# FIRST INTERIM REPORT ON DEFENCE PROCUREMENT

**SUMMARY OF EVIDENCE** 





INTERIM REPORT OF THE STANDING SENATE COMMITTEE ON NATIONAL FINANCE

The Honourable Percy Mockler, Chair The Honourable Joseph A. Day, Deputy Chair The Honourable André Pratte, Deputy Chair

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#### **FOREWORD**

If there is one issue that exemplifies the importance of transparency, accountability, predictability and reliability, it is defence procurement. Maintaining a modern, capable military requires acquiring expensive, technologically advanced equipment. Given the significance of the costs involved, as well as Canada's defence and security, Parliament has a fundamental role to play in holding the government to account for its ability to acquire military equipment in a timely and effective manner. To do so, Parliament needs transparent access to reliable information.

Our committee's initial foray into this issue has demonstrated the complexity of defence procurement, which must accommodate projects of vastly different scale and coordinate activities across several government departments. We have also experienced the challenge of obtaining clear, timely information about the status of and costs incurred for the government's many defence procurement projects. Defence procurement is undeniably an issue that requires further study, as we have only begun to scratch the surface. In this report, our committee has outlined some of the key questions and provided a valuable roadmap for further study. I have little doubt that this issue will continue to be of interest to parliamentarians.

As Chair, I would like to express my personal gratitude to the members of our committee who devoted their considerable insight and thoughtfulness into this study, and, indeed, to all of our studies. The Standing Committee on National Finance is one of the busiest Senate committees, with over 40 reports produced during this Parliament, and I am proud of the work we have accomplished together.

In particular, on the cusp of her retirement from the Senate, I wish to recognize the exceptional work of Senator Nicole Eaton. Her tenacity and commitment to accountability and transparency is to be commended. She was the driving force behind this study, capably supported by the other members of the committee.

On behalf of the committee, I also want to thank the staff—the clerks, analysts, communications team, interpreters, translators, stenographers, technicians, assistants, senators' staff and others—without whom our work would not be possible. I am deeply appreciative of their dedication and professionalism.

# MEMBERS OF THE COMMITTEE ON NATIONAL FINANCE

# **The Honourable Senators:**



Percy Mockler\* Chair



André Pratte\* Deputy Chair



Joseph A. Day\* *Deputy Chair* 



Raynell Andreychuk



Peter M. Boehm



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**Ex-officio members of the Committee:** Joseph A. Day (or Terry M. Mercer), Peter Harder, C.P. (or Diane Bellemare) (or Grant Mitchell), Larry W. Smith (or Yonah Martin), Yuen Pau Woo (or Raymonde Saint-Germain)

Other Senators who have participated from time to time in this study: Dalphond, Deacon (*Nova-Scotia*), Mobina S. Jaffer (Deputy Chair until May 17, 2019), Moncion, Oh, Omidvar

**Parliamentary Information and Research Service, Library of Parliament:** Alex Smith and Shaowei Pu, Analysts

Senate Committee Directorate: Gaëtane Lemay, Clerk, and Louise Martel, Administrative Assistant

Senate Communications Directorate: Stav Nitka, Communications Officer

#### ORDER OF REFERENCE

The Honourable Senator Mockler moved, seconded by the Honourable Senator Smith:

That the Standing Senate Committee on National Finance be authorized to examine and report on the processes and financial aspects of the Government of Canada's system of defence procurement.

That, in conducting such a study, the committee take particular note of the extent to which the defence procurement processes:

- incorporate mechanisms to ensure value-for-money and Canadian economic benefits are achieved:
- utilize cost effective, timely and efficient procedures;
- clearly and transparently report on planned and actual expenditures;
- compare processes and costs from other markets around the world; and
- other related matters.

That the committee submit its final report to the Senate no later than December 31, 2019, and retain all powers necessary to publicize its findings for 180 days after tabling of the final report.

October 4, 2018

#### **EXECUTIVE SUMMARY**

A series of cost overruns, delays and operational difficulties have led many to question the ability of successive governments to effectively procure equipment for the Canadian Armed Forces in a timely and efficient way.

The safety, security and operational capability of the Canadian Armed forces and the billions of dollars involved make it imperative to get defence procurement right.

Defence procurement involves financial, technological and scheduling risks. The government must balance competing priorities, capabilities, cost and domestic economic benefits.

With this in mind, the Senate authorized the Standing Committee on National Finance to undertake a study on the processes and financial aspects of Canada's defence procurement system. Over six meetings we met with 24 witnesses, including: departmental officials, the Independent Panel for Defence Acquisition, representatives of the three major shipyards and industry associations, academics, think tank analysts, and retired senior public servants.

These witnesses provided a range of opinions and options to improve the governance, accountability, transparency, industrial benefits, contracting and capacity of Canada's defence procurement system. Having listened to the testimony, we have some preliminary observations:

- A single agency could simplify the complex procurement governance framework. Serious
  consideration could also be given to empowering project officials and making the Department of
  National Defence the lead department.
- The life cycle of equipment could be taken into account in the timing of its replacement. Right now, the Canadian Armed Forces is using equipment that is many years past its best-before date.
- One size does not fit all. Contracting procedures could be adjusted based on the equipment being procured. The number of decision gates could be re-examined. The acquisition cycle time has become increasingly lengthy.
- A hard look could be taken at the procurement process, including an end-to-end review, to see what is working well and what could be improved.
- The government could develop a policy on how it will support the Canadian defence industry.
- The government and the supplier could share the risks in defence procurement.
- The issues with defence procurement do not just lie in processes but also in the capacity of the government to manage complex acquisitions.

However, the complexity of the system and the variety of the options presented is such that our committee believes that before we can develop observations and issue recommendations, we need to conduct a more in-depth analysis than was possible during the limited time available. We identified six areas of particular concern that merit more study, including:

1. The type of financial information that could be made available to parliamentarians and Canadians;

- 2. How other countries achieve a non-partisan consensus that avoids de-stabilizing the defence procurement process when governments change;
- 3. Ways to embed long-term acquisition planning into the life cycle of the equipment;
- 4. Options to streamline the defence procurement governance structure;
- 5. How to achieve Canadian economic benefits, while at the same time ensuring value-for-money in the use of public funds; and
- 6. How to accelerate approval processes for all acquisitions, as well as develop simpler processes for low risk or urgently required acquisitions.

# **LIST OF ACRONYMS**

ADM Assistant Deputy Minister

ADMC Assistant Deputy Minister Committee

CCG Canadian Coast Guard

DFO Fisheries and Oceans Canada

DM Deputy Minister

DMGC Deputy Minister Governance Committee

DND Department of National Defence
DPS Defence Procurement Strategy

ISED Industry, Science and Economic Development

Canada

ITB Industrial and Technological Benefits Policy

PCO Privy Council Office

PSPC Public Services and Procurement Canada

RCN Royal Canadian Navy

SSE Strong, Secure, Engaged

TBS Treasury Board of Canada Secretariat

#### 1 INTRODUCTION

The Canadian Armed Forces needs to maintain and regularly renew its military equipment to ensure it has the capacity to defend Canada's sovereignty and participate in missions abroad. The equipment it requires is complex, expensive and available from limited suppliers.

The Government of Canada annually invests billions of dollars procuring equipment for the Canadian Armed Forces. However, delays, cost overuns and other problems have led many observers to question the system of processes, policies and governance structures that have been put in place to manage defence procurement. In recent years, the government has undertaken reforms to defence procurement, but questions remain.

With this in mind, on October 4, 2018, the Senate authorized the Standing Committee on National Finance (our committee) to undertake a study on the processes and financial aspects of Canada's defence procurement system, with particular attention to mechanisms for ensuring value-for-money and Canadian economic benefits, the timeliness and efficiency of processes, the transparency of financial reporting, and the processes used and costs incurred in other countries.

We met with 24 witnesses over six meetings, including: departmental officials, the Independent Panel for Defence Acquisition, representatives of the three major shipyards and industry associations, academics, think tank analysts, and retired senior public servants.

This report presents an interim summary of our findings to date, organized into the topics of governance and accountability, performance, financial transparency, independent review, industrial benefits, shipbuilding, contracting and capacity. It concludes with directions for further inquiry.

## 2 BACKGROUND

#### 2.1 Governance

In Canada, defence procurement is a complex process involving several federal departments, including: the Department of National Defence (DND), Public Services and Procurement Canada (PSPC), Innovation, Science and Economic Development Canada (ISED) and the Treasury Board of Canada Secretariat (TBS). Each department is responsible for different aspects of the defence procurement process.

Under the *Defence Production Act*, PSPC is responsible for the acquisition of goods and services on behalf of DND. In practice, PSPC develops the procurement plan; solicits and evaluates bids; and prepares, awards, administers and closes contracts. DND defines operational and technical requirements, and conducts acceptance trials and tests related to the delivery of the materiel or services procured. In other words, DND establishes the requirements for the procurement of military equipment, but responsibility for contracting and acquiring materiel or services rests with PSPC.

ISED administers the federal government's Industrial and Technological Benefits Policy, which the government uses to leverage industrial and economic benefits for Canada from defence procurement contracts.

TBS is responsible for developing the federal government's overall procurement policies, directives, and guidelines; approving preliminary funding for major capital projects; and conducting financial oversight of those projects. (TBS declined an invitation to appear before our committee for this study, indicating that it has no specific policies that target defence procurement and oversight processes.)

To streamline and coordinate decision-making, the government established a Working Group of Ministers on Defence Procurement in 2014, as part of the Defence Procurement Strategy (discussed in the next section), which was supported by a permanent Deputy Ministers Governance Committee. On August 28, 2018, the Prime Minister announced that the Treasury Board cabinet committee would assume responsibility for defence procurement.

To co-ordinate activities and jointly manage defence procurements at the bureaucratic level, the government established various inter-departmental committees. PSPC provided a detailed description of these committees, as follows:

The following inter-departmental Defence Procurement Strategy (DPS) governance committees play an integral role in the oversight and decision-making process for defence and major Canadian Coast Guard (CCG) procurements:

Deputy Minister Governance Committee (DMGC) and Assistant Deputy Minister Committee (ADMC). Standing DPS governance committees at both the deputy minister (DM) and assistant deputy minister (ADM) level have been established.

The DMGC is chaired by the Deputy Minister of PSPC and includes the Deputy Ministers of DND, ISED, Fisheries and Oceans Canada (DFO) (i.e., regular members). The Privy Council Office, TBS, Finance Canada and Indigenous and Northern Affairs Canada are ex-officio members. DND may include representation from the Canadian Armed Forces at DMGC meetings, as required, to provide military advice to the DMGC on issues that could impact capability requirements.

A parallel structure exists for the ADMC. While DPS governance encourages collaborative decision making by consensus at the lowest level, DMGC and ADMC may decide to provide senior level oversight and decision making on procurements at the discretion of their core members. Lower level committees may also decide to escalate procurements to these standing committees for a more senior level of oversight or decision making.

Director General and Director Level Governance Committees:

These committees were established, convened and chaired by PSPC, with the client department (DND or DFO and ISED), as core members, and will include other implicated departments and agencies as ex-officio members. Establishing the appropriate DPS governance committee is based on the total project value; this means the total potential value of the procurement including all contracts, option periods and taxes. In order to exercise appropriate DPS oversight and key decision-making, a Director Governance Committee must be established for procurements valued at \$20 million and

up to \$100 million and a Director General Governance Committee must be established for procurements valued at \$100 million or more.<sup>1</sup>

Julie Charron, the Acting Assistant Deputy Minister (Finance) and Deputy Chief Financial Officer for DND, described the governance framework within the department for approving new defence procurement projects:

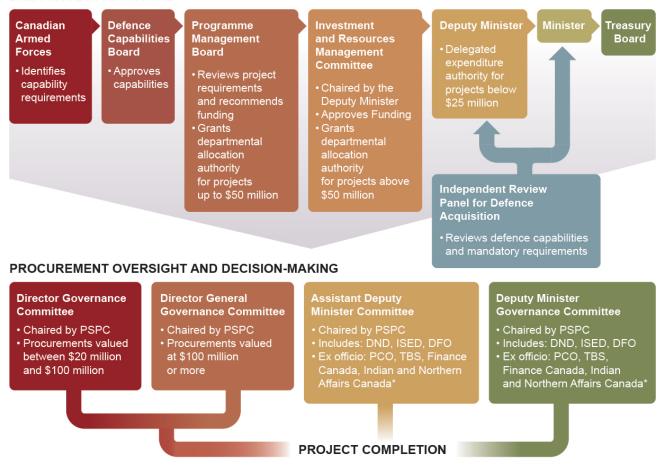
The defence capability board approves the capabilities required by the Canadian Armed Forces. Once the capability is approved, the program management board will review the project requirements and recommend project funding from the capital investment fund. The deputy minister, as chair of the investment and resource management committee, approves funding for the project.<sup>2</sup>

DND's project approval process and the governance framework for procurement oversight and decision-making are shown in Figure 1.

<sup>&</sup>lt;sup>1</sup> Quoted from material provided to the Senate Standing Committee on National Finance by Public Services and Procurement Canada on January 11, 2019.

<sup>&</sup>lt;sup>2</sup> Senate, Standing Committee on National Finance, 1<sup>st</sup> Session, 42<sup>nd</sup> Parliament, Evidence, February 19, 2019.

Figure 1: Defence Procurement in Canada DND PROJECT APPROVAL



<sup>\*</sup>Indian and Northern Affairs Canada has been split into Crown-Indigenous Relations and Northern Affairs Canada and Indigenous Services Canada.

# 2.2 Defence Procurement Strategy

In February 2014, the government unveiled its Defence Procurement Strategy, a multi-point plan to reform the Canadian defence procurement system. The strategy had three key objectives:

- to deliver the right equipment to the Canadian Armed Forces in a timely manner;
- to leverage defence procurement purchases to create employment and economic growth in Canada;
   and
- to streamline defence procurement processes.

A number of initiatives were introduced under the strategy, including:

having DND publish an annual defence acquisition guide outlining its defence procurement priorities.
 The first guide was published in June 2014. In June 2018, DND released its *Defence Investment Plan 2018* and Defence Capabilities Blueprint;

- establishing within DND an Independent Review Panel for Defence Acquisition to validate requirements and to provide independent, third-party advice on major defence procurement projects. The panel was appointed in May 2015;
- progressively increasing DND's authorities to independently contract from \$25,000 to \$5 million;
- replacing the Industrial and Regional Benefits policy with an Industrial and Technological Benefits policy that uses a "weighted and rated" value proposition to assess defence procurement bids. ISED published its ITB policy Value Proposition Guide in December 2014;
- identifying and using key industrial capabilities to increase the competitiveness of Canadian companies on global markets;
- implementing an export strategy to support defence industry sales to foreign countries and participation in global supply chains; and
- establishing an independent, third-party Defence Analytics Institute to provide expert analysis and advice on defence procurement. An interim Defence Analytics Institute was established in February 2014.

# 2.3 Strong, Secure, Engaged

To help guide procurement decisions, the government released its defence policy entitled *Strong, Secure, Engaged* (SSE) in June 2017. The policy outlines capital spending of \$164 billion, on a cash basis, over the next 20 years. On an accrual basis, the policy commits to capital spending of \$108 billion, of which \$74.2 billion is to fully fund and complete planned projects and \$33.8 billion is for new investments.

SSE will grow DND's overall annual cash spending from \$18.9 billion in 2016–2017 to \$32.7 billion in 2026–2027, an increase of over 70%.

The policy provides a full accrual-based budget for all capital projects and full lifecycle costs of defence equipment. The costing of major equipment was subject to third-party reviews.

In May 2018, the government released its Defence Investment Plan 2018, which sets out the equipment, infrastructure and services investments required to deliver the defence policy. The associated Defence Capabilities Blueprint lists over 200 projects, where the capital costs are projected to be over \$5 million or support contracts are valued over \$20 million, that are expected to be awarded in the coming years. The costs are presented as a range, and include project management costs, infrastructure, contracts, and contingency.

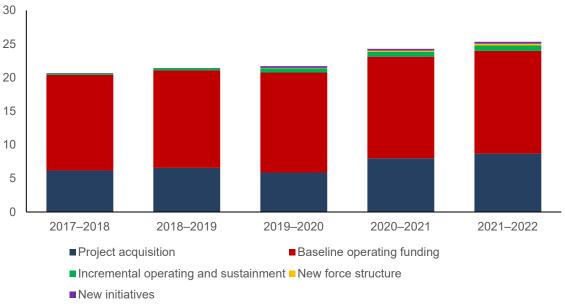
In response to questions from committee members during our hearings on the estimates, DND provided an outline of its approved funding over the next five years, as presented in Table 1 and Figure 2.

Table 1 – Five-Year Outline of Approved Funding for Strong, Secure, Engaged (\$)

Vote	Description	2017–2018	2018–2019	2019–2020	2020-2021	2021–2022	5-Year Total
	Baseline operating funding	14,237,000,196	14,507,681,388	14,889,960,967	15,122,263,727	15,298,245,470	74,055,151,748
Operating	Incremental operating and sustainment	228,760,828	300,904,848	636,277,320	745,448,998	807,994,076	2,719,386,069
	New force structure	0	0	55,140,128	164,023,320	268,716,170	487,879,528
	New initiatives	38,628,609	64,304,162	259,909,968	262,243,042	264,611,113	889,696,894
	Total Operating	14,504,389,632	14,872,890,397	15,841,288,383	16,293,978,998	16,639,566,829	78,152,114,239
Capital	Project acquisition	6,178,043,821	6,554,865,557	5,873,203,747	7,982,011,611	8,674,919,223	35,263,043,960
Total		20,682,433,453	21,427,755,954	21,714,492,130	24,275,990,609	25,314,486,052	113,415,158,199

Source: Table provided to the committee by the Department of National Defence on December 7, 2018.

Figure 2 - Five-Year Outline of Approved Funding for Strong, Secure, Engaged (\$ Billions)



According to Ms. Charron, the department began publishing an investment plan after examining what other nations produced. The plan will be updated annually. The Defence Capabilities Blueprint provides a range of projected costs and whether the projects are in the identification, definition or implementation phase. She said that when a contract is signed, the amount is disclosed as is the recipient.<sup>3</sup>

Ms. Charron also indicated that the long-term financial plan outlined in SSE provides DND with the flexibility to realign planned cash funding. She said, "For example, the completion of a project below the approved budget will allow the remaining funds to be used for other requirements, such as funding pressures related to cost increases in another project." Thus, DND will request funding as needed, and

<sup>4</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> Ibid.

not necessarily as outlined in SSE. Ms. Charron provided several examples for requesting less funds than planned: not requiring funding set aside for project risk, delays in the contractor executing work, efficiencies in contracting and internal delays. She maintained that in these cases DND is not losing its capital funding allocation but is realigning the funds to future years.<sup>5</sup>

The committee notes that these transfers make accountability more complex.

#### 3 GOVERNANCE AND ACCOUNTABILITY

The complex defence procurement governance framework outlined above has led some observers to wonder whether it should be modified, ideally to streamline it and accelerate procurements.

Kevin McCoy, President of Irving Shipbuilding Inc., put it plainly, "We're on record as having recommended to the government that there be a single decision maker for a program as big as the Canadian surface combatant." He pointed out that other countries have single entities to manage defence procurement, as it leads to speedier decision-making.<sup>6</sup>

Other representatives from the shipyards said they have managed to work within the current governance structure. James Irving, Co-Chief Executive Office of J.D. Irving Limited, said, "there are a number of silos and a number of masters who have to be answered to, but they've worked well with us. We've had our difficulties, but we've worked our way through them." Mark Lamarre, Chief Executive Officer of Seaspan Shipyards, described the various governance committees that he has met with, but "Our experience has been that we have a very effective governance process with government."

Colonel (retired) Charles Davies, a former senior director at DND, also argued for simplified governance. He acknowledged that a unified model would not guarantee success in complex acquisitions, but he believes that it would provide a sound framework for standardizing and optimizing business processes, systems, tools and training. Whereas, our current system means that no one is responsible for optimizing processes from end-to-end, managing performance, or is accountable for results.<sup>9</sup>

J. Craig Stone, Associate Professor at the Canadian Forces College, on the other hand, maintained that a single procurement agency would not solve the issues that generally go wrong with large procurements: cost overruns, delays in production and not meeting operational requirements. He believes that the current process forces ministers and deputy ministers to meet regularly to make decisions and is working effectively. As our system is based on cabinet decision-making, there does not

<sup>&</sup>lt;sup>5</sup> Ibid.

<sup>&</sup>lt;sup>6</sup> Evidence, March 20, 2019.

<sup>&</sup>lt;sup>7</sup> Ibid.

<sup>&</sup>lt;sup>8</sup> Ibid.

<sup>&</sup>lt;sup>9</sup> Evidence, April 2, 2019.

need to be a single minister accountable for procurement. Further, the turmoil caused by trying to create a new agency would lead to delays, adjusted requirements and increased costs.<sup>10</sup>

Christyn Cianfarani, President and Chief Executive Officer of the Canadian Association of Defence and Security Industries, also cautioned against moving to a single defence procurement agency, as the process of creating it would involve a complex consolidation of functions, legal authorities and organizational cultures. It could take years for a centralized agency to gel into a well-functioning organization. Further, a new agency would still need to address the underlying project approval and governance processes, many of which reside within DND. She believes that each department understands their level of responsibility, and it is not necessary to put one department in charge. Instead, Ms. Cianfarani believes it would be more effective to delegate more authority.<sup>11</sup>

Similarly, John Schmidt, Vice President of Chantier Davie Canada Inc., maintained that lower-level officials needed to be more empowered, especially to approve change orders. Currently, almost all decisions are made by senior bureaucrats, which slows things down, leading to cost escalation and delayed schedules.<sup>12</sup>

Pierre Lagueux, a former Assistant Deputy Minister (Materiel) at DND, blamed the 2014 Defence Procurement Strategy for adding layers of management complexity and diffusing accountability. While he agreed that the accountability structure needed fixing, Mr. Lagueux does not believe a massive organizational change to a single procurement agency is the solution. Instead, he maintained that accountability should be considered as part of a process rather than an organizational issue. For example, he was dismayed to see that PSPC is the chair of many of the governance committees. However, "as the owner of the requirement, the funding department and the organization that must live with the outcome of the procurement, DND was in the past and must again be today the lead department for defence procurement." 13

With respect to political involvement in defence procurement decision processes, Professor Stone noted that large, complex projects will always end up at the political level with governments trying to balance competing objectives. The main issue for him is how political engagement could add to the time and cost of outcomes. <sup>14</sup> David Perry, Vice President of the Canadian Global Affairs Institute, went further, saying political involvement is not inherently bad, but it is important for politics to be involved in decision-making in the right way. There are many instances where political involvement made projects move faster than they would have if their progress had been left to officials working within the system at the bureaucratic level. Having a cabinet committee on defence procurement allowed cabinet to dedicate more time to the issue, making decisions after having been fully briefed. <sup>15</sup>

<sup>&</sup>lt;sup>10</sup> Evidence, April 9, 2019.

<sup>&</sup>lt;sup>11</sup> Evidence, April 10, 2019.

<sup>&</sup>lt;sup>12</sup> Evidence, March 20, 2019.

<sup>&</sup>lt;sup>13</sup> Evidence, April 2, 2019.

<sup>&</sup>lt;sup>14</sup> Evidence April 9, 2019.

<sup>&</sup>lt;sup>15</sup> Evidence, February 9, 2019.

#### 4 PERFORMANCE

Witnesses presented various concerns with the ability of Canada's defence procurement system to perform as needed.

Ms. Cianfarani told our committee that the Canadian defence procurement system is seen to be one of the slowest globally. It is complex, risky and opaque, with uncertain outcomes. <sup>16</sup>

However, Professor Stone noted that all of our allies have had cost overruns, late deliveries and

According to the Department of National Defence's own analysis, acquisition cycle times in Canada had reached 16 and a half years by 2010-2011, a 66% increase since 2004.

- Christyn Cianfarani

an inability to meet operational requirements for major defence equipment projects. He indicated that defence procurement is a complex and difficult activity that attracts political controversy and criticism.<sup>17</sup>

Mr. Lagueux observed that, "If the resolution of the problem were easy, then surely someone, somewhere would have solved it by now?" He commented that governments, being risk-averse, put in place time-consuming and elaborate procurement processes. They often impose unrealistic budgets, fluctuating schedules and demanding technological requirements on industry. However, he pointed out that in most cases the defence procurement system does deliver, especially in extraordinary times, such as the Afghanistan war. 19 Mr. Perry noted that incoming governments have only canceled projects in a few small, although highly consequential, instances over the past 40 to 50 years. 20

Jim Quick, President and Chief Executive Officer of the Aerospace Industries Association of Canada, believes that the procurement system is too focused on preventing failure and minimizing risk, rather than on success. And failure has come to include any kind of controversy or negative attention. He described multiple decision processes that exacerbates risk aversion. He said,

In recent years, increasing levels and stages of oversight have been added to the procurement system. However, the various oversight bodies are not coordinated in any way, despite the fact that their interests often overlap. As a result, procurement teams are forced to pass through multiple, but completely separate, review gates. When changes are made by later gates, they often require the team to come back and have the modified procurement reviewed by other gates. <sup>21</sup>

Officials, Mr. Quick observed, become concerned that their decisions might be challenged or questioned, which could lead to delays, so they default to the path of least resistance. Their incentive is to choose easily defensible strategies, such as lowest cost, rather than solutions that might be more

<sup>&</sup>lt;sup>16</sup> Evidence, April 10, 2019.

<sup>&</sup>lt;sup>17</sup> Evidence, April 9, 2019.

<sup>&</sup>lt;sup>18</sup> Evidence, April 2, 2019.

<sup>&</sup>lt;sup>19</sup> Ibid.

<sup>&</sup>lt;sup>20</sup> Evidence, April 9, 2019.

<sup>&</sup>lt;sup>21</sup> Evidence, April 10, 2019

appropriate and require more complex explanations. He commented, "Where possible, the risk aversion inherent in the procurement system inevitably forces procurement teams down the road of seeking a low cost denominator, off-the-shelf, low innovation solution."<sup>22</sup>

For Col. Davies, an area of particular concern is the long-term management of defence capabilities, as Canada often uses major equipment beyond its intended life cycle. He said, "There's something intrinsically wrong in our democracy that doesn't allow us to take these long-term views and come up with a political consensus around a way forward the way you see in Australia and in most European countries." He called for greater parliamentary oversight of the government's management of defence capabilities. As equipment has a planned life-cycle, it should be possible for the government to identify the top 10 or 12 major systems that take a long time to replace and for Parliament to track the government's progress.<sup>24</sup>

Mr. Perry blamed the problem on an inconsistent supply of funds for capital equipment.<sup>25</sup> Mr. Lagueux pointed out that it is not just a question of managing equipment life cycles, but also whether the government wishes to replace the equipment, such as the submarines.<sup>26</sup>

Mr. Perry acknowledged that the government has made reforms to the procurement system to improve its performance, particularly through the Defence Procurement Strategy, but it is too early to know whether the changes have had their intended effect.<sup>27</sup>

Professor Stone said the government tinkers with parts of the procurement process but has not done a start-to-finish review of the procurement process to see what is done well and what needs improvement.<sup>28</sup> Similarly, Ms. Cianfarani argued for a root-and-branch analysis of the existing system to see what parts of the system might be unnecessary or duplicative.<sup>29</sup>

## 5 FINANCIAL TRANSPARENCY

In order to monitor the effectiveness of the defence procurement system, our committee has been attempting to track the implementation of SSE and the progress of major equipment projects through our reviews of the main and supplementary estimates.

For example, SSE indicated that \$6.1 billion would be spent in 2017–2018 on capital projects, yet DND spent only \$4.3 billion, a shortfall of \$1.8 billion. SSE also indicated that \$6.6 billion would be spent in 2018–2019 on capital projects yet DND spent only \$4.5 billion that year, a shortfall of \$2.1 billion. For

<sup>&</sup>lt;sup>22</sup> Ibid

<sup>&</sup>lt;sup>23</sup> Evidence, April 2, 2019.

<sup>&</sup>lt;sup>24</sup> Ibid.

<sup>&</sup>lt;sup>25</sup> Evidence, February 9, 2019.

<sup>&</sup>lt;sup>26</sup> Evidence, April 2, 2019.

<sup>&</sup>lt;sup>27</sup> Ibid.

<sup>&</sup>lt;sup>28</sup> Evidence, April 9, 2019.

<sup>&</sup>lt;sup>29</sup> Evidence, April 10, 2019.

this fiscal year, 2019–2020, SSE indicated that \$5.9 billion would be spent on capital projects, yet the 2019–20 Main Estimates only requested \$3.8 billion, again indicating a shortfall of \$2.1 billion.

We asked DND to provide a list of projects included each year in SSE capital funding, along with the funding allocated to each individual project. In addition, we asked DND to provide a list of projects funded in those fiscal years, along with the actual costs of each project. This financial information would enable us to track the cost and progress of each capital project. However, despite numerous requests for this information being made to officials from DND during committee meetings, we have yet to receive this information. In our reports on the estimates we have noted our concerns with the lack of availability of financial information. Perry has also been tracking SSE. He said, "A stable supply of procurement funding is critically important in terms of providing a foundation for a well-functioning procurement system." However, he noted that DND is having trouble meeting the expectations established in SSE, as it is only spending about two-thirds of the amounts planned for equipment and infrastructure. He commented, "The shortfall between the policy and reality is attributable to the policy having outlined an overly ambitious pace of procurement spending increase."

Nonetheless, Mr. Perry believes there has been a significant improvement in the transparency of spending plans and forecasts. He said the Defence Capabilities Blueprint is a good resource to determine where DND is planning to spend funds and when.<sup>33</sup> Ms. Cianfarani appreciated the publication of an investment plan, which industry had been asking for, as it helps companies make decisions regarding research and development, as well as supply chains and teaming arrangements. However, she believes the plan could be improved through narrower cost-ranges, especially for off-the-shelf technology, where risks are low and the equipment is in service in other jurisdictions.<sup>34</sup>

#### 6 INDEPENDENT REVIEW

As part of the 2014 Defence Procurement Strategy, the government created the Independent Review Panel for Defence Acquisition. The panel examines projects at an early stage with respect to how they address capability gaps, how they are aligned with government policies and the risks of not moving forward with them. The panel also examines the quality of high-level mandatory requirements, including their alignment with operational requirements.

Larry Murray, Chair of the panel, noted that the panel's objective is to ensure that military requirements are appropriate and clearly stated for decision-makers. Members of the panel look at the logic, sufficiency, traceability and comprehensiveness of requirements. They are trying to push DND to rely more on capability-based options as opposed to procurement options to buy, sell or lease. Mr. Murray

<sup>&</sup>lt;sup>30</sup> See, for example, Senate, Standing Committee on National Finance, 35<sup>th</sup> Report, 42<sup>nd</sup> Parliament, 1<sup>st</sup> Session, *Report on the Supplementary Estimates (A), 2018–19*, December 2018.

<sup>&</sup>lt;sup>31</sup> Evidence, February 9, 2019.

<sup>32</sup> Ibid.

<sup>33</sup> Ihid

<sup>34</sup> Evidence, April 10, 2019.

does not believe that the panel has affected any project's scheduling, but their work has resulted in improved statements of requirements.<sup>35</sup>

While the panel has increased the rigour of the early phase of project planning, Mr. Perry worried that it has increased the amount of work required to complete this phase.<sup>36</sup>

#### 7 INDUSTRIAL BENEFITS

In 2014, the government released its Industrial and Technological Benefits Policy, which replaced its Industrial and Regional Benefit Policy. The policy is administered by ISED and applies to defence procurement contracts with a value over \$100 million. It requires companies that are awarded contracts to undertake business activity in Canada equal to the value of the contract. The goal of the policy is to leverage broader economic benefits from defence procurement.

Companies submit a value proposition as part of their bid for a contract. To help companies focus their investments, ISED identified 16 key industrial capacities, and bidders are asked to identify skills and development training opportunities for Canadians. They are also asked to submit plans on their approach to achieving gender balance and increasing diversity. The value propositions are weighted and rated by ISED and are added to price and technical merit to determine which bidder will be awarded the contract.

According to Eric Dagenais, Assistant Deputy Minister at ISED, the defence industry in Canada produces about \$12 billion in goods and services each year. The industry comprises more than 600 companies contributing 60,000 jobs. Small and medium-sized enterprises represent 90% of the firms in the industry. He said that the revised policy has led to supply chain partnerships being formed at an earlier stage, and firms are making earlier commitments to research and development investments with post-secondary institutions and small and medium-sized enterprises. The introduction of a skills and training pillar has been used to provide opportunities for under-represented groups, such as Indigenous people and women, in the defence industry.<sup>37</sup>

For example, the Irving and Seaspan shipyards have developed training opportunities for underrepresented groups. Mr. McCoy of Irving Shipbuilding said they had three training programs: one for Indigenous peoples, one for women and one for African Nova Scotians.<sup>38</sup> Mr. Lamarre of Seaspan Shipyards indicated they have a trades training program to attract Aboriginal people and women to pursue careers in the marine industry.<sup>39</sup>

Patrick Finn, Assistant Deputy Minister at DND, explained that having a strong domestic defence industry is important for national security, as equipment with highly sensitive equipment cannot be

<sup>&</sup>lt;sup>35</sup> Evidence, February 19, 2019.

<sup>&</sup>lt;sup>36</sup> Evidence, April 9, 2019.

<sup>&</sup>lt;sup>37</sup> Evidence, February 19, 2019.

<sup>&</sup>lt;sup>38</sup> Evidence, March 20, 2019.

<sup>39</sup> Ibid.

exported for maintenance. He said, "Having industry in Canada that can maintain these highly complex military systems is actually part of the defence of Canada." 40

Professor Stone commented that the new policy is a significant improvement because it forces companies to be more deliberate about how and where they will invest in Canada. Ms. Cianfarani also appreciated the new policy, in particular the use of value propositions. However, she believes Canada needs to have a broader defence industrial policy, as the best way to support the Canadian defence industry is to actually buy from it. She is not a proponent of open, fair and transparent competition at any cost. Col. Davies pointed out that Canada has never articulated a long-term strategy connecting economic development, technology development, defence-related export, foreign policy and defence policy objectives.

#### 8 SHIPBUILDING

In order to examine the defence procurement system in practice, our committee examined the most expensive component of it – shipbuilding.

In June 2010, the Government of Canada announced the National Shipbuilding Procurement Strategy (later renamed the National Shipbuilding Strategy), which had three components:

- construction of larger ships;
- construction of smaller vessels; and
- repair, refit and maintenance of existing fleets.

The government committed to establishing long-term strategic relationships with two Canadian shipyards for the construction of large ships. The shipyards would be selected through an open, competitive process. The intention was to renew and modernize the Royal Canadian Navy (RCN) and the Canadian Coast Guard (CCG) fleets, as well as provide long-term, predictable shipbuilding work that would avoid past boom and bust cycles.

In October 2011, the government announced that Irving Shipbuilding had been selected to build the combat vessel package for the RCN:

- Arctic Offshore Patrol Ships (six ships); and
- Canadian Surface Combatants (15 ships).

Additionally, Seaspan's Vancouver Shipyards was selected to build the non-combat vessel package:

<sup>&</sup>lt;sup>40</sup> Evidence, October 30, 2018.

<sup>&</sup>lt;sup>41</sup> Evidence, April 9, 2019.

<sup>&</sup>lt;sup>42</sup> Evidence, April 10, 2019.

<sup>&</sup>lt;sup>43</sup> Evidence, April 2, 2019.

- Offshore Fisheries Science Vessels (three ships for the CCG);
- Offshore Oceanographic Science Vessel (one ship for the CCG);
- Joint Support Ships (two ships for the RCN); and
- Polar Icebreaker (one ship for the CCG).

In February 2012, the government announced that it had signed umbrella agreements with Irving Shipbuilding and Seaspan's Vancouver Shipyards. The agreements were not contractual agreements for the construction of ships but were long-term sourcing arrangements.

In October 2013, the government announced that Seaspan's Vancouver Shipyards would be building up to 10 additional large non-combat ships for the CCG, as follows:

- Medium Endurance Multi-Tasked Vessels (up to five ships); and
- Offshore Patrol Vessels (up to five ships).

James Davies, President of Chantier Davie Canada Inc., whose shipyard was not chosen to participate in the National Shipbuilding Strategy, wanted several changes made to the strategy. He believes future contracts should be based on fixed price, fixed delivery terms and not a cost-plus model. When suppliers fail to deliver on budget and schedule, the government should have the ability to choose an alternative supplier. The government should use smaller procurement teams that are empowered to deliver fit-for-purpose ships. Also, the government should focus on developing an exportable product. Lastly, the government needs to increase openness, transparency and accountability. Ultimately, Mr. Davies thinks the government should hold contractors' feet to the fire to meet their delivery schedules.

Mr. Schmidt said the National Shipbuilding Strategy was built on the false foundation that fleet renewal would require approximately two to three million person-hours a year in production.<sup>45</sup> The reality is the fleet must replace about 55 vessels, which will require six million person-hours a year to replace.

For his part, Mr. Irving pointed out that Irving Shipbuilding invested \$450 million to construct state-of-theart facilities on the good faith that they would receive work through the shipbuilding strategy. Mr. Lamarre added that Seaspan's Vancouver Shipyards invested over \$200 million to upgrade its facilities, equipment and processes.<sup>46</sup>

Mr. McCoy said the government determined that there was not enough large ship construction required for the RCN and CCG to sustain more than two shipyards and their skilled workforces. He also argued that the complexity of the Canadian Surface Combatant means that it could not be built on a fixed-price contract unless there was extensive contingency built into the contract.<sup>47</sup>

<sup>44</sup> Testimony, March 20, 2019

<sup>&</sup>lt;sup>45</sup> Ibid.

<sup>&</sup>lt;sup>46</sup> Ihid

<sup>&</sup>lt;sup>47</sup> Ibid.

Mr. McCoy also expressed concern that the current shipbuilding schedule for his shipyard has a gap in production in 2022 between constructing the Arctic and Offshore Patrol Ships and the Canadian Surface Combatants, which could result in 650 employees being laid off for up to 18 months.<sup>48</sup>

Mr. Lamarre acknowledged that the learning curve at Seaspan had been steep, in part because four of the first seven vessels to be built at Seaspan are prototypes.<sup>49</sup> He believes the government should engage with shipyards and ship designers earlier in the process to influence design and take advantage of economies of scale of increased commonality of equipment across multiple platforms.

Mr. Lagueux said the main failure of the shipbuilding policy is that it was an industrial policy forced onto the RCN and CCG, which never fully bought into it.<sup>50</sup> In his view, it should have been a more cooperative, evolving process, instead of placing the risk on the shipyards.

Subsequent to our hearings, on May 22, 2019, the government announced that Irving Shipbuilding would construct two additional Arctic and Offshore Patrol Ships that would be adapted for the CCG. Seaspan's Vancouver Shipyards would build up to 16 multi-purpose vessels for the CCG. Additionally, the government will launch a competitive process to select a third shipyard to participate in the National Shipbuilding Strategy.

#### 9 CONTRACTING

Witnesses pointed out the need to adjust contracting practices based on the equipment being procured.

Both Mr. Perry and Mr. Lagueux noted that fixed price contracts tend to lead to increased costs for the government because they push risk onto the contractor, particularly for the uncertainty involved in developmental equipment.<sup>51</sup> Instead, the government needs to do a better assessment of risk and manage it on a project-by-project basis. Professor Stone said the government and the supplier have to share the risk in defence procurement.<sup>52</sup>

Kelly Stewart-Belisle, President of the Ottawa chapter of the Armed Forces Communications and Electronics Association, indicated that the current two- to five-year procurement cycle does not work for information technology systems where the rate of change, often less than a year, is much faster than other major weapons

Buying IT systems following that same methodology used for ships, trucks and airplanes just doesn't work.

Kelly Stewart-Belisle

systems. In order for Canadian companies to stay competitive, the government needs to have an acquisition process that is commensurate with the speed of technological advancement. She suggested adopting more agile acquisition methodologies that would allow industry to quickly develop systems that meet the needs of the Canadian Armed Forces. The government should select integration partners and

<sup>&</sup>lt;sup>48</sup> Ibid.

<sup>&</sup>lt;sup>49</sup> Ibid.

<sup>&</sup>lt;sup>50</sup> Testimony, April 2, 2019.

<sup>&</sup>lt;sup>51</sup> Testimony, April 9 and April 2, 2019.

<sup>&</sup>lt;sup>52</sup> Testimony, April 9, 2019.

develop teaming arrangements. She concluded, "Shared accountability equals shared responsibility, equals shared success." <sup>53</sup>

Ms. Cianfarani maintained that the government could develop four or five models of procurement, depending on the type of equipment.<sup>54</sup>

#### 10 CAPACITY

Some witnesses noted that the issues with defence procurement do not just lie in processes but also in the capacity of the government to manage complex acquisitions.

Mr. Perry observed that while the procurement workforce has recently gained experience, its size has not substantially increased, and it has to do more detailed work earlier than previously required to get the money flowing. He said,

When funding is scarce, human capacity erodes and a backlog of needed replacements begins to build, compounding demand over time. When funding is made available again, the system is left with a reduced capacity to move significantly more demand than it can and it takes years to get new funding out the door.<sup>55</sup>

Mr. Perry pointed out that turnover, both at the political and senior administrative levels, has exacerbated problems at DND. He also noted that the department places more focus on operational activities and less time and effort in putting the right people in jobs that are important to procurement, as well as providing the necessary training and mentoring.

Ms. Stewart-Belisle also observed that DND is chronically understaffed on large procurement projects. The department undertakes staff augmentation efforts to get people with skills it desperately needs, but this skews their long-term procurement strategy.<sup>56</sup>

Professor Stone said his one recommendation would be for DND to get a handle on its human resources structure, to get people with expertise and leave them in their positions longer.<sup>57</sup>

#### 11 DIRECTION FORWARD

Over the course of our six meetings on this study from October 2018 to April 2019, it has become clear that acquiring expensive, complex military equipment is a challenging task that requires balancing competing priorities, including having the operational capabilities needed to address an evolving threat environment, supporting a robust domestic defence industry, working within budgetary limitations and

<sup>&</sup>lt;sup>53</sup> Testimony, April 10, 2019.

<sup>&</sup>lt;sup>54</sup> Ibid.

<sup>&</sup>lt;sup>55</sup> Testimony, April 9, 2019.

<sup>&</sup>lt;sup>56</sup> Testimony, April 10, 2019.

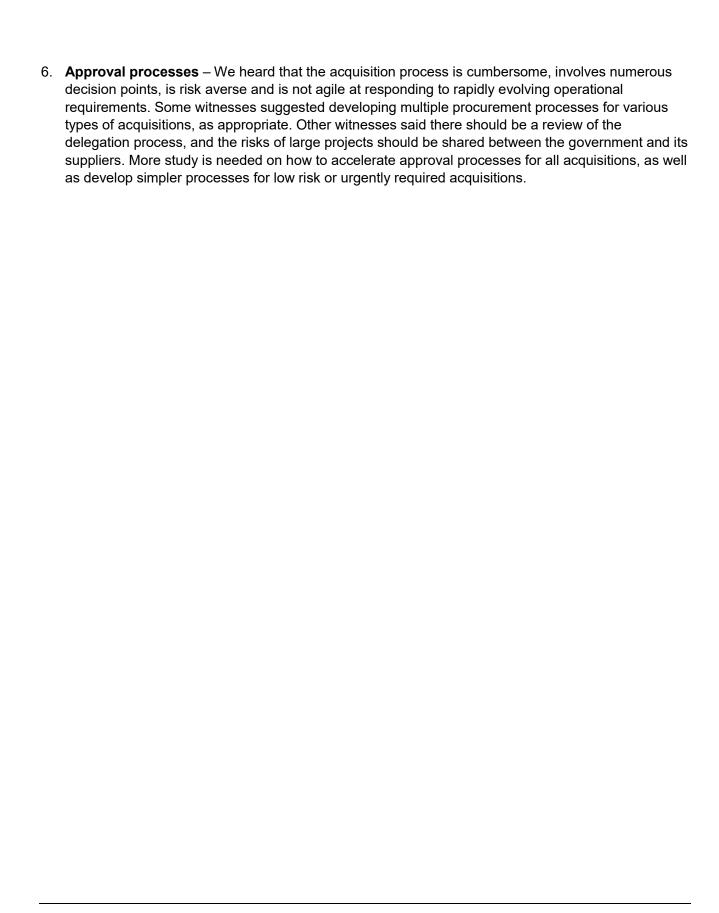
<sup>&</sup>lt;sup>57</sup> Testimony, April 9, 2019.

ensuring that contracts are awarded in a fair manner. Witnesses provided a range of options to improve the governance, accountability, transparency, industrial benefits, contracting and capacity of Canada's defence procurement system.

The complexity of the system and the variety of the options presented is such that our committee believes that before we can develop observations and issue recommendations, we need to conduct a more in-depth analysis than was possible during the limited time available.

Nonetheless, we identified six areas of particular concern that merit more study:

- 1. Transparency Monitoring the implementation of the government's defence policy and the progress of major equipment projects requires transparent access to high-level financial information. In our review of the estimates, our committee has expressed concerns with the availability of financial information. More study is needed on the type of information that should be made available to parliamentarians and Canadians, such as total budgets, costs to date, expected expenditures in the fiscal year and actual expenditures in the previous fiscal year for each major capital project.
- 2. Consistency When governments change, they usually implement new defence policies, modify budgets for capital equipment and adjust the requirements for specific acquisitions. However, changing priorities often leads to significant delays in acquiring needed defence equipment, as well as incurring additional costs. More study is needed on how other countries achieve a non-partisan consensus that avoids de-stabilizing the defence procurement process when governments change.
- 3. Long-term planning Some witnesses suggested that Canada does not do a good job managing its defence capabilities, as we often use defence equipment for many years beyond its planned life cycle. As the average acquisition cycle time is 16 years, the replacement of defence equipment must be planned many years in advance. To ensure that the Canadian Armed Forces are not stuck with worn-out and outdated equipment, more study is needed on ways to embed long-term acquisition planning into the defence procurement system.
- 4. Governance While some of our allies manage defence procurement through a single agency, the governance of defence procurement in Canada is divided among several ministers and departments, each with their own mandates and priorities. We heard that this complex governance structure means there is no one responsible for optimizing processes or managing results. Some witnesses indicated that the transition to a single defence procurement agency would be very disruptive and would not necessarily resolve the problems related to defence procurement. Another option suggested was to name DND the lead department on the various interdepartmental committees, as it receives and pays for the equipment. More study is needed on options to streamline the defence procurement governance structure.
- 5. Industrial Benefits While some witnesses appreciated the new industrial policy because it forces companies to be more deliberate about how they will invest in Canada, they noted that the government has not developed a broad policy on how it will support the Canadian defence industry. More study is needed on how to achieve Canadian economic benefits, while at the same time ensuring value-for-money in the use of public funds.



#### APPENDIX – WITNESSES WHO APPEARED BEFORE THE COMMITTEE

# **Aerospace Industries Association of Canada**

Jim Quick, President and Chief Executive Officer (10-04-2019)

## Armed Forces Communications and Electronics Association, Ottawa Chapter

Major-General (retired) Greg Loos, Member Kelly Stewart-Belisle, President (10-04-2019)

#### **Canadian Association of Defence and Security Industries**

Christyn Cianfarani, President and Chief Executive Officer (10-04-2019)

#### **Chantier Davie Canada Inc.**

James Davies, President John Schmidt, Vice President, Commercial and Government Programs (20-03-2019)

# Davies, Colonel (retired) Charles, former Senior Director, National Defence and the Canadian Armed Forces

(02-04-2019)

# **Department of National Defence and the Canadian Armed Forces**Patrick Finn, Assistant Deputy Minister (Materiel)

(30-10-2018)
Julie Charron, Acting Assistant Deputy Minister (Finance) and Deputy Chief Financial Officer Werner Liedtke, Acting Associate Assistant Deputy Minister (Finance) (19-02-2019)

#### **Independent Review Panel for Defence Acquisition**

Philippe Lagassé, Member Larry Murray, Chair (19-02-2019)

#### Innovation, Science and Economic Development Canada

Eric Dagenais, Assistant Deputy Minister, Industry Sector Jeff Waring, Director General, Industrial Technological Benefits Branch (19-02-2019)

#### J.D. Irving Limited

James Irving, Co-Chief Executive Officer Ross Langley, Executive Vice President (20-03-2019)

## Irving Shipbuilding Inc.

Scott Jamieson, Vice President, Programs, Irving Shipbuilding Inc. Kevin McCoy, President (20-03-2019)

# Lagueux, Pierre, former Assistant Deputy Minister (Materiel), National Defence and the Canadian Armed Forces

(02-04-2019)

# Perry, David, Vice President and Senior Analyst, Canadian Global Affairs Institute

(09-02-2019)

#### **Public Services and Procurement Canada**

André Fillion, Assistant Deputy Minister, Defence and Marine Procurement (30-10-2018)

# Seaspan Shipyards

Mark Lamarre, Chief Executive Officer Tim Page, Vice President, Government Relations (20-03-2019)

## Stone, J. Craig, Associate Professor and Deputy Chair, Canadian Forces College

(09-04-2019)