# The Defence Sector and Innovation-led Growth

## A pre-Budget submission to the Standing Committee on Finance

Budget 2017 is widely expected to contain many of the elements of the government's Innovation Agenda to improve Canada's innovation and productivity growth performance. The Budget will therefore be a defining document in the government's mandate.

The Innovation Agenda, the Defence Policy Review and the ongoing recapitalization of the Canadian Armed Forces (CAF) present an important opportunity for the government to set a course for innovation-led growth in Canada's defence industry. This would require the establishment of a made in Canada defence industrial policy designed to fit Canada's unique national security needs and industrial strengths. This must be anchored in an understanding of the significant potential for military procurement to bolster innovation in the Canadian economy. And it must be based on clear objectives to grow specific capabilities that are judged to be important to Canada, with measurable targets to track progress.

Minister Bains has spoken in public about using government procurement to stimulate innovation. This represents a new approach to innovation policy for the federal government. It is one with which the Canadian Association of Defence and Security Industries (CADSI) agrees. The Canadian defence sector—with its unique market characteristics and given various existing instruments and programs the government has at its disposal to support defence industrial growth—is an important test case for this concept.

## The Canadian Defence Industry

Canada's defence industry is a vital and innovative sector of the Canadian economy. *The State of Canada's Defence Industry, 2014*, a recent study carried out by the Department of Innovation, Science and Economic Development (ISED) and Statistics Canada, in collaboration with CADSI, provides data substantiating the importance of the industry. The study found that Canada's defence industry:

- Accounts for some 63,000 jobs spread throughout Canada;
- Contributes $6.7 billion to GDP;
- Generates approximately $10 billion in annual sales, 60 per cent of which came from exports, which is 20 per cent higher than the Canadian manufacturing average;
- Is pan Canadian and is characterized by strong regional specializations, with 17 per cent of total employment based in Atlantic Canada, 24 per cent in Quebec, 44 per cent in Ontario, and 15 per cent in Western & Northern Canada;
- Employs a relatively high percentage of engineers, scientists, researchers, technicians and technologists; and
- Provides compensation that is 60 per cent above the manufacturing sector average.

Several of these findings—notably the defence sector's export intensity, average employee compensation and the degree to which it employs high skilled workers—are indicators of the innovative nature of the industry.

Any discussion of the defence industry needs to begin with an understanding of the unique nature of the market place within which it operates. Defence firms compete in a highly protected market globally, in which most countries favour domestic suppliers, for a combination of national security and economy reasons. In fact most of our NATO allies have formal or informal defence industrial policies designed to grow their defence sectors domestically and promote their products and services to foreign buyers. It is in part for this reason that defence is exempt from most international trade agreements, including the NAFTA and WTO.

**Canadian Defence Sector's Economic Impact: At a Glance**


The full report can be found at: www.madeacrosscanada.ca

Defence is also probably the only sector of the economy in which governments are the primary if not sole customers. In this context, it is worth bearing in mind that the Government of Canada has embarked upon the most significant recapitalization of the Canadian Armed Forces in a generation, with some estimates of capital equipment and associated spending totalling over $200 billion over the next 15-20 years.[1] Because governments are the primary buyers, and defence markets are often highly protected, "economic diplomacy", and other forms of export promotion and support, are essential to this industry's export success. These unique features of the defence market place permit governments to have greater control and influence over the defence sector's growth and its impact on innovation than just about any other industry. As a result, in most countries the domestic defence industry is seen, and has proven to be, an important source of innovation, with notable commercial spill overs and applications well beyond the military realm.

Consequently, the Innovation Agenda and the associated measures in Budget 2017 should approach the defence industry as one that offers significant opportunities for innovation led growth in Canada.

## Realizing the Opportunity of a Generation

A Canadian defence industrial policy needs to set clear objectives for defence industrial growth, based on the operational requirements of the Canadian Armed Forces, the existing capabilities of Canadian industry, and future capabilities over which the government wants to exercise some measure of sovereign control and security of supply. It would require a governance framework or regime that brings together, in a coherent and strategic effort, the various existing programs and tools scattered throughout several departments and agencies of the federal government, such as Industrial and Technological Benefits/Value Proposition; the Canadian Content Policy; National Security Exceptions; R&D support programs like the Strategic Aerospace and Defence Initiative, the Technological Demonstration Program, Defence Research and Development Canada; and various export supports such as the Canadian Commercial Corporation, Trade Commissioners, and Military Attaches.

[1] *Canada First: Leveraging Defence Procurement to Advantage Canada,* Report of the Special Advisor to the Minister of Public Works and Government Services, February 2013, p. ix, Exhibit 1.

A defence industrial policy would bring these instruments to bear in a strategic and deliberate fashion to achieve the outcomes the government desired with respect to innovation and technological development, domestic manufacturing, supply chain growth, and exports in areas of key capabilities.

Canadian prime contractors would also need to be considered more strategically in procurement strategies for major capital projects. Domestically-based primes are firms that do the bulk of the manufacturing in the defence industry. Moreover, they own intellectual property, which is essential to achieving innovative and sustainable manufacturing activity and high wage employment.

A Canadian defence industrial policy should strive to incentivize intellectual property transfer from foreign primes into Canada, so that Canadian companies are able to engage in the kind of innovative production and manufacturing that comes with owning and exploiting intellectual property. Procurement strategies need to do more than drive Canadian firms into supply chains. Where supply chain growth is the primary objective, the value of those supply chains needs to be better defined up front. In this context, the government needs to recognize that because the Canadian Armed Forces buys equipment so infrequently, and purchases so few units, supply chain activity limited to the domestic buy won't sustain the industry, let alone grow it. At a minimum, when foreign primes win Canadian contracts, Canadian firms need to be incorporated into the global supply chains of those primes.

A Canadian defence industrial policy therefore needs to ensure the transfer of intellectual property and data packages to Canadian in Service Support (ISS) providers. This was the approach taken a generation ago on the CF-18 acquisition, which helped produce a robust military aircraft ISS and Maintenance, Repair and Overhaul (MRO) capability that now accounts for 20 per cent of the entire defence sector as a percentage of sales. This wise government decision three decades ago has permitted synergies with Canada's commercial ISS and MRO market and has opened export markets for Canadian firms.

Over the past decade there were a series of procurements in which foreign Original Equipment Manufacturers were contracted to provide both the equipment and maintenance of the fleets over their lifecycle, largely outside of Canada. This arrangement weakens the government's leverage if there is a need to move Canadian Armed Forces equipment to the front of the line when repairs, life extensions or capability enhancements are required. It also undermines Canadian innovation.

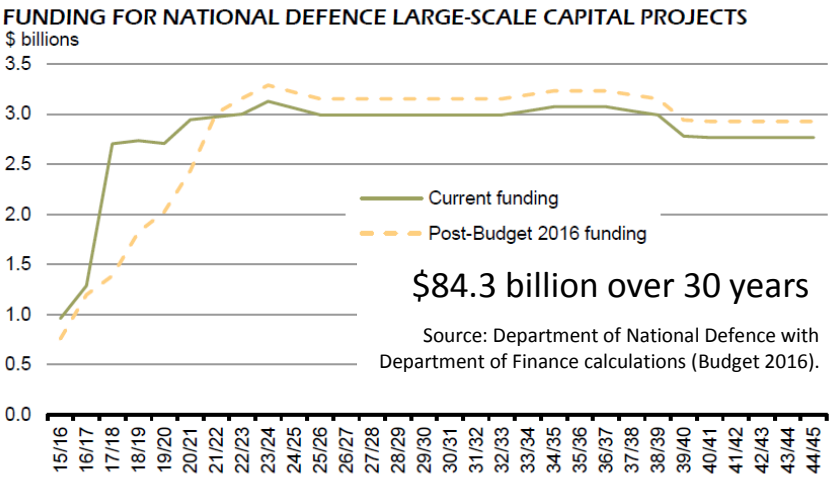
### Defence Industrial Policies: Three Case Studies

The UK's *Defence Growth Partnership*, its defence industrial policy, was unveiled in 2014. It is a formal partnership between the British defence industry and the government to "deliver a truly competitive, sustainable and globally successful UK defence sector…that will secure a thriving UK defence sector delivering security, growth and prosperity for our nation."

In 2016, the Australian Department of Defence issued its *Defence Industry Policy Statement, 2016*. This document is founded on the idea that "close collaboration between Defence and industry is critical to meet the challenges of the future and deliver the Government's ambitious program of works" and that "the Defence and industry partnership of the future will be instrumental in delivering and supporting the future Australian Defence Force."

The U.S. does not have a formal defence industrial policy set out in a single document. Instead, the Americans have a very elaborate, multifaceted and sophisticated defence industrial policy that involves everything from massive private sector R&D support to management of the structure and competitive intensity of the American industry. A high percentage of their acquisitions are classified as "U.S. Eyes Only". The Americans also invoke "Buy American" legislation and provisions. As a result, most major platforms are purchased from domestic suppliers.

## The Re-Capitalization Opportunity




Canada is in the midst of a once in a lifetime opportunity as the CAF undertakes its first major re-capitalization in over a generation. Well over 200 projects are contained in DND's Defence Acquisition Guide (DAG)—the document that outlines the CAF's priority projects over the next twenty years. Two projects alone, the Canadian Surface Combatant and the Next Generation Fighter—which taken together account for $35 billion or more for the equipment purchase and billions more for the longer-term sustainment work—will impact the defence industrial base for the next thirty years. How the government structures these procurements will shape the Canadian defence industry's technological reach and labour force for the foreseeable future.

These projects present an important opportunity for the government to shape the Canadian defence industrial base and drive innovation-led growth through it. For example, a defence industrial could mandate that foreign owned firms maximize sourcing from Canadian suppliers; it could strongly support technological innovations that are Canadian and world-class; and it could mandate CAF fleets to be supported and repaired by Canadian firms.

**RECOMMENDATION:** *To realize Canada's defence sector's potential as a real source of innovation-led growth, the Canadian defence industry recommends that the government develops, in collaboration with industry, a Made in Canada Defence Industrial Policy.*

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*The Canadian Association of Defence and Security Industries (CADSI) is the national industry voice of more than 800 Canadian defence and security companies that produce world-class goods, services and technologies made across Canada and sought the world over. The industries contributes to the employment of more than 63,000 Canadians and generate $10 billion in annual revenues, roughly 60 per cent of which come from exports. To learn more, visit [www.defenceandsecurity.ca](http://www.defenceandsecurity.ca).*