development and the Deputy Secretary Materiel should also be indirectly accountable to the Minister for the management of Capability across the NZDF.

### **5.8 Managing Urgent Capability Acquisitions**

Discussions with a number of Stakeholders also identified a need for a simple rapid acquisition process that would cater for the closure of capability gaps that need to be addressed as a matter of high priority in a relatively short time frame. These capability requirements are either not included in the Defence Acquisition Plan or need to be brought forward because of operational or security imperatives. They essentially need to undergo a condensed and accelerated acquisition process and should be confined to off-the-shelf purchases of proven military or commercial equipment and technology from a trusted source, taking advantage of opportunities in production lines in order to minimise capability, cost and schedule risk.

The process for dealing with rapid acquisitions is already mentioned in the CMF but needs to be reviewed in the context of the revised Capability Life-cycle approval process detailed at Figure 3.

Such a process can and will place significant demands on the restructured Materiel Division which should be able to more effectively address these requirements given the significant increase in organisational critical mass recommended in Section 6 of this Review. The review team consider that with adequate resources the rapid acquisition system will not require special systems, just prompt processing and a recognition that potentially increased levels of cost and risk that may need to be closely managed.

#### **Recommendation 5-6**

The process of managing rapid capability acquisition projects needs to be reviewed to ensure that it is consistent with the Review Team's recommended revised Capability Life-cycle process.



## 6. Capability Procurement

### 6.1 Capability Procurement is Fragmented and Chronically Under-resourced

Procurement activity within Defence is currently dispersed across 5 separate organisations covering MoD Acquisition Group, the 3 Single Services which also undertake through life support contracting and Organisation Support. This fragmentation has resulted in a significant loss of critical mass, competitive advantage and negotiation leverage for the NZDF that otherwise could have been realised.

There is also no commonality of standards adopted or minimum levels of qualifications or experience expected to be able to perform these vitally important roles. In the case of the MoD Acquisition Group, the critical shortage in resourcing and required skill-sets is a particular problem.

During the course of the Review Team's interviews with stakeholders, there was almost universal agreement on the chronic shortage of personnel and skills capability within the acquisition environment. MoD Acquisitions Group has a totally disproportionate resource allocation i.e. 8 personnel required to manage large value complex acquisitions valued in the range of \$400 million per annum. The Review Team does however acknowledge that the quality of acquisition outcomes achieved within MoD Acquisition Group is surprisingly good given the state of its present level of resourcing and could not have been achieved without the personal commitment of a small core number of dedicated and experienced individuals within the present organisation.

Notwithstanding, there are significant organisational deficiencies within the MoD Acquisitions group which, if not addressed, have the potential to significantly impact value for money outcomes associated with individual large value capability system acquisition programs and also present a significant risk in achieving the longer term NZDF strategic capability objectives.

These organisational deficiencies can be categorised into two main areas.

#### 6.1.1 Personnel Issues

The MoD Acquisition Group has to cope with managing large value, complex capability system acquisition projects with a current contingent of only 8 core staff. While specific projects are supplemented with additional resourcing from time to time by secondments from the particular single service to which the project relates, such resourcing is frequently less than optimum both in terms of the quantity of personnel provided and the competencies of the individuals concerned. Secondees who are expected to occupy senior management roles within particular projects frequently have no previous experience or training in the project management and acquisition related skills needed to competently undertake the task. This necessitates a significant level of on-the-job training to bridge the competency gap which further dilutes the bandwidth of existing experienced staff to train these individuals. It also exposes the project to unacceptable levels of risk as these individuals traverse the learning curve. Seconded resources can also be unilaterally removed by the Single Service at the end of, or on occasion during their secondment without regard to or responsibility for any consequences on acquisition outcomes.

The lack of critical mass within such a small core group also creates significant issues in the inability to create a suitable professional career development structure. This has also created problems in corporate memory retention which, considering the age profile of the current core team, is likely to have a major detrimental impact in the next few years if not addressed.

Formalised competency-based training regimes do not exist within the acquisition division with training being undertaken on an ad-hoc basis with little regard to either personal or organisation specific skill sets. Similarly, formal project management qualifications or recognised experience are not regarded as a prerequisite to assuming project management responsibility for these complex programs.

### 6.1.2 Poor Project Management Culture

Given the size and complexity of the acquisitions being managed, the Review Team was surprised at the lack of any discernable project management culture. This is reflected in:

- The lack of any conventional project management tools, in particular those relating to scheduling, cost (Earned Value Management Systems), risk management, and life-cycle cost analysis.
- No regular formalised project review meetings other than through the existing ineffectual review committee structure.
- Lack of a standardised reporting framework and report content.
- Poor communication and feedback of issues from review committees.
- Lack of formal and integrated risk management procedures.
- Poor definition and clarity around authority and responsibilities of project managers.
- Difficulty in robustly managing and controlling contract variations.

Additionally, although very much mollified by the good will and strong interpersonal skills of the current Dep Sec Acquisition, there is still an obvious level of NZDF frustration at the overall performance of the Acquisition Division. The key area of concern relates to the primacy of adherence to budget at the expense of schedule and capability; the consequential impacts of which have to be met by Single Service users. Furthermore, the perceived lack of focus on schedule management promotes a lack of confidence in the ability of the MoD Acquisition Division to accurately predict or revise schedule forecasts.

Poor acquisition management can have both significant visible (in the form of project slippages and cost overruns) and invisible (in the form of poor negotiation outcomes that go undocumented) impacts on any organisation. Given the size and complexity of acquisition projects undertaken within the MoD, poor acquisition management has the very real potential to substantially negatively impact the NZDF's strategic capability acquisition objectives.

The fundamental cause of the organisational deficiencies inherent within the MoD Acquisition Group lies in the failure to recognise the strategic importance of a strong acquisition capability as an integral component of best practice capability management and that there has not been adequate investment to support this function to the extent required. This has manifest negative outcomes in the form of project slippages and cost overruns which are visible to the organisation and others such as poor negotiation outcomes and diluted value-for money which hitherto are generally un-documented.

### 6.1.3 Merge the Major and Minor Capital Procurement Activities Including Through Life Support under the Capability Acquisition Organisation

The current MoD/NZDF environment is characterised by a highly fragmented approach to capability procurement with major, minor capital as well as through life support procurement being undertaken by either the three Single Services or the MoD. Apart from the functional overlaps and inefficiencies that this entails, a major opportunity to extract more cost effective and better value for money outcomes is otherwise lost through such a decentralised and fragmented approach. Kinnaird<sup>7</sup> identified that more than two-thirds of the capital acquisition cost is normally spent in sustaining the mission system throughout its life of type. This figure is a conservative estimate and is substantially higher for major maritime capability sustainment. As a consequence, the current approach of separately acquiring the mission system and through-life-support capability by different acquisition groups, at different stages of the procurement cycle does not derive competitive advantage and

<sup>7</sup> Kinnaird Malcolm, AO, Defence Procurement Review 2003 p6

heightened value-for-money outcomes that could otherwise be achieved if the acquisition process addressed both the mission system and sustainment as a combined system.

The total value of projects under management between MoD Acquisitions and the three Single Services currently exceed \$1.4 billion. This does not include the value of project expenditures committed under the JLISO initiative which the Review Team considers should be left to be managed separately.

Value-for-money outcomes could be significantly enhanced through:

- Merging the resources that are currently dispersed across the organisation into one larger capability acquisition group.
- Taking advantage of the significantly enhanced commercial advantage which would arise from the substantially increased value of acquisition budget under centralised management and the consequent ability to adopt a more strategic view of the NZDF's capability systems acquisitions program.
- Negotiating through-life-support contractual arrangements at the same time as negotiating the capital acquisition arrangements:
  - Takes advantage of the negotiation leverage available during the capital acquisition phase;
  - Would result in a significantly improved outcome in terms of the vitally important whole of life cost envelope;
  - Avoids the present commercial exposure where value for money outcomes are significantly diminished by negotiating through life support arrangements some time after initial source selection.
  - Ensures that the required Capability is able to be cost-effectively sustained over the projected life of type.

#### **Recommendation 6-1**

Capability procurement under both the Major and Minor Capital Acquisition programs should be merged under a newly designated MoD Materiel Division. This merger should also include responsibility for procuring the Through Life Support (sustainment) arrangements which should be negotiated as an integral part of the Capital Acquisition.

This merged Materiel Division should be responsible for all Capability Acquisition in excess of \$1 million including the acquisition of IT Systems that perform military applications. All remaining procurement associated with non military and minor capital military expenditure under \$1 million should be handled by the existing Organisation Support Group. Figure 5 illustrates the proposed reallocation of procurement responsibilities.



## Reallocation of NZDF Procurement Responsibilities

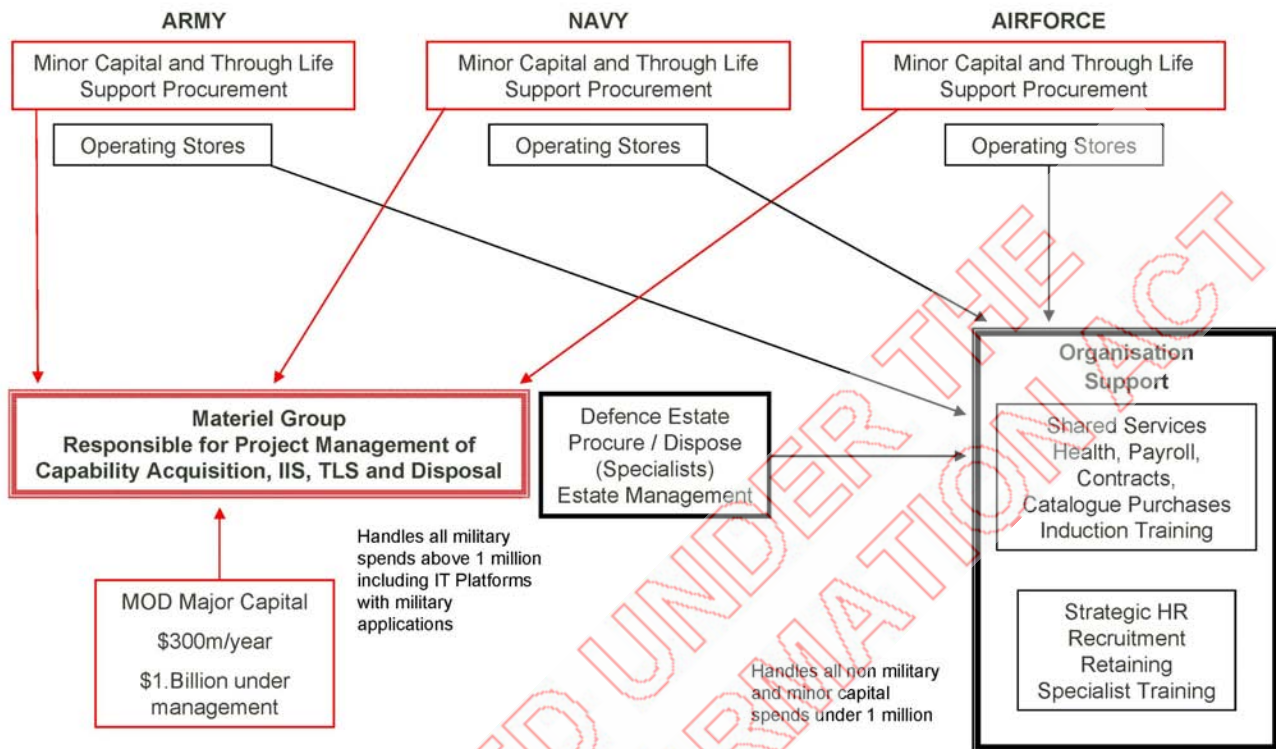


Figure 5: Diagram illustrating the reallocation and consolidation of procurement responsibilities

### 6.1.4 A New Centre of Excellence

The proposed merger of the four disparate capability acquisition groups into the new Materiel Division provides the opportunity to establish a centre of excellence for capability acquisition within Defence. The newly merged Materiel Division will need to focus on the development of the crucial range of skill sets relating to capability system acquisition and management. These competencies not only deal with developing a necessary enhanced level of procurement and contract management expertise but more importantly an overarching program management culture and discipline that will underpin Defence's capability acquisition and management capability. Under this model the prime focus needs to be on program management as a centre of excellence under which, as identified in Figure 4, all elements of the capability acquisition life-cycle including needs analysis, capability definition, procurement, introduction into service, through life support and disposal are controlled within a standardised program management environment.

Under this scenario, which corresponds to the Australian DMO model, the focal point of capability acquisition is the Program Director. The Program Director assumes holistic management responsibility for a given capability acquisition program covering, integration, scope, schedule, cost, quality, human resource, communications, risk and procurement management. He also becomes responsible for managing and integrating the process of review within the NZDF and by external agencies. The overall program is controlled using recognised project management principles and practices across each stage of the capability life-cycle.

Procurement activity, although still strategically important, is but one of the components within the overall CSL. Fundamental to the success of this new organisation will be the development of a strong program management culture that focuses on the three key areas of schedule, financial and technical risk. The organisation will also need to foster the development of a range of skill sets covering minimum competency standards across the

areas of project management and large complex procurements. This should be done under the umbrella of a formalised training program incorporating minimum competency standards. In the absence of these skill sets being available in the short term, greater use should be made of external specialists, ensuring that appropriate technology and skill transfer obligations are specified in the contractor agreement.

It is fundamental that this new Materiel Division is responsive and accountable to the needs of the Capability Owner(s) and the newly designated Chief of Capability Development. This accountability should be in the form of a Capability Acquisition Memorandum (CAM) which would detail the performance standards and critical success factors to be achieved. This will establish the baseline against which the Deputy Secretary Materiel, and related Program Directors, will be measured and held accountable for the results achieved during the acquisition phase.

Given the broader responsibilities associated with this new organisation, it should be amalgamated under the auspices of the Deputy Secretary Materiel and designated as the Materiel Division, in recognition of the significance that this title has in other equivalent jurisdictions.

The Deputy Secretary Materiel role should be recognised as a 2-star equivalent position to align with the counterpart Chief of Capability Development. These two positions share joint responsibility for the management of the Capability System Life-cycle together with the Capability Owner under the aegis of the PSMG.

The merged resources to undertake all major and minor capital acquisition programs together with through life support and disposal under a single integrated organisation will deliver the following significant benefits:

- Increased competitive advantage achieved through a consolidated approach to the market.
- Creation of a centre of excellence for complex capability acquisition within the NZDF.
- Head-count savings that would be realised by eliminating role duplication and functional overlap which is a feature of the current system.
- Creation of significant organisational synergies as a result of application of standardised procedures and systems.
- Creation of the necessary critical mass relative to the size of the organisation and its enhanced ability to flexibly and appropriately apply resources to areas of strategic importance, including the ability to accommodate rapid acquisition on a timely basis.
- Enhanced corporate memory which promotes the environment for continuous improvement.
- Creation of a career path with improved opportunities for professional development.

An essential element supporting this initiative will be the development of a realistic budget that will be needed to underpin these initiatives over an extended timeframe.

#### Recommendation 6-2

A new centre of excellence for acquisition should be established under a newly formed MoD Materiel Division. This will require a significant investment in:

- Establishing and nurturing a robust program management culture within the group, supplement by standard project management principles, processes, procedures and tools.
- Development of recognised competency based training regimes linked to professional career path development within the organisation.

- These competency based training programs should cover accepted project management disciplines but also more specific procurement skill sets and competencies
- Implementation of recognised qualifications as a pre-requisite for assuming Program and Project Management responsibility for Capability acquisition; such pre-requisites being either project management qualifications or recognised skill-sets gained from experience on equivalent programs.
- Where recognised project management skill sets for particular acquisition programs may be lacking, Materiel Division should source the required competencies from external contractors pending the training or recruitment of MoD/NZDF resources.

#### **Recommendation 6-3**

A realistic and appropriate budget should be allocated to achieve the objective behind these recommendations. Funding could be sourced in part from potential head-count savings.

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## 7. Financial Management

### 7.1 Basic Characteristics

Financial management across the MoD/NZDF organisation is as dispersed and fragmented as the procurement environments they support. Total capital plant in terms of specialized military equipment managed by the NZDF is reported as over \$NZ 3.8 billion. Expenditure on capability acquisition and development is approximately \$830 million per annum and is divided across the MoD (\$350 million), the 3 Single Services (\$300 million) (estimated) and the Joint Logistics Support Organisation (\$180 million). There is currently approximately \$900 million in capital acquisitions, mostly under direct management by MoD that is recognised in the Statement of Commitments for NZDF as at 30 June 2009.<sup>8</sup>

### 7.2 Separately Managed Financial Systems

The MoD and the NZDF each have their own financial and management information systems and as a consequence, personnel in one area are not able to gain the full benefit of information held in the other system. From the stakeholder interviews conducted, it was abundantly clear that the two systems are significantly different, operate on different platforms, and can neither share information nor import reports across the system boundary. As a result, essential data needed by the NZDF to manage capability across its life-cycle is gathered and collated manually by the MoD and passed to NZDF for manual entry into their system. This is a resource intensive process and creates the potential for errors in data translation.

It is understood that the reason for the separate systems is based on the need to adopt independent financial management and reporting systems however, the convergence of these systems under the auspices of the merged governance arrangements as proposed in Section 2 should be a priority. The Review Team considers that although both organisations may need to manage separate financial systems in order to comply with government mandated reporting requirements, given the acknowledged need to operate in a merged environment, both organisations should operate from a common financial management platform. This would facilitate more effective interchange and visibility of key capability life-cycle data.

In addition to separate financial management systems within the MoD and NZDF, the Review Team also noted disparate reporting systems between the 3 Single Services and the CDF organisation. Each Single Service has its own financial controller and financial management team and as a result, the NZDF CFO has little visibility of, or control over, the financial operations of the Single Service components.

Holistic management of the Capability Life-cycle will not be possible without both organisations being able to effectively share basic financial data relating to capability system acquisition, sustainment and disposal.

<sup>8</sup> Annual Report 2009 New Zealand Defence Force

### Recommendation 7-1

The MoD and NZDF should adopt a common financial management platform with the following characteristics

- An appropriate level of integration, reporting and access to financial information across the entire capability life-cycle, taking the separate statutory reporting requirements into account.
- An appropriate level of integration, reporting and access to financial information across the entire capability life-cycle, taking the separate statutory reporting requirements into account.
- Access to historical operating and vendor data which can be used by the Capability Development Branch to more accurately compile and project the total cost of ownership for any given capability.
- A project-based financial reporting function that will support the management of scope variation which is an essential component in value-for-money assessments.
- A work breakdown structure (WBS) based project reporting system that allows aggregation within each capability program and the entire portfolio.

## 7.3 Variation Management

A well controlled and formally documented variation management process that addresses technical, schedule, benefit and cost impacts is an essential element of successful procurement. The current variation management system is essentially an adversarial process which spans the two organisations. Development of the capability system and the requirement to incorporate modifications to leverage technological advances, adjust financial or operational aspects or resolve ambiguities or omissions conflicts with the Acquisition Division's imperative to deliver against the approved budget. There are no incentives to cooperate in the resolution of capability issues.

This aspect of the current procurement system seems to have been tolerated by the Single Service users as they have been able to mitigate some of the major inefficiencies by incorporating post-acquisition modifications funded through their respective minor capital program. Post-acquisition modifications are an inefficient process and result in sub-optimal outcomes however it would appear that this approach has become an accepted standard operating practice within NZDF. Furthermore, because there is no mechanism to capture, correlate and aggregate the post-acquisition modification costs (including personnel costs) incurred by the Single Services with the cost of initial capital acquisition by the MoD, the true cost of capability has not been identified, making it extremely difficult to assess the extent to which the Defence enterprise has achieved value-for-money.

### Recommendation 7-2

All variations to the capability system as defined in the Through Life Capability Plan must identify technical, benefit, schedule and cost impacts across the full capability life-cycle and be referred to the PMSG for approval.

## 7.4 Risk Management

The process of risk identification, allocation and management has been formally implemented in accordance with AS/NZS 4360 but does not appear to the Review team to have become an intrinsic and influential element of the program management framework, and the benefits of the system did not seem to be realised. There was general agreement that the assessment of technological risk was weak, particularly in regard to advances in technology. This could be resolved by greater involvement of the Defence Technology Agency throughout the process which would, as a consequence, drive increased process accountability for the technical elements of the delivered capability system.

The State Services Commission offers two tools that are intended to improve risk management and reduce risk. The first of these is the Gateway Process which could be applied within the existing acquisition environment. However the Review Team suggests that a detailed analysis be undertaken before wholesale adoption of this process. It is heavily reliant on the experience and knowledge of the Gateway reviewers and, unless such reviewers understand the complexities of military procurement, the effectiveness of the process may be significantly reduced.

The State Services Commission also offers and promotes quantitative risk assessment as a tool to improve risk and project management within government organisations. Quantitative risk management forms a useful framework in being able to apply statistical modeling techniques to derive probabilistic rather than deterministic projections of cost and schedule and to establish required contingency provisions which are reflective of the risk profile. While it can be argued that quantitative risk management is only truly effective when there is sufficient corporate and market experience to allow credible definition of the statistical distributions required, it is considered that such a process should be progressively adopted as an integral part of the program management process. It is suggested that basic and conventional statistical distributions be used in the first instance and as the corporate and market information matures, the process gradually adopt more accurate and representative statistical distributions.

### Recommendation 7-3

It is recommended that the importance of the Risk Management process be emphasised for all major acquisitions and that a well founded quantitative risk management be progressively introduced as an integral part of program management framework.

## 7.5 Other Observations

During discussions it became clear that there were a number of aspects related to the financial control system that appear to be generating behaviors around procurement that are leading to sub optimal solutions.

For example we understand that considerable effort is put into ensuring that the cash funded for depreciation each year is fully expended. While it may be appropriate, we saw no evidence of the creation of reserve funds for foreseeable major expenditure such as midlife refits, upgrades or overhauls, or major platform replacements. With a very large cash flow around depreciation this may not be a financial issue, but it does seem to the Review Team that it is currently not given sufficient attention, and may be part of the reason for a lumpy and often unbalanced procurement program. It appears from examination of some business cases that issues such as mid life upgrades and other major refits are missing from planning processes, and there is a strong possibility that issues that should be subject to rigorous investment analysis are instead melded into operational expenditures.



## 8. Related Issues

### 8.1 Defence Technology Agency

The Defence Technology Agency (DTA) consists of some 120 scientists and technical specialists whose function is to provide high level technical advice to the New Zealand Defence Force. The DTA is part of the operational support structure and is based in Auckland. Its role is to assess emerging technologies and development trends, to identify their likely impact and to evaluate whether such technologies can be effectively incorporated into the New Zealand Defence Force.

Discussions with stakeholders indicated that the majority of the work currently undertaken by the DTA is centered on resolving technical issues which arise during procurement process. This is not considered a cost-effective use of the technical resources and is a cause of considerable frustration particularly as some of the issues could either have been avoided or resolved much more effectively had the DTA been involved at an earlier stage of the CSL. Furthermore, it also diverts resources from research activities which would otherwise increase the DTA's knowledge and appreciation of emerging technologies.

The Review Team considers that analysis and management of technological risk is a critically important function in capability development process, given that technology half-life is now quite short. In the situation where a major project may span many years between concept and implementation and be in service for several decades, it is important to ensure that technologies which are about to be superseded are not specified and that emerging technologies, which may soon become affordable and mainstream, are not prematurely rejected.

A considered approach is required to derive the optimal approach which balances cost, schedule and technological risk over the CSL. Early involvement by the DTA would certainly add robustness to the process. The recommended governance framework reflects this approach with the DTA Chief Scientist being nominated as a member of the advisory panel to the Capability Board and DTA representatives also nominated as advisors to the PMSG.

The Review Team considered that the current DTA cost recovery arrangements could present an unintentional disincentive for their engagement by Capability Development during the early stages of capability definition process. If this is the case, DTA costs for participating in the capability system acquisition process should be specifically identified and provisioned accordingly as part of formulating the budget.

#### Recommendation 8-1

The DTA Chief Scientist should be a nominated advisor to the Capability Board. Representatives of the DTA organisation should also be nominated advisors to the PMSG on as required.

Funding arrangements should be reviewed to ensure that DTA cost for participating in the capability acquisition process are specifically identified and provisioned.

### 8.2 Defence Estate

Consideration of the Defence Estate and its relationship to procurement formed part of the Review Team's Terms of Reference.

The acquisition and disposal of Defence Estate is a specialised operation carried out by a small team. The primary activities relate to the disposal of surplus real estate, which is a lengthy and complicated procedure significantly affected by matters such as Waitangi Tribunal claims, and the Resource Management Act. This team is essentially self-contained, and could operate in any part of the NZDF organisation.

While the garrison support services can on occasion involve significant capital expenditure, the contracting environment in which they work is primarily civilian. On that basis the Review Team recommend that the

Defence Estate function be incorporated into the existing NZDF Organisation Support Group. The need for continued close consultation between Defence Estate and Capability Development remains, given that the two activities are closely linked and new capability typically requires modifications or additions to the assets managed by the Defence Estate.

#### **Recommendation 8-2**

The Defence Estate function should be relocated within the NZDF Organisation Support Group.

### **8.3 Gateway Review Process**

The State Services Commission is currently proposing that government organisations with significant capital development programs implement the Gateway review services that they offer.

The Gateway review process is a structured system whereby project teams are reviewed by independent experts at predetermined stages of the project process. These experts explore the depth of analysis that has been done to date on the project, review conclusions, and discuss next steps. Although the process is a structured one, it depends on the experience and expertise of the Gateway reviewers and there is some question as to whether the process will be cost-effective in a high-technology military environment.

The review team discussed the Gateway review process with the State Services Commission. The review team consider that the Gateway review process is a valuable tool which could be useful as part of the capability development and procurement process, but do not consider that, of itself, the Gateway review process is a solution to the more fundamental problems that presently exist within the MoD and NZDF capability acquisition environment.

Consideration of the implementation of a Gateway review process should only be considered by MoD/NZDF management following the completion of implementation of the initiatives recommended in this report.

### **8.4 Ministry of Economic Development Procurement Programme Impact**


The Ministry of Economic Development (MED) has recently begun a government wide review of procurement. The intent of this review is to consolidate procurement of standard supplies to centres of procurement expertise that will allow purchase of those supplies on a whole of government basis.

The MED procurement review is interfacing with the New Zealand Defence Force procurement system, but is more relevant to supply contracts managed by the Joint Logistics Support Organisation than to the procurement of major specialised military equipment.

The Review Team consider that while the New Zealand Defence Force should participate fully in this review, this initiative does not impact the Review Team's recommendations.

### **8.5 Defence Transformation Plan Implementation**

The NZDF has already initiated the Defence Transformation Program (DTP) with a view to creating significant operating cost savings. The DTP will inevitably involve significant organisational change and will likely occur at the same time as organisational changes recommended by this Review take place.



This is likely to impose significant strains on the organisation and its personnel. To be successful, change will have to be managed carefully and communicated clearly to minimise organisational stress. Furthermore, the funding and resources associated with effective change-management should not be underestimated. The Review Team notes that the nature of changes likely to occur as a result of the Review and the DTP are substantially different; while the two processes must communicate with each other, the two change programs should be separately managed.

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## 9. Change Management

An effective and comprehensive organisational change management strategy will be pivotal to the successful implementation of the Review Team's recommendations.

Introduction of the recommendations of the Review Team will involve significant and complex organisational change across both the NZDF and MoD environments. The changes will involve significant levels of resource reallocation, rationalisation, organisational restructure, legislative changes, changes in management information and control systems and training and up skilling. The changes will in turn have to be supported by an underlying adjustment to the organisational culture of the two organisations including the Single Services in order to effectively inculcate the necessary attitudinal change in organisational thinking. The complexity and size of such a task should not be under estimated.

As such the importance of a dedicated change management team that is not encumbered by business as usual responsibilities will be fundamental to the success of the initiative. These changes will require detailed definition, scoping, agreement and scheduling of a broad array of initiatives in support of the implementation of these recommendations.

Key activities associated with the change management initiative will be the development and management of a range of plans and documentation covering:

- Stakeholder Management Plan
- Communications Plan
- Transition Plan

Development of well researched and comprehensive stakeholder, transition and communication plans are essential ingredients in maximising successful outcomes in environments undergoing significant change such as will be the case on this occasion.

In addition the change management team needs to be inextricably linked with both the Minister and senior executive elements of the MoD and NZDF organisations to ensure a seamless interface and implementation of the agreed objectives.

The Review Team would strongly recommend that the change management group be led by a suitably experienced independent organisation with relevant domain knowledge of the MoD/NZDF organisation and culture. It should also have seconded to it representatives of key stakeholder groups in order to ensure that the important interests of those stakeholders are not overlooked during the change management implementation phase.

### Recommendation 9-1

A full time Project Team should be established to oversee and coordinate the required change management initiative. The Team should be led by a suitably experienced independent organisation with relevant domain knowledge of the MoD/NZDF organisation and culture. The Project Team should also have seconded to it representatives of key stakeholder groups.



## Annex 1

### Terms of Reference for the Review of Defence Procurement

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# Annex 1

## Terms of Reference for the Review of Defence Procurement

The review will need to examine and make recommendations to the Secretary of Defence on:

- Government and stakeholder requirements and expectations of Defence capability acquisition and development, including the application of Government procurement rules and guidelines;
- the governance, management and decision-making functions required for Defence procurement with reference to international defence and commercial practice, and how these can best be structured and resourced within the NZ defence context, including any legislative implications;
- how and by whom these processes can best be performed in a cost effective and efficient manner;
- whether a change programme is required to achieve the recommended structure and processes, and how this might be effected, and
- any other aspects of Defence capability development and acquisition.

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## Annex 2

### List of Stakeholders Interviewed

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## Annex 2

### List of Stakeholders

### List of persons interviewed during the course of the procurement review

The Honourable Wayne Mapp	Minister of Defence
The Honourable Heather Roy	Associate Minister of Defence

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## Annex 3

### Suggested Outline for the Through Life Capability Plan

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## Annex 3

### Suggested Outline for the Through Life Capability Plan

The Through Life Capability Plan (TLCP) is designed to provide a definitive through life document that will record the development of the project from inception to disposal. It is intended that the document will follow the capability through its lifecycle. It will provide the end user and his representative the Capability Owner the vehicle to express their requirements and also provide the framework against which the various project teams responsible for particular elements of the Capability Systems Lifecycle will be assessed for performance.

The TLCP will not be a static document, but will develop as the details of the capability emerge. It will also be refined in areas as more robust information comes to hand. To that end each section should have an indication of the robustness of the content. Particularly the financial section which will inevitably be a best efforts estimate in the early stages, and which initially probably contain target budgets based on the perceived value of the capability rather than estimates, these budgets remaining visible for future comparison of financial performance.

By retaining an audit trail of prior revisions both internal stakeholders and external agencies will be able to examine the progress of the TLCP and the basis for the decisions made.

The document should incorporate at least the following components:

#### Commander's Intent

This would be a concise expression by the Force Commander describing the capability that is required to be delivered. While this statement may be revised over time, it is seen as the fundamental statement and definition of the capability to be delivered. It would be the foundation of the development of the more detailed requirements of the capability. It will be equally important to specify what is not required in addition to what is required in this section.

#### The Concept of Operations

This should be a conceptual description of the operations that will be undertaken by the users of the capability. This document will provide basic information for the development of functional specifications, and also provide a foundation for the development of introduction into service and through life support plans. Issues such as required manning levels, logistical support, maintenance requirements, support infrastructure and consumable supplies should be able to be developed from the information in this section.

#### Acquisition Strategy

The section would include the analysis behind the proposed acquisition strategy to ensure that maximum value for money is achieved. The acquisition strategy would review paths to market, examine potential limitations in access to technologies and linkages between the capital purchase and through life support phases of the capability life. This section would also consider if there were viable alternatives to a straightforward purchase such as leasing or some form of alliance or partnership. The strategies outlined would provide one basis for the evaluation of the performance of the acquisition team.

## Functional Specification

The functional specification is where the conversion of the policy objectives into capability requirements takes place. The functional specification section of the document should be the area where the detailed development of operational concepts allows potential system alternatives to be developed and assessed. The intent of the functional specification is not to reach a hardware-based solution unless the acquisition strategy determines that there is only one preferred solution.

The functional specification will form the basis of any proposed acquisition strategy.

## Introduction Into Service Plan

The section of the document, although initially lacking detail, would develop in response to the increasing robustness of the relevant capability data. As the requirements become better defined through development and refinement of the technical and operational aspects of the capability this section would expand to provide the detailed plan under which the capability is introduced into service. This plan will contain the detailed planning for the interfaces with resourcing, defence estate, logistics, training, sustainment, maintenance and other operational requirements to ensure the capability system is fully functional from as early as possible in its life cycle.

## Through Life Support Plans

The section will outline strategies for cost-effective through life support of the proposed capability system. This would include not only sustainment of the capability but also requirements for refits or mid life upgrades. The effect of the capability system on the Defence Estate and the infrastructure required to support the capability system would be analysed and the consequences reflected in the other sections as appropriate (eg financial projections, manpower planning etc)

## Through Life Financial Projections

The section would include a comprehensive financial projection for the life of the capability system including estimates of the cost of capability development, the capital cost of purchase, running costs including spares and maintenance, any required investment in infrastructure, personnel costs, and end of life disposal costs. Robustness of data within this section will improve with the growing maturity of the capability, particularly following market input as determined by the acquisition strategy.

This section should provide a single point of reference for all base financial data associated with the capability.

## Capability Acquisition Memorandum (CAM)

Although forming part of the TLCP this document should be used to define outcomes required from the capability acquisition process. The CAM is essentially an agreement between the Capability Owner and Capability Development that defines the performance standards of the Materiel Division in acquiring and delivering the capability system. The CAM will draw on the critical success factors identified in other sections of the Through Life Capability Implementation Plan and will not only provide clear guidance as to what is to be achieved, but will also provide a framework against which the performance of the Project Director and his team can be evaluated.





**Annex 4**  
List of Acronyms



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## Annex 4

### List of Acronyms

ACQ	Acquisition Group
CAM	Capability Acquisition Memorandum
CDF	Chief Defence Force
CDS	Chief Defence Staff
CMF	Capability Management Framework
Dep Sec A	Ministry of Defence Deputy Secretary Acquisition
Dep Sec P&P	Ministry of Defence Deputy Secretary Policy and Planning
Disp	Disposal
DTA	Defence Technology Agency
ECB	Executive Capability Board
ICMC	Integrated Capability Management Committee
IIS	Introduction Into Service
MoD	Ministry of Defence
MoD-A	Ministry of Defence – Acquisition Division
NZDF	New Zealand Defence Force
PMSG	Program Management Steering Group
Sec Def	Secretary of Defence
TLCP	Through Life Capability Plan
TLS	Through Life Sustainment or Support
WBS	Work Breakdown Structure



## Annex 5 Bibliography

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## Annex 5

### Schedule of Documents Consulted and Reviewed

Defence Review 09: Procurement of Defence Capability: An Issues Paper  
ELT DTP Steering Committee Pack  
Defence Act 1990  
Final Report Defence Capability and Resourcing Review February 2005  
The Defence Sustainability Initiative: Building a Long-Term Future for the New Zealand Defence Force May 2005  
Defence Portfolio Briefing to the Incoming Government 2005  
Ministry of Defence Statement of Intent 1 July 2009 30 June 2012  
Annual Report 2009 New Zealand Defence Force  
The Gateway Process Manager's Checklist  
A Number of NZDF Business Cases and Investment Proposals  
Hunn Review: Cabinet paper 2003  
Review of Accountabilities and Structural Arrangements between the Ministry of Defence and the New Zealand Defence Force: DK Hunn (the Hunn report)  
An Analysis of the Cost Estimations of Defence Acquisitions: SCA Working Paper December 2008  
Time to Completion of Defence LTDP Projects SCA Working Paper May 2009  
Report of the Review of the Safety and Functionality of HMNZS Canterbury (Coles report)  
Several evaluation division reviews of a number of projects  
Review of Value Governance of Four CIS Projects Fujitsu Consulting  
Reporting the Progress of Defence Acquisition Projects Office of the Controller and Auditor General June 2008  
Ministry of Defence and New Zealand defence Force: Further Report On the Acquisition and Introduction Into Service of Light Armoured Vehicles: Office of The Controller and Auditor General 2004  
Report of the Office of the Controller and Auditor General on the Ministry of Defence Acquisition of Light Armoured Vehicles and Light Operational Vehicles August 2001  
The Defence Difference Simon Smelt 2008  
Defence Sustainability Initiative Review 2007 Final Report Simon Smelt  
The New Zealand Defence Capability Management Frameworks Version 3.1  
Enquiry into Defence Beyond 2000  
New Zealand Defence Resource Management Review 1988 Strategos Consulting Ltd (Quigley Review)

Replacement NZDF Helicopter Capability Projects Evaluation Division May 2008

Australian Government Department of Defence: Defence Capability Development Manual 2006

Australian Government Department of Defence: Defence Materiel Organisation Major Projects Report 2007 2008

Australian Government Department of Defence: DMO Acquisition and Sustainment Manual 2007

Kinnard's Procurement Review 2003: Australian Government Department of Defence:

Going to the Next Level: The Report of the Defence Procurement and Sustainment Review (The Mortimer Review)

Australian Government Department of Defence: Strategy Planning Framework Handbook

Defence Logistics Transformation Program Handbook Defence Equipment and Support UK Ministry of Defence

Various summary reports from Canada, Singapore, the UK Ministry of Defence and the House of Commons Defence Committee

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