HON ANDREW LITTLE, MINISTER OF DEFENCE

New Zealand Defence Force: Information Management Programme

October 2023

This paper has been proactively released.

This paper seeks approval to initiate a comprehensive programme of work to rectify serious issues with the New Zealand Defence Force Information Management capabilities, which requires no Cabinet-approved investment to commence.

The pack comprises the following documents:

- July 2023 Cabinet Government Administration and Expenditure Review Committee Minute of Decision *New Zealand Defence Force: Information Management Programme* [GOV-23-MIN-0029]; and

- The associated Cabinet Paper *New Zealand Defence Force: Information Management Programme*.

Information has been withheld in accordance with:

- section 9(2)(b)(ii) of the OIA*: to protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied the information;*

- section 9(2)(f)(iv) of the OIA: *to maintain the constitutional conventions for the time being which protect the confidentiality of advice tendered by Ministers of the Crown and officials;*

- section 9(2)(g)(i) of the OIA: *to maintain the effective conduct of public affairs through the free and frank expression of opinions by or between or to Ministers of the Crown or members of an organisation or officers and employees of any public service agency or organisation in the course of their duty;* and

- section 9(2)(j) of the OIA: *to enable a Minister of the Crown or any department or organisation holding the information to carry out, without prejudice or disadvantage, negotiations.*

In addition, the Business Case has been withheld in full in accordance with the above sections of the OIA. The public interest is met with a summary of the key information that formed the basis of Cabinet's decision to invest this funding being provided by the Cabinet paper.

Cabinet Government Administration and Expenditure Review Committee

Minute of Decision

New Zealand Defence Force: Information Management Programme

Portfolio	Defence

On 27 July 2023, the Cabinet Government Administration and Expenditure Review Committee:

1   **noted** that:

    1.1   the report of the 2020 Government Inquiry into Operation Burnham and related matters identified systemic issues with inadequate information storage and retrieval processes, and transparency and accountability of the NZDF to the New Zealand public;

    1.2   the 2021 Expert Review Group Report on the Government Inquiry into Operation Burnham and related matters endorsed the Information Management Programme as a mechanism to prevent a repeat of these failings;

2   **noted** that the benefits of the Information Management Programme (IMP) are improved information management that ensures the right information is provided to decision makers, in a timely manner, increasing trust and reducing risk in decision making;

3   **noted** that the programme case considered a range of options before selecting the Information Foundations plus Military Operations Enhancement option as the recommended way forward, based on the best combination of cost, benefits, and risks;

4   **noted** that the IMP is split into three cohesive tranches over a five-year period;

5   **noted** that the recommended way forward has an estimated whole-of-life cost of s.9(2)(j) including contingency over a five-year period commencing in the 2023/24 financial year comprising:

    5.1   capital expenditure of s.9(2)(j) covers investments in technology and increases in external personnel costs;

    5.2   operating expenditure of s.9(2)(j) covers increased technology costs (maintenance of document management tools and data management, warehousing, visualisation tools) and external personnel costs;

6   **noted** that the NZDF plans to fund Tranche Zero of the programme from baseline in FY23/24;

7   **noted** that the NZDF plans to fund the capital elements of the programme, totalling an estimated   s.9(2)(j)   of the proposed investment, through internal prioritisation of its current baseline funding;

8   **noted** that the NZDF will also contribute   s.9(2)(j)   operating expenditure for the duration of the programme from current spend on Information Management;

9   **noted** that the NZDF will return to Cabinet seeking approval to invest prior to commencing Tranches One and Two, and seek any required funding uplifts through future Budget processes;

10   **agreed** to the option recommended by the Information Management Programme Business Case – Information Foundations plus Military Operations Enhancement – based on the best combination of cost, benefits, and risks;

11   **agreed** to initiate a five-year programme of work that will rectify serious deficiencies in the NZDF's ability to manage its information, and ensure personnel have access to, and use, trusted, accurate and timely information whenever and wherever it is needed;

12   **agreed** that the NZDF can progress Tranche Zero of the IMP.

Vivien Meek
Committee Secretary

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Present:
Hon Grant Robertson (Chair)
Hon Jan Tinetti
Hon Andrew Little
Hon Dr Deborah Russell

Officials present from:
Office of the Prime Minister
Officials Committee for GOV

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Office of the Minister of Defence

Chair, (GOV) Cabinet Government Administration and Expenditure Committee

Information Management Programme

Proposal

1. I seek approval to initiate a comprehensive programme of work to rectify serious issues with the New Zealand Defence Force (NZDF) Information Management (IM) capabilities, which requires no Cabinet-approved investment to commence.

2. The Information Management Programme (IMP) responds to two Government Inquiries that identified the IM issues present in the NZDF.

3. The IMP will improve people, process, and technology IM capabilities that are inhibiting the NZDF from managing its information and data effectively including meeting its legislative responsibilities to New Zealanders, and operating in a substantially more challenging and complex, information-rich, digital military environment.

Executive Summary

4. The NZDF does not have a comprehensive approach to IM across the organisation. It lacks organisation-wide data, analytics, and information toolsets, governance, disciplines, norms, and accountabilities. The reports of the 2020 *Government Inquiry into Operation Burnham and related matters* (Op Burnham Inquiry) and the 2021 *Expert Review Group Report into Operation Burnham and related matters* (ERG) highlighted systemic issues with how the NZDF stores and retrieves information, and how trustworthy it is once found. Responding to these findings is a priority.

5. Information is a key enabler to organisational and operational effectiveness through the provision of timely, accurate, and authoritative information to aid decision making. IM is the organisation, control and structure of the processing and delivery of information at all stages of its lifecycle[1]. IM ensures the NZDF can rapidly access the information relevant to a situation, better choose the course of action, make decisions, and perform tasks with a higher level of confidence.

6. The IMP will address these shortfalls by delivering significant uplifts in data, analytics, and information management capabilities required to enable NZDF personnel to access and use trusted, accurate, and timely information whenever and wherever it is needed. In doing so it will release the full value of past, current and future Defence investments such as the P-8A Poseidon, Frigate Systems Upgrades, Enterprise Cloud and Modern Desktop, and Future Enterprise Resource Planning programmes.

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[1] Information lifecycle management refers to the comprehensive approach to managing data starting from its creation or acquisition through to when it becomes obsolete and is deleted.

7. Each IMP tranche will deliver outputs centred on a comprehensive and balanced set of upgraded tools/services, uplift in people numbers and capability, and process change. IMP is not an information *technology* programme, although the programme will deliver technology improvements as part of its total solution.

8. The programme's deliverables are summarised as:

   a. Improved internal/external digital channels, content/document management tools, collaboration, and search tools.

   b. Creation of an integrated data platform with analytical tools and processes that are aligned with military partners the NZDF operates alongside.

   c. Creation of an Enterprise Digital Archive.

   d. Delivery of data and IM literacy programmes to raise the capability of NZDF people.

   e. Provide a pathway to the responsible and relevant use of Artificial Intelligence tools.

   f. A network of data management and governance throughout the organisation to embed and maintain the above outputs.

9. The IMP Business Case (IMP BC) was completed in late 2021 but did not progress because of the need to address urgent COVID matters, and to manage several NZDF information-related investments. The IMP BC however, remains valid. Improving the NZDF's IM capabilities is an urgent and important investment. The NZDF has made some critical IM investments where it can from baseline funding in parallel with preparing this programme case.

10. The programme's objectives will be delivered iteratively over a period of five years in a cohesive set of three tranches that progressively deliver the outcomes and benefits sought by the NZDF:

    a. Tranche Zero **(Establish)** will initiate key programme management activities, focus on completing a business case for Tranche One and deliver urgent and overdue IM capabilities.

    b. Tranche One **(Information Culture, Access and Insights)** will be delivered over two years and will provide the necessary foundational people, processes, and tools for the NZDF to begin managing its information as an asset within a more structured system aligned to other in-flight strategic programmes and operating systems.

    c. Tranche Two **(Information Trust and Exploitation)** will be delivered over two years and extend the benefits realised in Tranche One so that the NZDF's information is further integrated and deployed to better drive performance and predict future events.

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11. The NZDF will fund the investment required for Tranche Zero activities within existing NZDF baselines.

12. Although future business cases will confirm the funding requirements, the anticipated whole-of-life cost (WOLC) of the recommended option for the programme is s.9(2)(j) over a five-year period including contingency, comprising capital expenditure of s.9(2)(j) and operating expenditure of s.9(2)(j) It is anticipated that the number of civilian personnel required to maintain the delivered IM capability is forecast to increase from s.9(2)(g)(i) spread across the NZDF.

Relationship to Government Priorities

13. Delivering on the recommendations from both the Op Burnham Inquiry and the 2021 Expert Review Group is a priority. Treating information as a strategic asset, managed so that the right people have the right information at the right time is also a priority.

14. This investment will ensure the NZDF is able to operate more effectively at home and while on operations, including with defence partners. The NZDF's partners are bringing data to the forefront of how they operate; our ability to continue to interoperate with them and reinforce relationships relies on a similar future focus. Operating alongside our partners, including in the Pacific, demands shared information services that allow for rapid collection, collation and analysis of data and information that enables a collective response.

15. The NZDF has a key objective to lift the organisational data culture and literacy to unlock the potential of its people and processes. In parallel, modernising the NZDF's IM capabilities will make it a more attractive employer to people who have high expectations that they will be able to access and use modern smart digital technology to perform their duties.

16. The IMP will be a foundational enabler for the NZDF to achieve and adhere to the Government's vision of a Digital Public Sector. The IMP will deliver key elements of IM capability that will be a core part of the digital transformation this strategy demands.

The NZDF currently faces three core IM challenges

17. The NZDF has obsolete IM systems that do not allow them to treat information as a strategic asset. It lacks standardised and current IM tools that are common in other organisations of the same size and scale. It lacks IM systems that allow access to data across multiple security domains, and to manage data that has been provided by our intelligence partners abroad.

18. The NZDF lacks modern IM structures, disciplines and norms. Personnel create their own bespoke and disconnected IM systems as 'work arounds' for obsolete IM systems.

19. Users of NZDF information often cannot locate and routinely have to recreate information, leading to wasted time and a lack of confidence over what

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information is assured. This risks making decisions based on inaccurate or out-of-date information.

20. These challenges were publically evidenced by the Op Burnham Inquiry, which found several shortcomings in the way the NZDF manages its information, including important issues with inadequate information storage and retrieval systems. These issues have resulted in a lack of transparency and accountability by the NZDF to the New Zealand public.

21. Following the Op Burnham Inquiry, the ERG report reviewed whether the NZDF's organisational structure, record keeping, and retrieval systems and processes were in accordance with international best practice and sufficient to remove or reduce the possibility of the failings identified by the Inquiry. The ERG reviewed a draft of the IMP Business Case and endorsed its direction as appropriate to preventing a repeat of the IM failings of Op Burnham Inquiry.

The NZDF has a comprehensive programme of change prepared to respond

22. The IMP BC at Annex A sets out how the NZDF will fundamentally change the way it manages, analyses, and uses data and information. The programme is led by a vision of the outcomes and benefits sought. These are delivered by breaking the programme's work down into a series of related and manageable projects. The IMP BC was developed in line with Treasury's Better Business Cases methodology and considered a wide range of potential responses.

23. Eight long-list options were developed by a stakeholder reference group. The long list was reduced to a short-list of two options which best meet the Investment Objectives and Critical Success Factors for the proposed investment. The Status Quo option (Option 1) was retained as the baseline comparator, where the NZDF would continue to maintain a disparate set of legacy policies, processes, assets, and IM tools. The short-listed options are:

    a. **Information Foundations (Option Five):** This option delivers the minimum set of service solutions across all information held by the NZDF. The option introduces common standards, disciplines and structures for IM, new tooling for IM and analytics, and a defined model and structure for IM roles across the NZDF.

    b. **Information Foundations plus Military Operations Enhancement (Option Six):** This option delivers the same service solutions as Option Five, with the addition of advanced analytics capability for Operations, Command and Control, and Intelligence and Security information. These information assets[2] are core to the effective delivery of military Operations and contain a higher proportion of information formats which require advanced analytical capability (e.g., open-source intelligence, sensor data, imagery).

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[2] An information asset is an aggregation or grouping of information that can be defined and managed as a single unit so it can be understood, shared, protected, and used effectively. Information assets have recognisable value, risk, content, and lifecycles. An information asset is not the technology that is used to store process, access, and manipulate the information.

24. The IMP BC recommends **Option 6: Information Foundations plus Military Operations Enhancement** as the way forward because it represents the optimal balance of cost, benefit and risk mitigation for the NZDF when compared to other shortlisted options. This option has been endorsed by the NZDF Executive Committee.

25. The recommended option provides the best value for money, as it achieves a high level of likely benefits with fewer significant implementation risks compared to other options. Under the recommended way forward, the NZDF will:

    a. **Deploy a modern Content, Document and Records Management system** that enables individuals within the NZDF, across all classifications and domains including deployed environments, to access the information they require to fulfil their roles.

    b. **Introduce advanced Insights and Analytics capability for Operations** information sets. This will deliver increased capability for personnel and will enable the NZDF to make mission-critical decisions based on up-to-date, reliable, and trusted information.

    c. **Introduce a Digital Archival solution** that provides security over critical digital information assets and reduces the critical risk associated with failure to store and archive information appropriately.

    d. **Enhance the security and accessibility of intranet and internet sites** through Web Hosting arrangements, ensuring all members of the wider Defence community (including NZDF personnel, reservists, veterans, and family) have access to reliable, trusted information.

    e. **Introduce a data management approach that enables integration of data and information across Services and corporate services**. This will allow for information to be shared with military, government and commercial partners thereby enhancing operational decision-making capability. It will introduce the necessary disciplines and structures to underpin the development of Machine Learning and Artificial Intelligence capabilities.

    f. **Define and embed consistent policies, practices and IM Governance and Assurance** arrangements to guide individuals to make decisions about creating, managing, storing, and sharing information.

    g. **Provide specialist IM capability through a Future Operating Model** which supports operational personnel and enables a focus on the core purpose of the NZDF which is delivering its operational outputs and capabilities.

    h. **Embed IM into the NZDF** culture through effective Business Change Management.

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26. The programme will deliver the following benefits for the NZDF:

    a. Improved **availability** of the right information for the NZDF to achieve its purpose. For example:

        i. Deliver a Data Management foundation and Digital Archive tool to avoid a repeat of Op Burnham Inquiry IM failings by ensuring the NZDF is aware of, and can readily access, relevant operational information.

        ii. Deliver digital tools designed for All-of-Government operations and exercises to ensure a consistent user experience with key information available.

        iii. Ensure deployed personnel, including those at sea, have the information that they need to do their job meaning less time wasted on workarounds.

    b. Improved management of information to ensure it can be **trusted** by decision makers. For example:

        i. Reduce the effort required to produce data sets so time can be focused on deriving insights and useable intelligence from the data.

        ii. Remove the guess work from archiving information and make it as simple as possible for the NZDF to legally retain the information it is obligated to as an owner/custodian.

        iii. Consistent labelling and tagging of NZDF data to ensure it is available for Machine Learning and the development of Artificial Intelligence where appropriate.

    c. Improved decisions through the **exploitation** of fit-for-purpose information. For example:

        i. Provide mechanisms to safely share data and insights within NZDF and with our partners.

        ii. Conduct readiness modelling for future projections and allocation of resources at individual, trade, unit, or Service level.

        iii. Provide Workforce Planning with modern analytic practices and tools to deepen the NZDF insights into our Force readiness.

Implementation

27. Each IMP Tranche will deliver outputs centred on people, process, and technology (tools/services) that accord with the relevant benefits sought at each stage. With a wide range of improvements projected to occur under the programme, a range of implementation and procurement strategies will be employed, summarised in Table 1 below.

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SERVICES REQUIRED	IMPLEMENTATION AND PROCUREMENT STRATEGY
Content, Document and Records Management	Run an open tender to identify preferred supplier(s) and procure services and tools to develop/build new core solution. Establish internal capability with permanent roles.
Insights and Analytics	The platform/technology solution will be selected via an open tender. Establish internal capability with permanent roles. Surge capacity and specific activities will be procured via AOG Marketplace or AOG Recruitment/Consultancy panels.
Web Hosting	Procure web hosting services via the AOG Common Web Platform Panel and leverage AOG Web Services Panel for setting up new web sites and migrating existing sites to AOG Common Web Platform
Integration	Procure integration services via the AOG Marketplace
Governance and Assurance	Establish internal capability with permanent roles plus Advisory Services support procured via AOG Consultancy Panel
Future Operating Model	Future Operating Model will be a mix of recruit (cross functional team to design and implement changes) and procure resources (organisational change and operating model expertise) via AOG Consultancy Panel
Business Change Management	Open tender

Table 1: High Level Implementation and Procurement Strategies

Programme sequencing

28.   Detailed business cases will be brought to Cabinet for the future phases, for decisions on whether to progress to the next phase of the programme and to inform future funding requests. The high level programme delivery milestones are listed in Table 2 below.

PHASE/MILESTONE	START	END
Tranche Zero - Establish	Jul 23	Jun 24
Tranche One - Information Culture, Access, and Insights	Jul 24	Jun 26
Tranche Two - Information Trust & Exploitation	Jul 26	Jun 28
Formal Programme Closure	Apr 28	Jun 28

Table 2: High Level Milestones for the IM Programme

Financial Implications

29. The recommended way forward has an estimated WOLC of s.9(2)(j) over a five-year period commencing in the 2023/24 financial year. This consists of s.9(2)(j) of capital expenditure and s.9(2)(j) in operating expenditure.

30. Estimated Capital expenditure of s.9(2)(j) over five years covers the introduction of new tooling and analytics solutions. Capital expenditure includes the systems and development cost associated with the introduction of a Content, Document and Records Management system, advanced Insights and Analytics and a Digital Archival solution.

31. Estimated Operating expenditure of s.9(2)(j) over five years covers internal, fixed-term, and external resources to design and implement new policies, processes, systems and tools. It also covers the ongoing development and maintenance of toolsets as-a-service.

32. Personnel required to maintain the delivered IM capability are forecast to increase from s.9(2)(g)(i) Although there is an established shortfall of ICT labour resource in the Wellington region, the IMP will draw from a different pool for the majority of these roles: data, analytics, and information management resource is far less constrained and the attraction of a high-profile government programme of this nature is expected to minimise the risk of these roles remaining unfilled.

Indicative funding requirements

33. The indicative funding requirements for the programme are described in Table 3 below.

INDICATIVE FINANCIAL PLAN - PREFERRED OPTION - INFORMATION FOUNDATIONS PLUS MILITARY OPERATIONS ENHANCEMENT						
Tranche	Zero	One		Two		
$NZDm	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	Total
Capital expenditure			s.9(2)(j)			
Operating expenditure						
Total expenditure						
Funded by:						
Depreciation reserve			s.9(2)(j)			
Operating baseline						
New operating funding						

Table 3: Indicative Funding Requirements for the IM Programme

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34. The NZDF will fund the capital elements of the programme, totalling s.9(2)(j) through internal prioritisation from FY23/24 and for the duration of the programme.

35. The NZDF will fund s.9(2)(j) operating expenditure for the duration of the programme from current spend on IM.

36. The NZDF will meet the costs of Tranche Zero from baseline funding in FY23/24.

37. s.9(2)(f)(iv)

Quality Assurance

38. The business case has been subject to an Independent Quality Assurance (IQA) review by IQANZ in December 2020 and January 2021, and feedback has been incorporated.

39. The programme also completed a Gateway 0/1 review in September-October 2021. The programme was assessed as amber, and subsequently all the recommended actions from the review have been actioned.

Other Implications

40. There are no Human Rights, Legislative, Population, or Regulatory implications resulting from this paper. A Climate Implications of Policy Assessment is not required. The programme will need to adhere to any emerging legislation and policy pertaining to New Zealand or Māori Data Sovereignty, data ethics, and Artificial Intelligence.

Consultation

41. The NZDF has consulted with the Government Chief Digital Officer and the Government Chief Data Officer on the contents of the IMP BC during 2020 and 2021. The recommended option is consistent with the Strategy for a Digital Public Service and is comparable with investments made by other agencies in data and information over the last 5-10 years.

42. The IMP BC has been assessed as being a HIGH risk programme, based on the Treasury's Risk Profile Assessment tool. This assessment informs quality assurance planning for the programme which will be completed in Tranche Zero to manage this risk.

43. The IMP BC underwent a Treasury investment clinic in September 2021, including representatives from the Government Chief Digital Officer and the Central Agencies. Feedback from the clinic has been addressed in the final version of the business case.

Proactive Release

44.   Parts of this Cabinet paper and IMP BC will be withheld under the Official Information Act 1982, Section 9 (2, b, ii). The release of these documents may undermine the NZDF's commercial position during negotiations with potential suppliers. These documents will be released shortly after the conclusion of commercial negotiations for products and services which will be delivered by partners or third-party organisations, with an anticipated release date in late 2025/26.

Recommendations

The Minister of Defence recommends that the Committee:

45.   **note** the report of the 2020 *Government Inquiry into Operation Burnham and related matters* identified systemic issues with inadequate information storage and retrieval processes, and transparency and accountability of the NZDF to the New Zealand public; and that the 2021 *Expert Review Group Report on the Government Inquiry into Operation Burnham and related matters* endorsed the Information Management Programme as a mechanism to prevent a repeat of these failings;

46.   **note** the benefits of the Information Management Programme are improved information management that ensures the right information is provided to decision makers, in a timely manner, increasing trust and reducing risk in decision making;

47.   **note** the programme case considered a range of options before selecting the **Information Foundations plus Military Operations Enhancement** option as the recommended way forward, based on the best combination of cost, benefits, and risks;

48.   **note** the Information Management Programme is split into three cohesive tranches over a five-year period;

49.   **note** the recommended way forward has an estimated whole-of-life cost of s.9(2)(j) including contingency over a five-year period commencing in the 2023/24 financial year comprising:

    a.   capital expenditure of s.9(2)(j) covers investments in technology and increases in external personnel costs;

    b.   operating expenditure of s.9(2)(j) covers increased technology costs (maintenance of document management tools and data management, warehousing, visualisation tools) and external personnel costs.

50.   **note** the NZDF plans to fund Tranche Zero of the programme from baseline in FY23/24;

51. **note** the NZDF plans to fund the capital elements of the programme, totalling an estimated s.9(2)(j) of the proposed investment, through internal prioritisation of its current baseline funding;

52. **note** the NZDF will also contribute s.9(2)(j) operating expenditure for the duration of the programme from current spend on Information Management;

53. **note** that the NZDF will return to Cabinet seeking approval to invest prior to commencing Tranches One and Two, and seek any required funding uplifts through future Budget processes;

54. **agree** to the option recommended by the Information Management Programme Business Case – **Information Foundations plus Military Operations Enhancement** – based on the best combination of cost, benefits, and risks;

55. **Agree** to initiate a five-year programme of work that will rectify serious deficiencies in the NZDF's ability to manage its information, and ensure personnel have access to, and use, trusted, accurate and timely information whenever and wherever it is needed; and

56. **Agree** that the NZDF can progress Tranche Zero of the IMP.

Authorised for lodgement.

Hon Andrew Little

Minister for Defence