



DEFENCE INDUSTRY

Optimising New Zealand Industry Involvement in the New Zealand Defence Sector

Evaluation Division
October 2014

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Executive Summary

The Minister of Defence initiated this review to determine the extent to which there is further opportunity to optimise the involvement of New Zealand industry in supplying New Zealand Defence (the New Zealand Defence Force and the Ministry of Defence). The review has been undertaken within the context of the Government Rules of Sourcing and New Zealand's international treaty obligations.

The review analysed patterns of Defence spending by country and type of expenditure, surveyed industry suppliers and potential suppliers, included interviews with Defence and government personnel and industry representatives, and reviewed a range of practice and process documentation.

The percentage of total Defence expenditure committed in New Zealand each year has grown from approximately 50% to 66% over the past seven years. At 2012/13 levels of expenditure, which total around \$800 million, the amount injected into the economy through New Zealand-based businesses supplying our Defence forces with major military hardware, equipment, maintenance and support, as well as day-to-day goods and services is not insignificant.

When it comes to operating expenditure, the proportion spent within New Zealand is consistently more than 80%. A number of categories of operating expenditure are almost solely sourced in New Zealand. In this area, the opportunities to increase New Zealand industry involvement are at the margins. The opportunities to optimise their involvement here are in the potential for increased business productivity and growth, benefiting the New Zealand economy.

Defence capital expenditure is expected to grow over the next four years. For the period 2015 to 2018 it is forecast to average around \$500 million annually, which is around double the capital expenditure average for the period 2009 to 2013. In 2012/13 30% of Defence capital expenditure commitments involved New Zealand suppliers. It is in this capital acquisition area that the significant opportunity for optimising New Zealand industry involvement lies, especially in the supply chain and whole-of-life support for military hardware.

Defence has adopted the practice of managing its risk through the application of prime contracts for such supply, and through a preference for procuring off-the-shelf capabilities where appropriate. Due to the nature of these acquisitions, prime contractors are often large international suppliers. Sometimes these contracts incorporate ongoing maintenance, parts and support for the life of the asset purchased. In this context, the opportunities for New Zealand industry are in the form of partnerships with, or as subcontractors to, prime contract vendors. New Zealand companies have the potential to supply component parts, and manage the repair and maintenance of large assets here on the ground. Some of this is already occurring, with the analysis showing that in 2012/13, 76% of operating expenditure committed on the maintenance and repair of military hardware occurred in New Zealand.

The challenge in this area, according to businesses who responded to the industry survey, is breaking into the market. Their perception is that prime contractors are generally disinterested in partnering with New Zealand companies and that Defence is both risk averse in dealing with domestic suppliers, and its procurement processes do not necessarily make the advantages of their involvement visible.

New Zealand Government policy and international treaty obligations preclude any favouritism being applied to New Zealand industry in supplying government agencies. Neither is industry necessarily seeking this, seeing any move to quotas or offsets as potentially damaging to the development of New Zealand industry capability and competitiveness. What is both possible and helpful, however, is giving the involvement of New Zealand industry a higher profile in tender and contract processes in order to encourage prime contractors to look harder at the options here.

All parties (prime contractors, New Zealand suppliers and Defence) agree that more consistently applied attention to whole-of-life costing would also be of benefit, and that this should be an area of continuous improvement. New Zealand suppliers think this will highlight the cost-effectiveness of having domestic industry involvement in long-term support and maintenance; prime contractors think this may give them a pricing advantage; and Defence considers that this will assist in the development of different options for acquiring the long-term capabilities it needs, and improved consideration of the trade offs involved in decisions about asset purchase and management. More consistent and sophisticated whole-of-life costing by Defence, with clearer communication of expectations to industry will improve the effectiveness of the procurement process for all. Additionally, survey data and feedback suggest that there is potential to improve tender documentation and evaluation criteria.

Beyond these major opportunities, there are a number of areas in which the industry and Defence processes and relationships can be improved – with the objective of supporting New Zealand industry in its work with Defence, and to ensure that Defence gets the results and the value it needs for New Zealand's overall defence capability.

Survey and interview respondents highlighted issues in terms of Defence accessibility. Finding the relevant personnel and information about structures and relationship protocols is not easy from the outside.

All parties also agree in principle that earlier engagement between Defence and industry would lead to more options being considered as Defence defines its needs. How this is ultimately achieved will be dependent on the nature of the need and the process that is most appropriate in that context. Both industry and Defence are keen, however, to find ways to make this work to achieve improved value in the end result.

Additionally, there is a desire on the part of industry for Defence to be more open and more specific about its planning. At present, industry suppliers must endeavour to extrapolate likely opportunities from long-term strategic documents and may be unable to see the potential openings for themselves far enough in advance to form the alliances and relationships that will facilitate their involvement. While providing a higher level of detail and specificity carries the risk that plans might change, it does

allow industry to assess for itself the potential risk against the potential rewards such a long-term investment of effort in engagement and relationship building may provide.

New Zealand industry and Defence are co-dependent – they need to work together to develop increased levels of sophistication and maturity in the relationships and processes that enable ongoing improvement in results. It is in the way business is done, rather than in the underpinning policy settings, that change can be focused to positive effect.

The ultimate goal for Defence is an ongoing improvement in the value attained on behalf of New Zealanders in its defence capability. For New Zealand industry, it is an optimised level of involvement in supplying the New Zealand defence sector. This brings with it the potential for jobs to be created, tax revenue to be generated, increased export activity, and other flow- ons to the New Zealand economy. The foundations are strong and with application and determination, both goals can be achieved.

Recommendations

Three key areas of recommendation have resulted from this review:

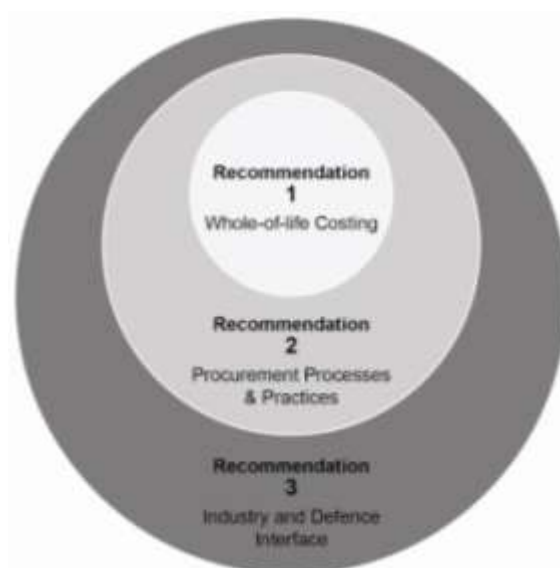


Figure 1 Structure of recommendations

These three areas are considered to have the greatest potential to address the findings of this review. At the core is the consistent application and continuous improvement of whole-of-life costing. Whole-of-life costing is a critical tool that could be used to greater effect in Defence capability management. More consistent and sophisticated application at key stages in the capability management process would benefit decisions taken about Defence investment in future capability.

To optimise New Zealand industry involvement in Defence and make the most of whole-of-life costing, improvements are also required in procurement processes and practices. Greater visibility of New Zealand industry involvement is required in order to maintain ongoing focus on its optimisation. Increased visibility and improved processes should support better outcomes for both Defence buyers and industry suppliers.

Finally, engagement with industry outside of specific procurement processes needs improvement in order to ensure each procurement process gets the optimal result. Enhanced planning information, engagement and ongoing communications are important to ensure the pathways to Defence and industry working effectively together are open and clear, again supporting both sound decision-making and improved process efficiency. The detail of each of these areas of recommendation is outlined in the following pages.

The research, analysis, findings and recommendations in this report comprise the first phase of the work to optimise New Zealand industry involvement in the New Zealand Defence Sector. Phase Two is the implementation of these recommendations and actions. This will be led by Ministry of Defence and New Zealand Defence Force personnel, and overseen by the Defence Capability Management Board, which is co-chaired by the Secretary of Defence and the Chief of Defence Force.

Recommendation 1

Consistently apply and continuously improve whole-of-life costing in key stages of the Defence capability management process. Communicate our expectations clearly with industry.

Goal: A sophisticated level of whole-of-life costing has become standard practice in the Defence capability management process by December 2016.

Implementation Actions:

- 1.1 Strengthen and increase the sophistication of Defence-wide whole-of-life costing models and apply them at each of the following stages of the capability management process:
 - a) Capability planning
 - b) Business case development
 - c) Procurement.
- 1.2 Develop templates to populate the whole-of-life costing models referred to in 1.1 in a consistent way.
- 1.3 For each tender, define in detail the cost elements that tender respondents need to cover in providing whole-of-life costs.
- 1.4 Identify and address any whole-of-life costing skill gaps and development needs within Defence, particularly in the area of financial analysis and risk modelling.
- 1.5 Develop guidelines and other resources for suppliers about Defence's approach and expectations for whole-of-life costing. Publish these through the Defence website for suppliers proposed in 3.1 and provide appropriate briefings with industry.
- 1.6 Going forward, track and analyse actual costs over the whole-of-life for each major Defence asset to support future Defence decision-making about ongoing asset management and optimum replacement time.

Recommendation 2

Continuously improve Defence procurement processes and practices to optimise New Zealand industry involvement.

Goal: New practices agreed and implemented by December 2015.

Implementation Actions:

- 2.1 Identify and implement ways to engage early with industry in the capability definition phase and in the pre-tender consideration and development of potential capability solutions.
- 2.2 Ensure that through-life support arrangements are concurrently considered in procurement processes for capability purchases of \$15 million or more so that decisions can adequately compare the available capability options and value for money over the whole life of the asset.
- 2.3 Seek a New Zealand Industry Engagement Plan as part of all tenders with a whole-of-life value of \$15 million or more, and as part of other capital acquisition tenders as appropriate. Tender respondents will outline in this Plan their engagement with New Zealand suppliers, including with regard to through-life support arrangements. The supplier country will not be used as an evaluation criteria for tender selection in line with the Government Rules of Sourcing. Defence may seek a commitment in the resulting contract that the successful tender respondent will engage the supplier/s identified in the tender response.
- 2.4 Explore ways in which tender documentation can be improved so that tender specifications are clearer, tender evaluation criteria are more transparent and contracting is standardised.
- 2.5 Set clear expectations for prime contractors to align with Government procurement principles when sub-contracting or partnering to supply to Defence. Signal these expectations early in the tender process and in Defence contracts.
- 2.6 Amend tender and contract documents to require suppliers of all new contracts over \$15 million in value to track and report (to Defence) expenditure on subcontractors in New Zealand. Negotiate the same at reassessment points with existing suppliers.

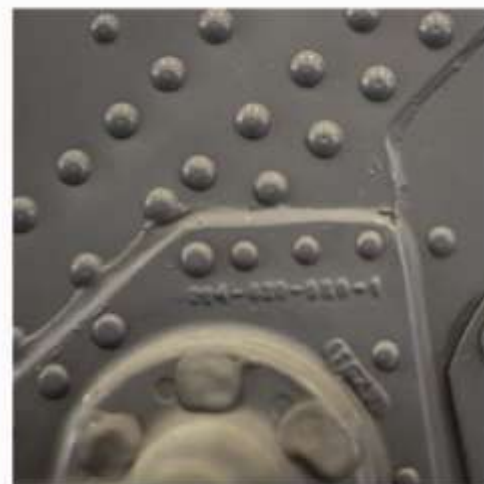
Recommendation 3

Increase and enhance Defence engagement, information sharing and collaboration with the defence industry.

Goal: Increased industry satisfaction with defence sector engagement is evident by December 2016.

Implementation Actions:

- 3.1 Establish a Defence website for suppliers that provides a single point of entry for enquiries, procurement plans and processes, updates on upcoming tenders and other relevant information.
- 3.2 Develop 10 year horizon planning information at a level of detail that more easily enables industry to identify forthcoming opportunities in the defence sector. Draw on examples from other New Zealand sectors and overseas militaries. Publish this through the Defence website for suppliers proposed in 3.1.
- 3.3 To facilitate sub-contractor or partnership opportunities, publish a list of current prime contractors to Defence and, with their permission, publish details of those who have expressed an interest in the early stages of tender processes.
- 3.4 Establish regular monitoring, reporting and trend analysis of Defence expenditure by vendor country, category of expenditure and major project. Publish this information through the Defence website for suppliers proposed in 3.1 and include relevant material in existing reporting vehicles.
- 3.5 Establish near real-time feedback and a bi-annual survey of suppliers to Defence to gauge the level of change being achieved in working with industry and highlight areas for further improvement.
- 3.6 Ensure joint Ministry of Defence and NZDF industry relationship management position/s are in place at a senior level to provide the conduit and co-ordinating point for industry and supplier relationships.
- 3.7 In consultation with appropriate agencies, including the Ministry of Business, Innovation and Employment, explore ways to grow Defence related research and development in New Zealand.
- 3.8 Develop and publish on the Defence website proposed in 3.1 a joint Defence and industry programme of visits, secondments, exchanges, workshops and training opportunities for key Defence and industry personnel.
- 3.9 With the Industry Capability Network, strengthen the protocol and process for providing pre-deployment briefings for Defence Attachés and Defence personnel travelling overseas on procurement or industry engagement visits.



1 Introduction and Strategic Context

This review was initiated by the Minister of Defence to identify options to optimise New Zealand industry involvement in the New Zealand Defence Sector.

The Oxford English Dictionary defines optimise as “to make the best or most effective use of”. When we refer in this report to optimising New Zealand industry involvement in the New Zealand Defence sector, we are not talking about favouring New Zealand industry over international companies. Rather, we are referring to making the best or most effective use of this country’s industry within the context of best value for money decisions about Defence expenditure.

1.1. The Policy Context

The Government’s Business Growth Agenda is designed to support New Zealand businesses to grow, and in doing so to create jobs and improve New Zealanders’ standard of living. When New Zealand companies secure work from any source, including Defence, jobs are created, tax revenue is generated for the country, the purchasing power in domestic economies increases, and other flow-on economic and social benefits result. In other words, when New Zealand companies supply New Zealand Defence, the country benefits in other ways too. An estimation of the wages and profits generated in New Zealand by Defence expenditure is summarised in Appendix 4.

When New Zealand businesses are selected to supply New Zealand Defence it is because they provide the best value for money on products and services and they have competed successfully to do so on the open market. This in itself supports the robustness and sustainability of New Zealand industry.

Creating this robustness and sustainability is essentially what the policy framework represented by the Government Rules of Sourcing is about. Under this framework, government agencies cannot ask for, take account of, or impose any offset at any stage in a procurement process. For example, agencies cannot require an international supplier to purchase New Zealand goods and services to “offset” New Zealand purchasing from that international supplier. All suppliers must be given an equal opportunity to bid for contracts and agencies must treat suppliers from another country no less

favourably than New Zealand suppliers. Procurement decisions must be based on the best value for money.

This is the operating context for New Zealand Defence procurement, and for New Zealand industry seeking to supply Defence in this country.

1.2. The Strategic Context

In the New Zealand Defence context, the word capability is used to describe the many types of equipment, both large and small, and resources required to enable the Defence forces to carry out their various roles. Acquisition of Defence capability is undertaken by both the Ministry of Defence (MoD) and the New Zealand Defence Force (NZDF). In general, the MoD takes responsibility for the procurement of large capital purchases with a whole-of-life cost of more than \$15 million and the NZDF manages all other acquisitions including smaller capital purchases and all day-to-day operating expenditure procurement.

Different administrative, tendering and contractual arrangements are used across the areas undertaking Defence procurement, with the Government Rules of Sourcing providing the consistent framework and best value for money the common theme applied to decision processes.

In developing and maturing its approach to capability acquisition, Defence manages a number of risks, including:

- Ensuring the equipment is fit for purpose is paramount, and its quality and reliability are appropriate in the context of that purpose
- Maintaining the ability to operate in an integrated way (in relevant areas) with the equipment of other militaries
- The risk of non-delivery due to the failure of the supplying company or companies
- The distance and therefore timeframes around support, maintenance and repair during the life of the equipment
- The ability to source effective and efficient support close to where the NZDF may be operating in the world
- The sustainability of supply chains over the life of the capability
- The risk of costs increasing over time.

As part of a programme aimed at continuously improving its management of these risks, Defence has moved to a procurement approach focussed on working with prime contractors. This means that large capital acquisitions are managed through a single contract, with the prime contractor responsible for building the supply chain that will enable not only delivery of the initial capability, but may also provide any training required, maintenance and parts over the life of the capability, and sometimes later upgrades to extend the life of the purchase. Additionally, with any major capability acquisition,

Defence carefully considers the availability of off-the-shelf solutions where these are proven, appropriate and provide best value for money.

For New Zealand industry, both the prime contract and off-the-shelf approaches imply a need to showcase their abilities, build relationships and work closely with likely prime contractors or suppliers of off-the-shelf solutions, rather than directly with New Zealand Defence. This is a shift in focus for many companies seeking to supply Defence.

Prime contracts incorporating support requirements throughout the life of the capability can potentially span up to 20 years. It is therefore critically important to all parties involved that the arrangements are optimal, as there are significant consequences if they are not. This long contract life also has implications for companies seeking to supply Defence requirements of this type. The opportunities may only arise at long intervals, but the preparation and relationship building can also take long periods of time, requiring an investment of time from potential suppliers well before any return is realised.

The ability to acquire its capability needs at both lower cost and with lower risk is of value to both Defence and to industry suppliers, and therefore represents a goal that can be worked towards in partnership.

One potential pathway to supporting the achievement of this goal is the use of whole-of-life costing approaches to make risk more visible in the evaluation of capability acquisition tenders. Robust whole-of-life costing makes comparing costs and risks of different proposals more comprehensive and transparent, enabling better informed decisions to be made.

It is in this context of prime contract arrangements, customised off-the-shelf solutions and a focus on whole-of-life costing – a general push to continue to reduce the risk to Defence and the taxpayer – that optimising the involvement of New Zealand industry is both desirable and challenging.

In general terms, supplying New Zealand Defence does not provide sufficient volume of work for individual companies to survive on this source of business alone. Diversification is critical to the future sustainability of New Zealand defence industries. Most suppliers need to diversify into supplying other domestic sectors (which may include other security sectors such as Customs and Police) and/or to supply other defence forces internationally. Strengthening defence industry is therefore likely to have positive flow-on effects in other sectors, as well as the potential to grow future export opportunities.

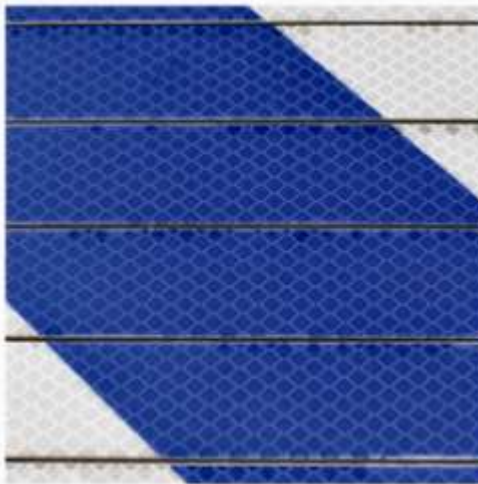
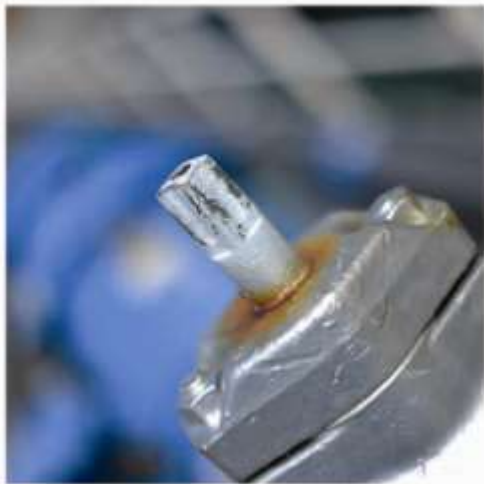
Strengthening the New Zealand defence industry is also important to ensure that the sector is capable of both flexibility and resilience. For example, Defence is sometimes required to operate in extraordinary circumstances where proximity to support services may be an advantage. In such cases, eliminating the need to transport parts or to have internationally based workers get to New Zealand before repairs can be carried out, may make a significant difference to the success of operations. The ability of New Zealand industry to quickly and reliably provide this kind of support benefits not only Defence, but industry itself and the wider New Zealand economy.

New Zealand's small domestic market means that companies often find it difficult to develop the critical mass needed to make production viable. Export activity is required to deliver the kind of growth and productivity that would make a real difference to a business's economic viability. On the other hand, small companies also find it difficult to break into export markets. Undertaking work for Defence provides reputational credibility and this can be important for defence industry companies seeking opportunities in export markets.

Finally, New Zealand businesses supplying Defence through a prime contractor may also have the opportunity to be involved in much larger global supply chains than they would have otherwise. This provides them with the foundation capabilities to springboard into other markets through their relationship with the prime contractor.

Optimising New Zealand industry involvement is the focus of this report. Growing New Zealand industry involvement in supplying New Zealand Defence to 100% would not necessarily optimise that involvement, even if it were possible. Focussing on increasing the quality and focussing on increasing the quantity of involvement are two different areas. For example, more than 80% of current Defence procurement through operating expenditure goes to New Zealand companies, but recommended improvements could make a difference to the quality of what is supplied for Defence.

Optimising New Zealand industry involvement is the objective. The interest in optimising New Zealand industry involvement in the defence sector is driven by the desire to get the best outcomes for Defence, industry and New Zealand as a whole. The aim is to create jobs, generate tax revenue and inject money into the New Zealand economy, and to do so within the parameters of existing Government Rules of Sourcing and New Zealand's international treaty obligations, which dictate a level playing field for all potential suppliers. As New Zealand Defence moves into a period of increased capital expenditure, examining potential opportunities to optimise New Zealand industry's potential to participate in future opportunities is both timely and desirable.



2 Background & Review Process

2.1 New Zealand Defence Sector

New Zealand Defence is defined here as the NZDF and MoD. Collectively with industry, they make up the New Zealand defence sector.

The combined Defence annual expenditure on capital and operating purchase commitments is currently approximately \$800 million. Of this, operating expenditure is approximately \$500 million and capital \$300 million. A more detailed analysis of this spending is provided in Chapter 3. Defence represents approximately 2.6% of total core Crown expenses.¹

2.2 The Defence Industry

For the purposes of the review, the defence industry is defined as any company that supplies, or wishes to supply, goods and/or services to the NZDF or MoD. Suppliers of services, such as education and research, are captured within this industry grouping.

In this context, Defence purchasing of goods and/or services in New Zealand covers a wide variety of areas from major military assets and other specialist military equipment, to the Defence estate, clothing, fuel, food, general logistics and the standard type of supplies and services purchased by most government agencies. The opportunities for New Zealand companies are therefore wide ranging and the term “defence industry” is intended to encompass this broad range, not just specialist military needs.

Companies currently supplying New Zealand Defence fit broadly into the following categories:

- Large businesses, often prime contractors, that have ongoing relationships with Defence in the supply of major military assets and in technical areas of military need

¹ As at 30 June 2013, Financial Statements of the Government of New Zealand, page 31

- Small to medium enterprises that supply lower order specialist military goods and/ or services, either as ad-hoc providers or subcontractors to a larger prime contractor
- Providers of domestic services such as IT, food and other general support to Defence. These suppliers do not have a direct military capability supply responsibility, but are vital to the day-to-day running of Defence
- Infrastructure suppliers that undertake construction and maintenance work on the Defence estate.

Due to the broad range of suppliers to Defence, there is also a range of industry associations that play a role in the defence sector. These include the New Zealand Defence Industry Association (NZ DIA), the Manawatu Defence Hub, New Zealand Marine Industry Association, Aviation New Zealand, the Heavy Engineering Research Association and the Employers and Manufacturers Association, to name a few. Most are organised around the nature of their industry, goods or services rather than the sector they supply. Supplying to Defence is not their primary purpose, although Defence may be a major purchaser in their market.

The exceptions to this are the Manawatu Defence Hub, whose interest is region specific, and the NZ DIA, which is the industry association with the broadest national profile in the defence sector. NZ DIA is an industry group made up of businesses that pay a fee to join. Established in 1993, its focus is to build industry networks and gain access to contracting opportunities within the New Zealand defence sector and abroad. NZ DIA runs the annual Defence Industry Forum, a key networking and communications event that is supported by Defence and well attended by industry.

The Defence Industry Advisory Council (DIAC) provides national and international defence industry advice to the Minister of Defence. In addition they encourage strategic relationships between Defence and industry, and act as a conduit between the Minister and industry on defence matters. They do not hold any statutory or executive functions. With support from the MoD, the DIAC runs the annual *Minister of Defence Award of Excellence to Industry* to highlight the contributions of industry to Defence in New Zealand.

2.3 Procurement in New Zealand Defence

Procurement to support the NZDF is undertaken by both the NZDF and MoD, depending on the whole-of-life cost and nature of the purchase. Generally speaking, major capital assets with a whole-of-life cost over \$15 million are purchased by the MoD, with all other capital and operating purchases managed by the NZDF.

The organisational, project management and governance arrangements for this procurement activity across Defence are complex. There are many ways in which these can be shown and we have not attempted to represent the full picture in this report. Instead, we have provided one example for background and to support the points made in section 5.3 *Defence Procurement from an Industry Perspective*.

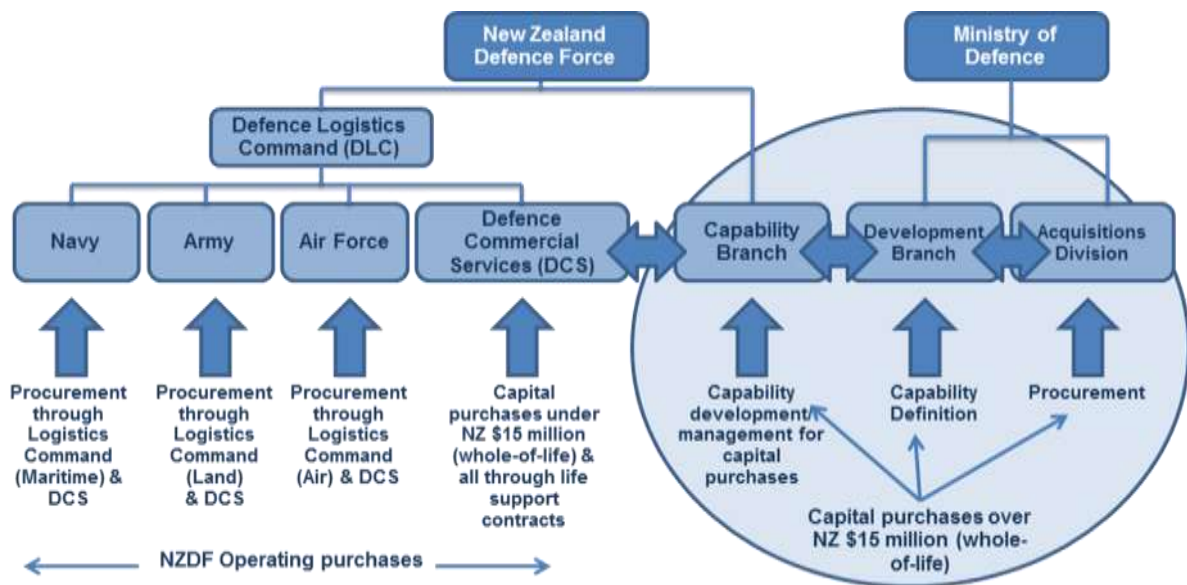


Figure 2 NZDF and MoD areas involved in New Zealand Defence procurement

NZDF Defence Logistics Command manages around 85% of the NZDF's total procurements. This covers both minor capital and all operational expenditure on equipment, goods and services. Within this, around 60% is managed through Defence Commercial Services (DCS). This area was established approximately two years ago to provide functional leadership and a centre of excellence for procurement across the NZDF. DCS manages smaller capital purchases (under \$15 million) and the more strategic, high value operational procurements undertaken within the NZDF.

The Defence Commercial Services Group is connected to NZDF Services (Navy, Army and Air Force) in a hybrid model of centre-led and centralised procurement, under the DLC umbrella. The remainder of NZDF procurement, around 15%, is undertaken either by Joint Forces, Defence Headquarters, or is non-contracted spend.

The Acquisitions Division of the MoD has responsibility for procuring major capital military assets on behalf of the NZDF, mostly with a whole-of-life cost of \$15 million or more.

2.4 Capability Management in New Zealand Defence

The Defence White Paper 2010 directed that the Secretary of Defence ordinarily lead and be accountable for the strategic policy, capability development and acquisition phases of the Capability Life Cycle; and the Chief of Defence Force ordinarily lead and be accountable for the introduction into service, in-service and disposal phases. These responsibilities are exercised through the Capability Management Board (CMB), which the Secretary of Defence and the Chief of the Defence Force co-chair. The Capability Management Board provides strategic governance across the military capability life cycle and is focused on portfolio-level risk management and decision making.

The Capability Management Framework (CMF) describes the arrangements for how the NZDF and MoD collaborate to deliver military capability programmes and projects. It describes

the processes, roles and responsibilities across both organisations. Given the scale of many defence capability decisions, the CMF incorporates all elements of the Government's Capital Asset Management (CAM) requirements and the Better Business Case (BBC) model.

The makeup of programme and project teams varies depending on where the programmes or projects are in the capability lifecycle and their scale. They usually include staff from both the MoD and NZDF throughout. Teams usually include staff from the Ministry's Policy and Planning and Acquisitions Divisions and the NZDF's Capability Branch. Defence Logistics Command, Defence Commercial Services and the Single Services are also involved. Project Managers and Directors are accountable to the Capability Steering Group. This is co-chaired, by the Vice Chief of Defence Force and the Ministry Deputy Secretary of Defence or Acquisition and has representation from all the key internal stakeholders.

The Defence Capability Plan describes the capability sets needed to deliver the Government's defence policy, as set out in the Defence White Paper. The current Defence Capability Plan, published in 2014, articulates the key investment themes that will characterise the next 10 years. It also identifies the capability pathway for the NZDF to realise Joint Operational Excellence. The Capability Plan is a public document, and signals the Government's capability intent to industry, security partners and the public.

2.5 Review Process

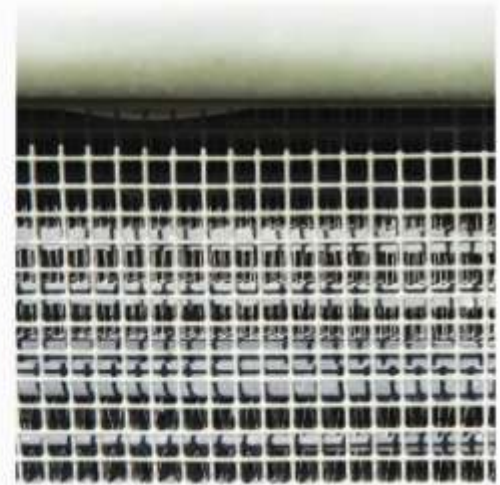
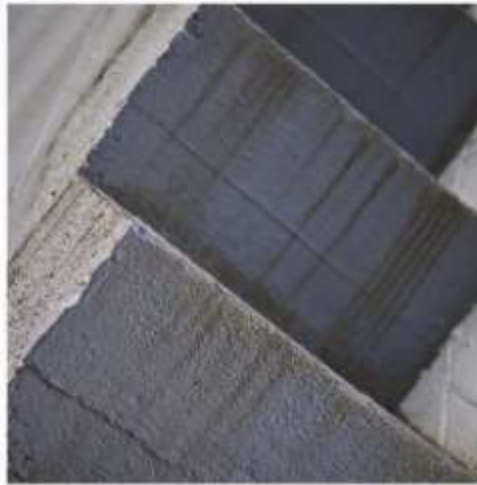
This analysis of New Zealand industry involvement in the New Zealand defence sector was undertaken using a number of sources of data:

- Defence expenditure commitments over eight years broken down by vendor country, and operating and capital expenditure in different categories as well as in total
- A survey of industry suppliers or potential suppliers to Defence
- A documentation review of key government and industry guidance and requirements of current policy settings, practices and actual procurement examples
- Interviews with a selection of industry representatives, NZDF and MoD personnel (see Appendix 7 for the list of interviewees).

An Expert Advisory Group was formed at the beginning of the project to provide expert input through all stages of the process of the review, including the development of the findings and recommendations. The group met five times, including for a half-day workshop. The group includes representatives of the defence industry, senior NZDF and MoD personnel from the planning and procurement areas, and officials from other government agencies with procurement, economic analysis and industry capability networking expertise.

The Expert Advisory group members are (in alphabetical order):

- Alicia Wright, Deputy Secretary (Evaluation), Ministry of Defence (Chair)
- Bernie Diver, Chair, New Zealand Defence Industry Association
- Caleb Johnstone, Programme Director, Government Procurement Branch, Ministry of Business, Innovation and Employment
- Brig. Charles Lott, Commander, Defence Logistics Command, New Zealand Defence Force
- Daniel Soughtton, Senior Advisor, Treasury
- Des Ashton, Deputy Secretary (Acquisition), Ministry of Defence
- Greg Lowe, Chair, Defence Industry Advisory Council
- Jo Devine, Chief Financial Officer, New Zealand Defence Force
- Richard Harrison, Project Procurement Advisor, Industry Capability Network, New Zealand Trade and Enterprise
- Tony Lynch, Deputy Secretary of Defence, Ministry of Defence.



3 New Zealand Defence Spending

What types of items do we purchase with our Defence dollars and how much of this is spent overseas and in New Zealand?

Gaining a clear and accurate picture of Defence spending over time is central to identifying opportunities to optimise New Zealand industry involvement in the defence sector. It also provides an indication of the economic impacts of Defence spending in the New Zealand economy – the flow on implications for the generation of employment and profits.²

To set the scene, this chapter begins with the high level trend for future Defence spending. It then considers the commitment of Defence expenditure on goods and services over an eight year period from 2005/06³ to 2012/13.

3.1 Future Defence Expenditure

Opportunities for defence companies lie in Defence future spending intentions. The 2014 Defence Capability Plan signals the capability sets required to deliver on the 2010 Defence White Paper.

The most definitive statement of future spending intentions can be found in the Estimates of Appropriations (the Estimates), which are tabled annually in Parliament. The Estimates specify intended total Defence operating and capital expenditure. Capital expenditure mainly represents purchases of military hardware such as vessels, aircraft and the Defence estate, while operating expenditure reflects maintenance and repair costs, purchases of goods and services, transport and general logistics, food, fuel and clothing.

Figure 3 shows reported and forecast Defence expenditure for the nine year period 2009/10 to 2017/18. The decline in Defence capital expenditure ended in 2012/13 and forecasts are now trending up. The average Defence capital expenditure forecast from 2015 – 2018 is approximately

² See Appendix 4 – “Economic Impact of New Zealand Defence Expenditure”.

³ Due to system changes in the Ministry, no reliable earlier data was available.

\$500 million, which is around double the 2009 – 2013 capital expenditure average of approximately \$250 million.

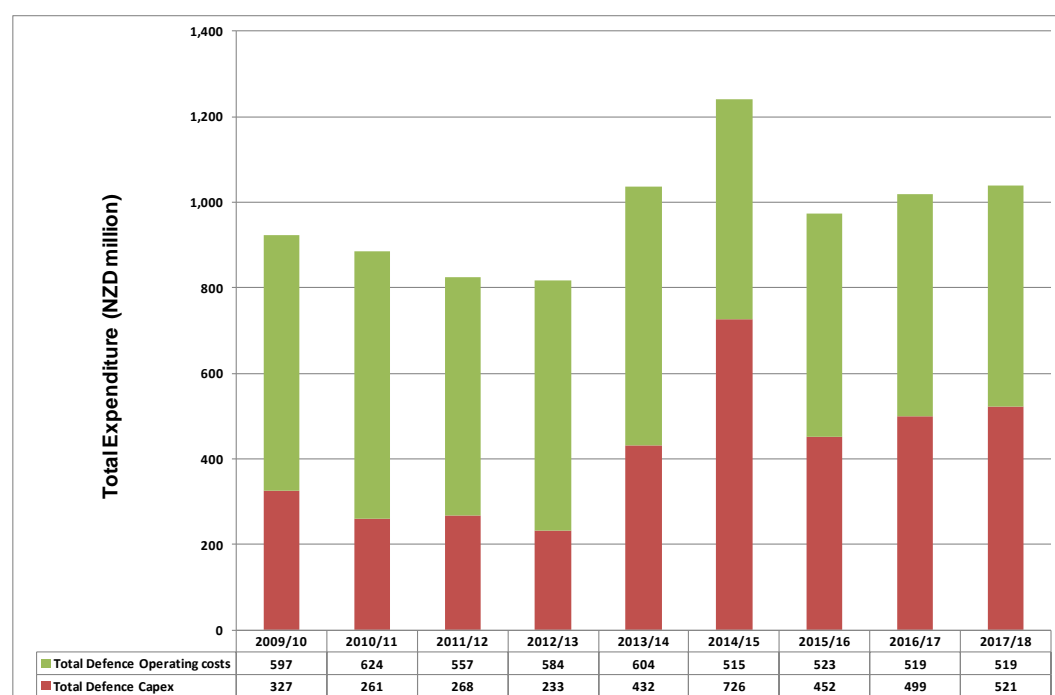


Figure 3 Defence capital and operating expenditure reported and forecast in the Estimates of Appropriations 2014/15

Figure 3 indicates that the potential opportunities for New Zealand companies will increase over the next four years as capital expenditure, in particular, is forecast to grow from current levels. Currently, forecasts of intended Defence expenditure over a longer horizon, even at a general level, are not published. This issue is discussed in further detail in section 5.3.1.

The following section analyses expenditure commitments made by the MoD and NZDF over the eight year period from 2005/06 to 2012/13. Its purpose is to determine, through an understanding of past trends, where opportunities for optimising New Zealand industry involvement may lie and where further market analysis would be beneficial.

3.2 Defence Expenditure Commitments 2005/6 to 2012/13

This section begins with trends in overall Defence expenditure commitments by vendor country, covering both capital and operating expenses. Operating expenditure commitments are then examined in more detail, with various categories⁴ of spending broken down by vendor country. Finally, attention is turned to capital expenditure, again by category and vendor country.

⁴ For a full explanation of cost categories, refer to Appendix 2.

Purchase order data was used for the New Zealand Defence Force because NZDF's general ledger information does not contain the country of vendor/supplier origin – the specific area of interest here. This means there may be time differences between the data presented here as commitments, and the actual expenditure. However, the overall trends remain valid.⁵ General ledger information was used for MoD data. More detailed notes regarding the methodology and its limitations are included in Appendix 1.

3.2.1 Total Defence Capital and Operating Expenditure Commitments

Over the eight year period from 2005/06 to 2012/13, the percentage of total Defence expenditure committed in New Zealand increased from approximately 50% to 66%. This includes all capital and operating expenditure on equipment, goods and services. Correspondingly, Defence spending overseas reduced from 50% to 34%. Total commitments during this period reduced from more than \$1 billion to just under \$800 million, reflecting both changes in the economic environment, and the results of Defence cost reduction initiatives.

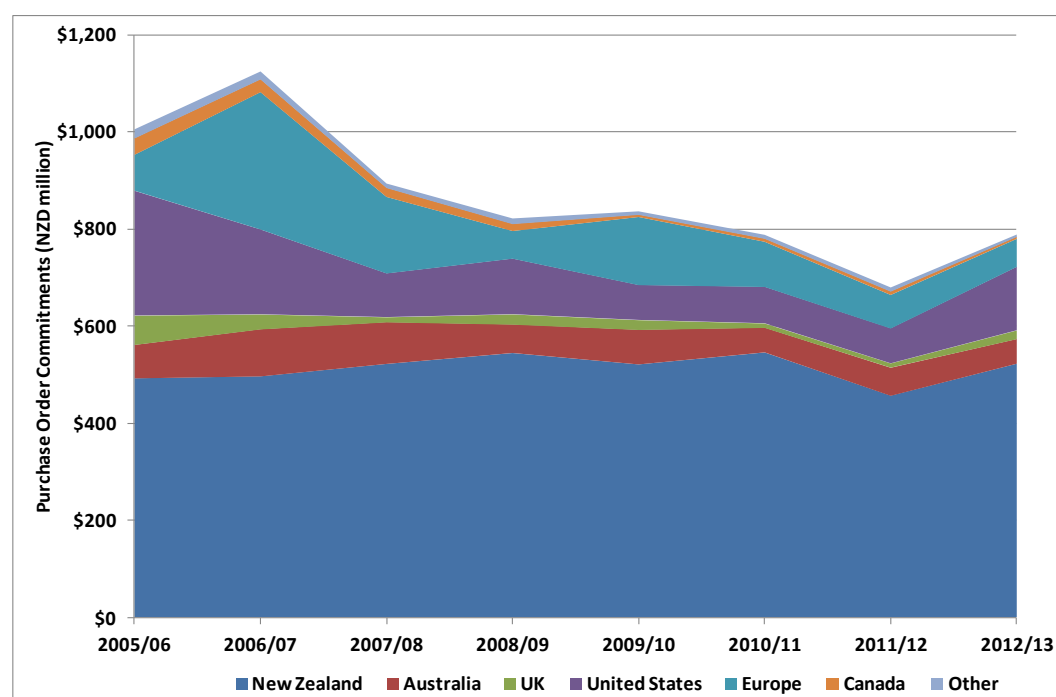


Figure 4 Total Defence capital and operating expenditure commitments by vendor country

Defence expenditure commitments in New Zealand have been stable over the past eight years around \$500 million annually. Figure 5 shows that the majority of this expenditure is on general goods and services, general maintenance and repairs, and military maintenance and repairs. Most recently, expenditure commitments on military hardware were just over \$100 million, of which about \$60 million was aircraft related.

⁵ Capital charge, GST and salaries and wages have been excluded, along with MoD's operating expenditure

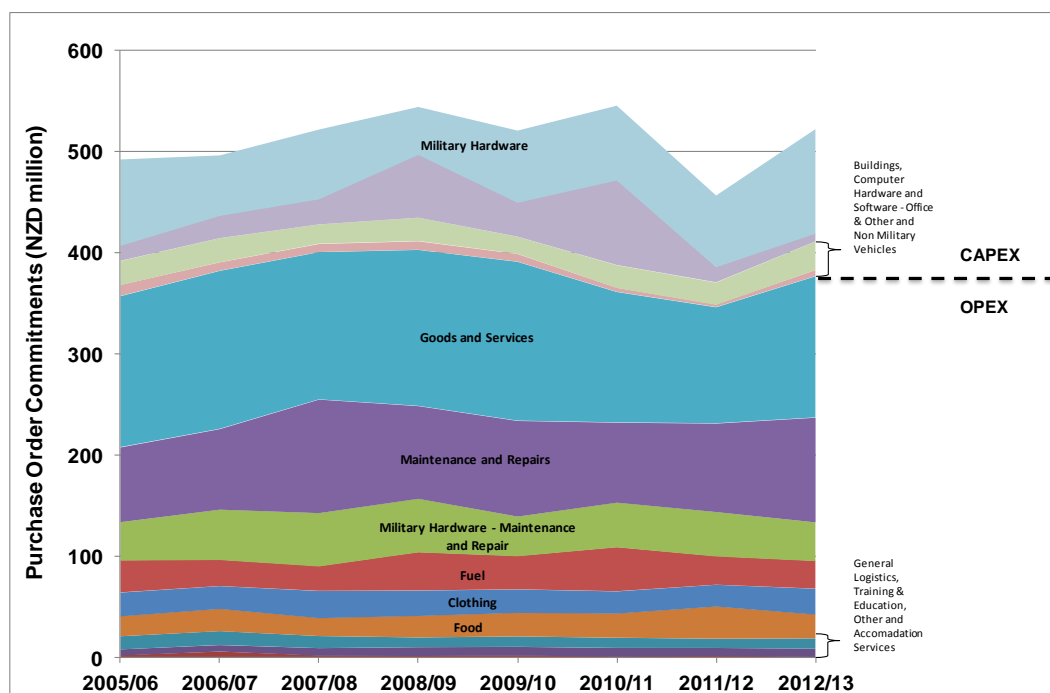


Figure 5 Total Defence capital and operating expenditure commitments in New Zealand by category

Defence expenditure commitments overseas peaked in 2006/07 at over \$620 million, and have since reduced to \$267 million in 2012/13. Figure 6 shows that most overseas commitments throughout the period were for capital expenditure on military hardware. In 2006, 75% of military hardware expenditure commitments overseas were for aircraft, 15% for maritime vessels, and 10% on ammunitions.

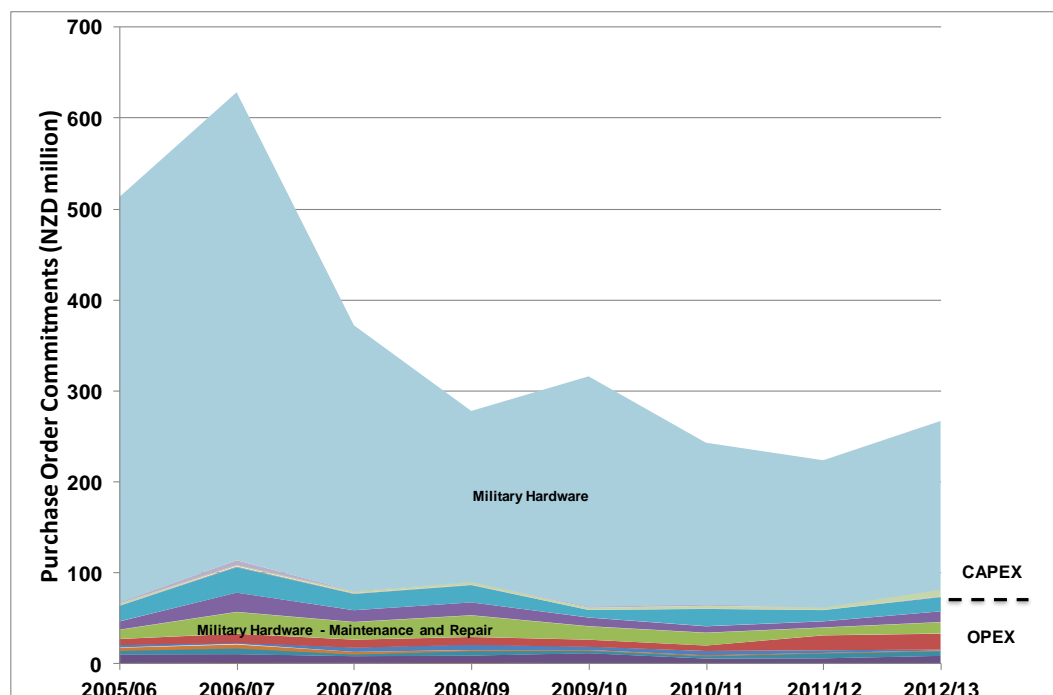


Figure 6 Total Defence capital and operating expenditure commitments overseas

3.2.2 Defence Operating Expenditure Commitments

Of 2012/13 Defence operating expenditure, 84% was committed in New Zealand. Operating expenditure commitments have been steady over the period analysed, with over 80% occurring in New Zealand each year for the past six years.

Beyond New Zealand, the next largest country in which Defence operating expenditure has been committed is Australia, ranging from 6% to 9% during the period. Total operating expenditure commitments are generally in the range of \$500 million per annum.

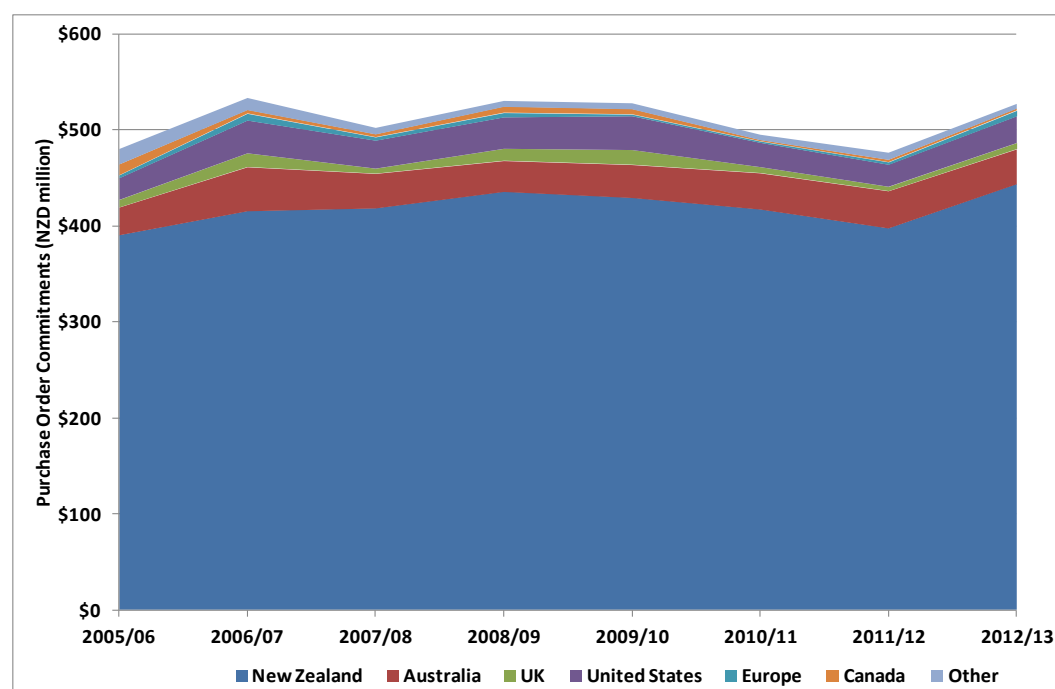


Figure 7 Total Defence operating expenditure commitments by vendor country

3.2.2.1 Maintenance and Repairs Operating Expenditure Commitments

Anecdotal feedback suggests that one area regarded by New Zealand industry with potential for increased involvement is maintenance and repairs, i.e. through-life support of the NZDF's equipment. The analysis looked at this category of expenditure in two parts: repair and maintenance of military hardware (such as vessels, aircraft, arms and weapons), and more general repairs and maintenance which includes buildings and grounds, plant and machinery.

Figure 8 illustrates that across the years included in the data set, spending in New Zealand on military hardware maintenance and repairs⁶ ranged from 68% to 84% of total expenditure committed in this category. In 2012/13, 76% of expenditure occurred in New Zealand and 24% overseas.

⁶ It should be noted that the categorisation of "maintenance and repairs" carries a degree of variability resulting from issues such as whether "spare parts" are purchased as part of the initial capital purchase or from operating expenditure as they are needed. Conversely, parts purchased with operating funds may be used in the construction of a new asset.

Of the 16% to 32% spent overseas in the last eight years, aircraft maintenance and supplies accounted for 85%, or \$105m.

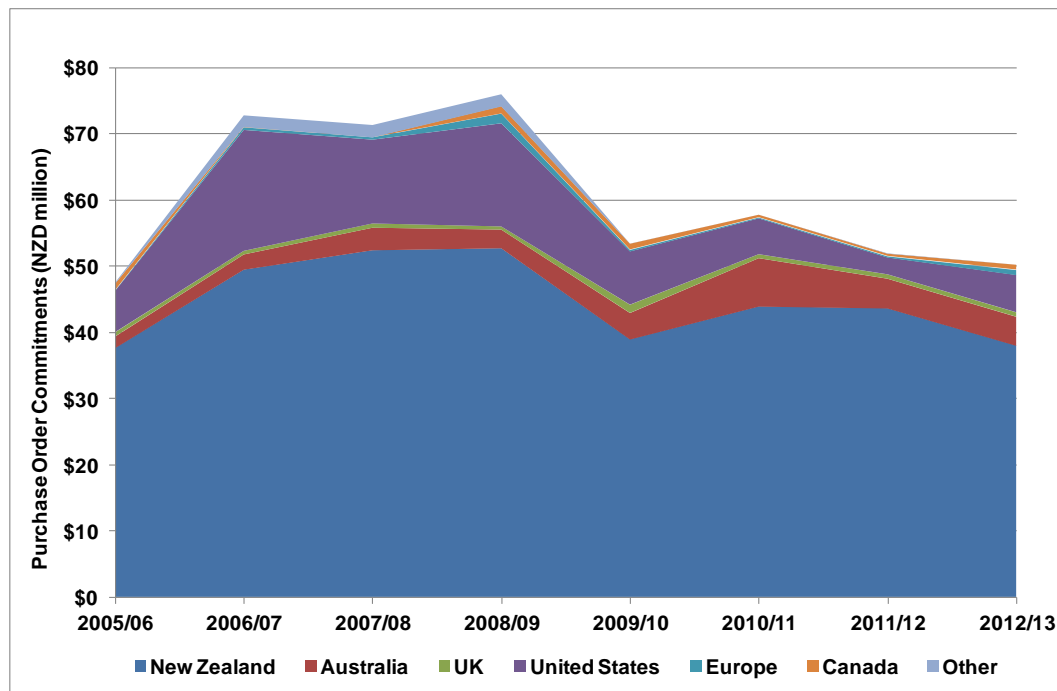


Figure 8 Military hardware maintenance and repairs operating expenditure commitments by vendor country

Expenditure commitments in more general areas of maintenance and repair work indicate a higher proportion of the spending is in New Zealand, ranging from 79% to 94%. Commitments in New Zealand for general repair and maintenance work have remained at more than 90% of the total expenditure for the past four years. This is illustrated in Figure 9.

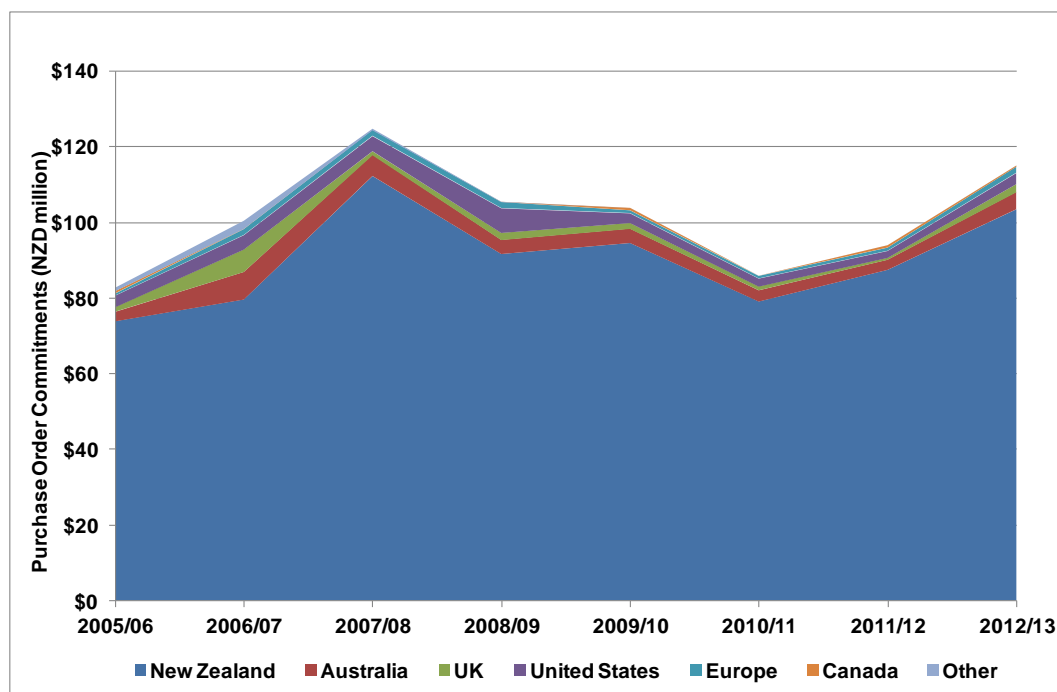


Figure 9 General maintenance and repairs operating expenditure commitments by vendor country

In relation to operating expenditure, the rate of purchasing in New Zealand has remained steady since 2007/08 at above 80%. This indicates that, while there may be some opportunity to improve New Zealand industry involvement in these areas of expenditure, it is at the margins. For example, only 4% of expenditure on clothing and 4% on food are currently committed to overseas suppliers. In the goods and services category, which includes items such as electricity, consumables, contractor and professional fees, advertising and recruitment, airways and airport charges, 8% of expenditure is committed overseas.

Details of expenditure commitments by country for all categories of spending can be found in Appendix 3.

3.2.3 Defence Capital Expenditure Commitments

A higher proportion of overseas expenditure is reflected in capital expenditure commitments than in operating expenditure, as shown in Figure 10. Capital expenditure commitments in New Zealand since 2005/06 range from 14% to 44%.

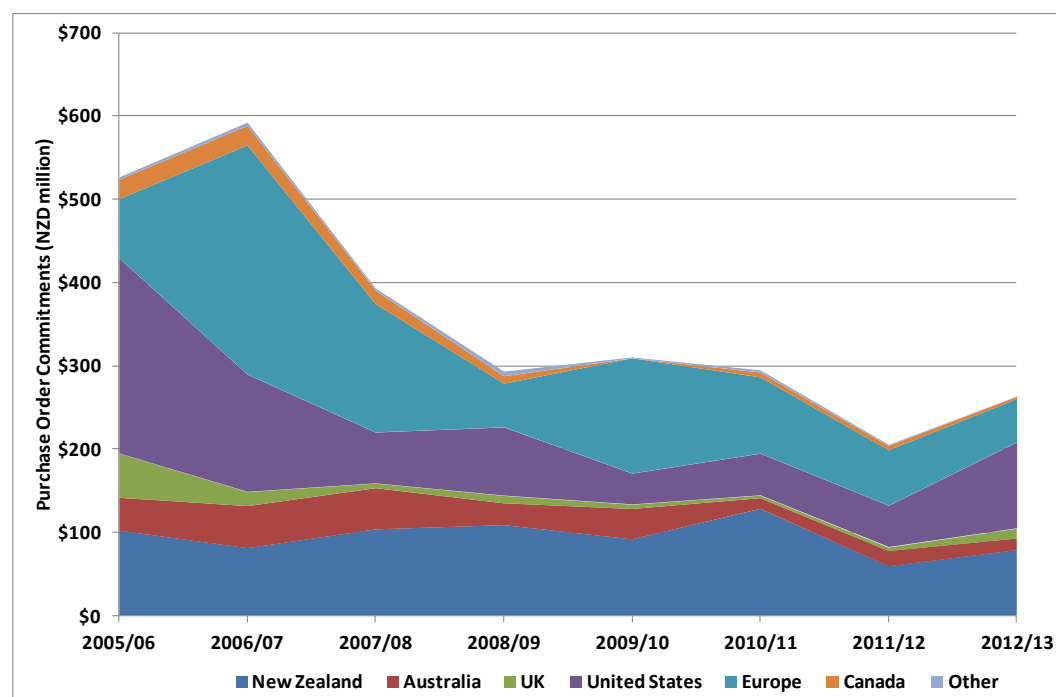


Figure 10 Total Defence capital expenditure commitments by vendor country

Vendor countries that consistently feature in capital expenditure commitments are:

- The United States with capital expenditure commitments ranging from 13% to 45% across the period
- Countries within Europe, ranging from 13% to 48%
- Australia, ranging from 4% to 13%.

In 2012/13, 39% of capital expenditure commitments were in the United States, 30% in New Zealand and 20% in Europe.

Military hardware and the Defence estate comprise the main types of Defence capital expenditure. Each of these areas is examined separately below.

3.2.3.1 The Defence Estate Capital Expenditure Commitments

The NZDF estate comprises Naval ports, Army camps and Air Force bases. Defence Force Headquarters is also included in this category.

Due to the nature of the construction process, capital expenditure in this area features peaks relating to individual projects, as Figure 11 illustrates.

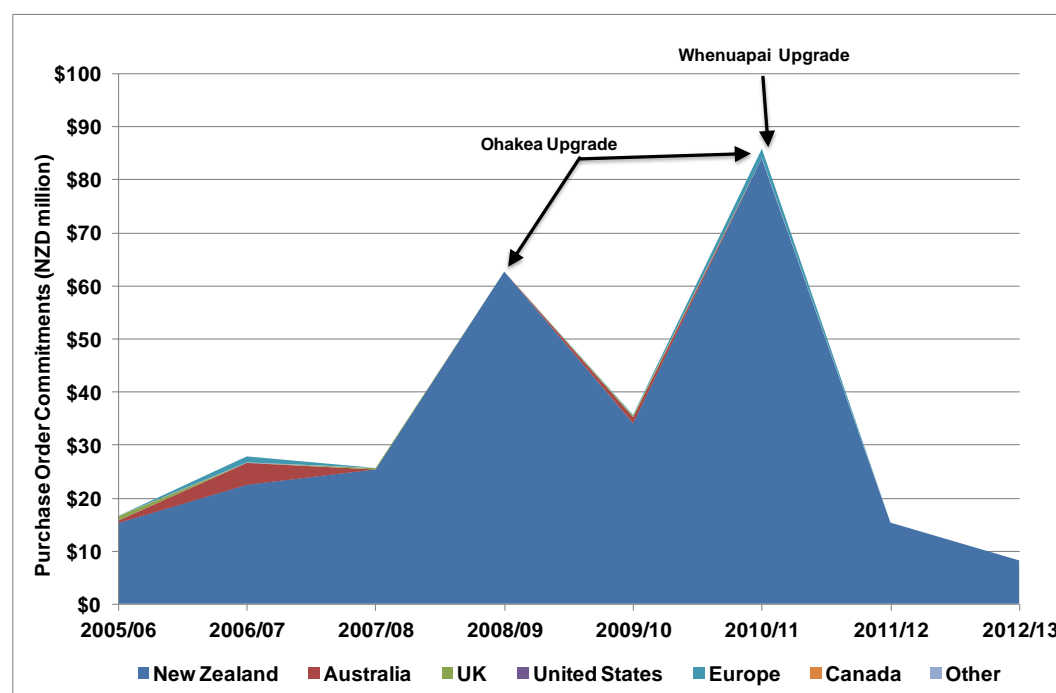


Figure 11 Defence capital expenditure commitments on the Defence estate by vendor country

The percentage of the total capital expenditure on the Defence estate that was committed in New Zealand has increased from 81% (in 2006/07) to 100% in 2012/13. The low point of 81% was an unusual result – every other year examined revealed the New Zealand portion of the spending to be more than 90%, and in most cases, it was more than 95%. The conclusion is that there is currently no significant opportunity for further optimising New Zealand industry involvement in the area of capital expenditure on the Defence estate.

3.2.3.2 Military Hardware Capital Expenditure Commitments

By its nature, expenditure on military hardware tends to have long lead times and also features peaks, although of a less dramatic nature than or the Defence estate.

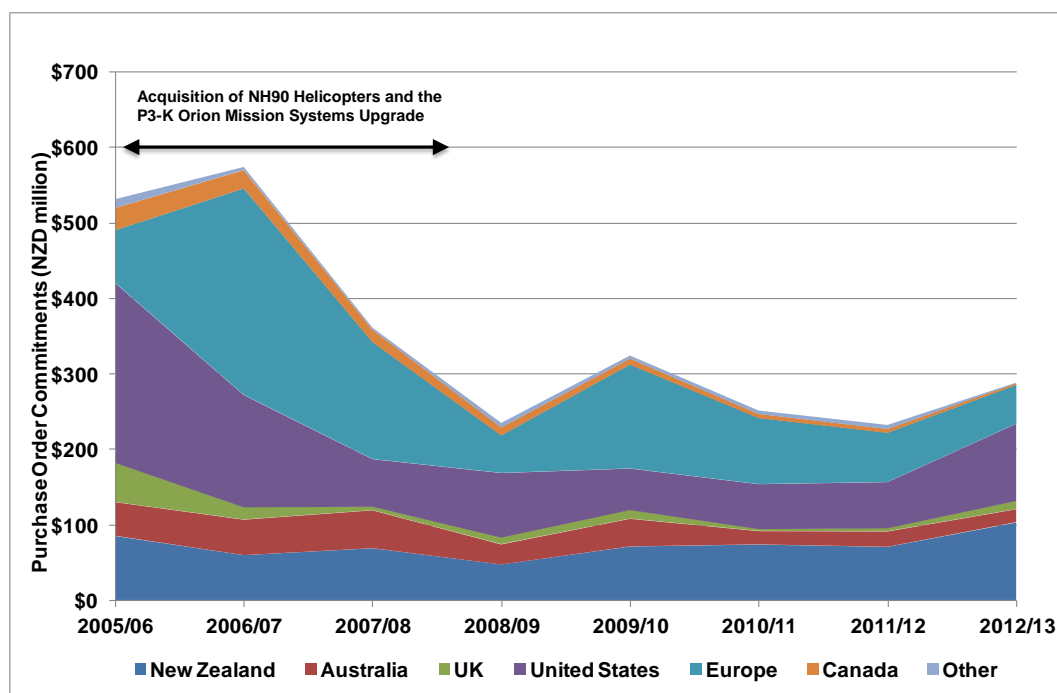


Figure 12 Defence capital expenditure commitments on military hardware by vendor country

Expenditure commitments in this area peaked at \$553 million in 2006/07 with the purchase of NH90 helicopters and the upgrade of the P3-K Orion aircraft. Current (2012/13) expenditure commitments on military hardware were just below \$289 million.

Of these commitments, the proportion spent overseas has ranged from a high of 90% in 2006/07 (for the major items outlined above), to the 2012/13 figure of 64%. Correspondingly, the proportion committed to be spent in New Zealand has increased from 10% in 2006/07 to 36% in 2012/13. Overseas commitments in this area are spread across the United States, Europe, and to a much lesser degree, Australia.

Compared to the proportion of operating expenditure spent in New Zealand, this major capital purchase area provides, on the face of it, the greatest potential for optimising the involvement of New Zealand industry.

3.2.4 Expenditure via International Prime Contractors

Reliable data on international prime contractors subcontracting with New Zealand industry was difficult to find, primarily because it has not, to date, been a contractual requirement for prime contractors to supply information of this nature to Defence. Given the lack of reliable data in this area, we have not drawn conclusions in this report about Defence expenditure in New Zealand via international prime suppliers, or expenditure overseas via New Zealand prime suppliers.

3.3 Findings and Conclusions on Defence Spending by Vendor Country

This analysis of Defence expenditure over the period 2005/06 to 2012/13 highlights the following:

- Between 2005/06 and 2012/13, the proportion of Defence spending commitments on equipment, goods and services sourced from New Zealand businesses has increased from about 50% to 66%
- Overall, Defence spending commitments reduced from more than \$1 billion to just under \$800 million during the period, reflecting both changes in the economic environment, and the results of Defence cost reduction initiatives
- The proportion of total Defence operating expenditure occurring within New Zealand has been over 80% each year for the past six years
- Supply for a number of categories of operating expenditure is almost solely sourced in New Zealand
- Between 2005/06 and 2012/13 the proportion of operating expenditure commitments on military hardware maintenance and repairs overseas ranged from 16% to 32%
- The potential for optimising New Zealand industry involvement in areas of operating expenditure is relatively small
- A higher proportion of overseas expenditure is reflected in capital expenditure commitments than in operating expenditure. This is mainly due to the purchase of military hardware that is not made in New Zealand
- The key opportunities for optimising New Zealand industry involvement are in capital expenditure on military hardware, mainly as suppliers to, or partners with, prime contractors for these purchases and their maintenance and support
- Defence capital expenditure for 2015 to 2018 is forecast to be about 50% higher than for the period 2009 to 2013
- Regular monitoring and reporting of Defence and prime contractor expenditure in New Zealand and off-shore would assist in making opportunities for New Zealand industry involvement in Defence more visible.



4 Survey of the New Zealand Defence Industry

To aid understanding of the industry and gain an insight into industry views about pursuing and securing work in the New Zealand defence sector, a survey was undertaken with companies that are current or potential suppliers of Defence. Their views provide valuable insight into a supplier perspective on working with Defence.

We conducted the survey in late May and early June 2014 with 71 companies completing the survey. Of the 71 respondents:

- 58% have previously won contracts with Defence in the last 10 years
- 20% have tried and been unsuccessful
- 22% have not previously tried to win contracts with Defence.

New Zealand registered companies totalled 58% of survey respondents and the majority of these companies have total revenues between \$100,000 and \$100 million. In total, 75% of all respondents have fewer than 100 full time equivalent (FTE) staff in New Zealand, 20% have between 100 and 1000 FTEs in New Zealand and less than 5% have more than 1000 FTEs.

A full set of survey information charts is included as Appendix 5 and the methodology and survey questions are detailed in Appendix 6. This section of the report analyses the key result areas of the survey.

4.1 Overview of Findings from the Survey Analysis

The sections below detail the results of the survey, looking in particular at the areas that survey respondents identified as most critical to working with Defence.

4.1.1 Information and Access Considered Most Useful and Difficult Factors

In the survey, respondents were able to choose up to five factors they felt were useful or difficult in gaining a contract or securing business with Defence. Figures 13 and 14 show the percentage of companies who selected a factor as useful or difficult.

Of those who responded, 56% thought having good information on forthcoming procurements; and having knowledge of, and access to, personnel in Defence were useful. In addition, 37% of respondents thought that clear specifications were useful in achieving success.

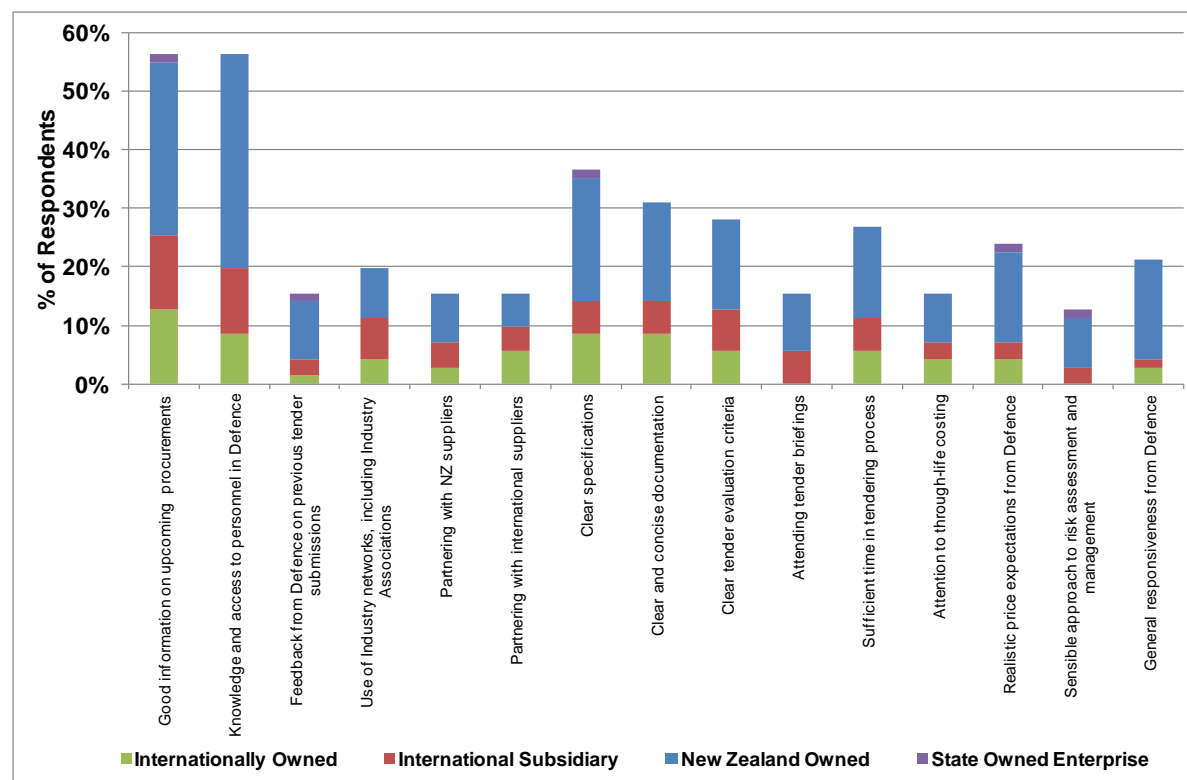


Figure 13 Survey respondents' useful factors in gaining a contract or securing business by company type

Comments about what was working for suppliers highlight the value of existing relationships and connections with specific staff in preference to working through large contractors:

"Where we have been successful it has been through networking with end users at a local level around the country."

"Defence are good at industry engagement and we appreciate their access."

Survey respondents were asked to choose the factors that were difficult in doing business with Defence. Of those who responded, 46% indicated that insufficient information about forthcoming procurements and not being able to identify the relevant Defence personnel were two key factors that caused difficulties for them in gaining a contract or securing business with Defence.

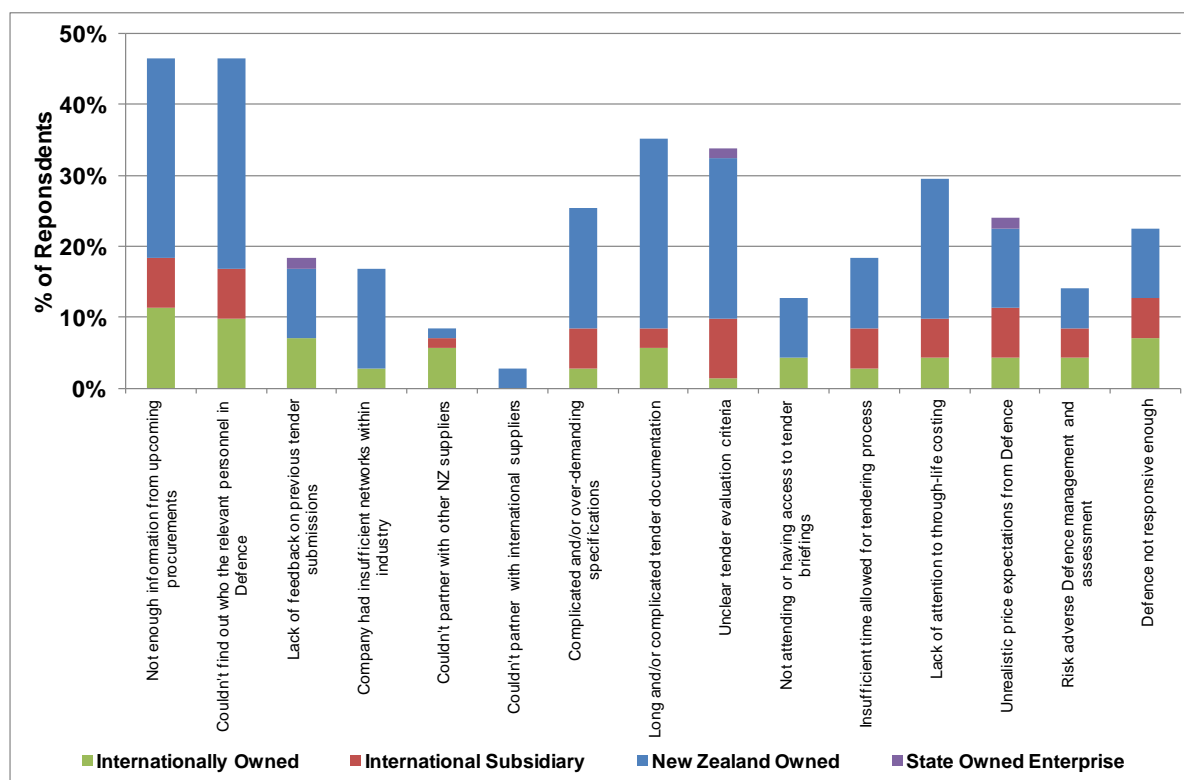


Figure 14 Survey respondents' difficult factors in gaining a contract or securing business

Respondents were frustrated with not knowing the timeline for tenders and with only learning about proposals through GETS:

"We have specific expertise that we feel could be of use and are not sure who are the key decision makers we need to speak to get to or how to get onto supplier pool other than via GETS process."

Respondents often expressed difficulty in not having access to the right people. This is perceived at least in part from a lack of transparency in Defence communications. These comments came from both international and New Zealand businesses, including from those who have been successful and unsuccessful in getting business with Defence.

Many comments also noted that Defence risked less optimal solutions through centralised procurement processes and by not opening direct access to end users:

"It is hard to know who or how to speak with NZDF personnel about our goods and services so we can work out how we can value add. We want to follow correct protocol but not knowing what that is and such avenues being available all the time means that we often hesitate in offering services."

"Not knowing what the opportunities are. Defence must buy a massive amount of product that we could supply or develop but I don't know exactly what these products are or who to talk to about supplying them. We are totally reliant on XXX representing us in front of Defence and I believe we could do a far better job and deliver better products for better prices that what Defence currently gets."

Small companies without existing relationships find it difficult to get a foot in the door:

There is a lack of opportunity to 'get in the door' early to enable focused development and gain early revenue. Opportunities such as 'battlelabs' are ideal as they create low risk opportunities for both NZDF and Industry."

4.1.2 Procurement Factors with Most Impact for New Zealand Companies

The three factors with the greatest net negative impact on New Zealand companies, irrespective of whether they are successful or not in obtaining work, were attention to whole-of-life costing, the quality of evaluation criteria and tender documentation. Each of these points is expanded below. Unsuccessful New Zealand companies also identified networking and partnerships with other industry suppliers as important. For international companies, we found that Defence risk tolerance, their responsiveness and price expectations were of most interest.

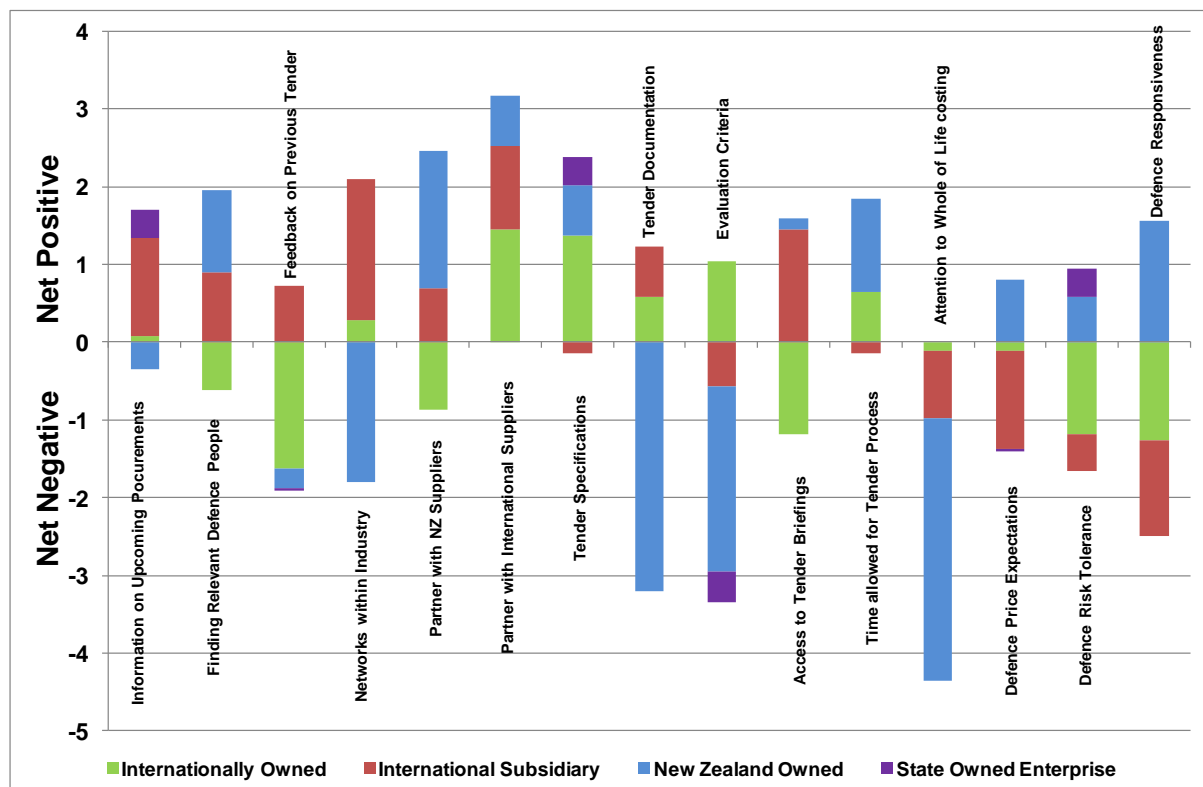


Figure 15 Survey respondents' net factors in gaining a contract or securing business⁷

4.1.3 Attention to Whole of Life Costing

Our respondents considered building a supply chain, providing support services, and maintaining assets within New Zealand to be more cost effective than doing so from other countries. Survey respondents consistently stated that whole-of-life costing should be strengthened throughout the

⁷ After adjusting for the varying sizes in the total number of positive and negative responses, the difference between the two responses to each factor was then analysed to identify the strongly net positive and negative factors in the procurement process. The net difference was then analysed by the company ownership type to see if New Zealand and International companies have different opinions on the issues within the procurement process.

capability planning phase, and it should also be one of the major criteria in the selection phase of a procurement decision.

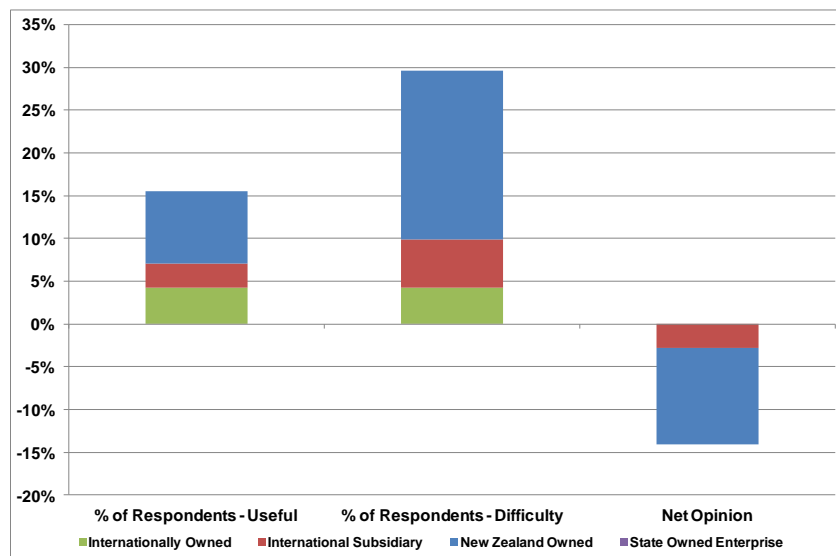


Figure 16 Survey responses about whole-of-life costing

The largest net difficulty identified by New Zealand companies was the whole-of-life costing factor regardless of company ownership type or success in securing business with Defence over the last ten years. Survey respondents thought that insufficient attention is paid by Defence in tender documentation to through-life cost advantages of New Zealand industry involvement. Typical of the many comments received are:

“NZ still looks at price being the over riding decision point rather than life cycle costs and overall value for money. Cost barriers to supply product to New Zealand [are] high (freight and cartage especially from Europe).”

“Lack of understanding by some in Defence of their own costs. Many costs [are] seen as 'sunk costs' and therefore not considered, leading to conclusions that in-sourcing is 'cheaper' and hence [a] better Value For Money solution.”

“Lack of consideration of through life costs in engaging on shore/NZ based skills and services. There needs to be a recognition of the full value from contracts, not just the bottom line”.

4.1.4 Clarity of Tender Evaluation Criteria

The evaluation criteria used during tenders was seen as an important factor for New Zealand companies; 16% thought they were useful.

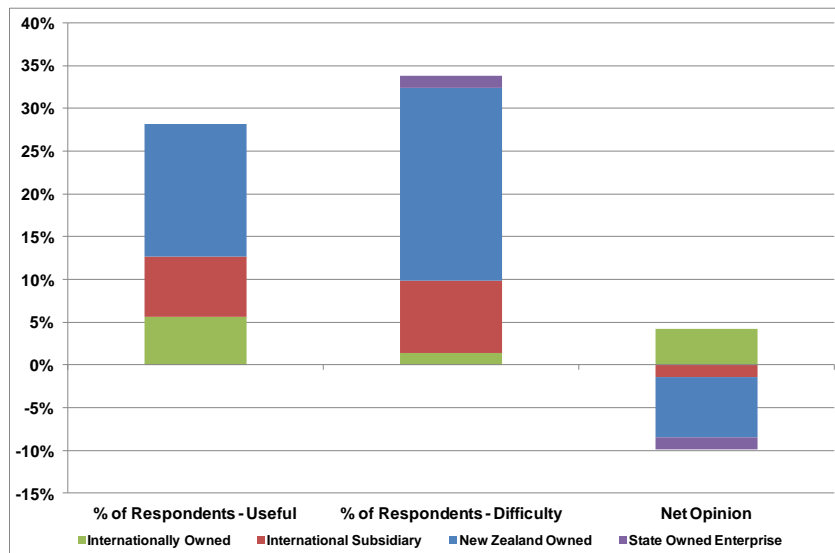


Figure 17 Survey responses about clarity of tender evaluation criteria

Several of the negative comments about evaluation criteria for tenders imply a Defence bias towards a preferred solution, or comment that criteria are overly complex and result in less than optimal solutions. The bias was often associated with a perceived Defence culture of risk aversion that excludes New Zealand companies and favours international prime contractors.

“We are very unlikely to respond to future tenders. It is too easy for operational/end user personnel to manipulate tender requirements to ensure they get what they want - which may not be the best solution from a direct cost or broader economic perspective...”

“Defence selection process high risk thresholds favour international contracts.”

“There is at times a belief that NZ companies are unable to deliver the services, perhaps arrogance to an extent, but large US corporations can.”

Many New Zealand suppliers felt that Defence needs not only to be more open to working with domestic suppliers, but that New Zealand industry should be actively supported. Some suggested there should be a policy of preference for domestic supply as long as costs and services are equitable.

“We believe a focus on New Zealand owned providers in areas where they have the expertise should have more weight in the tender process.”

“A bias to NZ companies, provided they can demonstrate the ability to deliver the skills and capability for a service or project ahead of an international, especially where the local company has a strong relationship with an international where supply chain support can be delivered seamlessly.”

“Adopt a policy to use Defence procurement to help the development of local capability. When overseas contractors offer to work with local companies, accept the offer and pass them to organisations such as ICN, DIA and Aviation NZ, which will promote the right companies to them. Share risk and share the costs of development - at the end of the day NZ wins.”

Respondents believe that assessing the merits of different tenders based on equitable costs and services should be within current government rules of sourcing. With two identical proposals, then a

more granular approach within tender analysis and selection may provide further opportunity for New Zealand industry.

4.1.5 Tender Documentation Focused on Capability Needs

New Zealand companies were the only group to identify the quality of tender documentation as a net difficulty in the procurement process, and this was noted by 27% of New Zealand companies. International companies and their subsidiaries did not find tender documentation to be a net negative factor.

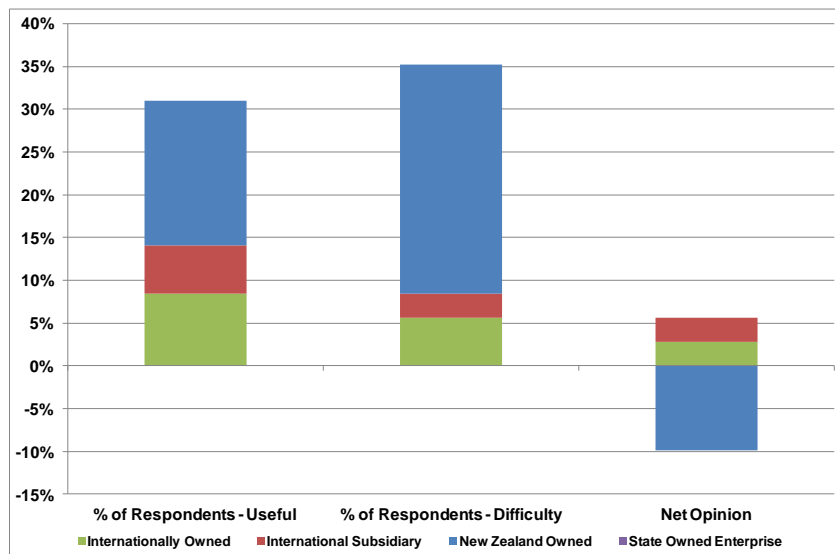


Figure 18 Survey responses about tender documentation

Written comments repeatedly noted that tender documents can be improved including better defined outcomes and user requirements.

"[Defence] can issue a tender stating one thing then, 6 months after tender close and awarded, [Defence] demands scope creep and claims the contractor should have thought of that as part of its responsible contracting. Absolutely not good at writing specifications and tender documents - they need outside help to get it right."

"Tender documentation can be overly-complicated and submission and delivery lead times too short".

A number of comments about the quality of tender documentation made the point that involving industry earlier and focussing more on the capability requirements rather than pre-determined solutions could improve procurement outcomes.

"There appears to be a significant disconnect between users on the ground and capability branch in terms of what is required - often the requirements are too defined and in my experience based on serving personnel's understanding of what the last system did without understanding how to engage with a company early to look at the 'art of the possible.'"

"'Solutioneering' by Defence constrains innovation. Defence need to focus on clearly articulating their desired outputs rather than describing to Industry their solution of how to achieve these outputs."

“Tender development process which currently depicts what NZDF personnel perceive as the solution rather than building the tender around the required outcomes.”

4.1.6 Networking and Partnerships are Important

The final major net difficulty identified by New Zealand companies is not being able to find sufficient industry networks or partnerships. This frustration was felt, in particular, by those New Zealand companies that were unsuccessful in obtaining work with Defence.

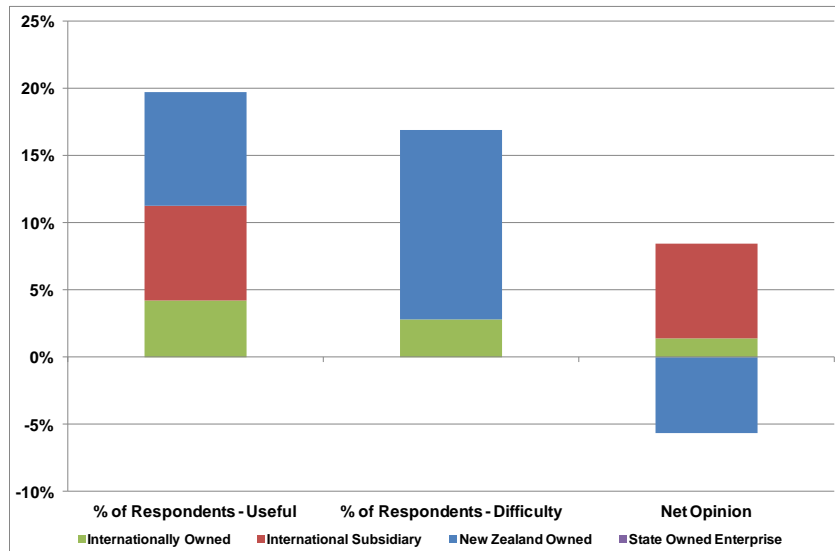


Figure 19 Survey responses about networks within industry

Much of the frustration is directed either at international prime contractors, who were often seen as not being interested in joining or building networks with New Zealand companies, or at Defence who are perceived by some respondents as anti-New Zealand industry.

“Unwillingness of Prime contractors to sub contract works to local suppliers.”

“I find the prime contractors [are] not interested in dealing with local businesses. This is a major shift that has happened since the new improved contracting template has been put into place. This issue of unapproachability [sic] and the air of we do not need the local guys has left a bad taste in the mouths of many of NZDF’s suppliers.”

“Change the ‘overseas is best’ philosophy.”

Again, many respondents noted their view that Defence is not prepared to give New Zealand companies a chance and, as a result, there is no incentive to develop the research and development or production capability in New Zealand needed to supply Defence. This “Catch - 22” is widely believed to be caused by a high level of risk aversion within Defence, and some respondents suggested that Defence should take on more risk for the benefit of New Zealand as a whole.

“Defence has an inability to work with companies to grow domestic capability (way too risk adverse) and doesn’t appreciate the wider benefits that can occur to NZ (ANZAC frigate showed what can be achieved, B757 door conversion shows a lost opportunity).”

“An area that would perhaps grow local capability would be longer range projection of needs being mapped such that initial R&D in NZ has time to play out. This may result in a higher risk

profile for NZDF but would foster local innovation. [The] end state however must remain that locally sourced has to be competitive with international alternatives.”

In addition, suppliers talked of the benefits of an innovation partnership between Defence and New Zealand industry for research and development initiatives.

“Defence help with Research and Development in specific areas of military interest would be on our wish list...help local ideas within a Defence envelope come to fruition which will ultimately help Defence and the country.”

“Look at how NZDF could help foster development of new products and industry around Defence.”

Many suppliers felt that earlier engagement between Defence and industry would enable the development of more effective relationships, and more open planning and sharing of Defence’s “issues/problems” would allow suppliers to develop better, more relevant solutions. The result would be better outcomes for both Defence and New Zealand industry. The theme of earlier engagement is evident in previous sections of this chapter also, for instance, in 4.3.3 about the quality of tender documentation.

“More open NZDF ‘planning sessions’ whereby issues/problems are presented to industry and solutions sought, i.e., pre ROI/RFP.”

“Knowing about all of the opportunities that arise so that we can be involved from the beginning.”

“Access to Capability Development Staff as early as possible wrt [with respect to] potential capabilities.”

4.1.7 Existing contractual arrangements

New Zealand suppliers see current contract arrangements as a significant barrier for a range of reasons. Views expressed were that contracts are too long, not subject to sufficient review, and anti-competitive – therefore not necessarily resulting in the best outcomes for Defence. Example comments include:

“A contract with [company x] which is too long and prevents suitable competition and industry specialists from offering services that would benefit NZDF.”

“Accountability of that contractor does not seem to be well managed or out-clauses not included where poor performance and / or failures may occur.”

“Constant blocks put in place around supply due to existing contracts. Lack of willingness to look outside the norm at features / benefits and product development opportunities.”

4.2 Findings and Conclusions from Defence Industry Survey

Defence industry input was sought via a survey to inform this report. Seventy-one companies participated.

- For New Zealand owned companies whole-of-life costing, evaluation criteria, tender documentation, and industry networking are seen as the four net biggest areas of difficulty for them in gaining Defence contracts
- New Zealand companies identified the same main difficulties, irrespective of whether they had been successful or not in securing contracts, except for industry networking which was more of a difficulty for those who were unsuccessful
- Good information on upcoming procurements, and knowledge and access to personnel in Defence were considered the two most useful factors
- Attention to whole-of-life costing in capability planning and tendering is seen as important by all types and sizes of companies
- The general belief is that building a supply chain, providing support services, and maintaining assets involving New Zealand industry is more cost effective than doing so in other countries
- Respondents want clearer tender documentation and greater clarity of the criteria to be used
- Suppliers believe that earlier engagement about requirements rather than pre-determined solutions will lead to better Defence outcomes
- Some New Zealand companies perceived a Defence culture of risk aversion that excludes them and favours international prime contractors
- It was suggested that Defence needs to be prepared to consider wider options for the benefit of New Zealand as a whole
- Survey respondents gave a strong message that they would like Defence to be more open and accessible and to develop more transparent communication and information systems
- A key concern was how to access the 'right person' in Defence. Those who had established relationships and networks identified these an efficient and effective way of doing business with Defence
- Better and more open long term planning by Defence, alongside earlier notice of procurement plans was seen as important by all types of companies
- Respondents talked of the potential benefits of an innovation partnership between Defence and industry for research and development initiatives.



5 Levers for Change

Having established the areas of Defence spending where there is potential for optimising New Zealand industry involvement, and having identified the aspects of the procurement process that industry survey respondents found most useful and most difficult, the next stage of the review focussed on levers for change within Defence.

Relevant Government documentation and industry information on current settings and practices were reviewed and some actual procurement examples considered. Eleven interviews were undertaken with industry representatives, and the NZDF, MoD, MBIE and Industry Capability Network personnel. A more detailed list of interviewees is included in Appendix 7.

This section draws together the findings to discuss potential areas for action. These are:

- whole-of-life costing
- working with prime contractors
- communication and transparency
- collaboration between Defence and industry.

5.1 Whole-of-Life Costing

Whole-of-Life costing (WOL)⁸ is a technique that can be used throughout the life of an asset to aid in the decision-making around concept, acquisition, operation and support, and disposal of military equipment. The need for WOL is based on the need to make optimal purchase decisions for new, replacement or upgraded capability and to ensure that new capability can be supported throughout its effective life within Defence budgets.

⁸ The standard definitions of WOL costing and total-cost-of-ownership are very similar and are treated as one in the same for the purposes of this report

The use of WOL costing was an important element of the feedback from industry through the survey and interviews conducted for this report. Lack of attention in tender documentation to through-life costing was the area of greatest net “difficulty” for survey respondents. Interestingly this finding was the same regardless of country. New Zealand businesses, New Zealand based subsidiaries of international businesses, and international businesses all identified WOL costing as an area for improvement. New Zealand suppliers think that more consistent and sophisticated WOL costing will highlight the cost-effectiveness of having domestic industry involvement in long term support and maintenance; prime contractors think this may give them a pricing advantage.

Interviews supported the view that a consistent and appropriate approach to capturing WOL costs enables options to be analysed and informed trade-off decisions to be made at all stages of the process. Examples are whether to purchase new or upgrade existing equipment or whether to invest capital upfront to save on operating costs later. When costs and benefits are being taken into consideration across the full life cycle, the cost savings and risk mitigation that may (or may not) be offered through New Zealand industry involvement can be visible when the initial purchase decision is made. An example of this would be where the capability can be maintained and supported in New Zealand, therefore saving transport costs and reducing down time associated with repairs. When WOL costs do not inform the purchase decision, this type of cost/saving may not be a consideration until much later in the life cycle, when little can be done to alter the situation.

WOL costing is already a requirement of the Government Rules of Sourcing. Rule 43.1 explicitly states “An agency must ... award the contract to the supplier/s that has... offered the best value for money over the whole of the life of the goods, services or works...”. The purchase of some military assets can be exempted from the rules, however the importance of the use of WOL costing in the procurement process cannot be over emphasised.⁹

WOL costing is applied in Defence for major capital acquisitions. NZDF has in place a requirement that the Services are to maintain an up-to-date WOL model for each existing major capability with a replacement cost greater than \$15 million¹⁰. The Better Business Case model, which is now applied in the pre-acquisition phase for all major capital purchase, places emphasis on WOL costs over capital costs.

Interviewees were in agreement that WOL costing should be consistently applied and continuously improved at each stage of the capability management process and additional attention in this area would be of benefit to all parties. Work is underway within NZDF and MoD to address this.

5.1.1 Examples of Whole-of-Life Costing in Defence

NZDF Corporate Finance has provided data to illustrate WOL costs for two recent major acquisitions. The purpose of these examples is to demonstrate that WOL costing can be completed with currently available data and to illustrate how this data can be used in the evaluation of tenders.

⁹ Rule 13.3m lists procurements which may opt-out of the Government Rules

¹⁰ DFO 77, Chapter 21, Section 3, 21226

The two examples are the NH90 helicopters and the HMNZS *Canterbury* light sealift vessel. These examples have not been fully reconciled with audited accounts and are presented for illustration purposes only.

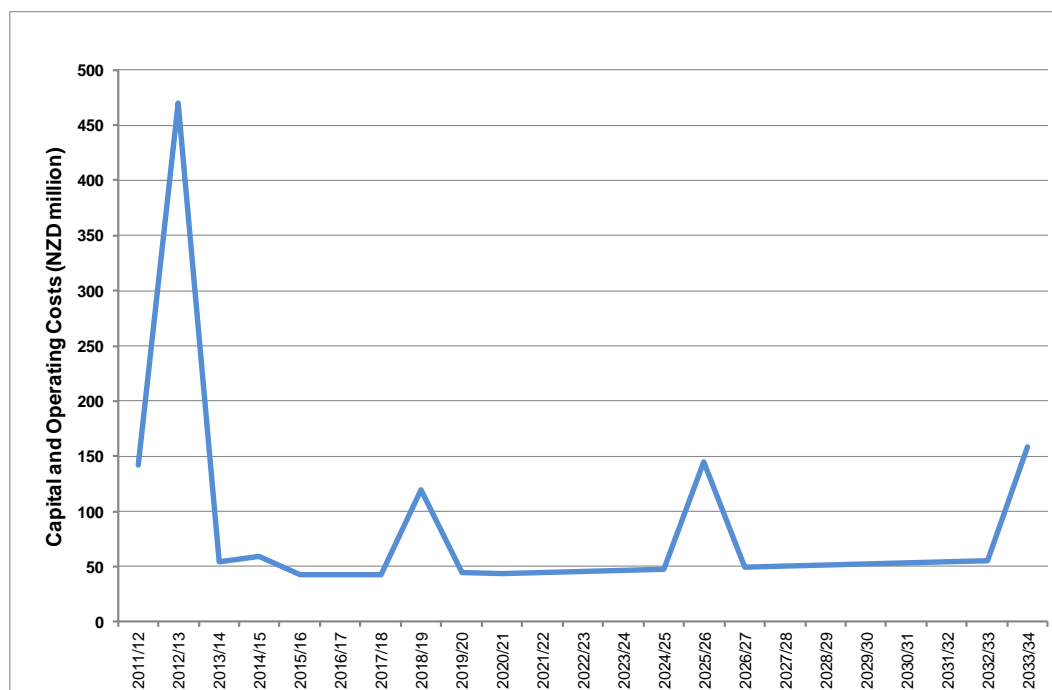


Figure 20 Estimated whole-of-life costs for NH90 helicopters

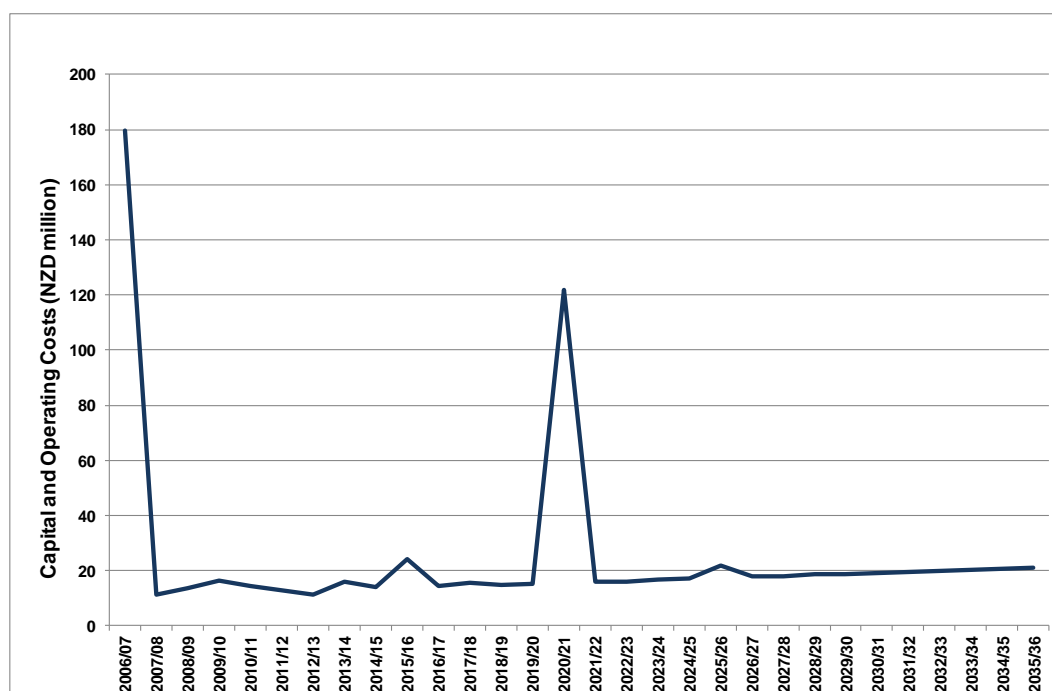


Figure 21 Estimated whole-of-life costs for HMNZS *Canterbury*

The figures illustrate that relatively heavy initial capital costs are followed by a steady stream of operating expenditure on maintenance and operating costs, punctuated by periodic capital investment

for upgrade or refurbishments. Between them, they also illustrate that the profile of expenditure is likely to differ according to the type of capability.

This picture is as expected and will be a common picture for all major capital assets. Knowing this cycle of expenditure for each major type of asset represents the starting point for pushing WOL analysis to a deeper level, such as the following examples illustrate.

5.1.2 Using Whole-of-Life Costs in Acquisition Decision-Making

At its simplest, WOL cost data can be used to determine the Net Present Value of two or more options in the tender selection process. Further analysis of WOL cost data can provide richer information to inform management decision-making. Two examples of this are outlined below:

1: Ratio of Ongoing Costs/Purchase Price

The ratio of ongoing costs to initial capital costs tends to vary (within a limited range) for different types of assets.

For example, HMNZS *Canterbury* 20 years costs:

$$\frac{\text{Present Value of All Estimated Costs After Purchase}}{\text{Present Value of Purchase}} = \frac{\$ 501,069,000}{\$ 205,535,000} = 2.4$$

This result is consistent with the findings of the Australian National Audit Office who state in their review of the Australian Defence Force life cycle costing that “life cycle costs are generally two to three times capital costs”.¹¹

Such ratios are a useful rule of thumb for roughly estimating the total cost of operating and maintaining large military assets, particularly in the initial scoping or planning phases of the procurement of a new asset.

Determining if the use of this ratio is relevant to Defence should be further explored, particularly for assets that have been in service long enough to provide actual costs over a period of 10 or more years.

2: Accumulated Present Value Costs

WOL costs should be a major component of any decision to replace, maintain or upgrade an existing asset. Using the present values of known and estimated costs can provide useful insight into the differences in costs between two or more options.

For example, Defence might need to make a choice between two capability options such as:

1. A large asset purchase with lower operating costs, and a major upgrade required after 15 years
2. A smaller capital outlay with higher operating costs but no major upgrades required.

¹¹ *Life-cycle Costing in the Department of Defence*, Australian National Audit Office, 1998

Figure 22 plots the accumulated present values of the two options, and makes clear the break even points, and the impact of upgrades and other changes in life cycle costs.

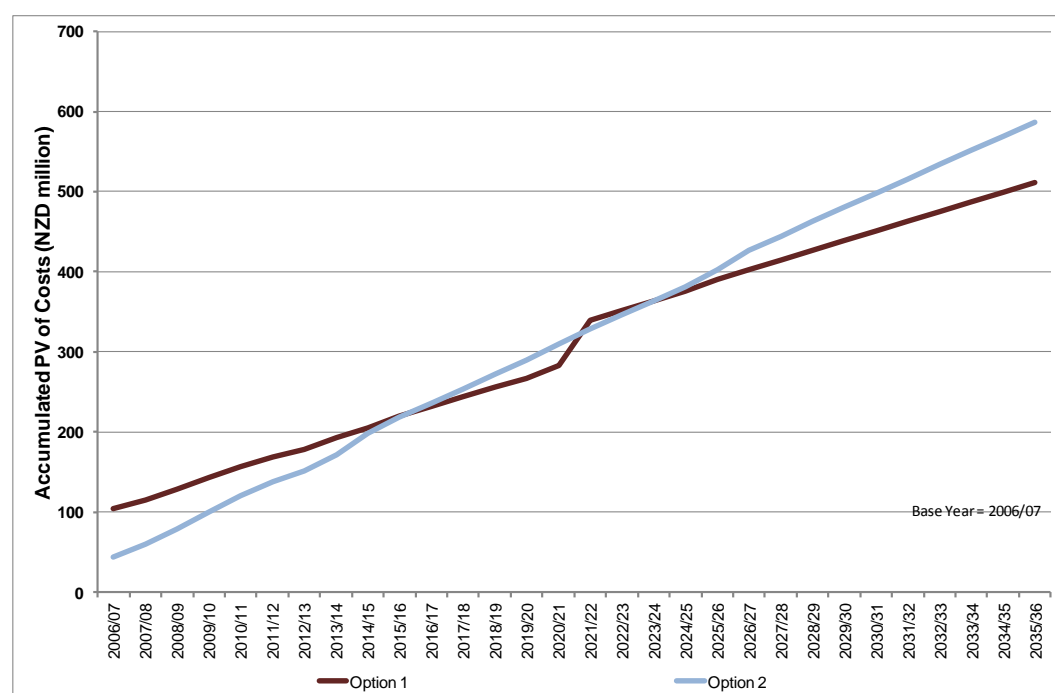


Figure 22 Example whole-of-life costing for analysis of acquisition options

This illustrates that after approximately 10 years there was no material cost difference, but after 20 years, there is approximately \$80 million difference between the two options in terms of accumulated costs.

In this way, the modelling of different options provides a more informed view for management to consider cash flows and determine the best pathway according to current and forecast future organisational circumstances.

5.1.3 Greater Sophistication in Whole-of-Life Costing

Interviewees highlighted not only the need to consistently embed WOL costing in the Defence procurement process, but also the need to increase the level of sophistication of WOL costing analysis used in acquisitions, particularly in the option selection phase. The quantification of risks to future costs was identified as an important element in this. Without sophisticated risk analysis of forecast cash flows, outyear Defence budgeting and the security of supply of essential components and services are not adequately considered during the provider selection process.

The impact of increased sophistication in WOL costing upon provider selection is not clear, but it is likely to result in changes to the security of supply of critical parts and services for essential Defence capability sets. New Zealand companies may or may not benefit from more risk adjustment to forecast costs. The issue is material and was not fully explored in this review. Further work in risk adjustment of cash flows and other more sophisticated uses of WOL costing data should be reviewed after WOL costing methods have been consistently implemented in the procurement process.

5.1.4 Impacts of Whole-of-Life Costing on the Procurement Approach

The application of WOL costing becomes more detailed at each stage of the procurement process. It can be used at a high level to explore options, at another level of detail to select preferred provider/s, and then at a very detailed level to negotiate final contract pricing.

The examples outlined here also serve to illustrate the value of considering the WOL picture within a single or simultaneous procurement process for a major capability. This does not have to mean one contract or one contractor. Consideration of the total cost over the life of the asset means that operating costs, spare parts and maintenance are considered concurrently with the initial purchase. Any costs and associated risks with off-shore WOL support arrangements should also be included. If all of these factors are not considered up front, it is possible that a sub-optimal purchase decision could be made.

Further, as Example 1 for the HMNZS *Canterbury* costs illustrates, based on real data from the NZDF, if WOL costs are considered, then the weight given in the decision process to the ongoing operating and support costs needs to be as great or greater than the weight given to consideration of the initial purchase price – because it amounts to 2.4 times the purchase cost.

As a recent example, in 2012 the Pilot Training Capability project tendered for the acquisition of the capability (the training aircraft and flight simulator) and its through-life support at the same time. The tender documentation in this case sought visibility of any local industry involvement in tender responses. The prime contractors considered in the process then sought New Zealand business partners to provide the ongoing maintenance and support elements of the requirements and the contract was awarded on the basis of the whole package rather than the initial purchase only. This approach is the new minimum standard.

Defence industry survey respondents and interviewees indicated that they want clear information about Defence's expectations with regard to WOL cost information, generally and within tender documentation. This could include guidelines and, where appropriate, a set of case study examples of WOL costing applied to a range of Defence scenarios. Tender documentation should define in detail the cost elements that tender respondents need to cover in providing WOL costs in their individual proposals.

Developing greater sophistication in the use of WOL costing throughout the procurement process will also require monitoring of WOL costs for major platforms going forward to develop and refine expertise and knowledge of these costs.

5.2 Working with Prime Contractors

A recurring theme through this analysis was how best to optimise New Zealand industry involvement with prime contractors for the supply and support of major military capabilities, as this is the area of Defence expenditure where there is greatest potential opportunity for New Zealand industry.

A number of survey respondents cited difficulties in engaging with prime contractors as a barrier to their involvement in the defence sector. Many wanted to engage early in the process but didn't know how to achieve this. Others felt more could be done to make the advantages of New Zealand industry involvement within prime contractor supply chains more visible during the procurement process. Some businesses who had managed to engage with prime contractors expressed reservations about their sub-contracting experience.

5.2.1 Opportunities for New Zealand Industry to Engage Early with Prime Contractors

Some survey respondents recounted difficulties they had experienced in connecting with prime contractors, especially at an early enough stage in the procurement process for this to translate into a sub-contracting outcome. Interviewees highlighted the efforts that currently go into facilitating engagement between New Zealand industry and international prime contractors. The Industry Capability Network (ICN)¹² plays a key role here, along with industry associations such as NZ DIA. Primes may also have existing supply chain arrangements that they wish to utilise. Defence itself is looking at ways that it can assist while operating within the Government Rules of Sourcing.

A recent example of this is the workshop conducted by Lockheed Martin Canada and Seaspan Shipyards in Auckland in late January 2014. This event was hosted by ICN in order to ascertain potential opportunities with the Frigate System Upgrade project and/or future Canadian shipbuilding projects. Forty Two companies attended. Within this area, there is potential for a number of New Zealand companies ranging from component manufacturing, cable installation/strip out, design, freight and training.

An additional option is for Defence, as a matter of routine, to publish a list of prime contractors along with the nature of the contract/s held and the relevant contact details for the company. With their permission, this could be extended to publishing details of primes who have responded to Requests for Information or Registrations of Interest. This would enable New Zealand industry to contact potential prime supplier of a particular capability in the early stages of the tender process. This information could be easily and equally accessible through the Defence website for suppliers proposed in section 5.3.1.

5.2.2 New Zealand Industry Engagement Plans

The MoD Acquisition Division manages the procurement major military capabilities. Standard MoD tender documents contain a section in the body, entitled *Voluntary Involvement of Local (including New Zealand, Australian, Singaporean, Bruneian and Chilean) Industry*. In this section, the tender

¹² In New Zealand, ICN is supported by New Zealand Trade and Enterprise, and works primarily in the defence, transport, oil, gas, minerals, hospital and Christchurch rebuild sectors.

respondent is asked to identify any activities that “could be undertaken by it to afford local industry full and fair opportunity to compete for involvement in the project”. Information is also provided about assistance available through ICN to identify New Zealand industry with the capability to meet the procurement requirements. ICN contact details are provided.

The purpose of the section is to gather information about how the tender respondents have engaged in with New Zealand industry in preparing their response and what involvement New Zealand industry will have in the supply chain they are proposing as part of their tender. This approach places an emphasis on the visibility of New Zealand industry involvement and delivers a message to tender respondent that this is of interest.

The wording in this section and its position in the tender documentation could usefully be updated with a view to seeking a New Zealand Industry Engagement Plan (NZIEP) in all future Defence tenders over \$15 million. The NZIEP could also form a part of NZDF tenders for other capital acquisitions, as appropriate. The NZIEP tender wording and/or template should be developed by the MoD and NZDF with input from the MBIE Procurement Branch and ICN. Consideration should also be given to seeking a commitment in any resulting contract that the successful tender respondent will engage the supplier/s identified through the NZIEP in the response.

While the involvement of New Zealand industry cannot be given any preference in tender evaluation criteria, the Government Rules of Sourcing do not preclude buyers from asking tender respondents for this information. Neither is it necessary, under the Rules, to request tender respondents to detail their engagement with industry in all countries with which New Zealand has Free Trade Agreements. Asking specifically about New Zealand industry involvement is consistent with our obligations.

Where tender respondents can demonstrate that New Zealand industry involvement in the supply chain provides material advantages, for instance it improves responsiveness, through-life costs, and/or lowers risk, this can be taken into account in the evaluation of the tenders.

5.2.3 Aligning Prime Contractors to Government Procurement Principles

Some survey respondents spoke of a desire to contract with Defence directly, rather than with a prime contractor. A way of ensuring that their experience of working through a prime is closer to the experience of a direct working relationship would be to outline in writing, clear expectations (at tender specification stage) of prime contractors in terms of alignment to the Government Procurement Principles and Rules of Sourcing. This would involve setting clear written standards for contracting and relationship management required under Defence contracts where subcontract or partnership arrangements will be in place.

5.2.4 Contract Length

Some survey respondents perceived current contract arrangements as a significant barrier for a range of reasons. They considered that some contracts were too long, and raised questions about the frequency of review.

A small number of NZDF contracts are for durations of five years or longer. In all cases performance standards, regular reviews and consequences of failure to meet requirements are built into the contracts, with appropriate monitoring and governance of the process. The survey responses suggest that this is not well known. The increased engagement and transparency proposed through the Defence website for suppliers outlined in section 5.3.1 should address this.

5.2.5 Reporting on Prime Contractors' Expenditure in New Zealand

During the expenditure analysis undertaken for this review, it was clear that more could be done to understand how much Defence spending via international prime contractors cycles back into the New Zealand economy, and where prime contractors are New Zealand based, how much of their spending occurs in this country. Currently, Defence contracts do not require primes to track and report sub-contracting expenditure in this way. The benefits of introducing such a requirement for contracts over \$15 million in value would be two-fold. Firstly, it would strengthen the message from Defence to prime contractors that New Zealand industry involvement is of interest. Secondly, it would enable Defence to build a more real and robust profile of its expenditure in New Zealand.

The collection of this information could begin with existing contracts, by negotiation with current primes at contract reassessment points. It could then be reported by project and New Zealand expenditure in relevant project reporting vehicles and also incorporated into regular reporting of total Defence expenditure.

5.3 Defence Procurement from an Industry Perspective

Businesses responding to the survey consistently reported they find it difficult to locate the right area or person in Defence to connect with. From the outside, for companies that do not currently have relationships with Defence, and even for those who do, the complexity of the organisational arrangements and the lack of any means of navigating through them provide an almost impenetrable barrier. How would you know what area, what position or person to approach?

Interviewees echoed this finding. Even for those with inside knowledge it is challenging to maintain a complete and up-to-date understanding of the internal procurement map of roles and responsibilities. It is therefore difficult to ensure that incoming enquiries are directed to the right place or networking connections linked up optimally.

5.3.1 A Single Point of Entry and Source of Information

The nature of the organisational structures, roles and relationships should not be up to the suppliers to try and make sense of. Without the necessity of structural change, Defence could create a single point of entry for procurement enquiries and source of information for suppliers, presenting “one face” to industry.

From this website for Defence suppliers, enquiries could be channelled to the right area, suppliers could register their interest, look at Defence future plans, and see advance notice of forthcoming tenders, current tenders, lists of prime contractors and so on.

The website could also serve as the vehicle for posting more detailed planning information, drilled down from the Capability Plan and designed specifically to assist industry to see where the future opportunities for them might lie. Interviewees suggested that this information be over a ten year planning horizon. This has potential to both address industry complaints of lack of visibility of future intentions, and decrease Defence implementation risks from lack of New Zealand capacity to deliver some capital items such as buildings and works. Detail about upcoming procurements would augment the Defence annual procurement plan information available through MBIE's supplier information website.

An annual calendar of information briefings for all current and potential Defence industry suppliers could also be published through the website. This would include regular open invitation updates on current and future projects.

For industry, this easily and equally accessible point of entry and source of information about Defence procurement would address many of the issues they have raised in the survey around access, information and communication, connecting with the right people and having sufficient information early enough in the procurement process.

For this to be achieved successfully, the Defence website for suppliers would need to be underpinned by good quality processes and information. A full plan would need to be developed for the roll out of the website and also for the identification and development of the products and services to be provided through it.

5.3.2 “One face” for Defence

This joined up “one face” approach would not need to impact on structural accountabilities, and could also serve to promote a more seamless procurement process both within and across the organisations. This could extend to standardising the layout, structure and wording of procurement documentation across the NZDF and MoD so that all external facing documents have the same look and feel. They could at the same time be flexible and therefore fit for purpose as levels of procurement complexity increase.

It was clear from industry survey responses that many businesses are confused about the roles of the NZDF and MoD in the Defence procurement process and there is a tendency to conflate them. Rather than emphasising the separation, this “one face” approach would support more seamless interaction between industry and Defence.

5.4 Increased Collaboration between Industry and Defence

5.4.1 Early Industry Input

Interviews conducted for this review revealed that there is a desire within Defence and industry to move to a more collaborative approach to procurement where appropriate. This would begin at the very early stages of identifying options for meeting capability needs and would involve exploring these in partnership with the market experts before moving into a formal procurement process. Some

activity of this kind is already occurring through the Defence Technology Agency (DTA) and NZDF's experimentation initiatives, such as the Army's Battle Labs, where the focus is on new capability and emerging technology. Identifying ways to fund and manage this work will be a fruitful area of engagement with MBIE and DTA. The ICN, part of New Zealand Trade and Enterprise, also aims to facilitate early collaboration. Survey respondents highlighted these types of initiatives as positive.

Even before the identification of early requirements, there are opportunities to conduct research and development that provides insight into ongoing and future capability needs that can inform ongoing strategic assessments and requirements. Further down the track, where a capability need has been established but there is not off-the-shelf technology available to meet it, Defence and industry need to work together to explore options well before the tendering stage.

Survey respondents raised the tensions between specificity in tender documents and providing scope for innovation solutions, which reflects the risk inherent in military procurement and levels of risk that can be tolerated by the Crown. The solutions to this dilemma should involve earlier involvement of New Zealand industry in the scoping and development phases prior to the procurement process and a review of current tender documentation.

The NZDF is currently exploring international models for collaboration, what is possible within Government Rules of Sourcing, and determining what might work best in this context.

At present, suppliers responding to the industry survey would regard most of the procurement taking place in Defence as arms-length and not as collaborative as they would wish. Their frustrations with this situation are twofold: firstly, that specifications are inadequate/not specific enough for the arms-length approach to work; and secondly that better capability solutions could be possible if Defence and industry worked together in a collaborative, partnership style relationship to examine options before the solution is determined and the tender issued.

In this sense, industry and Defence's thinking about more mature and flexible approaches are aligned. Both parties will need to work hard to develop ways of operating at the higher end of the scale that ensure the best outcome for New Zealand, the protection of supplier commercial interests and the management of expectations.

5.4.2 Strengthening Defence and Industry Relationships

During the interviews conducted for this project, a number of initiatives were identified as having potential to strengthen Defence and industry relationships.

The value of knowing the "right" person to connect with in Defence came through often in the survey responses. Where businesses had relationships with Defence personnel in place already, these were noted as being of high value. Both the NZDF and MoD have roles based at Headquarters focussed on managing relationships with industry. In addition, a small number of personnel in the NZDF and MoD are known by many industry players as key contacts. Not one of these people has the responsibility of providing the link, conduit and co-ordinating point for industry relationships across all of Defence.

Ensuring that joint MoD and NZDF relationship management position/s are in place at a senior level would be a valuable next step.

An effective strategy for strengthening relationships is to increase understanding of each other's worlds. Interviewees were supportive of Defence and industry representatives working together to develop a programme of visits, secondments, exchanges or training opportunities for key personnel in both areas to better understand the working parameters of government and industry.

Interviewees noted examples where this type of information sharing and relationship building is already occurring. The annual NZ DIA forum was seen as key, with many senior Defence personnel actively involved as presenters and participants. This forum is keenly attended by industry. Similarly this year the Navy changed their Naval Engineers Conference format to include an industry focus on one of its three days. Industry members were invited in to provide briefings on emerging technologies and to attend select briefing from Navy personnel.

For Defence, building some level of understanding about industry could start early in the training process. This would involve identifying opportunities to include an overview of Defence/industry relationships in existing Defence training courses to highlight the importance of working together for best outcomes.

5.4.3 *Defence Attachés*

Defence Attachés and Defence personnel travelling overseas on procurement or industry engagement matters are in a unique position to identify and capitalise on opportunities for promoting New Zealand industry overseas. ICN currently supports this activity, through protocols and processes for providing pre-deployment briefings. There is scope for these to be further strengthened.

5.4.4 *Ongoing Feedback from the Defence Industry*

The survey conducted for this review has proved to be one of the most useful sources of information for analysing the issues in Defence procurement experienced by New Zealand companies. Repeating this process bi-annually would enable Defence to learn further about the changes it makes to the procurement process and to identify other issues early and keep a focus on optimising its procurement processes.

This would complement the NZDF's pilot of the near real-time decider and provider feedback tool, Bravo, which provides the opportunity for both Defence and industry to comment on their experience in doing business.

5.5 Findings and Conclusions from Levers for Change

Drawing together the review findings has highlighted the following key points:

- Whole-of-life costing provides a vehicle for ensuring that best value for money decisions are made about the type of capability solution adopted as well as its purchase and management
- Use of whole-of-life costing in Defence is variable and work is underway to consistently apply and continuously improve it
- Risk adjusted cash flows and other more sophisticated uses of whole-of-life costing should be explored further as work in this area progresses
- Defence industry suppliers want clear information about Defence's expectations with regard to whole-of-life cost information, within tender documentation and more generally
- Procurement processes that concurrently consider the capital purchase and through-life support arrangements enable options to be assessed for value for money throughout the life of the asset
- Defence tender documentation does not reflect the flexibility available within the Government procurement rules to make New Zealand industry engagement and involvement in the proposed supply chain and through-life support visible
- Where tender respondents can demonstrate that local industry involvement provides material advantages, this can be taken into account in the evaluation of the tenders under the Government Rules of Sourcing
- There are opportunities to work with prime contractors to ensure that their practice with sub-contractors is aligned with Government procurement principles, and that Defence is able to track their expenditure on sub-contractors in New Zealand
- Routine publishing prime contractors' contact details from the early stages of the tender process could assist New Zealand industry to optimise their involvement
- Defence organisational arrangements for procurement are complex to navigate. From an industry perspective, access to Defence procurement areas is difficult and improvements to information and communication are desirable
- Better solutions could be possible if Defence and industry collaborated, particularly in the early stages of identifying options for meeting capability needs
- The defence industry survey conducted for this review provided useful industry feedback on the procurement process and should be conducted bi-annually.

Appendix 1: Analysis Methodology

Notes - Expenditure

This analysis was undertaken in order to seek information on comparative levels and trends over time in New Zealand Defence expenditure across vendor countries. It was undertaken in order to provide an evidence based picture of Defence spending in the New Zealand industry market. The analysis considers the Defence spending on goods and services over the eight years from 2005/06 to 2012/13 by both the NZDF and MoD.

NZDF Data

Ideally, information from the general ledger would be used so that the data were based on actual expenditure. However, the general ledger does not record the country of the vendor, so the analysis of NZDF's expenditure is based on purchase orders placed during the eight year period.

The purchase order system excludes salaries and wages, depreciation, capital charge and taxes, and it does not include every purchase transaction. The difference between total purchases recorded in the general ledger and the purchase order system ranges between 2% to 16% of the general ledger totals.

To ensure the difference between actual invoiced amounts and purchase orders is not impacting materially on the trends identified by the vendor country analysis, a comparison of purchase orders against invoiced amounts was completed and is shown in Figure 23 below. The current widening gap between purchase orders placed and invoice amounts reflects the multiyear nature of defence sector purchase orders.

Overall, the graph indicates a close correlation between purchase orders and invoice totals over the period. This provides assurance that the purchase order system provides a useful dataset for vendor country analysis of Defence expenditure.

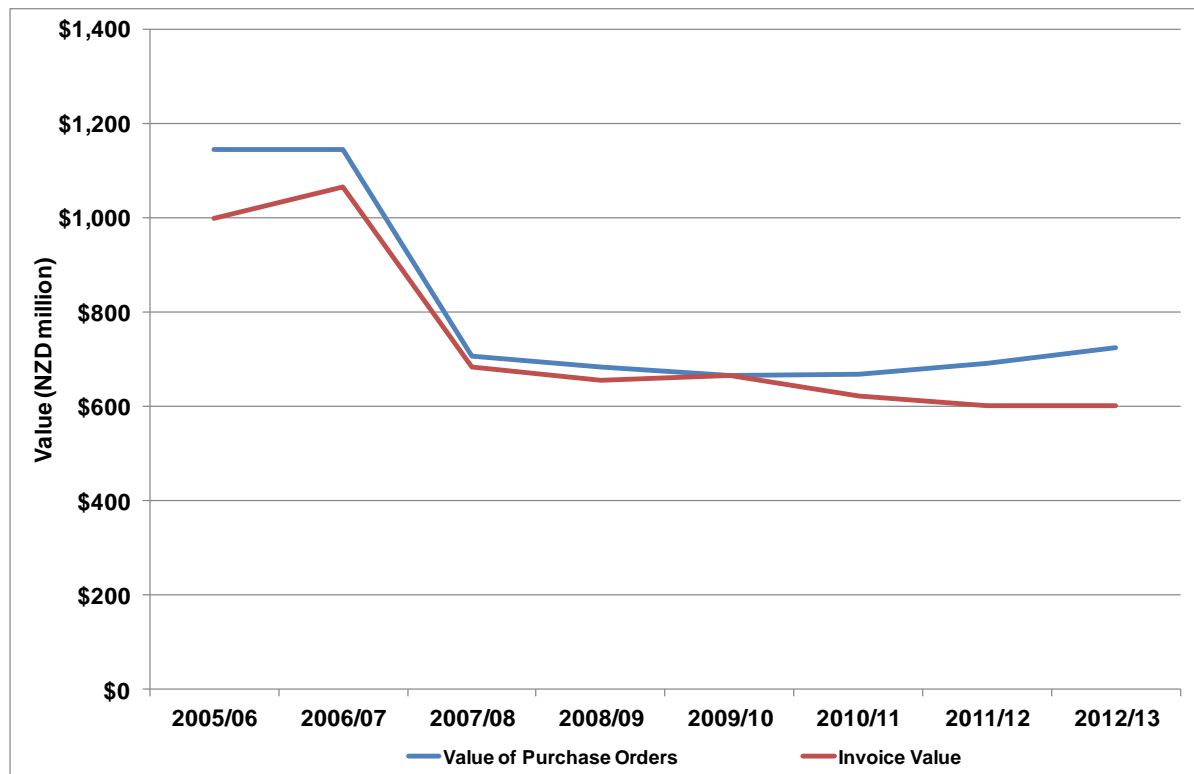


Figure 23 Comparison of purchase orders and invoices

General Ledger vs. Purchase Order Data

Using the NZDF Purchase Order system to analyse the country of operating expenditure means that the analysis is not complete. Some operating expenditure is entered directly into the general ledger, and not through the Purchase Order system. The difference between the audited operating expenditure and Purchase Order expenditure commitments is shown in Figure 24 below. Over the eight years an average of 92% of operating expenditure is captured in the Purchase Order system, so it can be safely assumed that the analysis completed in Chapter 3 is robust.

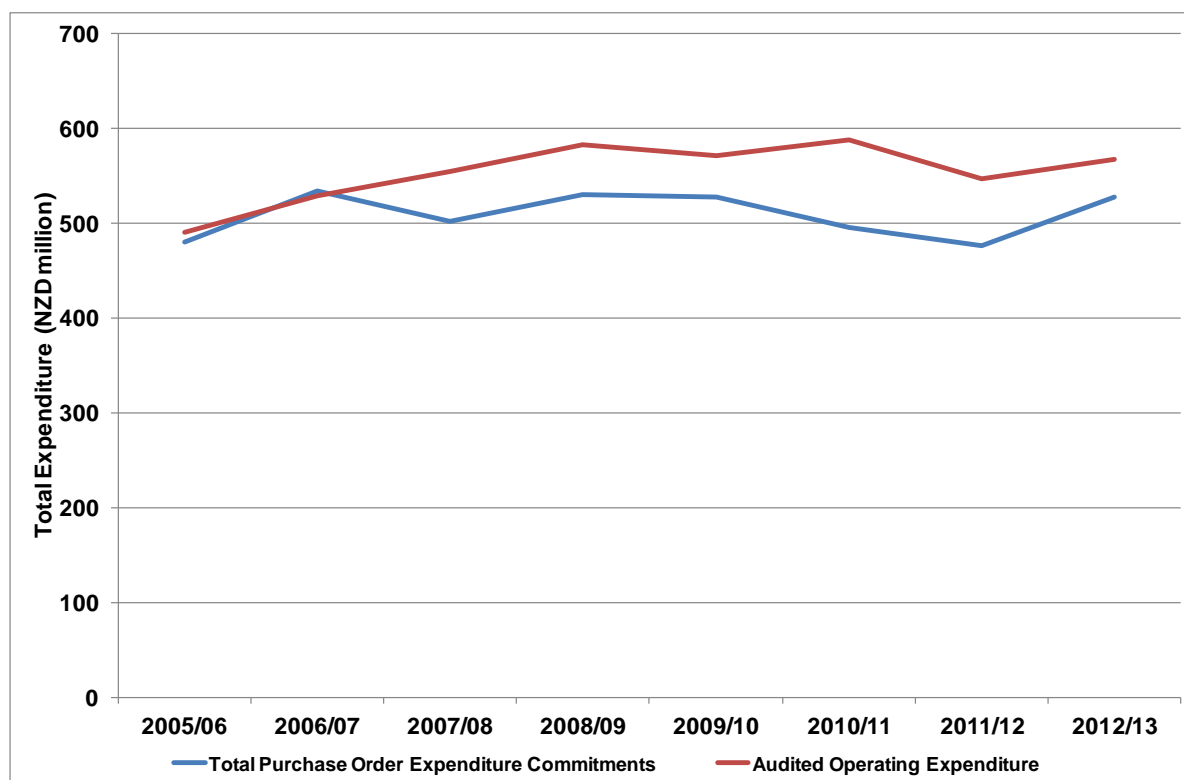


Figure 24 Comparison of general ledger and purchase order operating expenditure

The information on MoD's capital expenditure is based on an extract from the Ministry's general ledger. MoD's operating expenditure is excluded from the analysis as it is relatively small (\$13.3 million per annum in 2012/13) and largely consists of salaries and wages. All non-Departmental expenditure for the period is included.

Comments on the Limitations of the Data

The analysis of Defence expenditure by vendor country has limitations. These include:

- Accuracy is dependent on how individual items have been treated. For example, whether spare parts have been included in the initial capital purchase or are treated as ongoing operating expenses is not consistent
- Accounting for significant purchasing in MoD is set up under a project management framework (i.e. project by project budgeting and accounting) and not for operational analysis
- Some types of information (such as country in which the spending is done) are not recorded in their own right (as a category of information to be captured) and therefore manual analysis is required rather than an ongoing part of business monitoring and understanding patterns of expenditure.

It is acknowledged that the data is not perfect. However, given the absence of any hard data available in the past, the analysis presented here contains valuable insights which will assist the focus of efforts to optimise New Zealand industry involvement in the defence sector.

NZDF Annual Expenditure from Annual Reports

Figure 25 breaks down the annual NZDF accounts and shows that operating costs spent on external suppliers and services has remained relatively stable at around \$560 million since 2007/08. The other cost types, depreciation, capital charge, personnel and foreign exchange revaluations, are all excluded from the analysis as they are not spent on external suppliers.

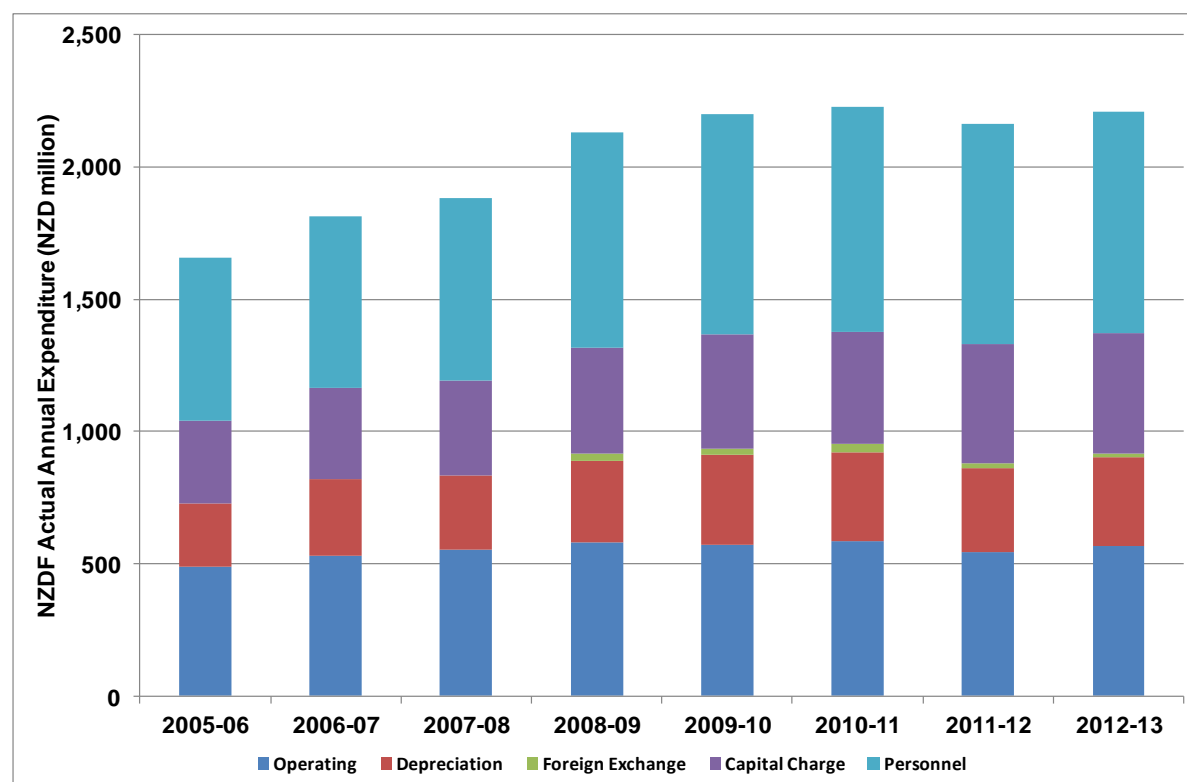


Figure 25 NZDF Actual Annual Expenditure from Annual Reports

Appendix 2: Expenditure Category Definitions

Expenditure Category	Expenditure Category Description/Examples
Operating Expenditure	
Accommodation Services	Travel, accommodation and lease expenditure.
Clothing	Uniforms, sportswear, safety gear, badges, and webbing
General Logistics	Freight forwarding, moving goods and equipment and courier services
Food	Catering, canteens and mess halls, meals while travelling, and other rations
Fuel	Fuel including aircraft, vessels and vehicles, gas and coal
Military Hardware – Maintenance and Repair	Maintenance of vessels (dockyard and non-dockyard), aircraft and rotables (engine parts)
Maintenance and Repairs	Works maintenance, equipment and spares, maintenance of non military vehicles, planned and unscheduled maintenance housing and rental equipment Note: Some equipment and spares expected to be included in this category may be included in capital expenditure on military hardware
Training and Education	Includes overseas and New Zealand training costs for professional development, technical skills, universities, polytechnics, and industry training organisations
Good and Services	All other operating expenditure not captured above. Large line items included in this category are airport charges, cleaning services, advertisements and recruitment expenses, electricity, rental and licences, medical and dental fees, publication and stationery, scientific and technical services, travel expenses, legal and professional services
Capital Expenditure	
Defence Estate	Consists of Defence estate buildings, infrastructure and improvement expenses
Military Hardware	Consists of aircraft, maritime vessels, military vehicles, plant and equipment, artillery, weapons and ammunition, military computer hardware and software
Non-Military Vehicles	Purchase, modification and parts of non-military vehicles, including passenger vehicles, trucks, forklifts, excavators, and transporters
Computer Hardware & Software – Office & Other	Office computer hardware, software and licences.

Appendix 3: Expenditure/Commitments Analysis Charts

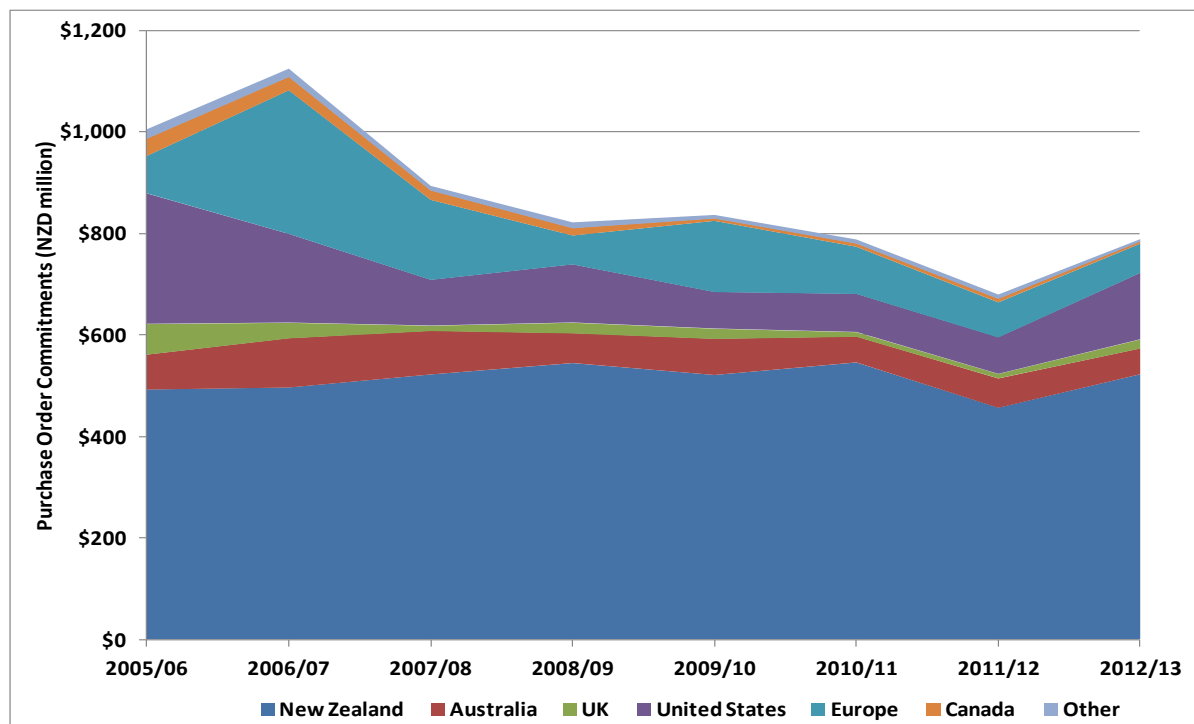


Figure 26 Total Defence capital and operating expenditure commitments by vendor country

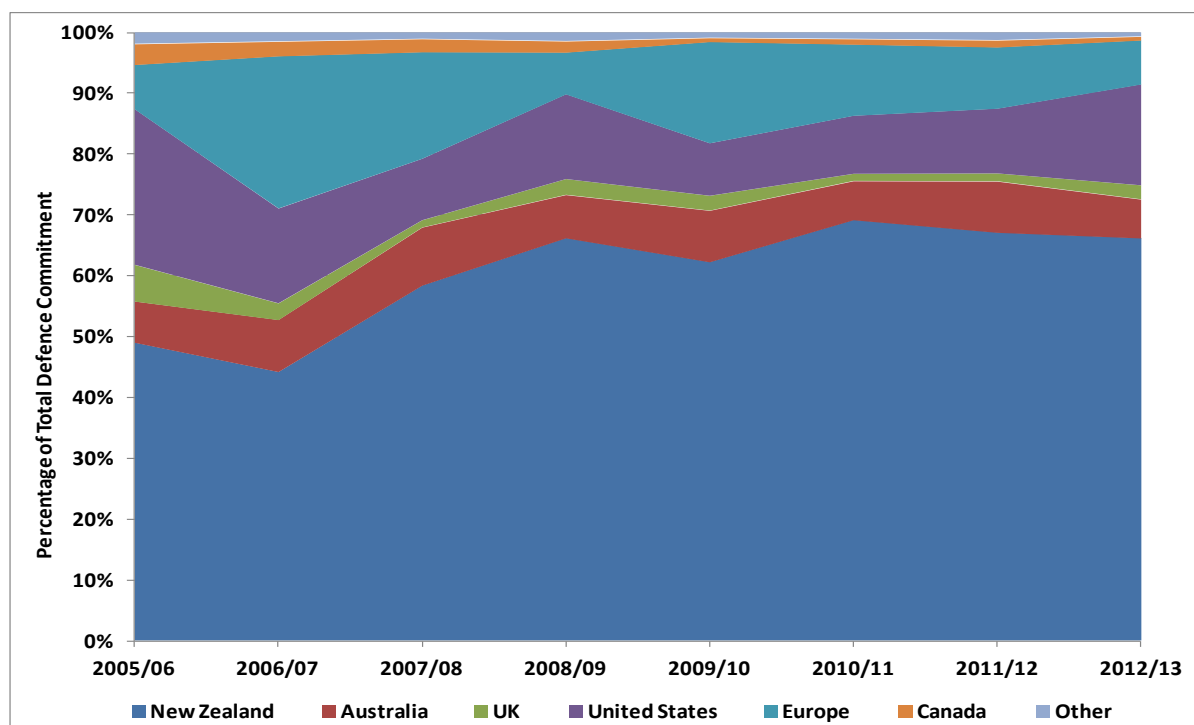


Figure 27 Percentage of total Defence capital and operating expenditure commitments by vendor country

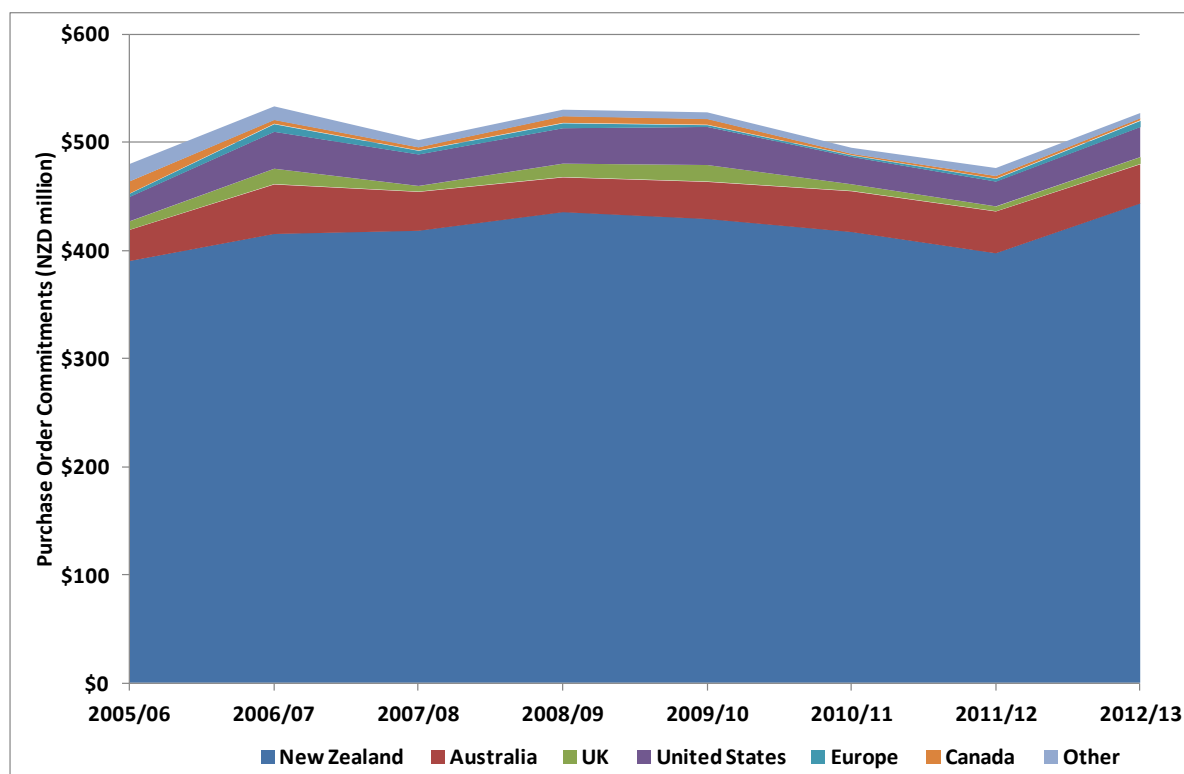


Figure 28 Total Defence operating expenditure commitments by vendor country

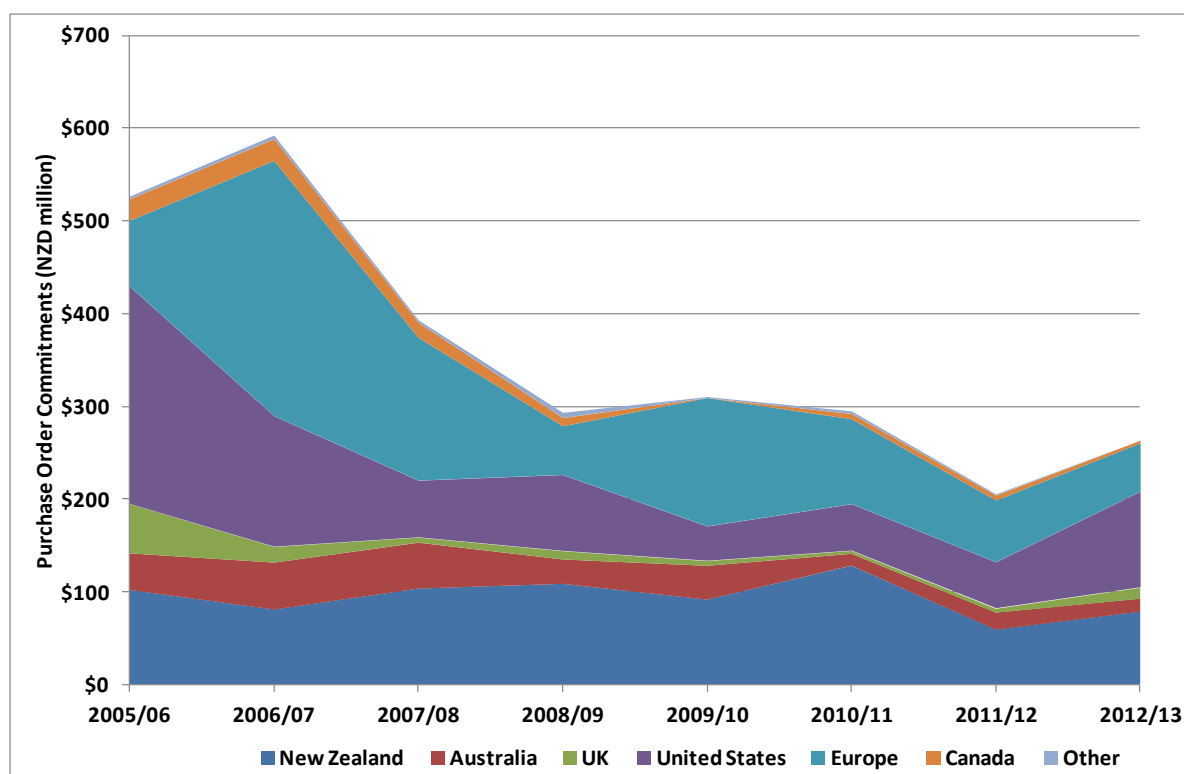


Figure 29 Total Defence capital expenditure commitments by vendor country

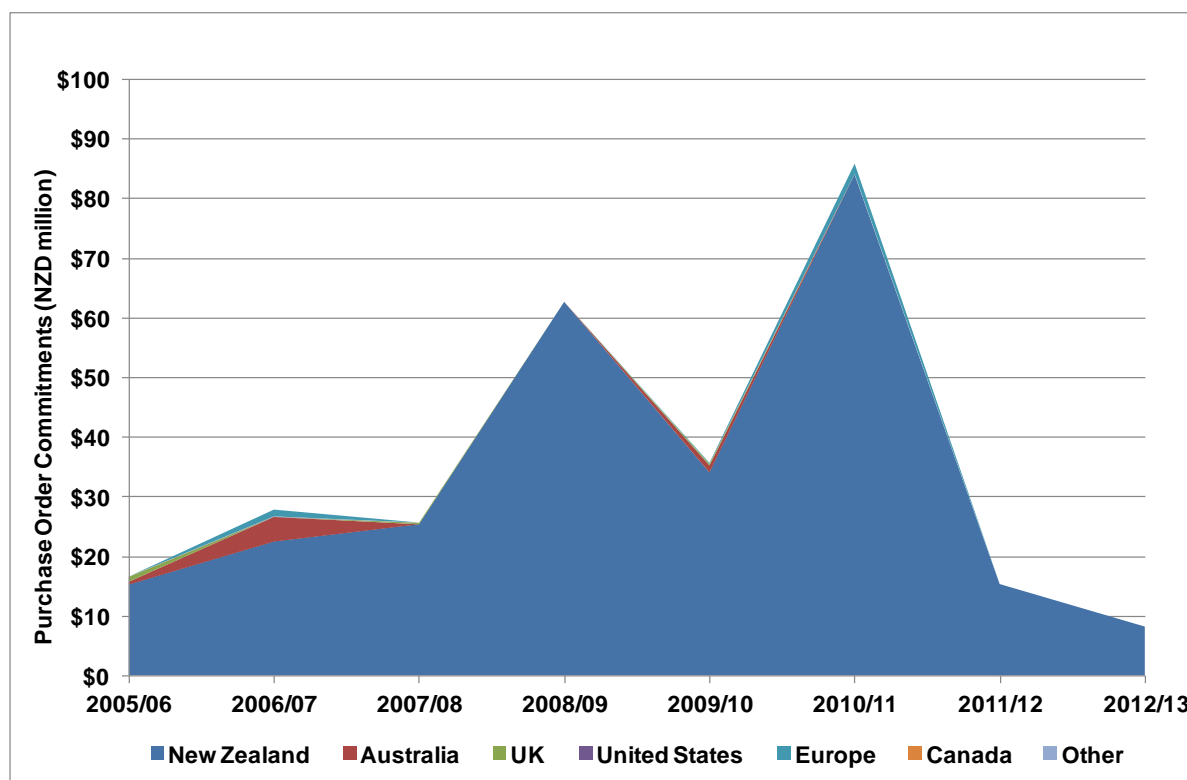


Figure 30 Defence capital expenditure commitments on the Defence estate by vendor country

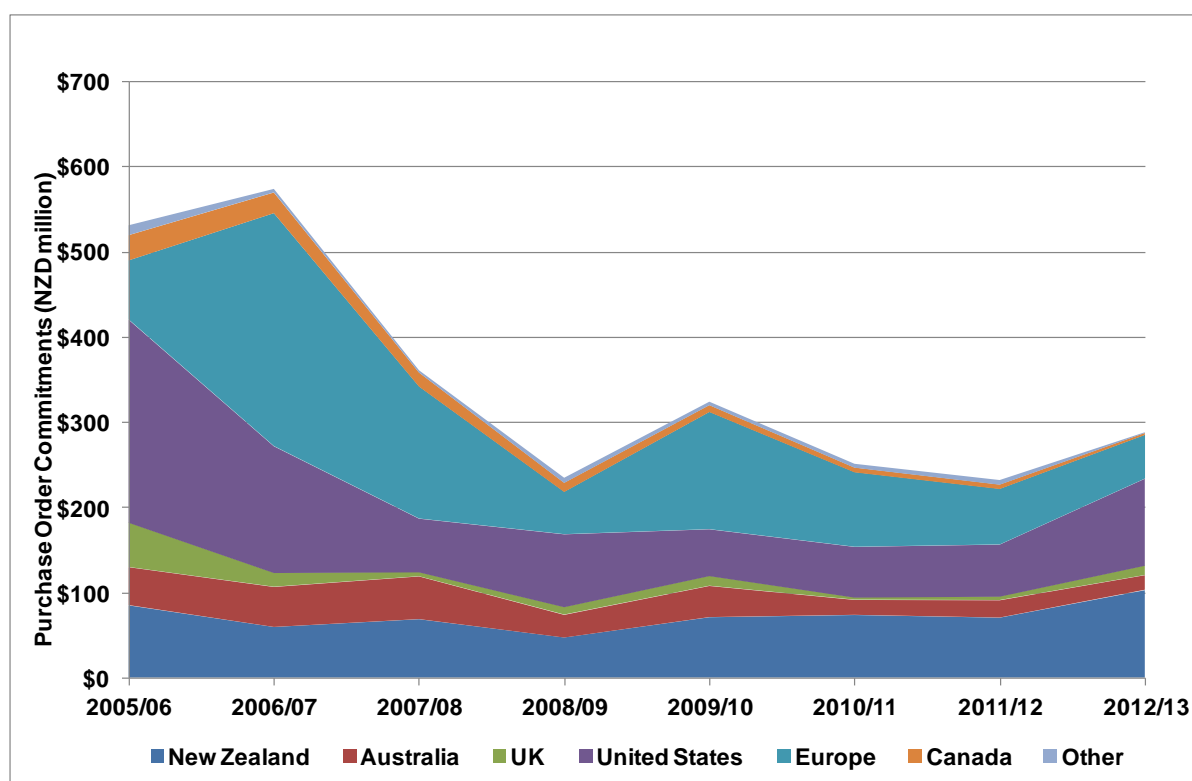


Figure 31 Defence capital expenditure commitments on military hardware by vendor country

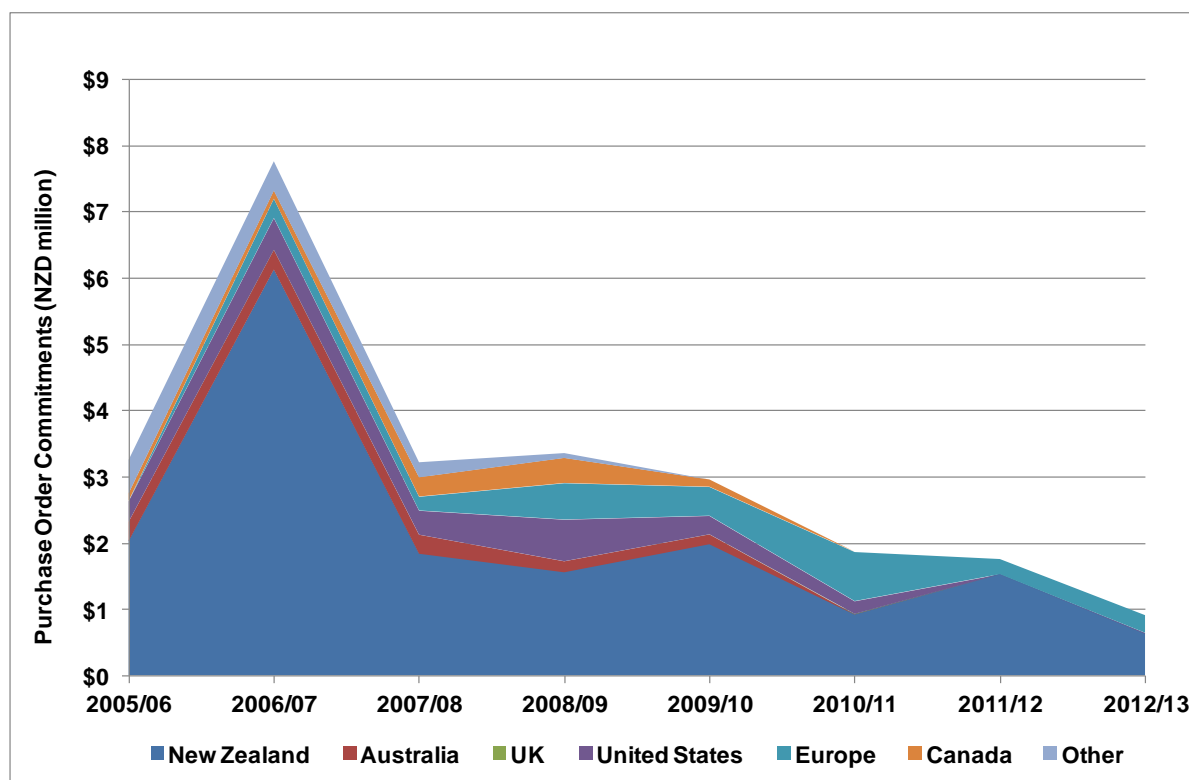


Figure 32 Defence operating expenditure commitments on accommodation services by vendor country

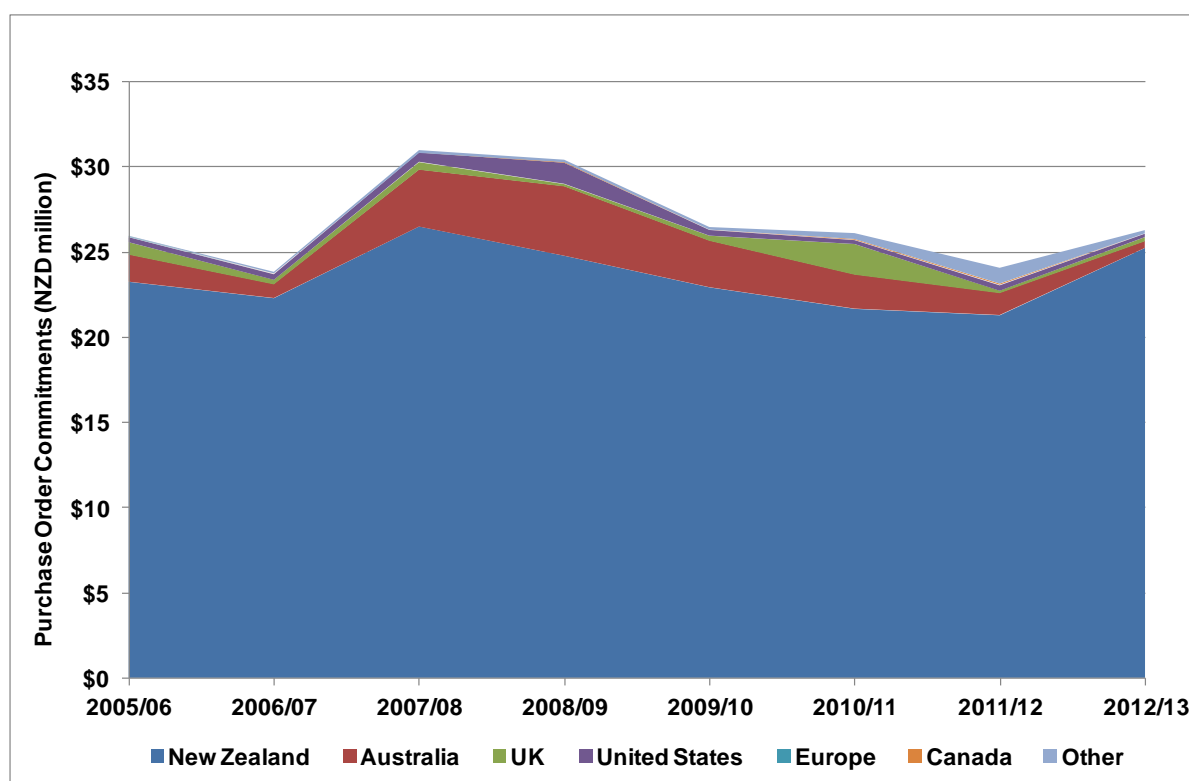


Figure 33 Defence operating expenditure commitments on clothing by vendor country

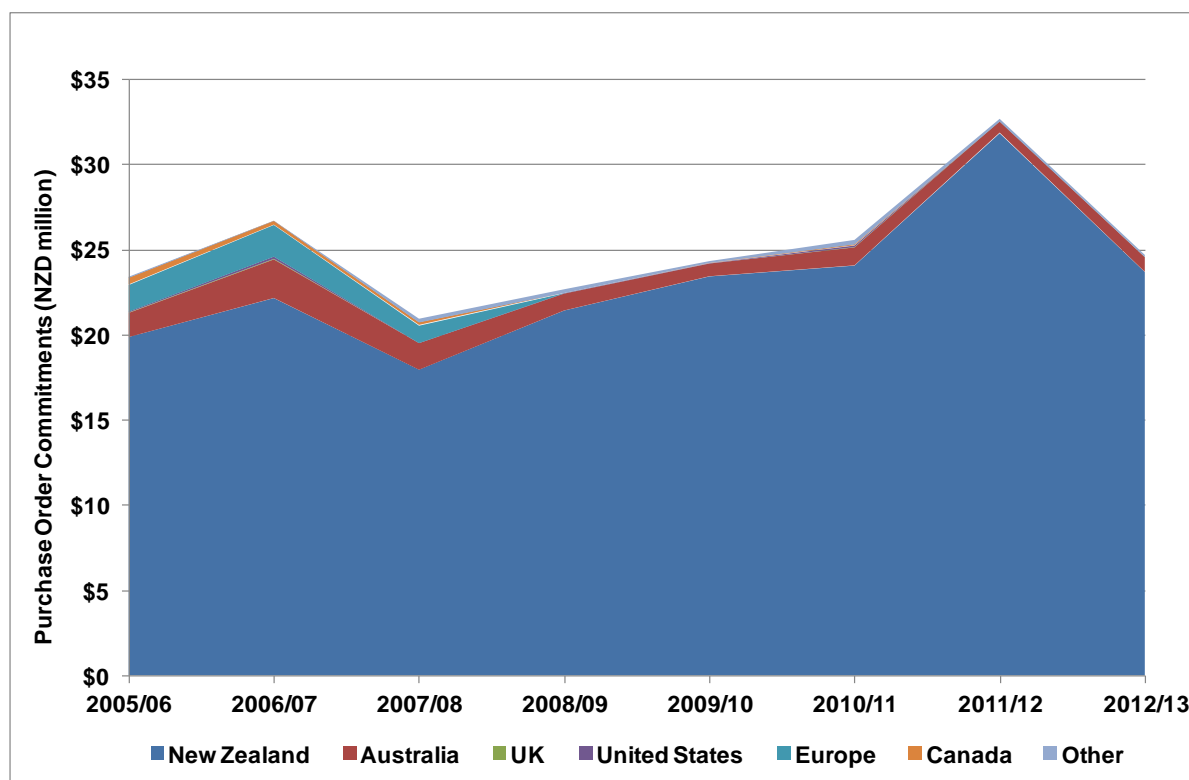


Figure 34 Defence operating expenditure commitments on food by vendor country

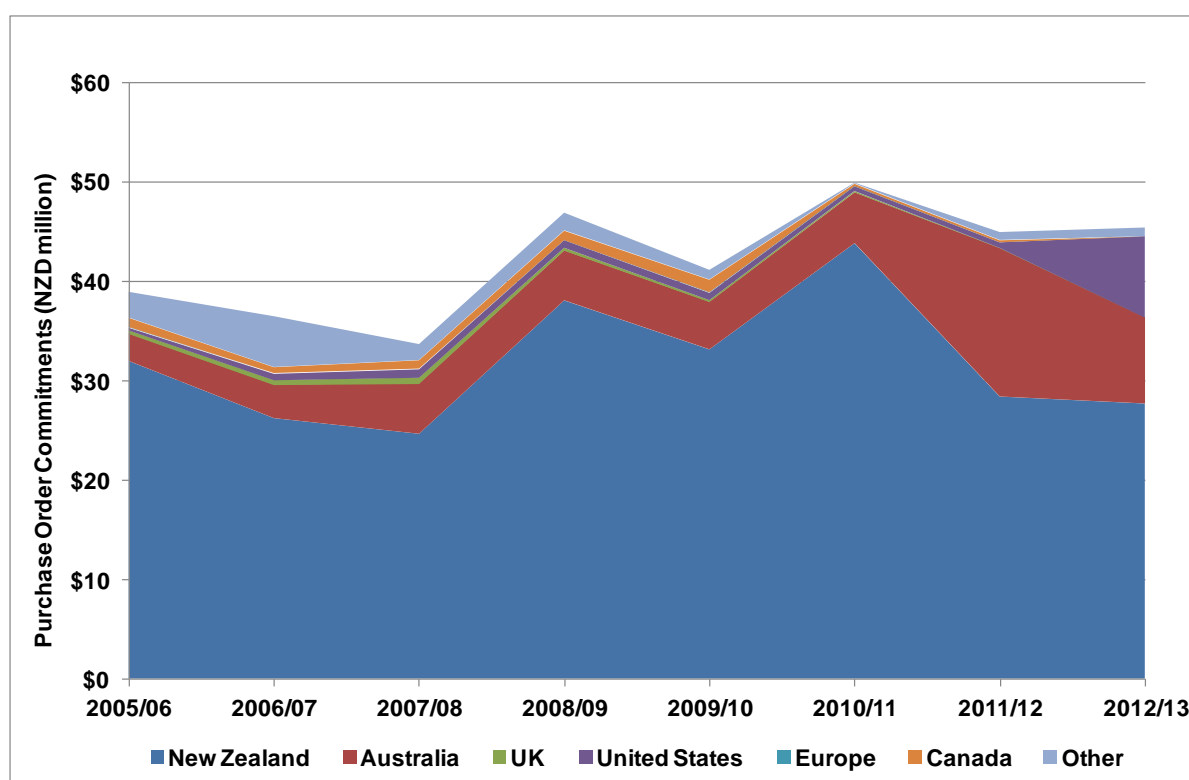


Figure 35 Defence operating expenditure commitments on fuel by vendor country

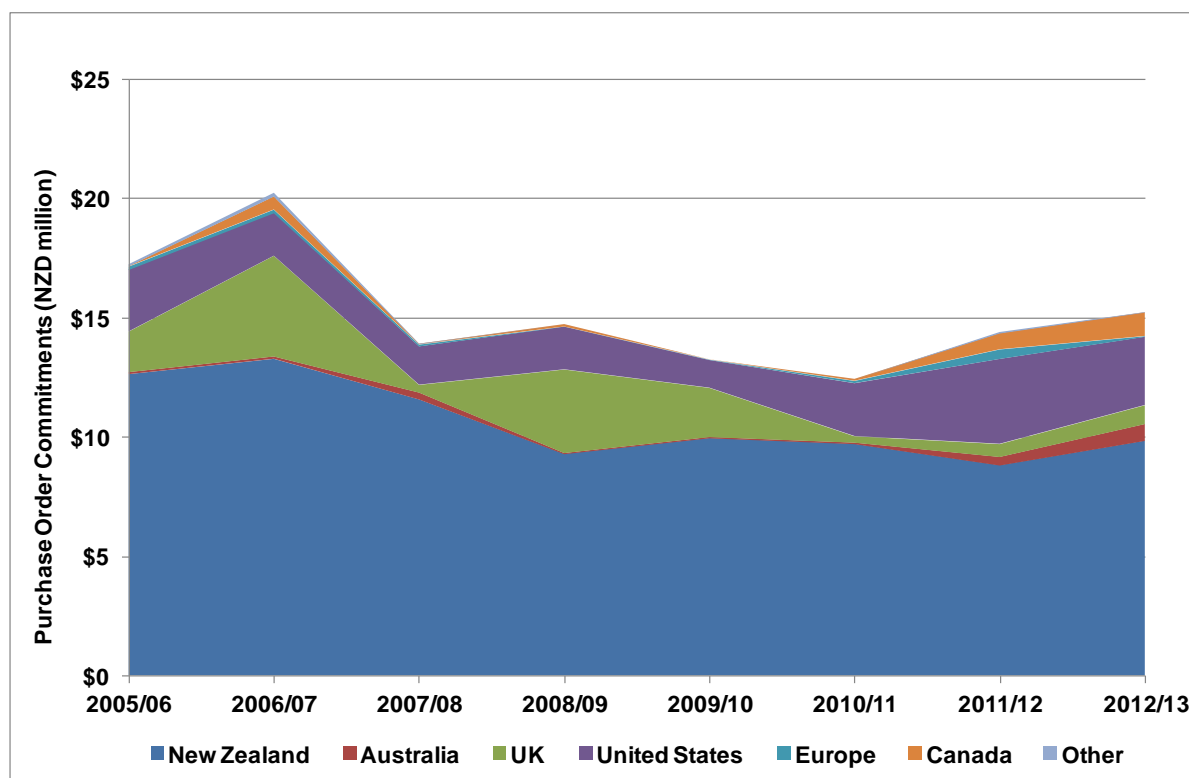


Figure 36 Defence operating expenditure commitments on general logistics by vendor country

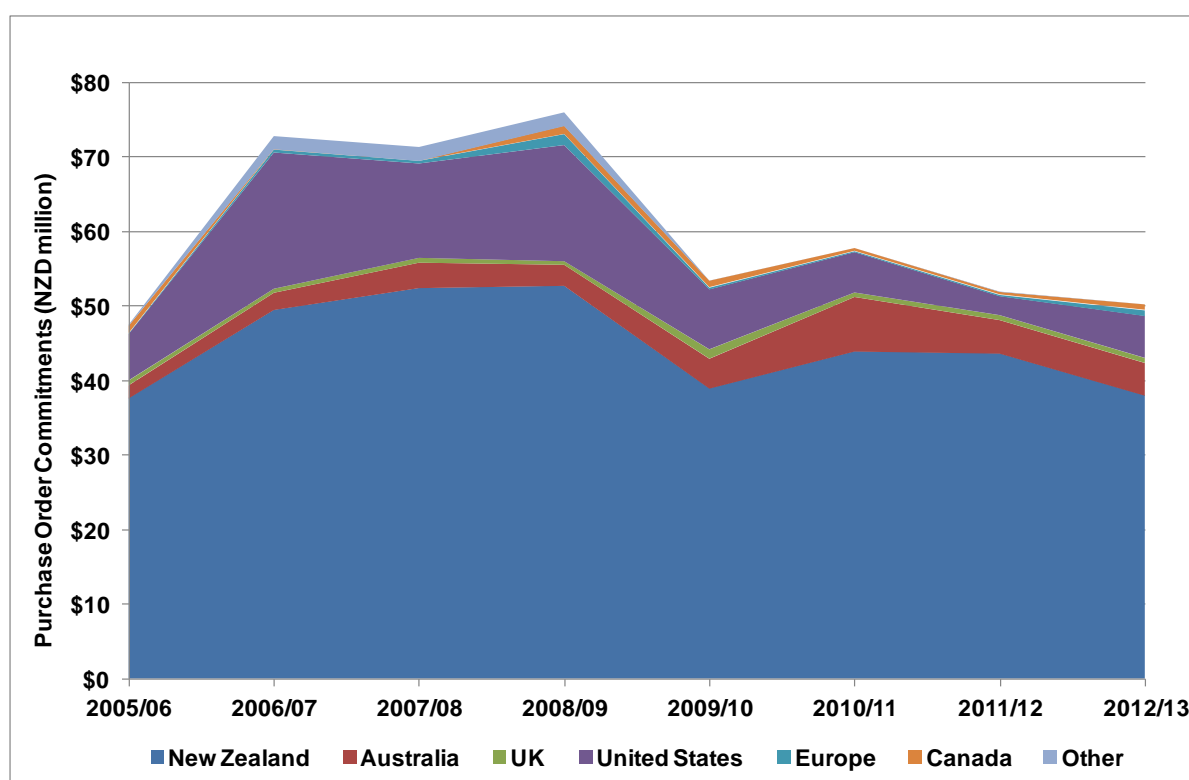


Figure 37 Defence operating expenditure commitments on military hardware maintenance and repairs by vendor country

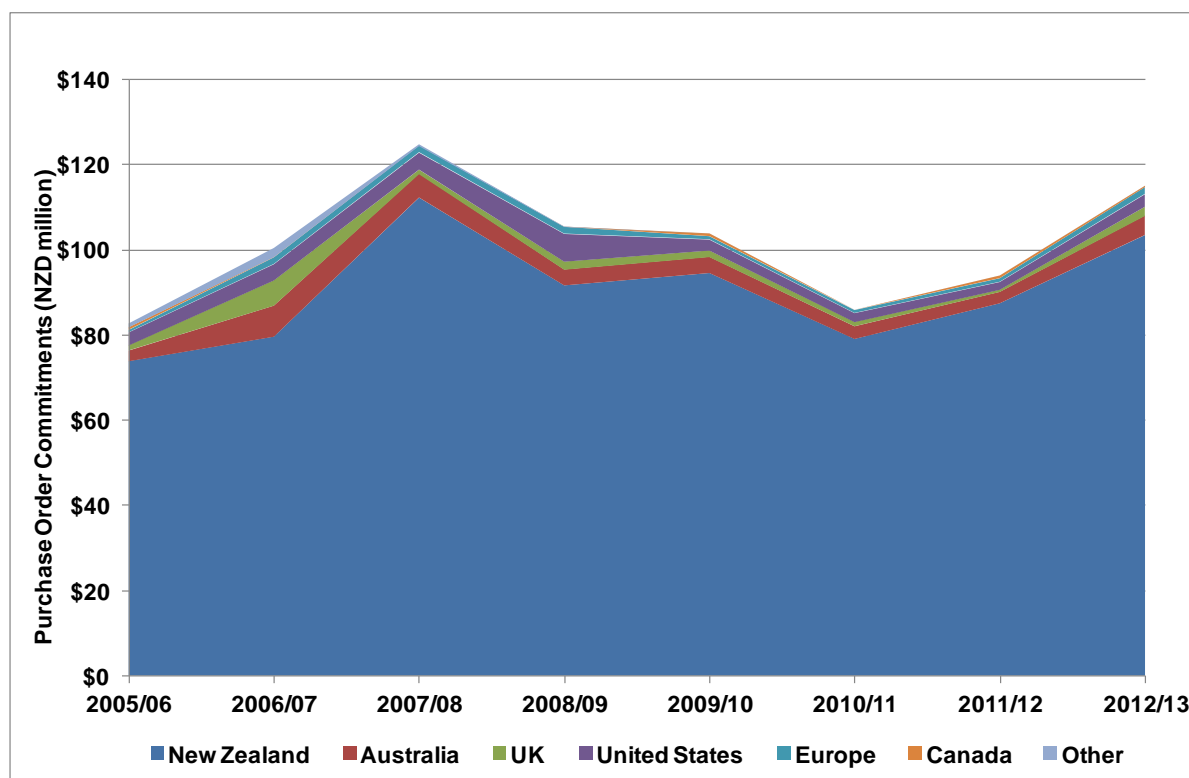


Figure 38 Defence operating expenditure commitments on general maintenance and repairs by vendor country

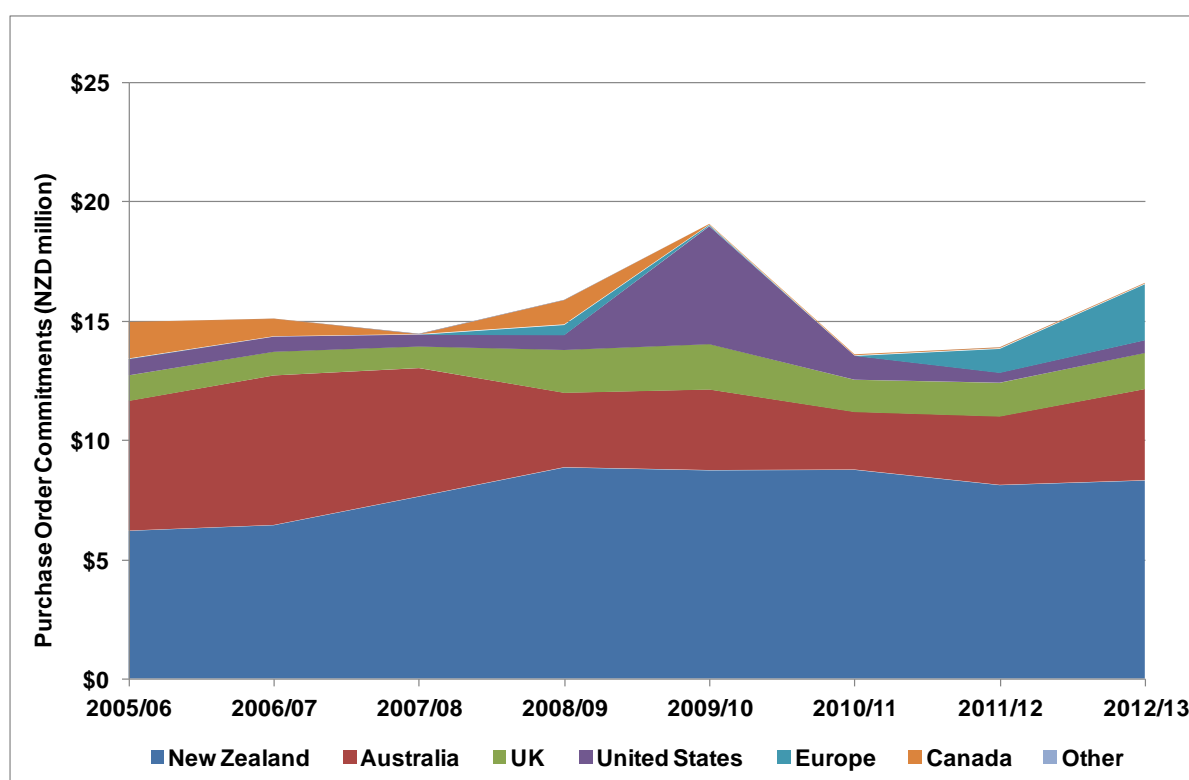


Figure 39 Defence operating expenditure commitments on training and education by vendor country

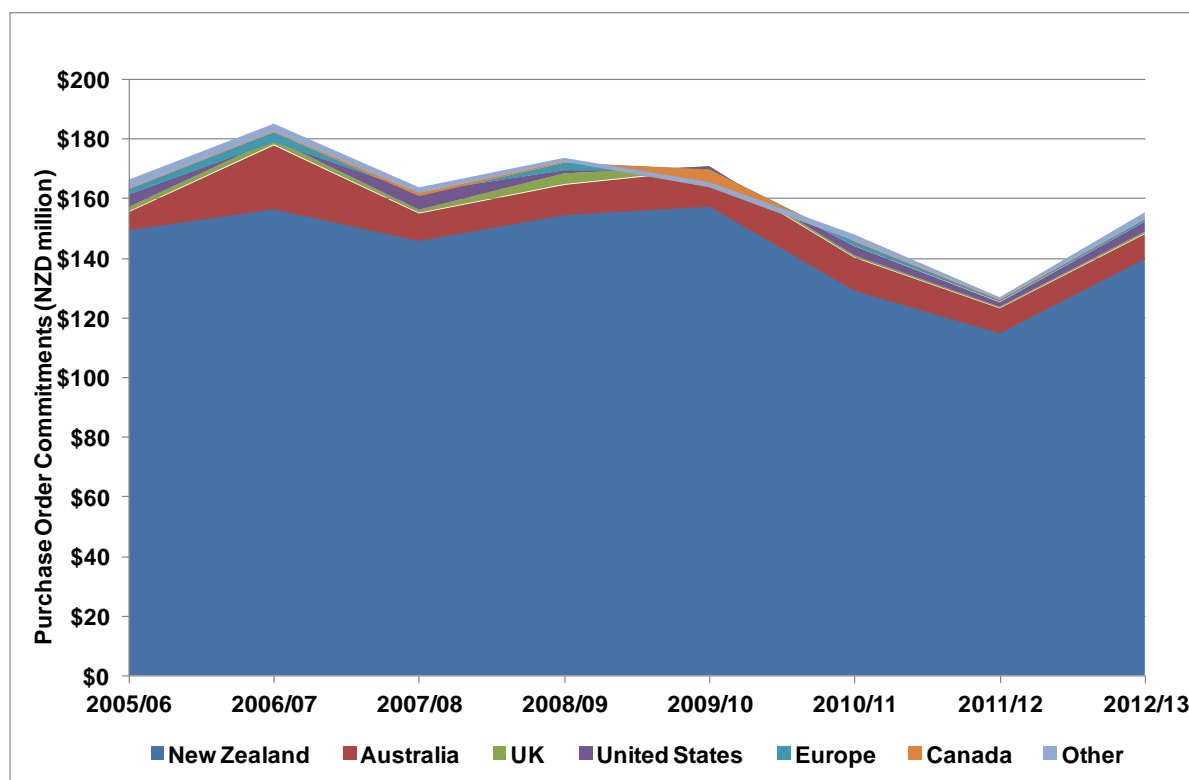


Figure 40 Defence operating expenditure commitments on goods and services by vendor country

Appendix 4: Economic Impact of New Zealand Defence Expenditure

Defence direct purchases from New Zealand companies totalled approximately \$520 million in 2012/13. This expenditure directly generates wages and profits for these companies, providing benefits to New Zealanders and the Government.

Using Table 2 from Statistics New Zealand's national accounts input-output tables, an estimate of the wages generated and profits made by defence suppliers over the past 10 years can be made. Estimated wages and profits have declined over the past seven years in correlation with economic conditions and a decline in Defence spending.

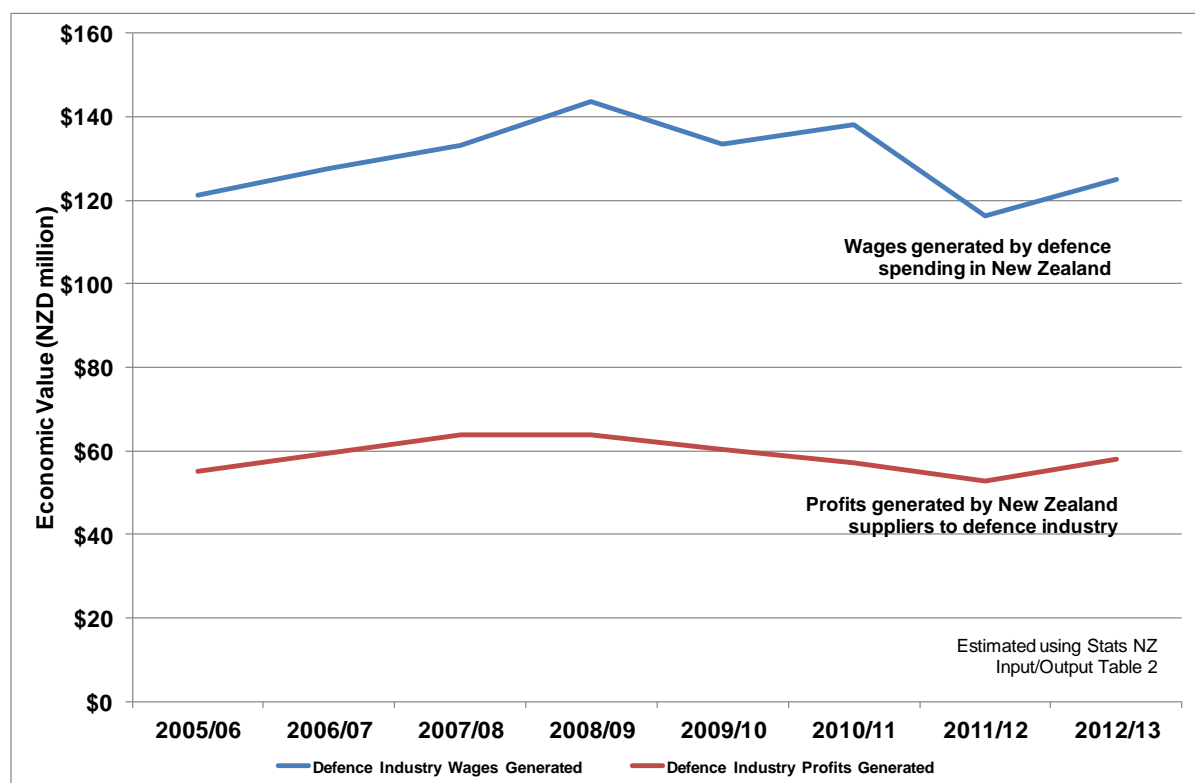


Figure 41 Economic impact of Defence expenditure on New Zealand industry

Based on an average weekly income of \$962¹³, which equates to \$50,000 per year, Defence spending in the New Zealand economy during 2012/13 generated approximately 2,500 full time jobs. Net profits generated by Defence spending in 2012/13 are estimated to be about \$60 million.

¹³ Table 11, New Zealand Income Survey – 2013.

Appendix 5: Survey Analysis Charts

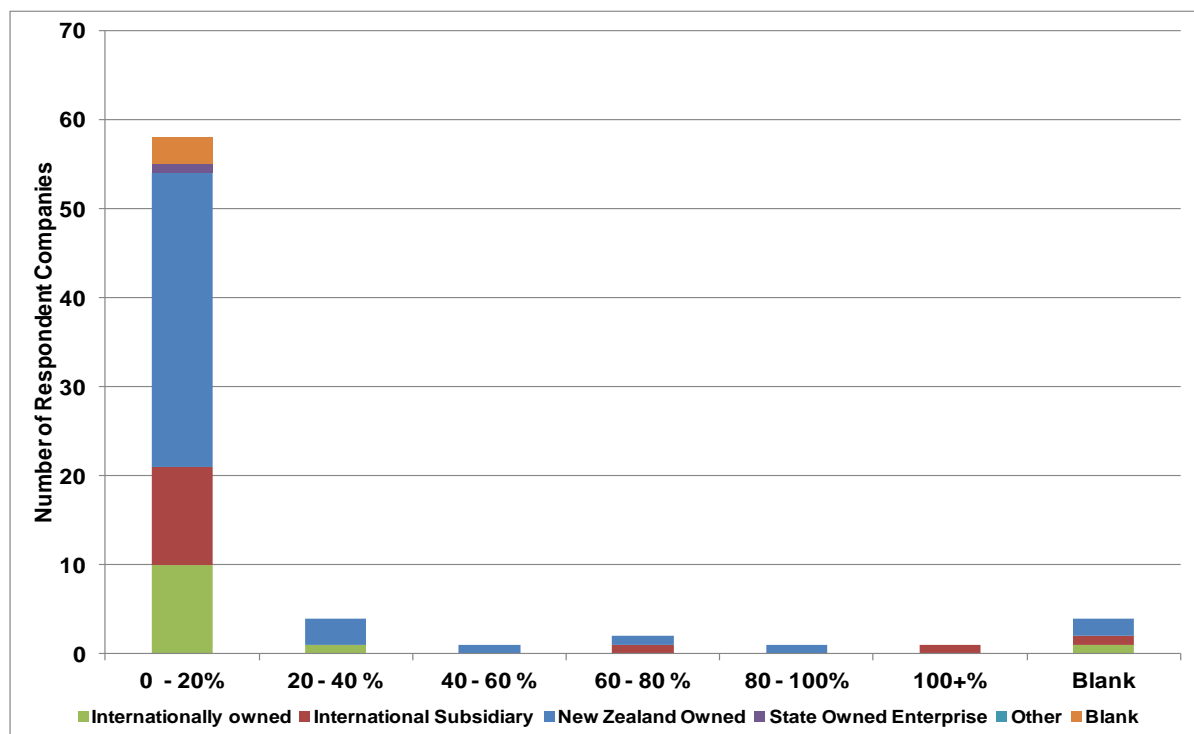


Figure 42 New Zealand Defence revenue as a percentage of total company revenue by respondent country location and type

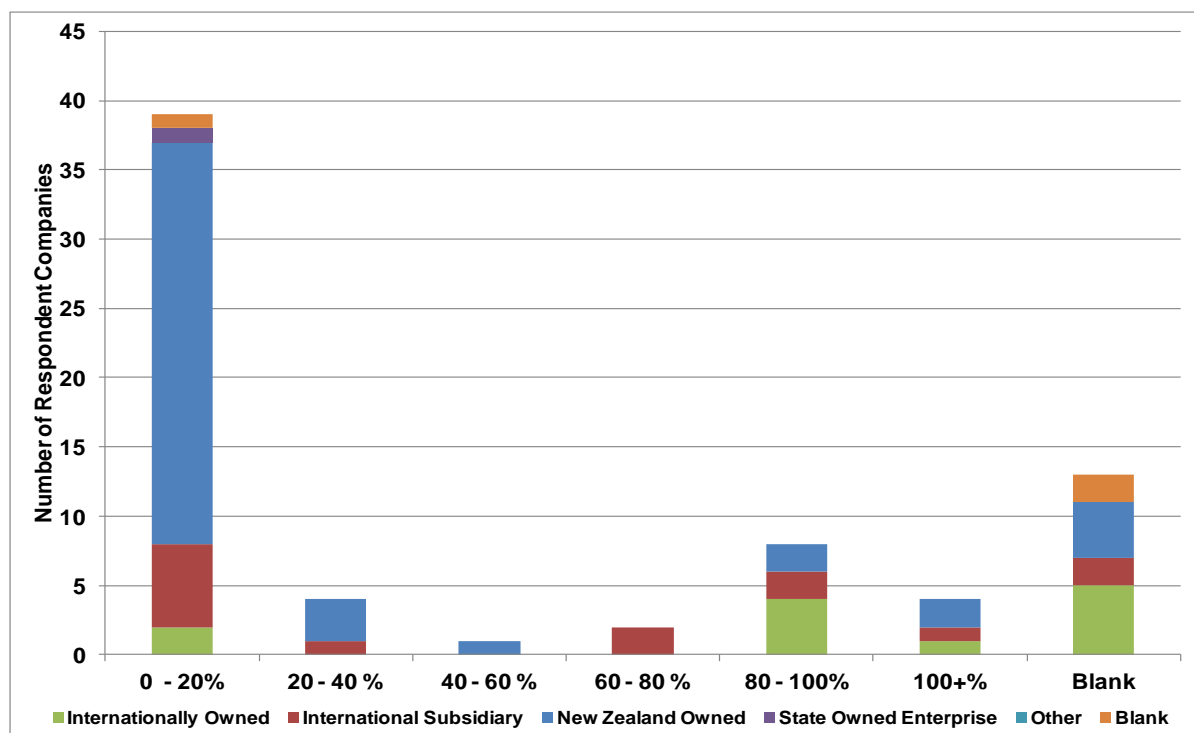


Figure 43 New Zealand Defence revenue as a percentage of total company New Zealand revenue by respondent country location and type

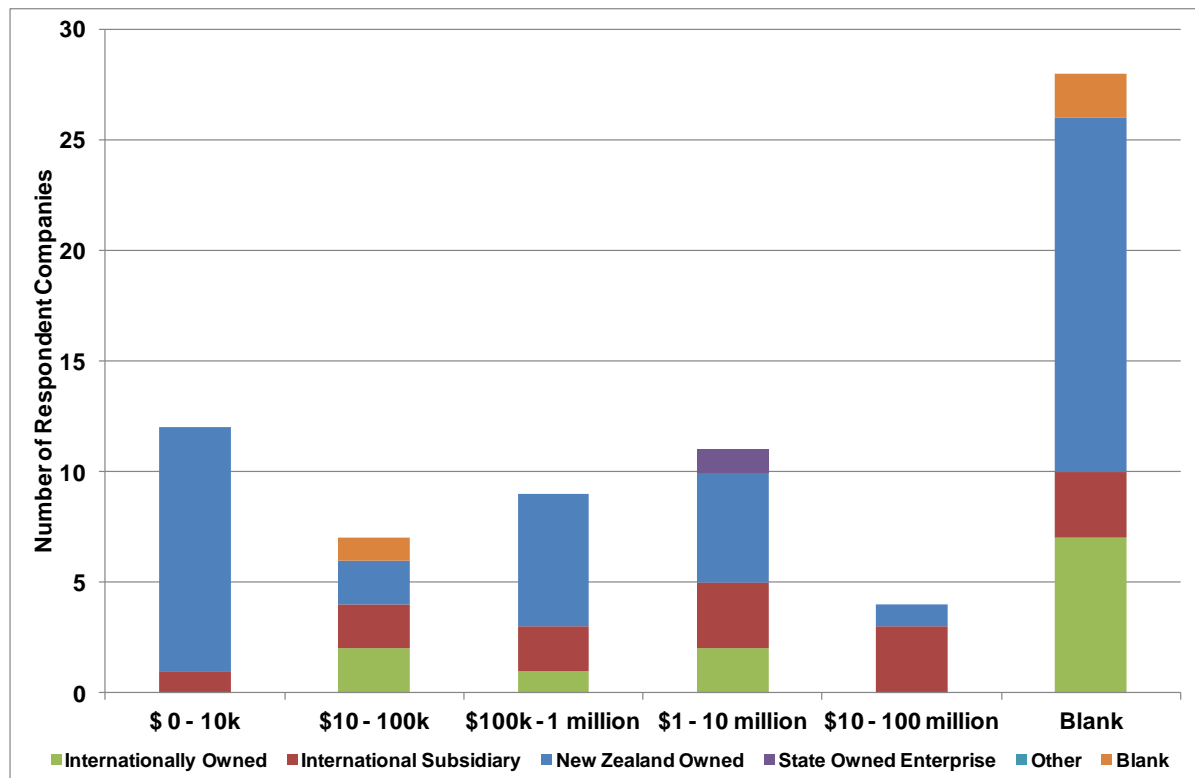


Figure 44 Average yearly revenue from Defence by country location and type

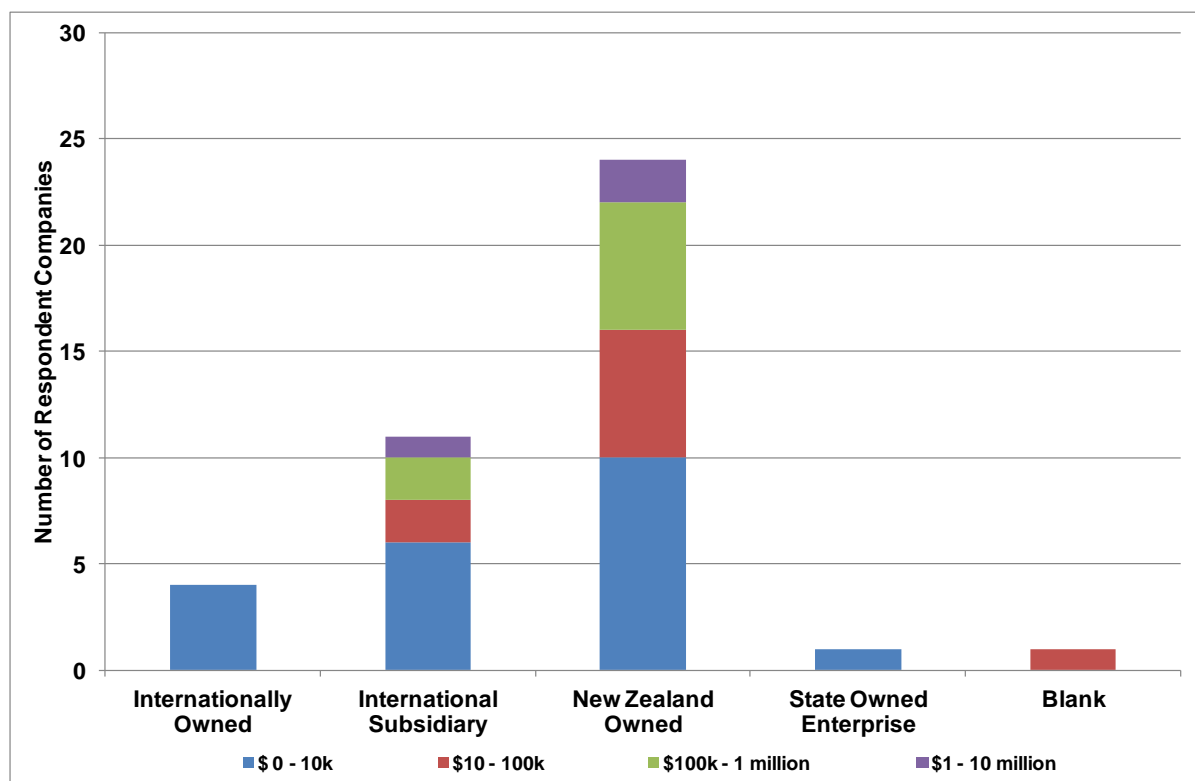


Figure 45 Average yearly revenue from prime contractors by country location and type

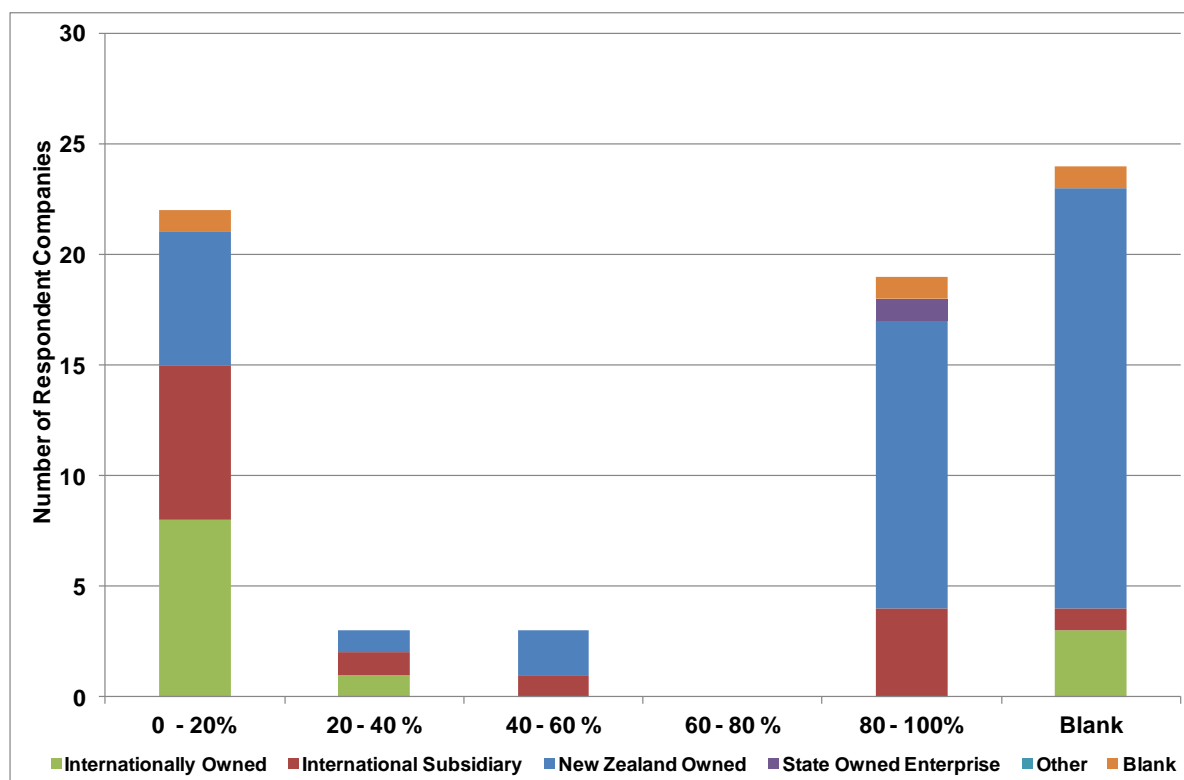


Figure 46 Military equipment sales to the NZDF as a percentage of total military sales by country location and type

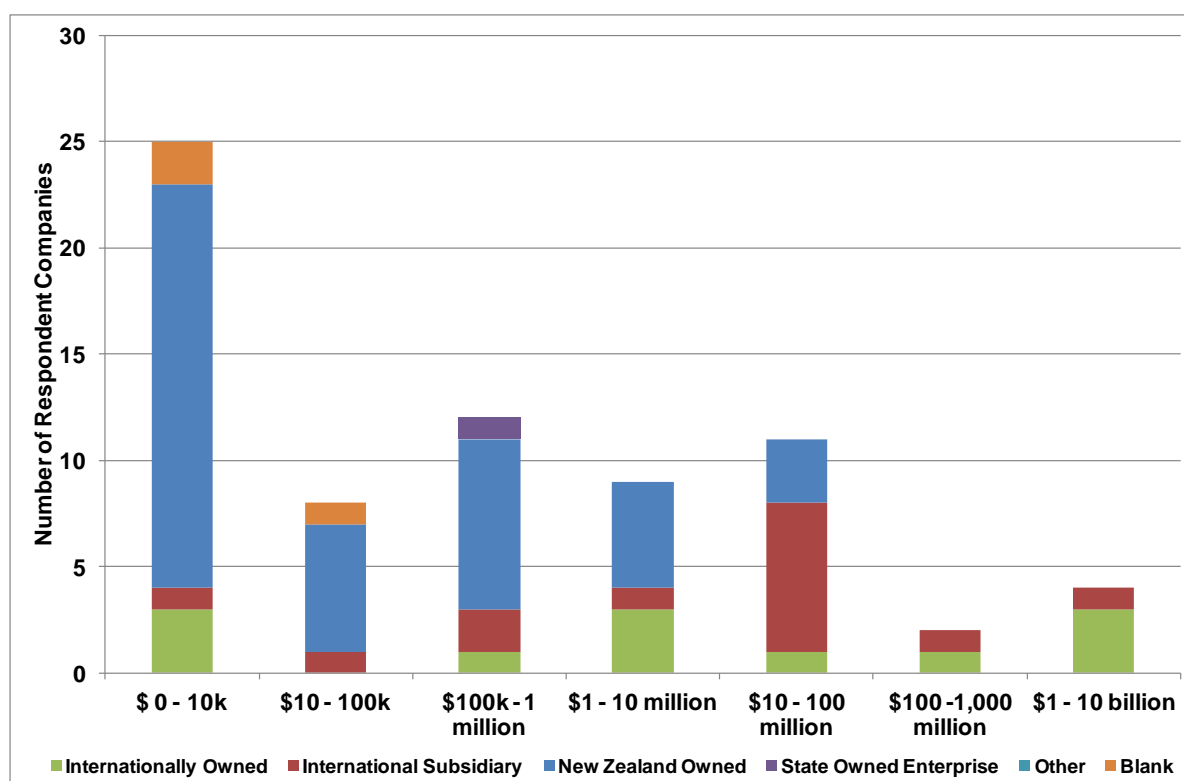


Figure 47 Total revenue from sales of military equipment by country location and type

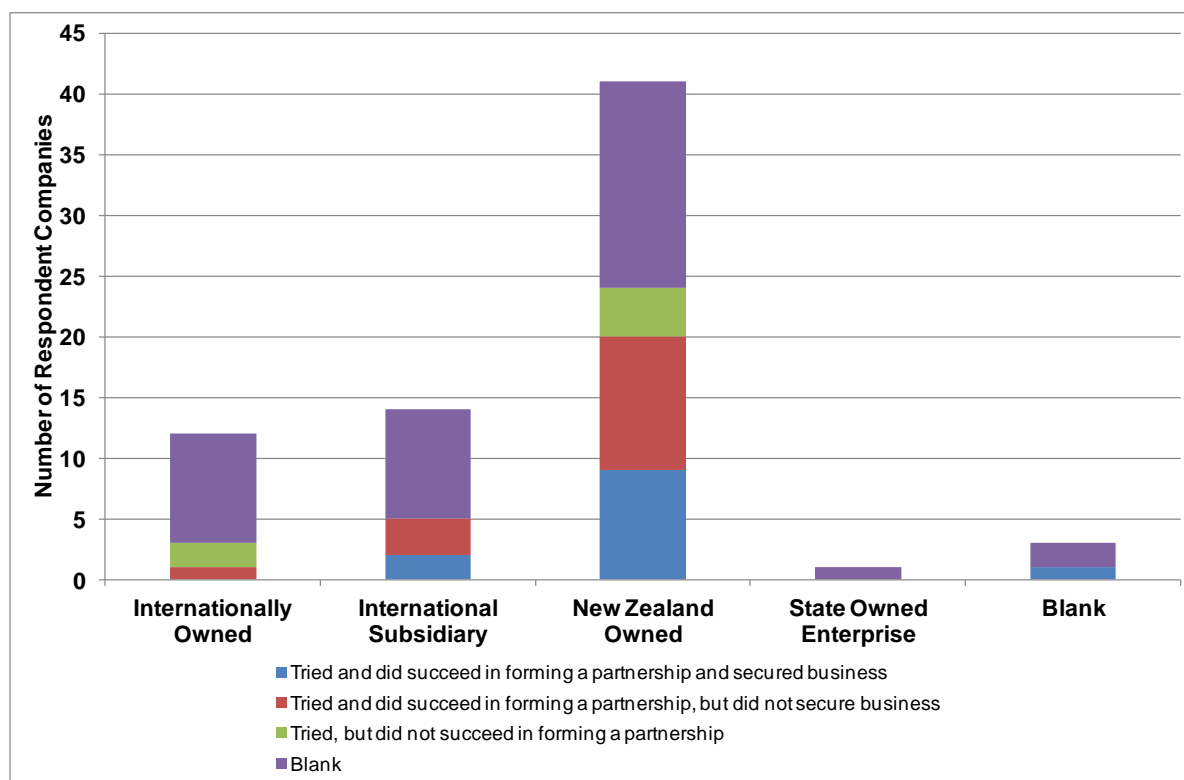


Figure 48 Forming partnerships or contractual arrangements with Defence or a prime contractor by country location and type

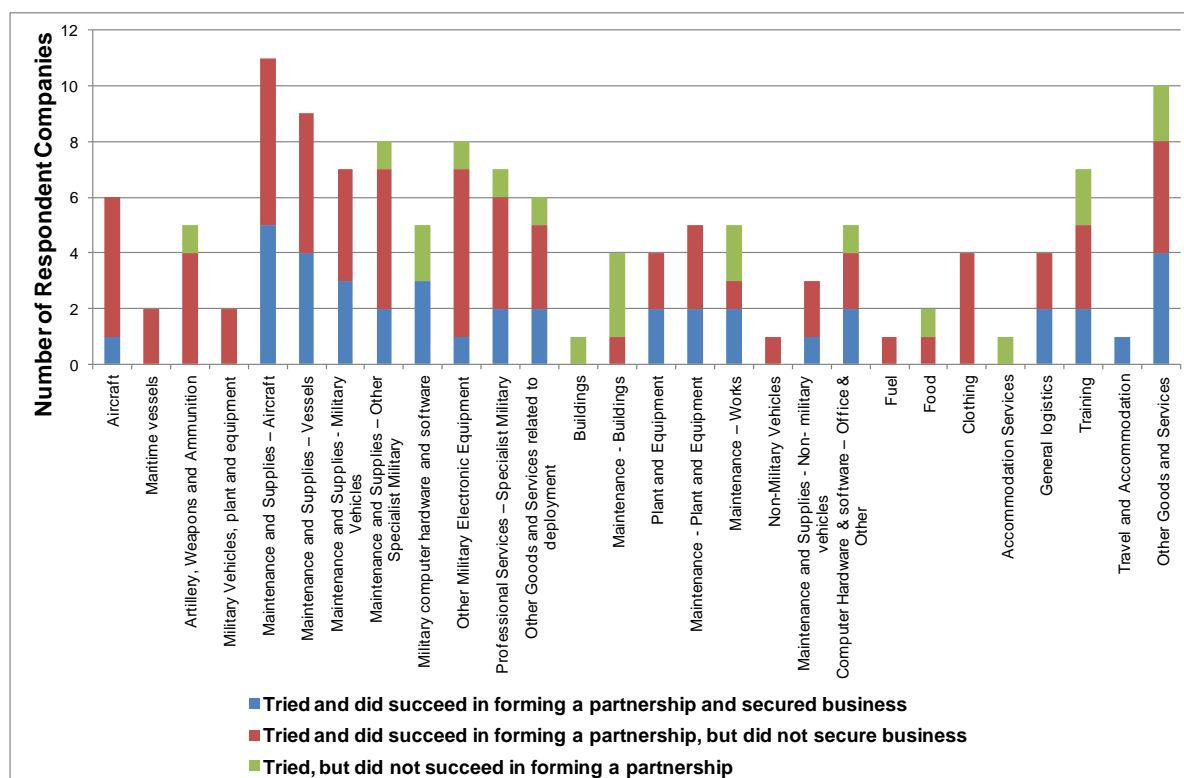


Figure 49 Forming partnerships or contractual arrangements with Defence or a prime contractor by category of supply

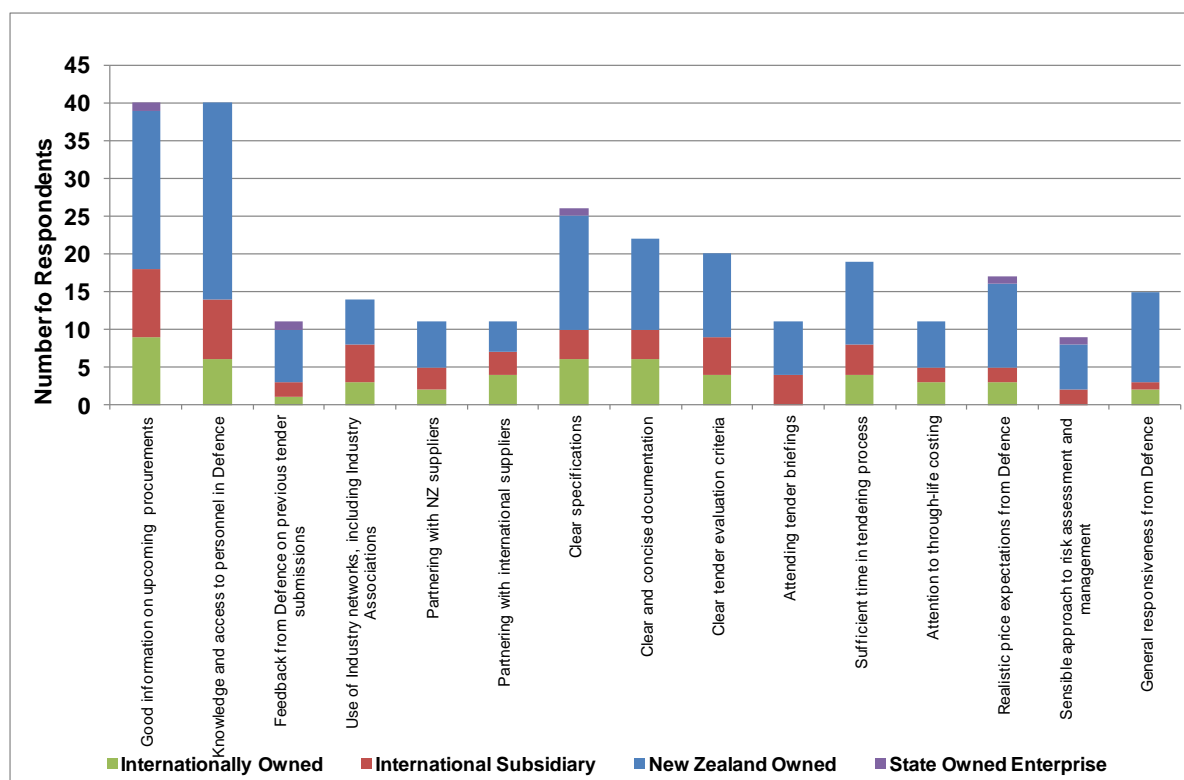


Figure 50 “Useful” factors in gaining a contract or securing business with Defence or a prime contractor by country location and type

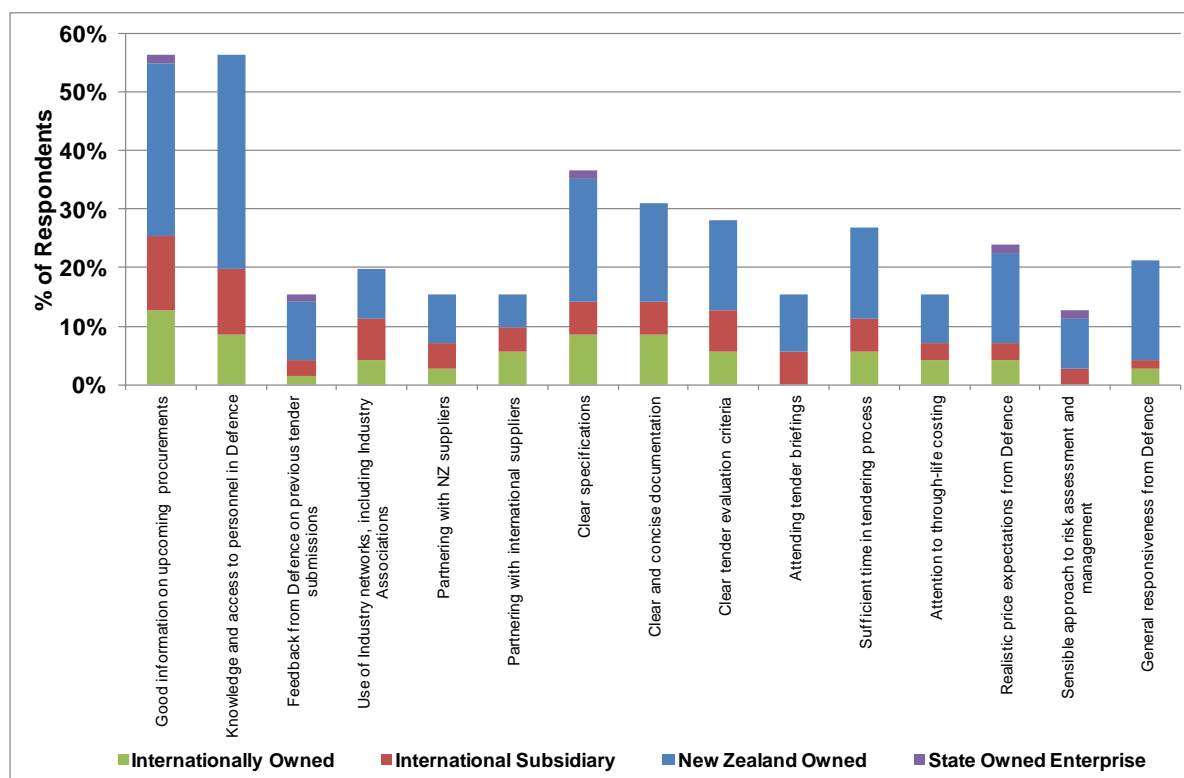


Figure 51 “Useful” factors in gaining a contract or securing business with Defence or a prime contractor by country location and type

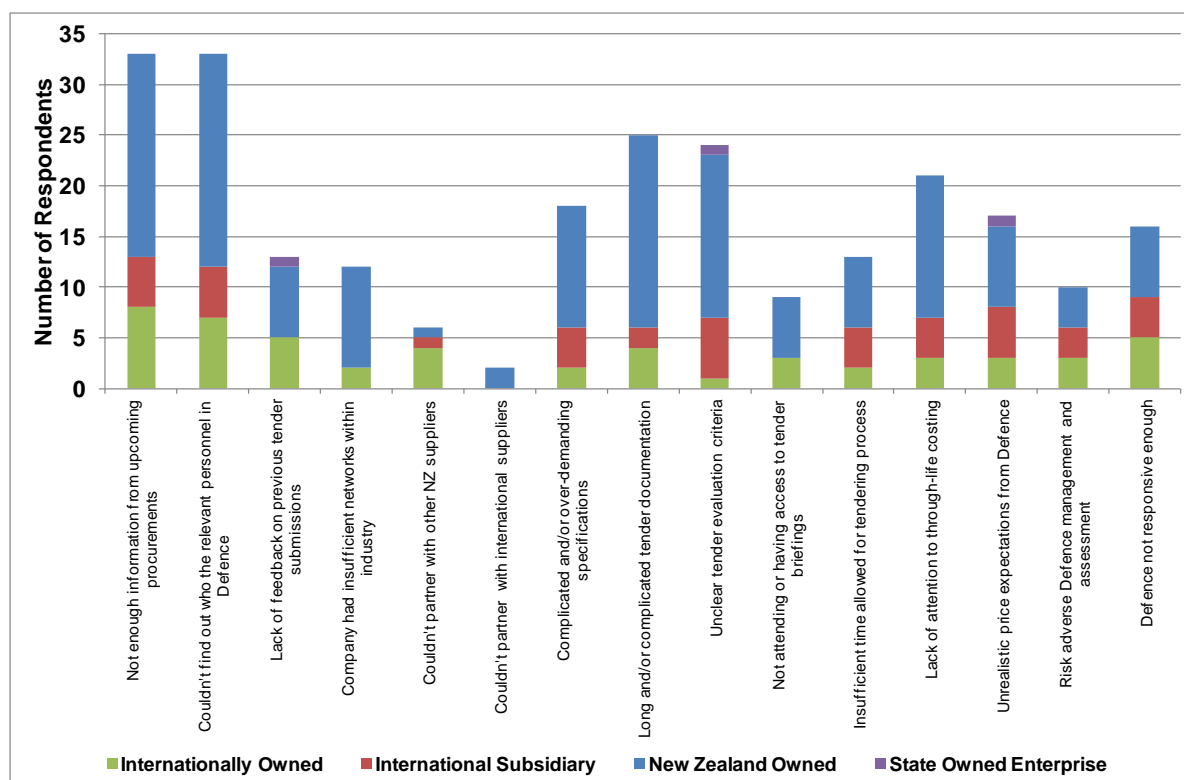


Figure 52 "Difficult" factors in gaining a contract or securing business with Defence or a prime contractor by country location and type

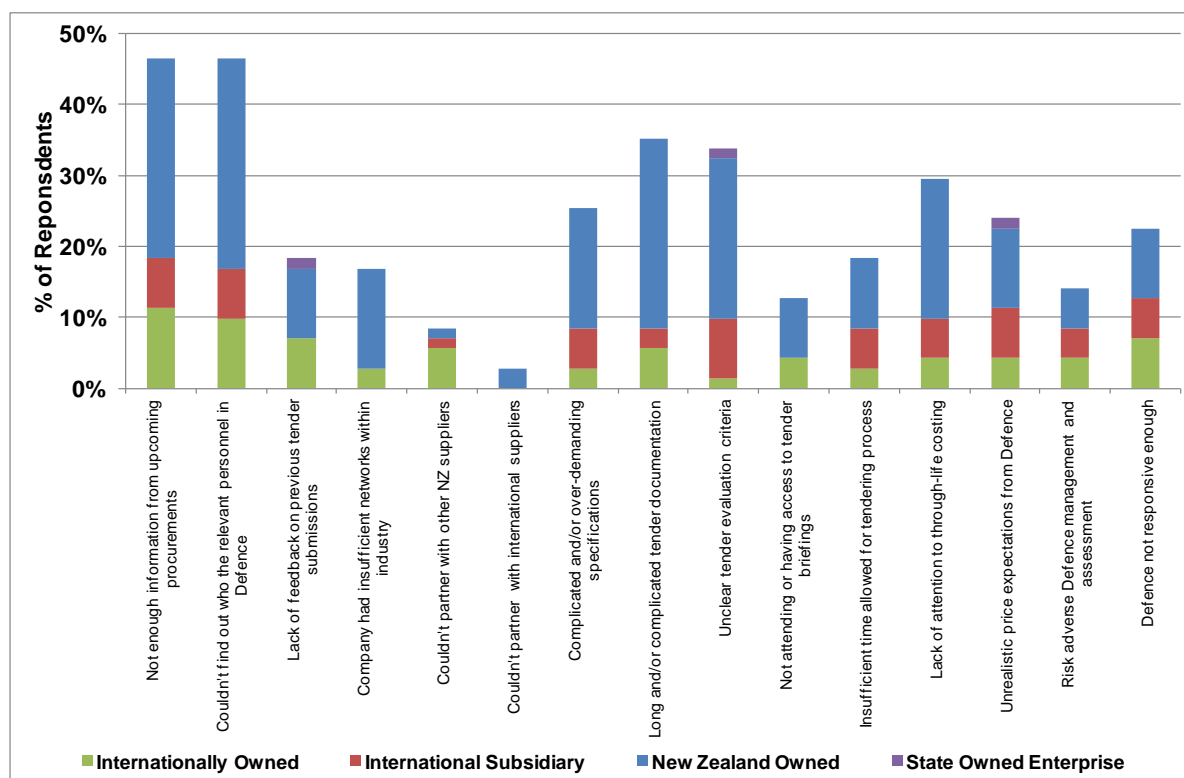


Figure 53 "Difficult" factors in gaining a contract or securing business with Defence or a prime contractor by country location and type

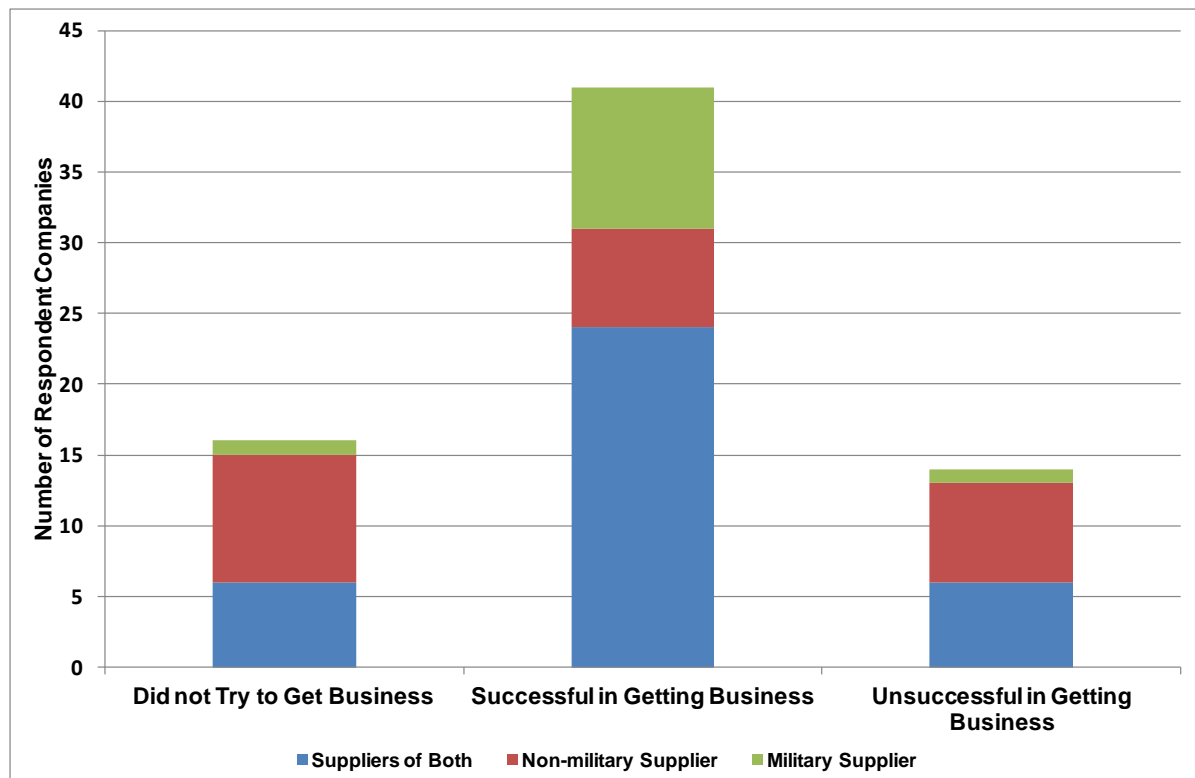


Figure 54 Types of suppliers (military and/or non-military) by contract success group

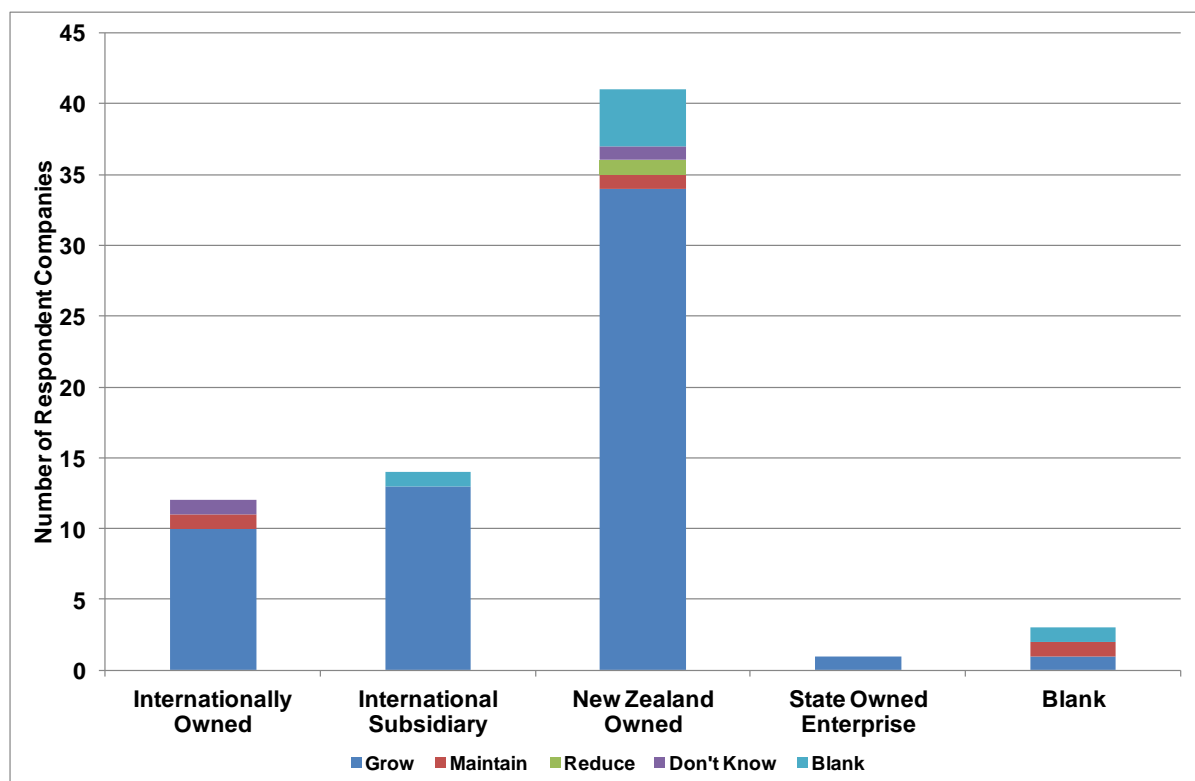


Figure 55 Defence industry business objectives by country location and type

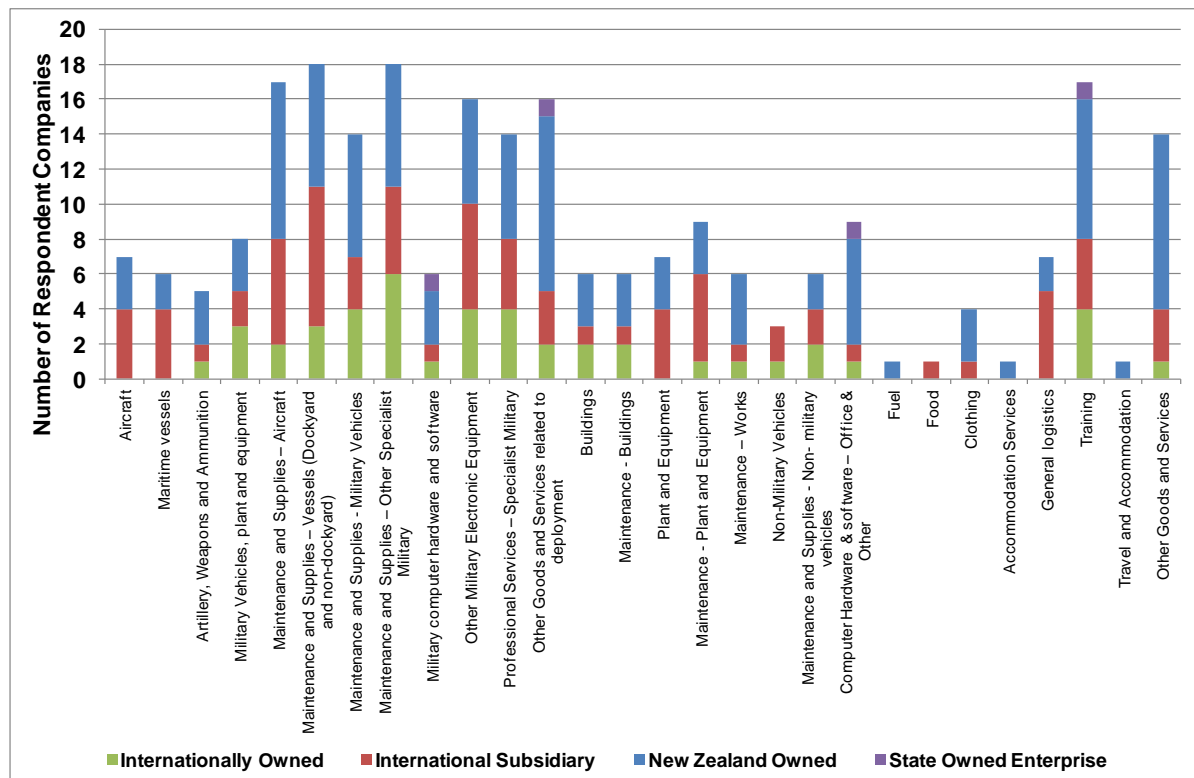


Figure 56 Defence industry growth objectives by category by country location and type

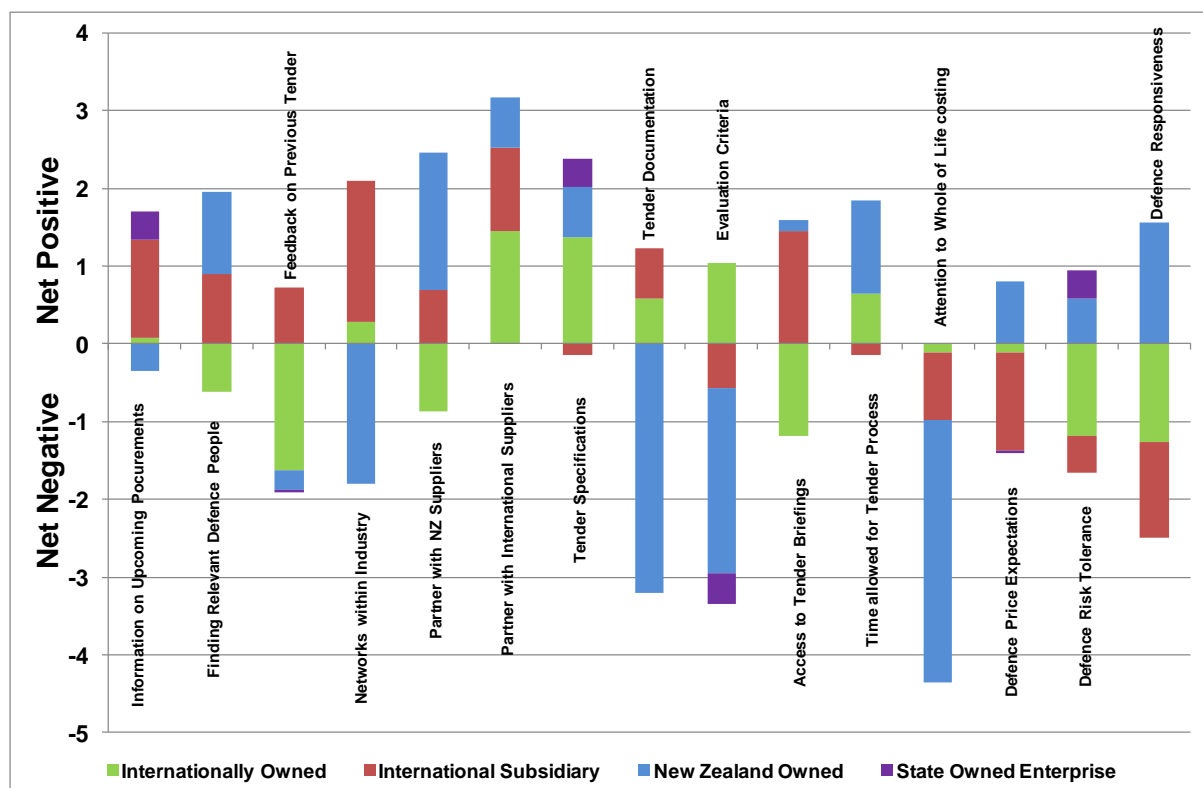


Figure 57 Net factors in gaining a contract or securing business with Defence or a prime contractor by country location and type

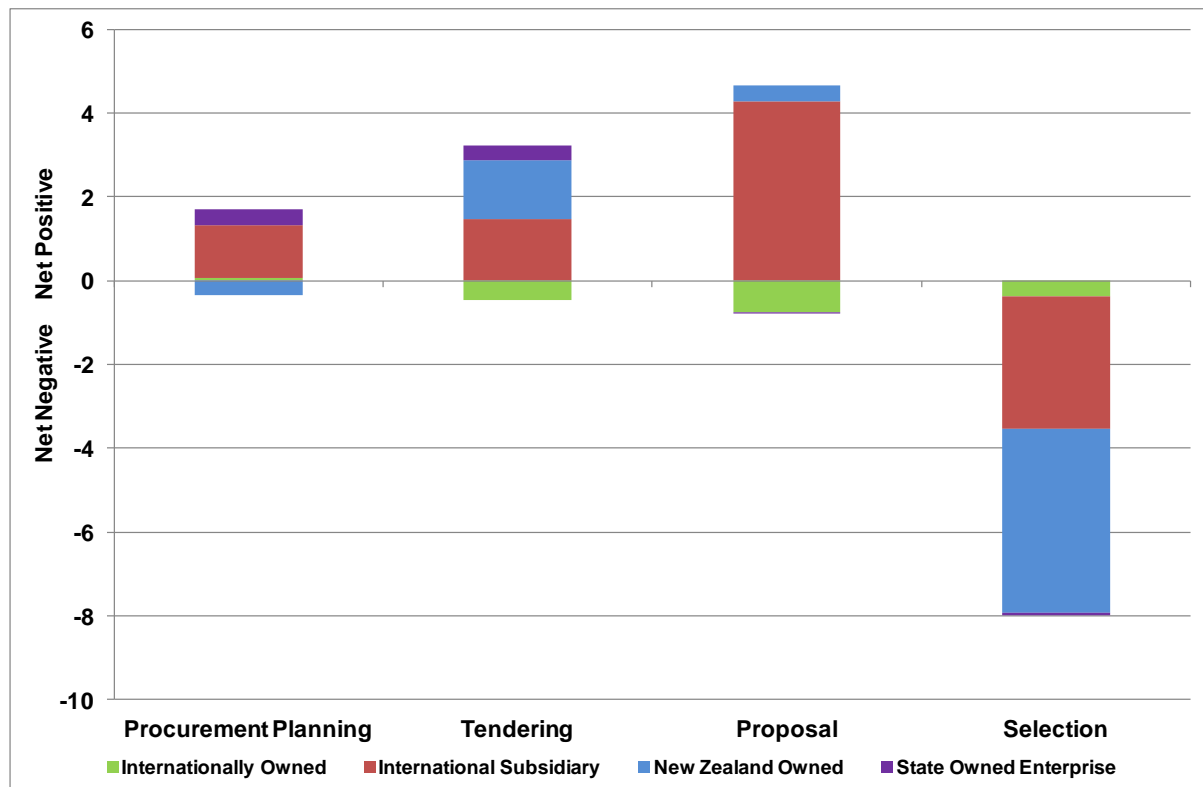


Figure 58 Analysis of useful and difficult factors grouped by phase of procurement process by country location and type

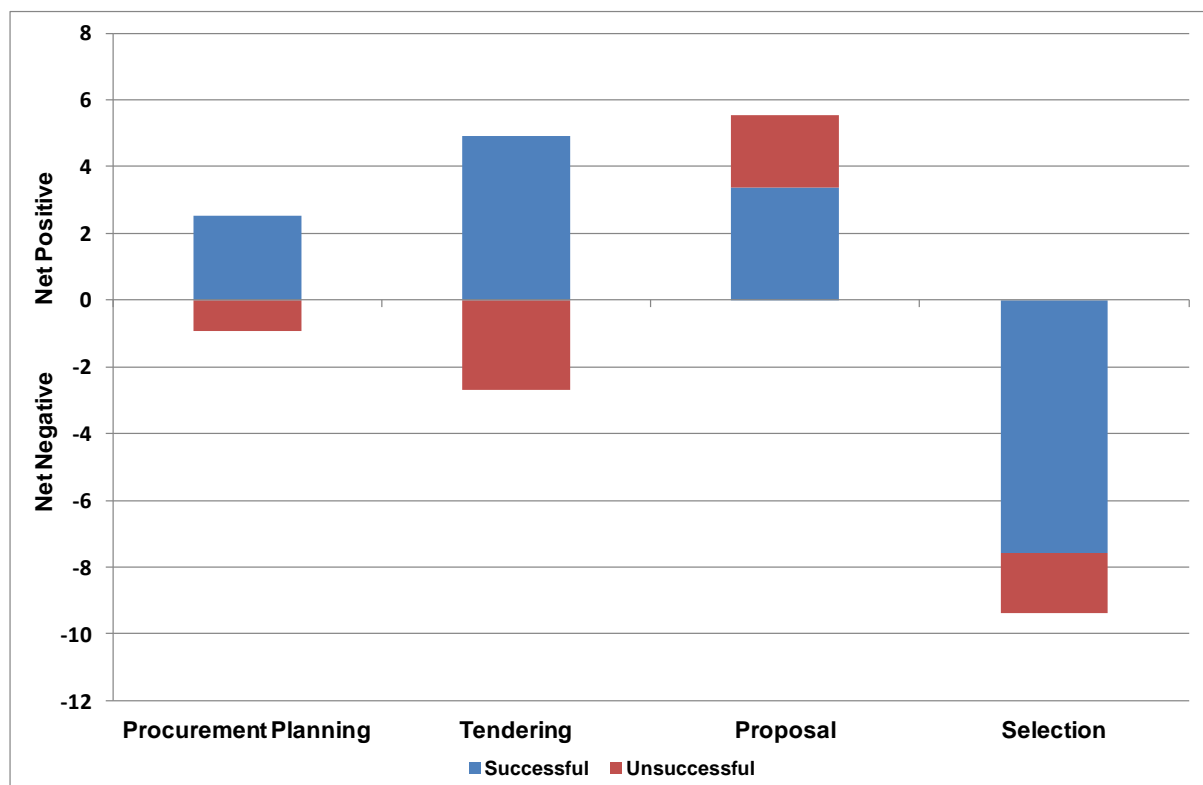


Figure 59 Analysis of useful and difficult factors grouped by phase of procurement process and tender success

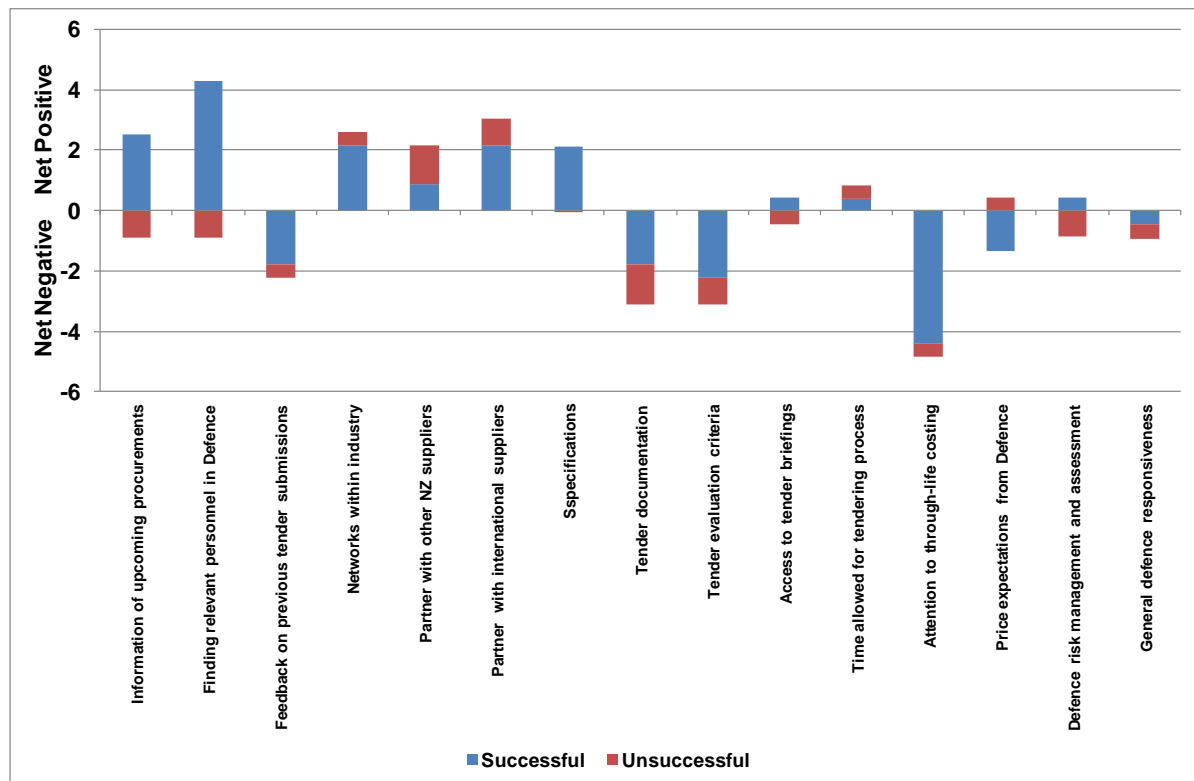


Figure 60 Process phase factor analysis – tenderer success

Appendix 6: Survey Methodology

To aid understanding of the industry and gain an insight into industry views about pursuing and securing work in the New Zealand defence sector, a survey was undertaken as part of the overall analysis work for this report.

As noted earlier, there is no single group that comprises the New Zealand defence industry. Defining the industry as those who currently supply Defence excludes those who are wishing to break into, or may have recently left the market. No one Industry Association or other non-government group represents the full extent of suppliers and potential suppliers to Defence. Membership of any of these, including the NZ DIA, is comprised only of those companies who choose to join them for a fee. This lack of a pre-defined defence industry group had implications for our survey approach.

In late May and early June 2014, we advertised our survey through the Government Electronic Tender Service (GETS) and simultaneously promoted it with the assistance of the following industry groups, through their newsletters/group emails:

- Aviation New Zealand
- New Zealand Defence Industry Association
- Employers and Manufacturers Association
- Heavy Engineering Research Association
- Industry Capability Network
- Manawatu Defence Hub.

By doing this we hoped to engage the interest of a broad range of suppliers and potential suppliers, particularly those in the military hardware sector where our expenditure analysis had identified the opportunities for optimisation are evident. The GETS Notice of Information gave businesses the opportunity to register their interest in participating in the survey by clicking on a link. One hundred and eleven companies registered to participate in the survey and 71 then went on to complete it.

Bearing in mind that the potential size of the defence industry is unknown, we did not draw conclusions in this chapter about the representativeness of the survey findings. However, because survey respondents are companies that are engaged in, or actively targeting, defence industry work, their views provide some insight into a supplier perspective on working with Defence. The following table provides a profile of respondents to the survey:

Average Yearly Revenue from All Sources NZD Conversion	Internationally Owned	International Subsidiary	New Zealand Owned	State Owned Enterprise	Blank	Total
\$0 – 10k	0.0%	0.0%	2.8%	0.0%	1.4%	4.2%
\$10 – 100k	0.0%	0.0%	1.4%	0.0%	0.0%	1.4%
\$100k – 1 million	0.0%	0.0%	9.9%	0.0%	1.4%	11.3%
\$1 – 10 million	2.8%	2.8%	19.7%	0.0%	0.0%	25.4%
\$10 – 100 million	4.2%	9.9%	15.5%	0.0%	0.0%	29.6%
\$100 – 1,000 million	2.8%	2.8%	5.6%	1.4%	1.4%	14.1%
\$1 – 10 billion	5.6%	0.0%	0.0%	0.0%	0.0%	5.6%
\$10 – 100 billion	0.0%	2.8%	0.0%	0.0%	0.0%	2.8%
Blank	1.4%	1.4%	2.8%	0.0%	0.0%	5.6%
Total	16.9%	19.7%	57.7%	1.4%	4.2%	100.0%

Figure 61 Profile of survey respondents by average yearly revenue from all sources and ownership

Of the 71 respondents:

- 58% have previously won contracts with Defence in the last 10 years
- 20% have tried and been unsuccessful
- 22% have not previously tried to win contracts with Defence.

The responses therefore reflect a range of experiences with the majority being existing or recent suppliers to Defence.

Overall, 58% of respondents were New Zealand owned companies and the majority of these companies have total revenues between \$100,000 and \$100 million. The New Zealand subsidiaries of international companies were another 20%, so together, New Zealand registered companies totalled 78% of survey respondents.

In total, 75% of respondents have fewer than 100 full time equivalent (FTE) staff in New Zealand, 20% have between 100 and 1000 FTEs in New Zealand and less than 5% have more than 1000 FTEs based here.

A full set of survey result charts is included as Appendix 5 and the survey questions themselves are included on the following pages.

The survey included four open-ended questions offering respondents the opportunity to write in their own comments rather than choose from optional answers as per all other questions. The four open ended questions were:

- Please tell us anything else you would like to about your experience of trying to get work with, or doing business with the NZDF, MoD or a prime contractor
- Please tell us what you feel are the barriers to growing your business with New Zealand Defence Force, MoD or a prime contractor to either of these organisations
- Thinking about the next five years, what changes would you recommend to improve local industry involvement in the New Zealand defence sector?
- Finally, is there anything else you would like to tell us?

Fifty of the 71 respondents answered these questions. The majority of these (31) are New Zealand owned companies; seven are international companies, 11 are New Zealand subsidiaries of international companies and one is a State Owned Enterprise.

The majority of the comments came from 34 companies who had held a contract or secured business with Defence or a prime contractor in the last 10 years. Eight respondents had tried to gain business and been unsuccessful, and five had not tried. There was no notable difference in the nature of the comments between these groups. The respondents covered a wide range in terms of their New Zealand revenue and overall revenue, but there were no clear differences in the nature of the comments by larger or smaller companies.

Survey Questions

The Ministry of Defence Evaluation Division has been asked by the Minister of Defence to undertake a review about New Zealand industry involvement in the New Zealand Defence sector. The information from this survey will feed into that review.

We would like to hear from your company if you supply or seek to supply the New Zealand Defence Force and the Ministry of Defence with equipment, goods and services, either directly or via another contractor.

The main focus of this survey is to better understand what you find helpful and what you find challenging about pursuing and securing business with the New Zealand Defence sector. The survey also includes high level questions about the nature, revenue and staffing of your company, the equipment, goods and services you supply and future plans.

Your company's survey response will remain confidential to the Ministry of Defence Evaluation Division and Vertical Research Ltd. We will only report aggregated data. Some of the questions are open ended and designed to get your thoughts and ideas. If we would like to refer specifically to these in our review report we will not share information that could identify your company without first gaining your approval.

As the survey is designed to work for businesses of all sizes and we don't want to double count anyone, please limit your survey response to one per company.

1. Thinking about the last ten years, please select the types of equipment, goods or services you have supplied to New Zealand Defence Force, Ministry of Defence and/or prime contractors.

{Drop down List of goods and services
- other (please specify)
-none
-Don't Know}

ANSWERED

2. Now please select the types of equipment, goods or services you could supply now to the New Zealand Defence Force, Ministry of Defence and/or prime contractors.

{Drop down List of goods and services
- other (please specify)
-none
-Don't Know}

ANSWERED

3. Which of these best describes the ownership of your company?

{- New Zealand owned
- New Zealand Subsidiary of an organisation that is internationally owned
- State Owned Enterprise
- Internationally owned
- other (please specify)
- Don't Know }

ANSWERED

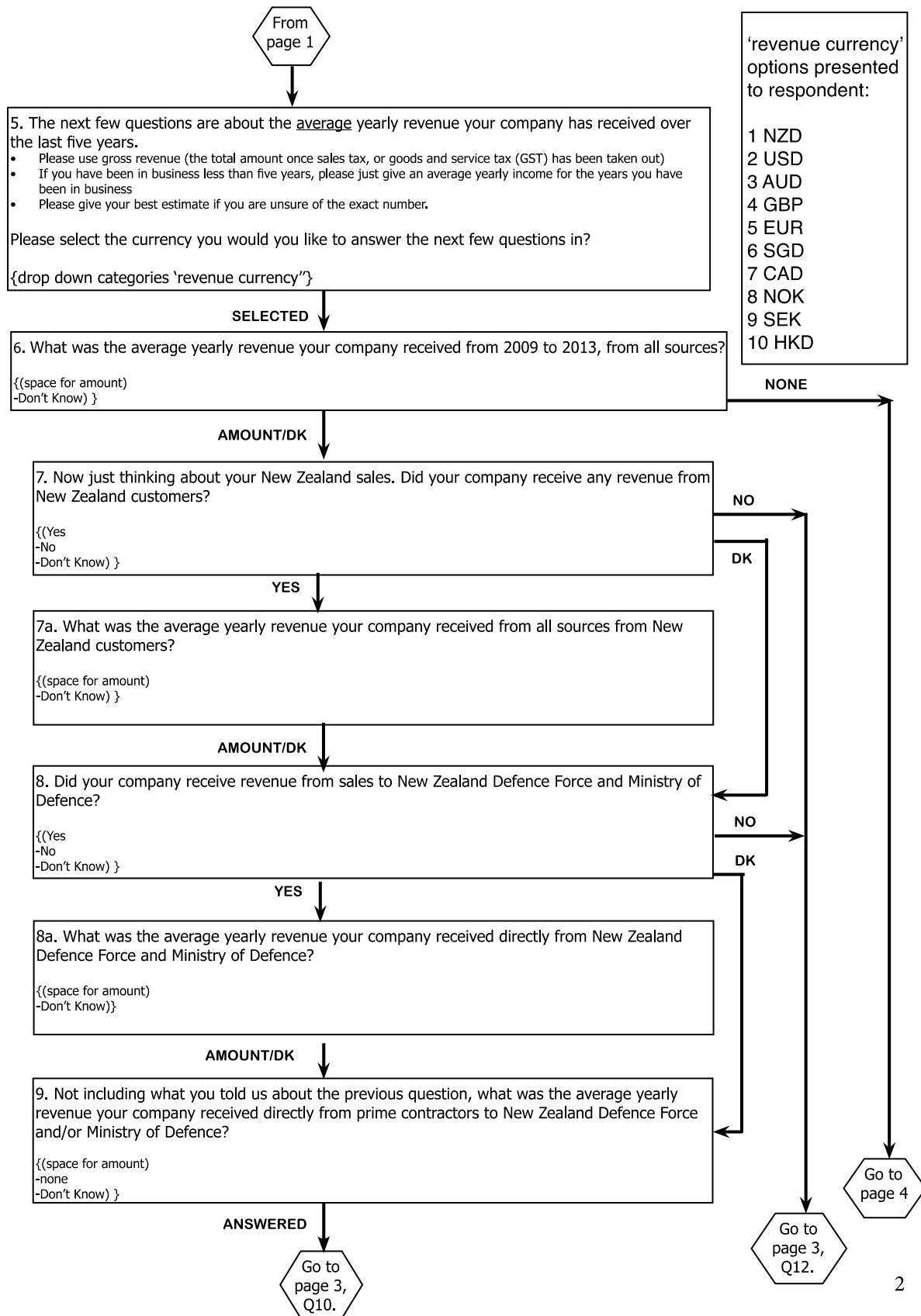
4. At 30 June 2013, how many New Zealand based, full-time equivalent employees did your company have?

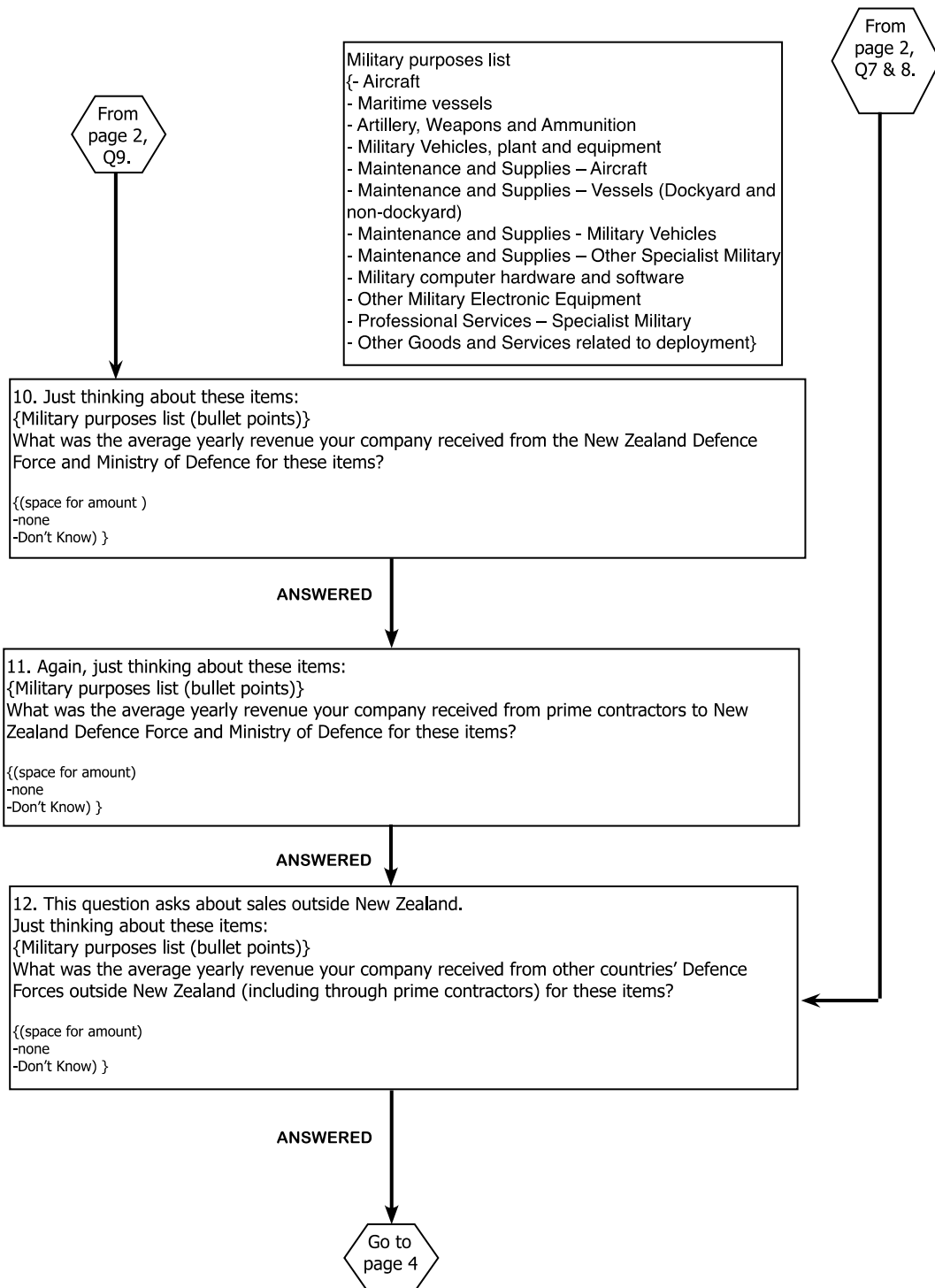
{{(number able to be entered)
-none
-Don't Know }

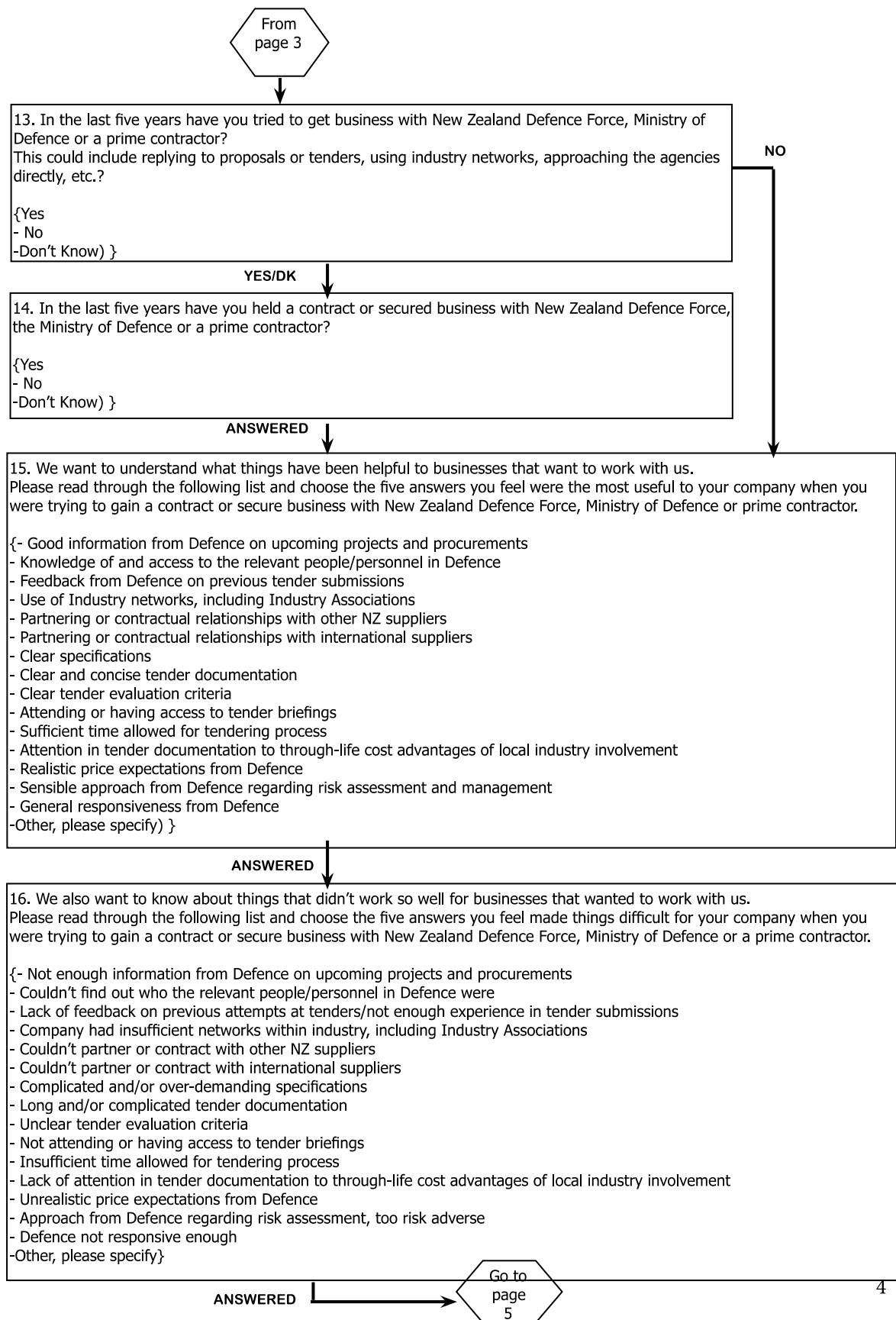
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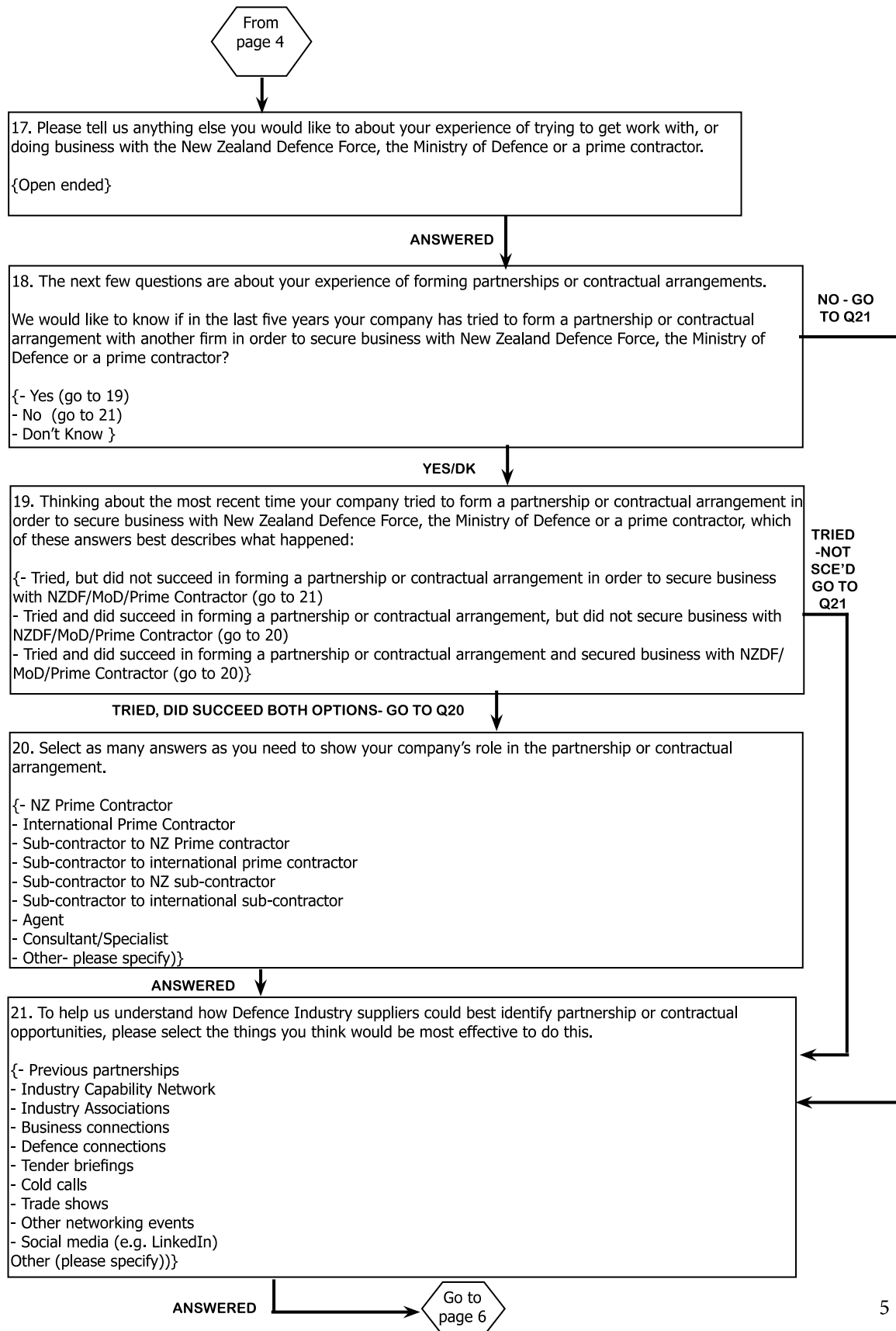
"Drop down list of goods and services"

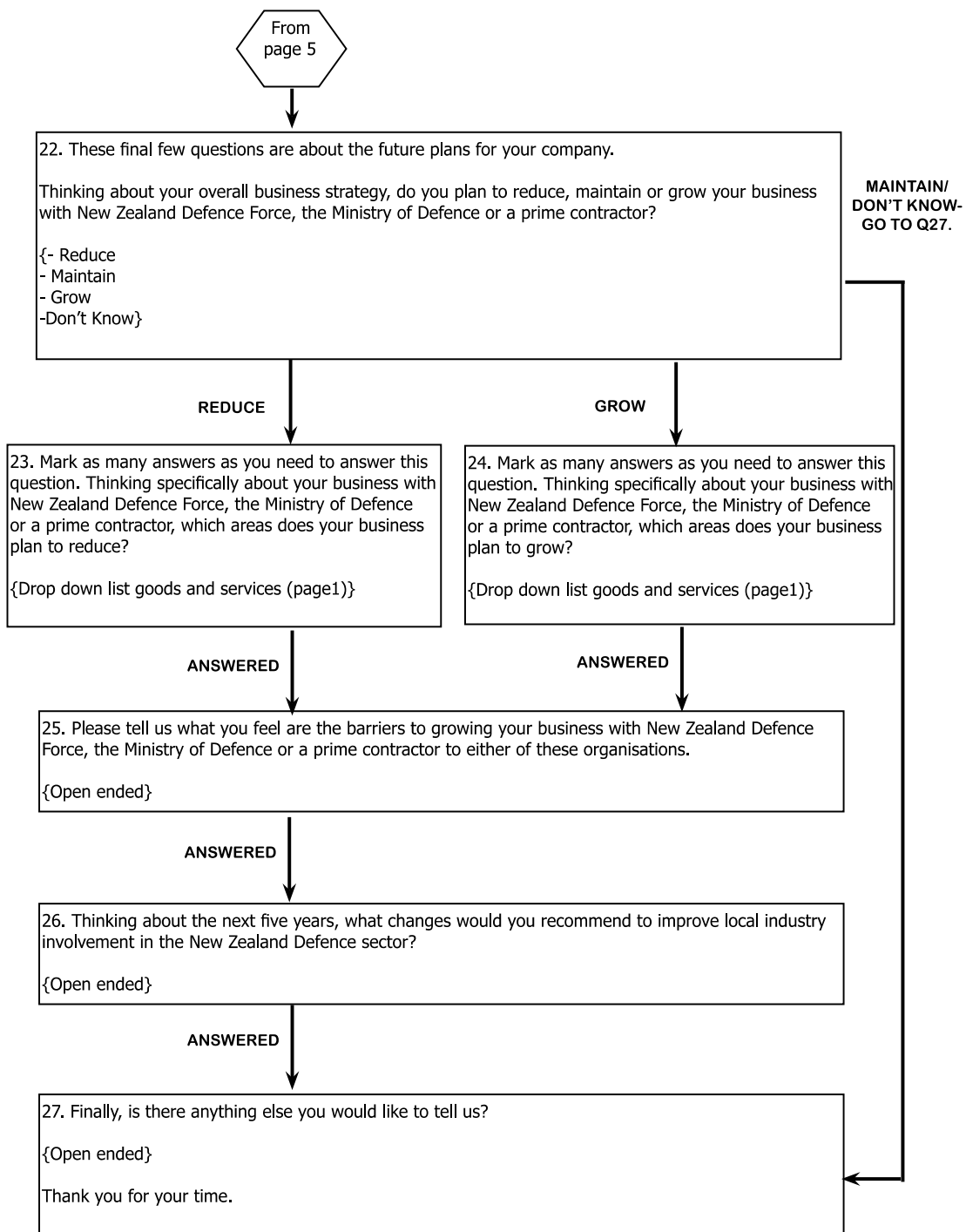
- Aircraft
- Maritime vessels
- Artillery, Weapons and Ammunition
- Military Vehicles, plant and equipment
- Maintenance and Supplies – Aircraft
- Maintenance and Supplies – Vessels (Dockyard and non-dockyard)
- Maintenance and Supplies - Military Vehicles
- Maintenance and Supplies – Other Specialist Military
- Military computer hardware and software
- Other Military Electronic Equipment
- Professional Services – Specialist Military
- Other Goods and Services related to deployment
- Buildings
- Maintenance - Buildings
- Plant and Equipment
- Maintenance - Plant and Equipment
- Maintenance – Works
- Non-Military Vehicles
- Maintenance and Supplies - Non-military vehicles
- Computer Hardware & software – Office & Other
- Fuel
- Food
- Clothing
- Accommodation Services
- General logistics
- Training
- Travel and Accommodation
- Other Goods and Services
- none}











Appendix 7: Interviewees

- Des Ashton, Deputy Secretary (Acquisition), Ministry of Defence
- June Brodie, Senior Procurement Advisor, Government Procurement, Ministry of Business, Innovation and Employment
- Kevin Broughton, Director Defence Commercial Services, New Zealand Defence Force
- Bernie Diver, Chair, New Zealand Defence Industry Association
- Mark Dunlop, Consultant to New Zealand Defence Industry Association
- Richard Harrison, Industry Procurement Specialist, Industry Capability Network, New Zealand Trade and Enterprise
- Caleb Johnstone, Programme Director, Government Procurement, Ministry of Business, Innovation and Employment
- Greg Lowe, Chair, Defence Industry Advisory Council
- Cdre Alan Martin, Assistance Chief Capability, New Zealand Defence Force
- Will Peet, Chief Operating Officer, New Zealand Defence Force
- Andy Warden, External Relationship and Reporting Manager, Capability Branch, New Zealand Defence Force.

