



**Independent Review Panel for Defence Acquisition**

**Progress Report  
April 2017 - December 2018**

## FOREWORD

The Independent Review Panel for Defence Acquisition presents its third progress report, which covers the period of 1 April 2017 to the end of December 2018. It includes a summary of the Panel's achievements, observations from our work over the past year and a half, and a statement of the Panel's priorities for the coming year. Appendix A provides information about the membership of the Panel while Appendix B sets out a financial summary for both the Panel and the Office that serves as its day to day presence within the Department of National Defence.

This has been a period of change for the Panel. We said goodbye to Ms. Renée Jolicœur, a founding member of the Panel who served with selfless dedication for three years, and welcomed two new and highly qualified Panel members, Ms. Margaret Purdy and Ms. Christine Tovee, to continue the Panel's rigorous approach to reviewing and challenging the requirements of major military procurement projects. For the first time, the Panel has a full complement of members to conduct its work.

Looking forward, the Panel will continue to support the Government through the implementation of *Strong, Secure, Engaged*, and will prioritize its engagements with the Department of National Defence and the Canadian Armed Forces accordingly. The Panel and its Office will also focus on enhancing the public's awareness and understanding of the role of the Panel. To that end, the IRPDA has launched a new Canada.ca website, which contains greater detail on how the Panel functions, and will increase outreach activities in order to inform the Government procurement community, as well as the broader Canadian public, on the role of the Panel. I, together with my fellow Panel members, hope that this report will also contribute to this purpose.



Larry Murray  
Chair of the Independent Review Panel for Defence Acquisition

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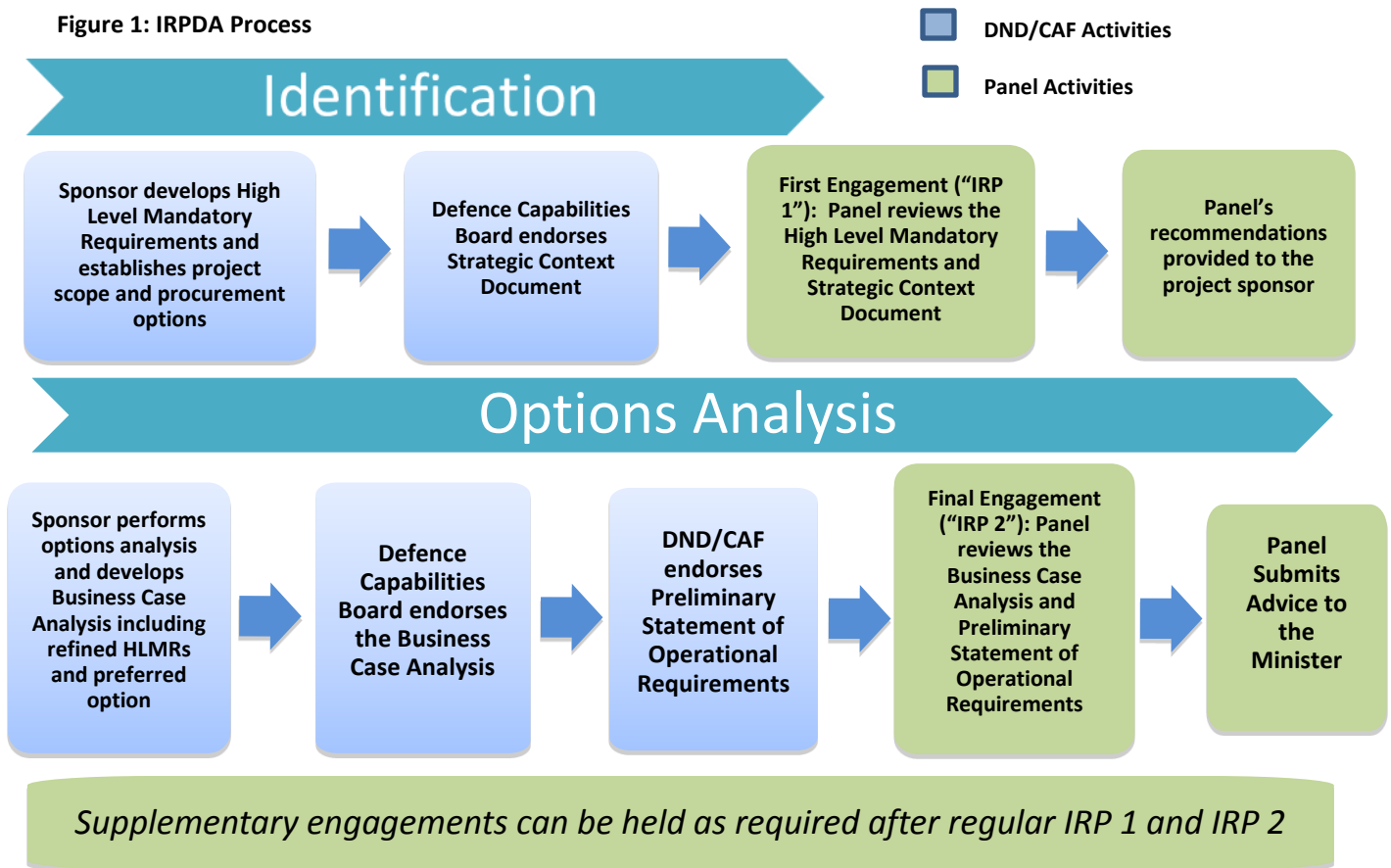
## **Introduction**

The Independent Review Panel for Defence Acquisition was created in 2015 as one of the core elements of the Defence Procurement Strategy. At that time, military procurement faced several challenges, including long lead times as well as a perception that operational requirements were crafted in such a complex manner that they complicated the approval process. As a result, the Panel was established to provide an independent, third-party challenge function to help validate mandatory requirements, and ensure that they are appropriately stated prior to the expenditure of significant funds.

In accordance with its Terms of Reference and review methodology, the Panel focuses primarily on the alignment of a project with Government policy, the validity of the capability gap a project intends to address, and the clarity and appropriateness of the mandatory requirements. The Panel engages projects at two points, at the beginning and at the end of the Options Analysis phase, before DND/CAF seeks approval from the Minister of National Defence (the Minister) or Treasury Board for expenditure authority. During the first engagement, the Panel reviews the High Level Mandatory Requirements (HLMRs) and the options identified by a project for detailed evaluation. This initial engagement occurs after the HLMRs and the options have been endorsed by senior DND/CAF officials, and helps the Panel identify any potential issues with a project before the detailed work on options begins. The second engagement from the Panel examines the results of the Options Analysis and the Preliminary Statement of Operational Requirements, again following endorsement by senior DND/CAF officials. Between the initial and final engagement, the Panel will engage as necessary to ensure that, to the greatest extent possible, any issues that it has identified are addressed in an appropriate way early in the process. For complex projects, the Panel has also benefited from scene-setter briefings, using these valuable early discussions as an opportunity to alert project sponsors to areas of particular interest prior to formal engagements.

Advice is provided to the Minister, through the Deputy Minister and with a copy to the Chief of Defence Staff, after the Panel has reviewed a project at the end of the Options Analysis phase, and prior to a project receiving permission by the Minister of National Defence or the Treasury Board to move into the Definition phase (see Figure 1).

Figure 1: IRPDA Process



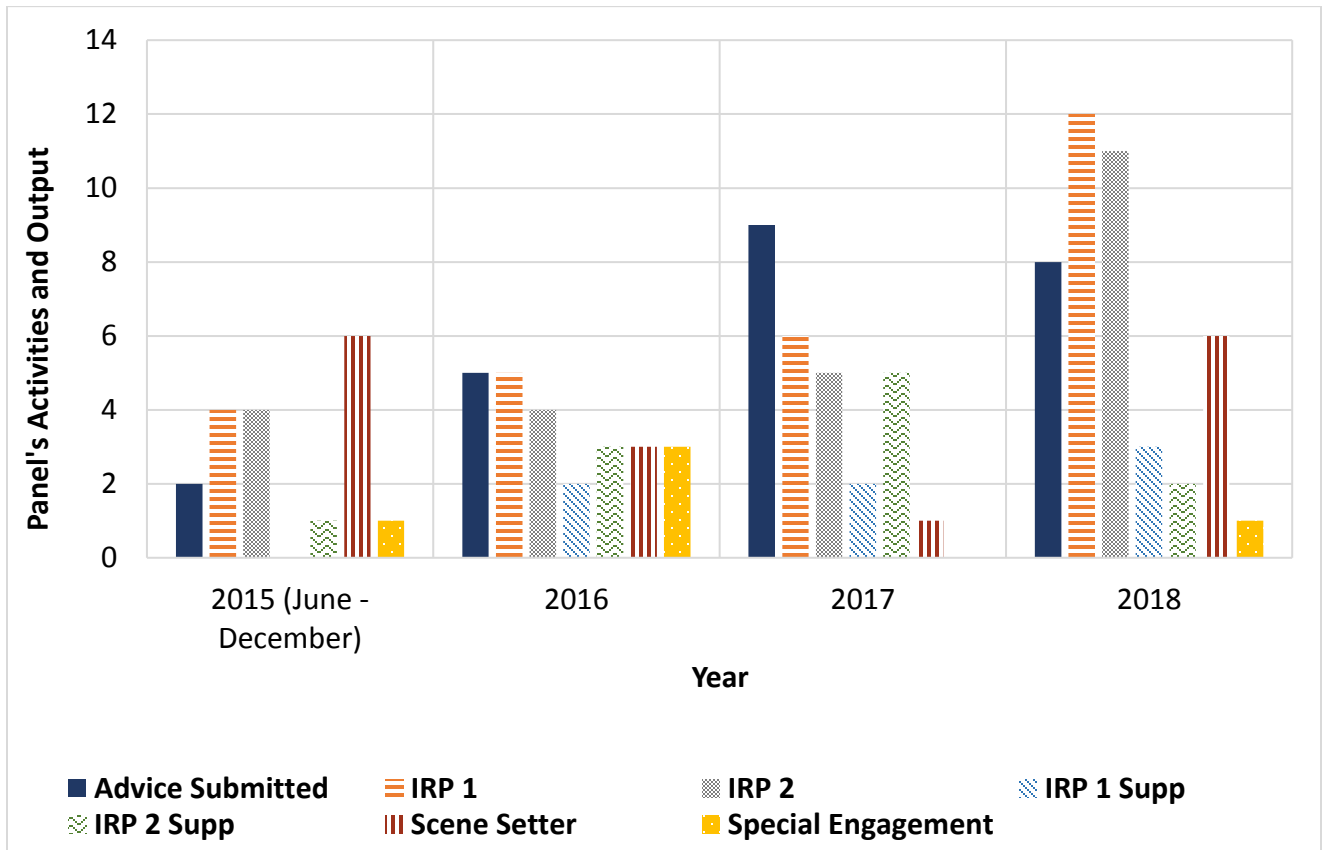
Note: Infrastructure projects differ slightly due to their governance processes, but intent and timing of IRPDA engagements are broadly the same

## 2017-2018 Accomplishments

The release of the *Strong, Secure, Engaged* defence policy in June 2017 has provided the Department of National Defence with a roadmap for advancing major projects. In addition, the publication of National Defence's Investment Plan (<https://www.canada.ca/en/department-national-defence/corporate/reports-publications/defence-investment-plan-2018.html>) as well as the Defence Capabilities Blueprint (<http://dgpaapp.forces.gc.ca/en/defence-capabilities-blueprint/index.asp>) have contributed to a broader awareness of allocated funding for projects. This strategic guidance provides greater clarity for the Panel's work and ensures the Panel exercises its challenge function on projects that are priorities for National Defence.

Since it became operational in June 2015, the Panel’s activities and output have steadily increased. Figure 2 depicts the number of project engagements the Panel had during each calendar year since June 2015, as well as the number of written advice pieces submitted each year to the Minister of National Defence.

**Figure 2: Panel’s activities and output, June 2015 to December 2018**



Since June 2015, the Panel has reviewed 45 projects across the full spectrum of National Defence activities, including capabilities in support of the Royal Canadian Navy, the Canadian Army, the Royal Canadian Air Force, the Special Operations Forces Command, infrastructure, and information technology (Figure 3). More specifically for the period covered by this report, from 1 April 2017 to the end of December 2018, the Panel reviewed 34 individual projects and submitted advice to the Minister of National Defence on 15 projects. Overall, the Panel has provided advice to the Minister of National Defence on 24 unique projects since it became operational, as broken down in Figure 4.

Figure 3: Number of projects reviewed by the Panel across the spectrum of National Defence activities, June 2015 to December 2018

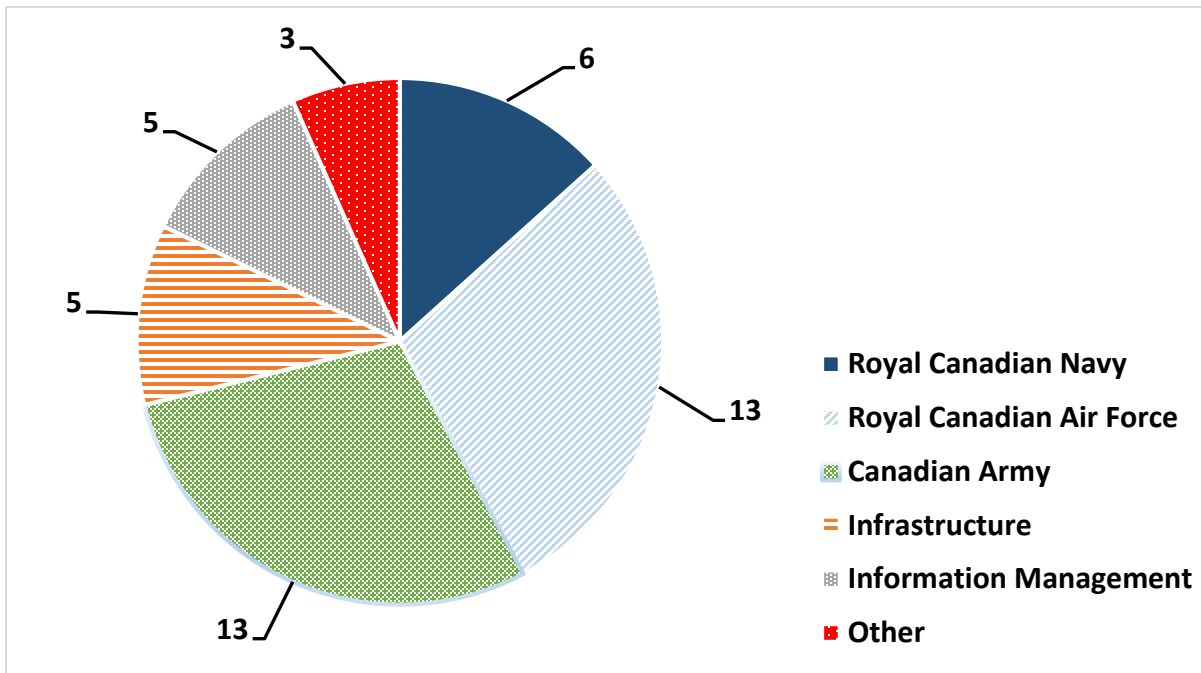
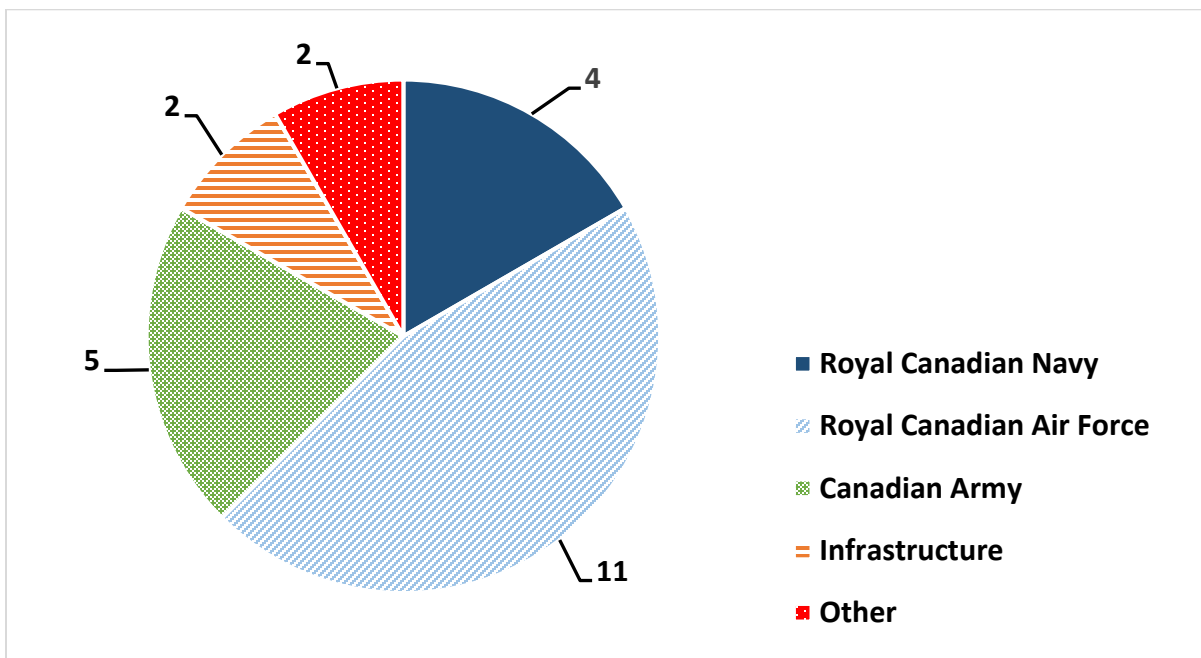


Figure 4: Number of advice pieces provided by the Panel by sponsors, June 2015 to December 2018



The Panel has been established to review major defence projects of over \$100 million and, according to its mandate, it has reviewed projects of varying value above this threshold. The following two graphics are based on the budget ranges used in the Defence Capabilities Blueprint, and illustrate the value of the projects the Panel has reviewed over the past year and a half (Figure 5), and since its inception in 2015 (Figure 6). As these graphics illustrate, the majority of projects reviewed by the Panel fall in the \$100 million to \$499 million range. These charts also show that the Panel has reviewed two projects with estimated budgets that fall under the \$100 million threshold. These projects were submitted to the Panel for review as their estimated budgets were close to \$100 million mark and could exceed it as their costing is refined in the future phases of the procurement process. To note, Figures 5 and 6 exclude one project reviewed by the Panel as its estimated budget was never confirmed.

**Figure 5: Projects by Value Range (1 April 2017 – 31 December 2018)**

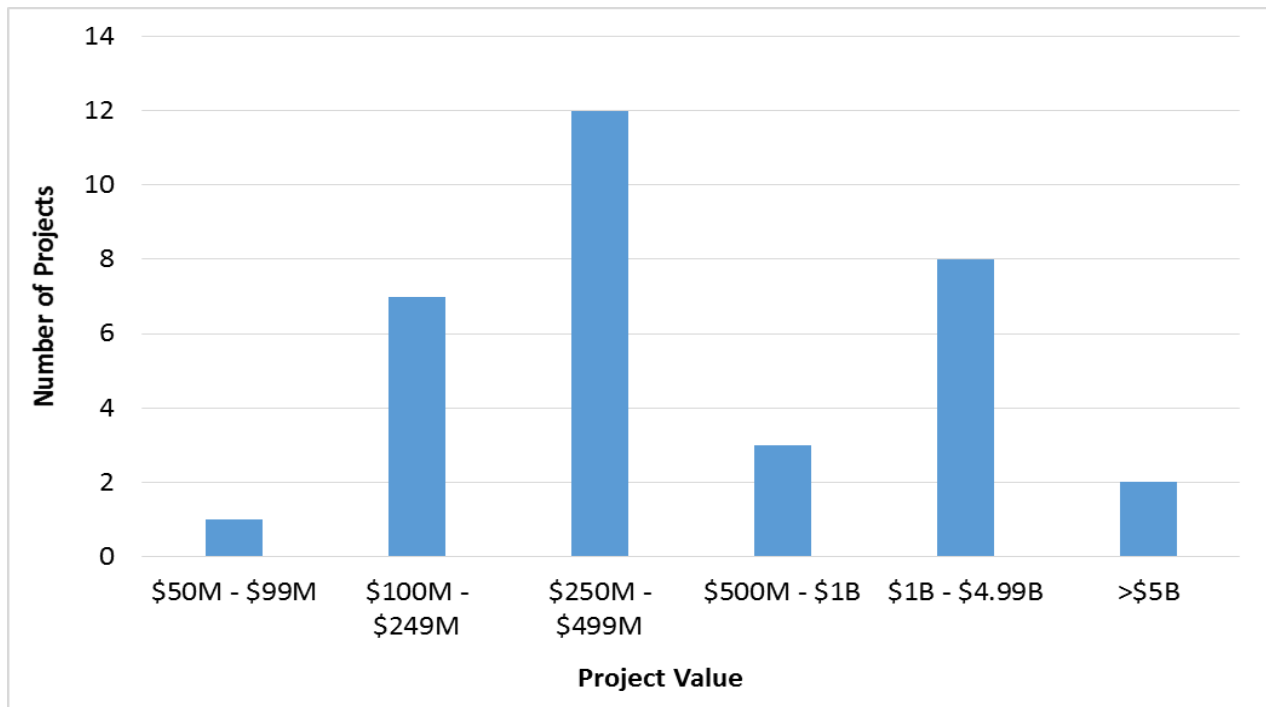
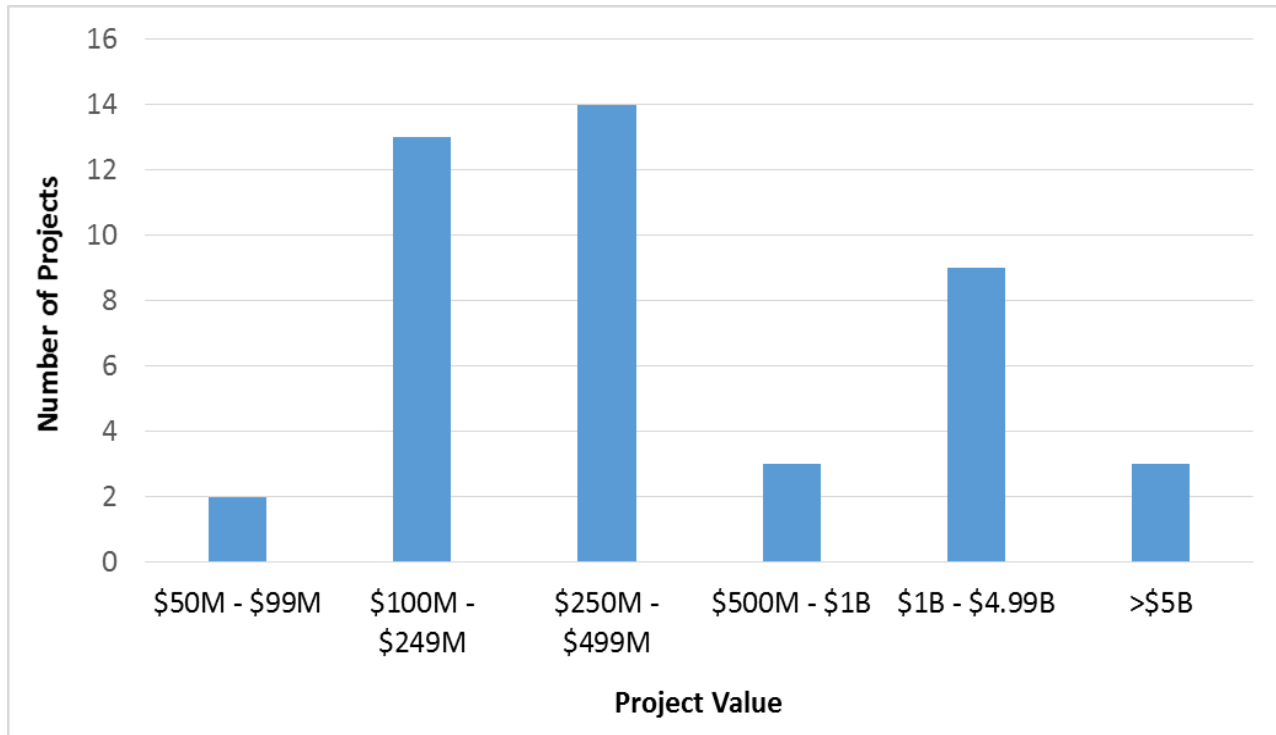




Figure 6: Projects by Value Range (1 June 2015 – 31 December 2018)



To support the preparation of its Progress Report for 2017-2018 and to assess its own performance, the Panel conducted a series of engagements with the Deputy Minister and the Senior Associate Deputy Minister of National Defence; the Chief of Defence Staff; the Vice Chief of Defence Staff; the Assistant Deputy Ministers for Finance, Policy, Materiel, and Infrastructure and Environment; senior Treasury Board Secretariat officials; and the Defence Procurement Strategy's Deputy Ministers' Governance Council. In addition, the Executive Director of the Panel's office conducted in-person interviews with key figures in the force development community and with senior National Defence decision-makers.

These activities have enabled the Panel to assess how well it is fulfilling its objectives; the effectiveness of its approach; and areas for improvement. There is a general consensus among senior National Defence and Canadian Armed Forces officials that the Panel is making a positive contribution to the defence procurement process. In particular, Defence Team stakeholders have stated that the Panel's demand for detailed explanations of project objectives, and of the rationale for the preferred option, is helping in the development of clearer narratives regarding the essential requirements of major military procurement projects.

In addition, the Panel has continued its longstanding efforts, dating back to its creation in 2015, to foster a cooperative environment while fulfilling its challenge function, and to work with project sponsors to identify solutions to any concerns that may arise. The Panel understands that Department of National Defence and Canadian Armed Forces officials appreciate the collaborative and balanced approach adopted by the Panel.

Moreover, the Panel made significant progress in renewing its membership and filling vacant positions. These efforts culminated in the arrival of two accomplished new Panel members in

May 2018, further increasing the diversity of views and experience that the Panel brings to bear during its review process. Achieving full Panel membership as well as the cumulative experience of reviewing more than 40 projects has placed the Panel in a better position to fulfill its mandate and support departmental efforts to implement *Strong, Secure, Engaged*.

Lastly, recognizing the need to better explain its activities, the Panel has launched a new Canada.ca website, which contains significant detail on the role and mandate of the Panel, biographies of Panel members, and previous annual reports. This enhanced online presence should increase broader awareness of the Panel both among other government departments as well as the Canadian public.

## **Panel Observations**

### ***Policy Foundation***

While the release of *Strong, Secure, Engaged* has enabled the Panel to review projects through the lens of current strategic policy, it continues to probe the policy foundations of projects to ensure appropriate alignment. For example, NATO and NORAD Treaty commitments and legislative obligations are some of the areas the Panel explores, when relevant, during its engagements.

### ***Capability Gap***

The Panel has observed significant progress in how projects articulate the capability gap. While *Strong, Secure, Engaged* has provided concrete initiatives that direct the Canadian Armed Forces to acquire new capabilities, the Panel continues to see benefit in the links between the Canadian Armed Forces' Capability-Based Planning, which forecasts and assesses anticipated capability requirements over a 20-year horizon, and the current needs. Overall, projects benefit from stronger narratives that contextualize the capability gap in the current and anticipated threat environment, and provide operational examples to explain the use of the capability in different scenarios. The Panel encourages projects to continue this approach and recommends the inclusion of operational vignettes, lessons learned, and concepts of operation to fully explain the capability gap in a clearer manner. These elements help to specify both the quantities and qualities of the capabilities that are required.

### ***High Level Mandatory Requirements***

High Level Mandatory Requirements (HLMRs) were conceived as a means of determining the mandatory project outcomes. Based on its review of more than 40 different projects over the past three and a half years, the Panel has observed that the universal adoption of HLMRs across projects has significantly contributed to an improvement in the presentation and determination of complex military requirements as well as communications to non-specialist decision-makers. The Panel can state that the introduction of HLMRs has had a positive impact, and contributes significantly to ensuring that projects focus on the truly essential requirements.

The Panel recognizes that each project team faces project-specific challenges during the HLMR development process. Specifically, the Panel acknowledges that project teams have to identify the right balance between developing general and specific HLMRs. Noting that a formulaic

solution would not be able to accommodate or address each project's distinct attributes, the Panel encourages individual project teams to adopt approaches that reflect their unique circumstances.

The Panel would, however, like to reiterate that HLMRs should include every foundational element of a project in order to ensure project success. As HLMRs are one of several methods used by project teams to screen options, ensuring that HLMRs are sufficiently robust and comprehensive will enable a project's preferred option to effectively meet all of the mandatory requirements. Further, the more technical requirements that are included in the Preliminary Statement of Operational Requirements should be clearly traceable to the HLMRs (as elaborated upon in the following section). The Panel has noted some improvements in this context. For example, training requirements, which the Panel often considers to be central to the success of a project, are beginning to appear as HLMRs across projects. The Panel encourages National Defence to continue to ensure that all foundational requirements are clearly reflected in the HLMRs.

Based on its reviews of projects over the period covered by this report, the Panel is satisfied that the mandatory requirements identified by project teams are, in fact, essential to address the relevant capability gaps. The Panel has nonetheless observed instances in which project teams would benefit from providing better explanations of their requirements, notably by anchoring them in detailed concepts of operation. There is, however, no evidence that project sponsors are deliberately shaping requirements to favour specific options or suppliers.

### ***Preliminary Statement of Operational Requirements***

Ensuring the alignment and traceability between HLMRs and the Preliminary Statement of Operational Requirements (PSOR) is one of the key elements of the Panel's review during an IRP 2 engagement (see Figure 1), and the primary means by which the Panel is able to examine whether the requirements are valid and appropriately stated. In the Panel's experience, the specific technical requirements contained within the PSOR have been appropriate. Where minor issues of misalignment have occurred, the Panel notes that it has been the result of oversight rather than a conscious effort at aligning requirements to favour a specific procurement approach or solution over another.

What the Panel has observed, however, are legitimate mandatory requirements, such as interoperability or cyber security, which may limit the number of viable options that are able to meet the HLMRs and technical requirements included in a PSOR.

### ***Options***

Over the past year and a half, the Panel has noted the increasing use of capability-based options rather than procurement options. The Panel has encouraged projects to create capability-based options since its inception and views this trend as a positive development. The Panel recognizes that the adoption of capability-based options is not a straightforward process; some project sponsors understandably face challenges translating policy guidance into a requirement for a specific number of platforms. The Panel further understands that developing capability-based options is a resource-intensive process. That said, the Panel would like to note that several project sponsors have successfully adopted sophisticated and convincing approaches to address this issue, and encourages project teams to continue with this approach going forward,

particularly in light of the possibility of budget constraints when cost-capability trade-offs may need to be undertaken. To this end, the Panel would recommend that projects seek to include within their options different levels of capability, and the relative risks to mission success they entail, to better enable the prioritization of requirements should it prove necessary later on in the procurement process.

As mentioned previously, the Panel notes that National Defence makes a concerted effort to support competitive processes. In certain cases, however, this is not feasible due to specific mandatory requirements, such as those related to interoperability and cyber security, which can impose a number of constraints that may reduce the number of qualified suppliers. In such cases, a sole-sourced solution may be the only viable option. Similarly, the feasibility of certain upgrade and modernization projects may require that the work be completed with the original equipment manufacturer.

While the Panel does not have a mandate to offer recommendations on procurement strategies, it aims to help inform the selection of options by establishing the validity of mandatory requirements through its review of the Preliminary Statement of Operational Requirements.

### ***Procurement Considerations***

The Panel has noted that project teams that have conducted early industry engagements are better equipped to provide a strong rationale for their preferred option. The Panel recognizes that this can be a complex and resource-intensive proposition for project teams, but nonetheless considers it to be a worthwhile endeavour.

Finally, although the Panel does not often comment on individual project's procurement approaches and strategies, it almost always seeks additional information about the opportunities that each project presents for Canadian industry. Since its inception, the Panel has observed that the vast majority of the projects it has reviewed provide opportunities for Canadian industry, typically in the context of in-service support.

## **Independence**

The Panel would like to note that it continues to maintain its independence, which it safeguards through a number of key efforts. Prior to an engagement on any project, all Panel members confirm that they have no conflict of interest. Panel members also continue to seek advice from the Office of the Ethics Commissioner on a routine basis. Additionally, Panel members sign an independence declaration on an annual basis confirming that they understand and respect the requirements of the *Conflict of Interest Act* as it applies to their position.

Every piece of the Panel's advice to the Minister contains a statement of assurance which affirms that its contents are free from influence. In addition, the integrity of the Panel's advice is protected as it is not shared until it is approved by the Panel through consensus, and signed by the Chair prior to being submitted to the Minister of National Defence.

The Panel's office has also continued constructive and collaborative relationships with key stakeholders in the Department of National Defence and the Canadian Armed Forces while maintaining its independence.

## **Panel Membership**

The Panel would like to thank Ms. Renée Jolicœur, who departed the Panel in May 2018 after three years of service, and to commend her essential contribution as one of its founding members. Her selfless dedication, insight and recommendations as a member, informed by her wide expertise in Government procurement and contracting, helped the Panel to fulfill its core functions throughout her tenure.

The Panel was pleased to welcome two accomplished new Panel members: Ms. Margaret Purdy and Ms. Christine Tovee. Their diverse experience and fresh perspectives enable Ms. Purdy and Ms. Tovee to play key roles in enabling the Panel to fulfill its core mandate.

## **Priorities for 2019**

Looking ahead, the Panel's priority is to continue supporting the implementation of the *Strong, Secure, Engaged* defence policy. Given that the accomplishment of acquisition-related elements of the policy will remain fluid as projects evolve over the coming years, the Panel will continue to maintain a broad awareness of the status of DND/CAF acquisitions, including changes to funding, sequencing of projects, and potential capability trade-offs, with the aim of providing contextualized and relevant advice to the Minister.

The Panel will also continue to work with the Canadian Armed Forces to ensure that essential military requirements are clearly and appropriately stated for decision-makers. To this end, the Panel will continue to encourage greater clarity around the anticipated operational use of the capability, and work with the Chief of Force Development to provide relevant and helpful guidance with respect to the development of High Level Mandatory Requirements. It will also increase its efforts to improve the understanding of the Panel's role, mandate and contributions to date among Departmental stakeholders, Government of Canada Departments and Agencies, and the general public.

Finally, the Panel recognizes that raising awareness of its work presents an ongoing challenge. As a result, the Panel and the Office have taken steps to increase outreach activities by participating in conferences and conducting informal briefings, with more work to come.

## Appendix A: Panel Members Biographies

### Chair



#### **Mr. Larry Murray CM, CMM, CD**

Mr. Larry Murray has held a number of senior positions in the Canadian Armed Forces and Public Service. During his career with the Canadian Armed Forces, he served at sea in a variety of ships and held several senior positions, including as Deputy Chief of the Defence Staff, Commander of Maritime Command, Vice Chief of the Defence Staff and, finally, Acting Chief of the Defence Staff from October 1996 until September 1997. Mr. Murray retired from the Canadian Armed Forces in 1997 and joined the Public Service as Associate Deputy Minister of Fisheries and Oceans. He was appointed Deputy Minister of Veterans Affairs Canada in 1999 and Deputy Minister of Fisheries and Oceans in 2003. He retired from the Public Service of Canada in 2007.

Since retiring from the Public Service, Mr. Murray has served on Task Forces, Advisory and Audit Committees. He is also a former Chair of the Board of the Public Policy Forum, a former President of the Nova Scotia Mainland Division of the Navy League of Canada and honorary Grand President of the Royal Canadian Legion.

Mr. Murray has received many prestigious awards in recognition of his leadership in the Canadian Armed Forces, Public Service of Canada, national voluntary commitments, as well as his support to Canadian Armed Forces personnel, Veterans and their families. He was appointed as a Member of the Order of Canada in 2013.

## Members



### **Mr. Martin Gagné**

Mr. Martin Gagné spent 17 years at CAE before retiring as Group President for Military Simulation and Training in 2012. During his career with CAE, he served in various roles such as: Vice-President of Visual Systems, Vice-President of Military Marketing and Sales, and Executive Vice-President of Civil Simulation and Training.

Prior to joining CAE, Mr. Gagné acquired extensive management and leadership experience during his 23 years as a member of the Canadian Armed Forces. As a senior aerospace engineering officer he was involved in the acquisition and maintenance activities of various aircraft fleets including the CF-18 and Maritime Helicopter Project. He has a Master's degree in computer engineering.

Mr. Gagné serves on the Board of Directors for the Canadian Association of Defence and Security Industries (CADSI) and is on CCC's Board of Directors as the Chair of the Operations Committee.



### **Mr. Philippe Lagassé**

Mr. Philippe Lagassé is associate professor and the William and Jeanie Barton Chair at the Norman Paterson School of International Affairs, Carleton University. He holds degrees from McGill University, Royal Military College of Canada, and Carleton University. He taught previously at the Graduate School of Public and International Affairs, University of Ottawa.

Mr Lagassé's research focuses on defence policy and military procurement, as well as civil-military relations and the role of institutions in international policymaking in the Westminster tradition. His publications have appeared in various Canadian and international scholarly journals.

His public sector experience includes consultancies with the Office of the Judge Advocate General and the Office of the Auditor General, and he was an independent reviewer of the 2012-2014 evaluation of options to replace Canada's CF-18 fighter aircraft.

## **Ms. Margaret Purdy**



Ms. Margaret Purdy had a 30-year career as a national security professional in the federal public service. Her assignments included Director General of Counter Terrorism at the Canadian Security Intelligence Service, Deputy Secretary to the Cabinet (Security and Intelligence) in the Privy Council Office, and Associate Deputy Minister of National Defence.

Ms. Purdy was one of four members of the independent panel advising the Minister of National Defence during the development of Strong, Secure, Engaged – Canada’s defence policy. She also served six years on the Department of National Defence Departmental Audit Committee and is currently a member of the Communications Security Establishment Departmental Audit Committee.

Since retiring in 2006, Ms. Purdy has conducted compliance examinations, lessons learned reviews, post-incident inquiries, tabletop exercises, and strategic policy reviews for more than a dozen Government of Canada departments, agencies and regulatory bodies.

## **Ms. Christine Tovee**



Ms. Christine Tovee is a technology and engineering consultant with over 15 years leadership in aerospace development programs. She was Vice President of Research and Technology and Chief Technology Officer for Airbus Group Inc., in the United States (formerly known as EADS North America) and has worked on defence projects from early concept and requirements through detailed design, test and validation.

At BAE Systems and EADS, Ms. Tovee held positions in Germany, France and the United Kingdom, contributing to national and European space programs. She has led and collaborated on defence projects in all domains: land, air, sea and space, focusing on joint operations and C4ISTAR systems including Skynet V military satellite communications, medium-lift helicopters, Ground Based Air Defence and Type 45 Destroyer Combat Systems.

Ms. Tovee was seconded to the UK Ministry of Defence from the Skynet V programme to lead the technical aspects of the Joint Network Integration Body (JNIB). This programme combined the efforts of MoD and multiple defence contractors to identify and solve the integration challenges in providing a seamless information and communications system.

She is currently a member of the Government of Canada’s Space Advisory Board, advising the Minister of Innovation, Science and Economic Development on a long-term national strategy for space. She is also a start-up mentor for the University of Toronto in the School of Engineering’s Hatchery Student Entrepreneurship program and at the Rotman School of Business as an Associate in the Creative Destruction Lab.

Ms. Tovee holds a Bachelor of Applied Science in Aerospace Engineering from the University of Toronto, and a Master of Science in Aeronautics and Astronautics from Massachusetts Institute of Technology (MIT).



**Appendix B: IRPDA and IRPDA Office Budget and  
Total Expenditures for 2017-18**

|  | <b>2017-2018 Budget</b> | <b>2017-2018 Expenditures</b> |
|--|-------------------------|-------------------------------|
| <b>Operating and Maintenance</b>               | <b>\$200,000</b>        | <b>\$57,562.61*</b>           |
| <b>Salary (Panel members and IRPDAO staff)</b> | <b>\$1,200,000</b>      | <b>\$1,083,430.11</b>         |

\* During Fiscal year 2017-18, the Panel only had four members, the majority of which were based in the National Capital Region, which accounts for the smaller expenditure of Operating and Maintenance funds.