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A DEFENCE INDUSTRIAL POLICY FOR CANADA:

HOPE OR FANTASY?

By / par

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La présente étude a été rédigée par un stagiaire du Collège des Forces canadiennes pour satisfaire à l'une des exigences du cours. L'étude est un document qui se rapporte au cours et contient donc des faits et des opinions que seul l'auteur considère appropriés et convenables au sujet. Elle ne reflète pas nécessairement la politique ou l'opinion d'un organisme quelconque, y compris le gouvernement du Canada et le ministère de la Défense nationale du Canada. Il est défendu de diffuser, de citer ou de reproduire cette étude sans la permission expresse du ministère de la Défense nationale.

ABSTRACT

Despite the release of Advantage Canada and of the *Canada First* Defence Strategy, it is less than clear that the existence of a Defence Industrial Policy for Canada is closer than before. The political decision makers have demonstrated in the past their desire to pursue a non-interventionist policy towards industrial matters. In the meantime, many of Canada's allies have updated their relationship with their defence industry and have proposed some very powerful initiatives to pursue the realization of a more proactive concept. The intent of this document is to present the foundation of a Canadian Defence Industrial Policy and to demonstrate its potential as a formidable tool in capacity development for the Canadian Forces and in economical benefits for the Canadian population.

1. INTRODUCTION

The way to get started is to quit talking and begin doing.

Walt Disney

Despite the massive reinvestment in defence capabilities announced in the last few years by the Canadian political leadership, it is far from clear that the Canadian economy and the Defence Department benefited from the full potential of these decisions. The lack of identifiable goals and directions in these political decisions, except for the obvious will to bolster some specific capabilities of the Canadian Forces, makes these investment decisions less than optimal. This situation of uncoordinated political announcements leaves the industry in a reactive mode, at a time when a pro-active positioning should be required. In addition, it does not allow the Canadian Forces (CF) to truly manage its future capabilities.

All sorts of contractual deficiencies in defence capital projects needed to improve the CF capabilities have appeared in the past few months and years. Major delays in the delivery of essential equipment, such as the case of the Maritime Helicopter Project (MHP) with a first delivery delayed by two years at an additional cost for the Canadian Government.¹ Important changes in Government promises to perform the newly acquired Leopard 2 tanks retrofit work in Canada; it resulted in cuts of \$100s of millions of dollars of potential work and expertise development for the Canadian defence industry.²

Postponement of major shipbuilding projects: the Navy Joint Support Ship (JSS) and the

¹ Canadian American Strategic Review, "Sikorsky CH-148 Cyclone - Delays and Contract Adjustments," <http://www.casr.ca/doc-news-cyclone-amendment.htm>; Internet; accessed January 29, 2009.

² David Pugliese, "DND Leaves Canadian Firms in Cold by Opting to Rebuild Tanks in Europe," *The Ottawa Citizen*, 30 March 2009, 1; <http://www.ottawacitizen.com/news/leaves+Canadian+firms+cold+opting+rebuild+tanks+Europe/1437927/story.html>; Internet; accessed April 14, 2009.

coast guard patrol vessels. “Although domestic industry had shown interest in fulfilling the procurements, in both cases the bids submitted were over budget and the government chose to suspend the projects.”³ Disagreements between multiple departments of the federal governments on contracting issues are exemplified by the tense relation between Publics Work and Government Services Canada (PWGCS) and the Department of National Defence (DND) at the moment.⁴ This list of shortcomings, which could be extended with many more examples, draws attention to the lack of cooperation between industry and the federal government, and within the federal government. These clear deficiencies are still witnesses of the old paradigm between government and industry. On one hand, industry is seen as trying to take advantage of any opportunities with government funds. On the other hand, the government is displaying a practice of mistrust towards industry.

Various sources in the government literature have been arguing for a closer coordination between the government’s policies and defence industrial directions, in the provision of advanced capabilities for the Canadian Forces. In its latest fiscal policy document, the Department of Finance talks about the creation of the appropriate conditions for Canadian business. “Advantage Canada will create the conditions for our businesses to invest in equipment, innovation and training.”⁵ The same theme is also very

³ Patrick Lennox and Aaron Plamondon, "Canada's Navy: Build Ships, be Heard," *National Post*, 8 January 2009; <http://network.nationalpost.com/np/blogs/fullcomment/archive/2009/01/08/canada-s-navy-build-ships-be-heard.aspx>; Internet; accessed January 29, 2009.

⁴ Alan Williams, "Something is Rotten within State of Federal Public Service," *The Hill Times*, 5 November 2007; http://thehilltimes.ca/members/login.php?fail=2&destination=/html/cover_index.php?display=story&full_path=/2007/november/5/williams/; Internet; accessed January 29, 2009.

⁵ Department of Finance, *Advantage Canada: Building a Strong Economy for Canadians* (Ottawa, Ontario: 2007), 73.

present in the 2007 Defence S&T Strategy, which introduces industry as a major source of innovative ideas and emphasizes the need to develop strategic relationships with its leaders.⁶ Moreover, the most recent strategic defence document talks about the positioning of the Canadian defence industry for success as an important goal for the future when it articulates that “Combined with the improved framework for competition and trade provided through *Advantage Canada*, the *Canada First* Defence Strategy will help position Canadian companies for success in the global marketplace.”⁷ As discovered by some of our Canadian allies, a new paradigm needs to be developed with industry.⁸ Instead of being treated as a pariah, industry needs to be viewed as a partner. It is clearly time to introduce a new tool to tackle these differences: it is truly time to introduce an industrial policy. “Industrial policies are defined as those government policies which are intended to have a direct effect on a particular industry or firm.”⁹

However, despite the previous encouraging signs from the federal government, it is less than clear what has really been achieved towards the implementation of a defence industrial policy for Canada.¹⁰ At play in this debate is a whole sector of the Canadian industrial economy. Immobility by the government at this cross-road might lead to a

⁶ Department of National Defence, *Defence S&T Strategy - Science and Technology for a Secure Canada* (Ottawa, Ontario: December 2006), 17.

⁷ Department of National Defence, *Canada First Defence Strategy* (Ottawa, Ontario: June 2008), 20.

⁸ Australia published the *Defence and Industry Policy Statement 2007*, after the release of an interim document in 1998. The United Kingdom released the *Defence Industrial Strategy – Defence White Paper* in 2005, from an original document released in 2002. The U.K. also produced a positive assessment of this new policy in 2005.

⁹ D. G. McFetridge, "The Economics of Industrial Policy: An Overview," in *Canadian Industrial Policy in Action: Research Studies Prepared for the Royal Commission on the Economic Union and Development Prospects for Canada Vol. 4* (Toronto, Ontario: University of Toronto Press, 1985), 1.

¹⁰ The Canadian Federal Government has released many documents hinting at the elaboration of such a policy: the *Canada First* Defence Strategy, *Advantage Canada*, the Federal S&T Strategy, the National Aerospace and Defence Strategic Framework and the development of Industrial and Regional Benefits Policy.

deterioration of the structural and financial foundation of this industry, while action might lead to the growth of a solid industrial base in this domain. This thesis makes the case for a Canadian Defence Industrial Policy. “The *Canada First* Defence Strategy will set the stage for a renewed relationship with Canadian defence industry and research and development organizations across the country.”¹¹ Its intent is to show the need for such a powerful tool, as well as providing the foundation for its development.

The study is organized into six main sections, which correspond to the major arguments in support of the proposed defence industrial policy.¹² The first item of such a strategic exercise is to properly diagnose the current and future Canadian situation. The arguments behind any Canadian industrial strategies need to be identified and thoroughly defined. They then need to be linked to Canadian values and interests and to Canadian domestic policy to provide them with a solid legitimacy base. Furthermore, the intent of the major stakeholders within such a strategy, in the present case industry and defence, has to be clearly articulated. To complete this section, the actual absence of a defence industrial strategy in Canada needs to be assessed, and the reasons behind this absence need to be investigated.

The second item in this process is to survey Canada’s allies to identify the extent of their preoccupations with this issue. It is a well-documented fact that several allies, such as Australia, Britain and the United States have developed defence industrial policies of their own and have even been able to assess their effectiveness. It is also

¹¹ Department of National Defence, *Canada First Defence Strategy*, 20.

¹² For the purpose of this paper, the terms Canadian industrial policy and Canadian industrial strategy can be used interchangeably.

known that other countries (such as Germany and France) have not followed in this trend of developing defence industrial policies. The differences between these two approaches should be investigated in order to inform, with constructive arguments, a Canadian development in this matter. For example, the components of these successful policies (Australian and British) need to be reviewed and their applicability assessed in the Canadian context. Reviews have been performed on these two policies (or previous implemented industry policy statements), and assessments delivered since their implementation.¹³ This could provide a basic outline for our own policy.

The next focus of the study revolves around the definition and the design of the policy itself. A quick review of an existing framework between defence and industry should initiate this section. The Munition Supply Program (MSP), in place since 1978, is a special arrangement between the Department of National Defence and four companies considered strategic on the national security front (procurement of ammunition and components). From this review, it will be worth exploring the existence of other special arrangements between government and industry, in other domains of the Canadian economy (i.e. the automobile sector, aeronautics, naval construction, etc.).

Subsequently, the major elements of the proposed Defence Industrial Policy are going to be defined. The first feature of this new policy should be linked to existing Canadian strategies/policies to strengthen its own foundation. Several important policies have been released in the past few years, including Advantage Canada, the Canada First

¹³ Ministry of Defence, *Australia Defence and Industry Policy Statement 2007* (Canberra, Australia: March 2007). and United Kingdom House of Commons Defence Committee, *The Defence Industrial Strategy: Update* (London, United Kingdom: The Stationery Office Limited, February 2007).

Defence Strategy (CFDS) and the Defence Science & Technology Strategy for Canada. The identification of supporting arguments from these policies is a necessary step in providing legitimacy to this new policy and to show an overall government strategy for supporting defence and industry. Guiding principles are then required to formulate the policy. Some of these principles might originate from Canadian government literature, others from foreign policies. For example, the Australian policy will be achieved through the implementation of nine broad strategies: A strategy on equipping and sustaining the Australian Defence Force; A strategy for creating opportunities for Australian firms; A strategy for facilitating defence exports; and several more. The relevance of these principles to the Canadian context will be reviewed and the appropriate ones selected for possible inclusion in the draft Canadian policy. Several other elements will be required to define such a policy and various other topics will be introduced in the actual section.

The next section of the study will introduce additional associations required to make such a policy successful. This policy can not be implemented without the implication of additional actors, from government or industry. Other departments such as Industry Canada (IC), Public Works and Governmental Services Canada (PWGSC), and the Treasury Board Secretariat (TBS) of Canada must be invited to participate in order to facilitate the actual implementation of this policy. Specific Canadian trade organizations, like the Canadian Association of Defence and Security Industries (CADSI) and the Aerospace Industries Association of Canada (AIAC), should also be invited to participate in the elaboration phase of this policy. On the other hand, the existence of some international organizations such as the World Trade Organization (WTO) or of

international trade regulations such as the International Traffic in Arms Regulations (ITAR), might have an impact on the way the policy will be defined and applied. The impact of these external organizations/bodies/regulations needs to be considered in the definition and in the implementation phases of this document.

The last section of the study will offer a way forward for the government and for the Canadian defence industrial base. The document will conclude with some closing remarks.

2.0 CANADIAN DIAGNOSTIC

A country's defence industrial base is that segment of the country's economy associated wholly or partially with the provision/procurement of defence services.

“Under the broadest definition, the defence industrial base is the portion of the national industrial base that supplies goods and services to the defence market, both domestically and abroad.”¹⁴ Canada's Defence Industrial Base (CDIB) has been the subject of multiple studies in the past.¹⁵ In an effort to clearly understand its characteristics, a review of some of the most significant writings on the subject is needed.

As historical events have had a major impact on the CDIB, any attempts at defining it include a lengthy historical review of its development since the Second World War. Even if slightly dated (1995) and also slightly overtaken by events since the turn of the twenty-first century, the paper by Slack and Skynner presents a fairly accurate description of the CDIB. It begins by introducing the extensive defence industrial cooperation with the United States as a specific characteristic of the Canadian defence industry. Beginning at the onset of the Second World War, “... the two countries have recognized and encouraged integrated military planning, extensive cooperation in terms of defence production and trade and the formal incorporation of the Canadian defence industrial base into an integrated North American base.”¹⁶ The Hyde Park Declaration,

¹⁴ Brent K. Lemon, "The Economic Impact of Defence Spending on the Canadian Industrial Base: 1999-2000," (Master of Arts Thesis, Royal Military College of Canada, 2001), 7; <http://proquest.umi.com/pqdweb?did=727201541&Fmt=7&clientId=65345&RQT=309&VName=PQD>.

¹⁵ See Slack and Skynner with "Defence Production and the Defence Industrial Base"; Lemon with "The Economic Impact of Defence Spending on the Canadian Industrial Base: 1999-2000; Solomon with "The Defence Industrial Base in Canada"; Fergusson with "In Search of a Strategy: The Evolution of Canadian Defence Industrial and Regional Benefits Policy" and many more.

¹⁶ Michael Slack and John Skynner, "Defence Production and the Defence Industrial Base," in *Canada's International Security Policy*, (Scarborough, Ontario: Prentice Hall Canada, 1995), 369.

signed in April 1941, was the first expression of this search for continental integration of defence production. Specific and specialized committees, such as the Material Coordinating Committee, the Joint Economic Committee and the Joint Defence Production Committee were established to facilitate the implementation of the agreement.¹⁷

Progress towards even closer integration between the defence industrial production of Canada and of the United States was continually being made following the war. In the mid 1950s came the *Defence Development and Defence Production Sharing Arrangements (DD/DPSA)*, with a view towards greater integration and standardization in the defence industrial field between the two countries. This agreement was reconvened and expended in the early 1960s. Interestingly enough, one of the measures implemented was about the removal of obstacles to the flow of defence supplies and equipment between the two countries. The authors then go into a review of 40 years of collaboration with the United States, until the growth of protectionist sentiment in the U.S. Congress in the mid-90s.

After this brief summary of the political framework of the Canada-U.S. defence industrial relationship, Slack and Skynner introduce and define several specific parameters of the CDIB, to include:

- a. Canada does not have an industrial-military complex comparable with that of the United States;
- b. The industry is over 50 percent foreign-owned, and U.S. companies are dominant among this group;

¹⁷ *Ibid.*, 370.

- c. The industry is heavily dependent on the export market and in particular on the United States;
- d. Less than 100,000 people work in the defence industry, its impact is limited in terms of its percentage of the GNP, its percentage of trade, and its share of employees in the Canadian workforce;
- e. The industry is highly specialized with particular strength in the areas of aerospace, electronics and communications;
- f. The industry is not structured or capable, nor is it expected to provide for the entire needs of the Canadian Forces;
- g. For the most part, the principal players in the defence industry in Canada are not defence-dependent.¹⁸

The economic significance of defence spending in Canada can be further characterized by noting that “the total Canadian defence budget represented only 1.2% in FY 1999-2000 of the Canadian Gross Domestic Product (GDP).”¹⁹ The defence budget is allocated to capital acquisition, wages and salaries, imports and other expenditures. A study by Solomon concludes that DND’s footprint in Canada is relatively small, when compared to the rest of the economy. He states that the same conclusion holds for defence industrial production and exports as well.²⁰ However, the defence budget (in absolute value) is slated for a significant increase in the years to come. “In addition to the funds provided in Budget 2005, the current government increased defence spending by \$5.3 billion over the next five years in Budget 2006. As a result, Defence will see an increase to its 2005 baseline of \$1 billion in 2006-2007 and \$2.3 billion in 2007-2008.”²¹ Additional increases are being planned for the future. “Moving forward from this strong

¹⁸ *Ibid.*, 366.

¹⁹ Lemon, *The Economic Impact of Defence Spending on the Canadian Industrial Base: 1999-2000*, 82.

²⁰ Binyam Solomon, "The Defence Industrial Base in Canada," in *The Public Management of Defence in Canada*, (Toronto, Ontario: Breakout Education, 2009), 181.

²¹ *Ibid.*, 203.

footing, the Government, in Budget 2008, augmented the automatic annual rise in Defence funding from 1.5 percent to 2 percent starting in fiscal year 2011-12.”²² With these promises, the government announced plans to increase the deployability of the Canadian Forces through the acquisition of a long list of equipment. At this point, even if defence spending in Canada seems small when compared to the rest of the Canadian economy, in the late 1990s, it made up 6% of the total federal budget. “More importantly, it also represents 30% of the federal government’s discretionary spending.”²³ The estimated defence expenditure delivered to the Canadian business sector was estimated to be slightly more than \$3.4 billion in 1999. Thus, the overall impact of the CDIB on Canadians should not be underestimated. “The significance of defence to specific industrial sectors, however, is considerable.... In addition the sector is export oriented, competitive and relatively productive.”²⁴ Based on these final numbers and findings, the articulation of a solid defence industrial policy for Canada might be a very valuable tool for the government in its development efforts of the Canadian economy.

2.1 Interests of a Defence Industrial Policy for Canada

The concept of a closer relationship between government defence procurement and the defence industry is not a new idea. Several of Canada’s allies have made considerable progress in this field since the turn of the twenty-first century. This notion of collaboration is also clearly supported by the highest government authorities, as demonstrated by the statement from the Canadian Prime Minister in the CFDS. “By

²² Department of National Defence, *Canada First Defence Strategy*, 12.

²³ Lemon, *The Economic Impact of Defence Spending on the Canadian Industrial Base: 1999-2000*, 39.

²⁴ Binyam Solomon, "The Canadian Defence Industrial Base," *Proceedings of the ASSA/ECAAR Conference*, January 2000, 20; <http://www.ecaar.org/articles/articles.htm>; Internet; accessed January 13, 2009.

unveiling a detailed plan for the future replacement of key equipment fleets, we are providing Canadian industry the opportunity to more effectively meet defence procurement requirements, and to position them for global excellence.”²⁵ The same notion is reinforced by the Minister of National Defence in his response to the Standing Committee on National Defence.

As noted above, the *Canada First Defence Strategy*, by providing long-term funding to support the modernization and growth of the Canadian Forces, will be the foundation of a new relationship with Canada’s defence industry. The long-term planning of the CFDS will allow industry to plan in advance, to invest pro-actively in research in development and to position itself for success within Canada and on international markets.²⁶

This industry positioning is based upon the requirements to have a long-term, sustainable strategy that addresses the need of defence within the overall governmental objectives of national security and prosperity. As articulated by various Canadian governments in the past, the development of an economic platform offering prosperity to Canadians is always a major objective of any political party. The implementation of such a defence industrial policy aligns itself well with this clear national interest, under the umbrella of the country’s overall financial and industrial framework. “The government has committed to spend a lot of money on the military. Our argument is that a dollar spent on the Canadian military can also be a dollar spent in support of industrial or economic objectives the government may have.”²⁷ This statement, by the president of the Canadian Association of Defence and Security industries, echoes the orientation of the

²⁵ Department of National Defence, *Canada First Defence Strategy*, 1.

²⁶ House of Commons, Standing Committee on National Defence, *Government Response to the Second Report of the Standing Committee on National Defence* (Ottawa, Ontario: House of Commons, June 2008),7; <http://www2.parl.gc.ca/HousePublications/Publication.aspx?DocId=3546108&Language=E&Mode=1&Parl=39&Ses=2>; Internet; accessed 10 February, 2009.

²⁷ Peter Kovessy, "Defence & Security: Casualties of War?," *Ottawa Business Journal*, 11 May 2009; <http://www.ottawabusinessjournal.com/294453501575134.php>; Internet; accessed 13 May, 2009.

government in terms of economic development for Canada. The present government has clearly expressed its goal about the development of a strong economy. *Advantage Canada: Building a Strong Economy for Canadians* is a clear and “strategic, long-term economic plan designed to improve our country’s economic prosperity both today and in the future.”²⁸ It aims at growing Canada’s entrepreneurial, knowledge and infrastructure advantages. “The Government will invest and seek partnerships with the provinces and the private sector in strategic areas that contribute to strong economies.”²⁹

This search for the development of a strong economy has generated other impacts on the Canadian industrial base. Since the mid-1980s, the Government has put in place significant measures to retain vital industrial and technological capabilities in Canada from military procurement. The industrial and regional benefits (IRB) policy is one such measure. “It has not been uncommon for Canadian and other Western governments to seek some sort of economic return on their defence procurement dollars, especially when these have been increasingly spent abroad.”³⁰ There have been excellent cases to highlight the value of the IRB policy, such as the Search and Rescue Helicopter project that committed \$550M across the country and created an estimated 5,000 person-years of employment opportunities.³¹ This major commitment has allowed Canada to remain at the forefront of complex system integration for command and control capabilities in industry. As mentioned by Fergusson, it is clear that the use of IRB by the government

²⁸ Department of Finance, *Advantage Canada: Building a Strong Economy for Canadians*, 9.

²⁹ *Ibid.*, 11.

³⁰ Dan Middlemiss, "Defence Procurement in Canada," in *Canada's International Security Policy*, (Scarborough, Ontario: Prentice Hall Canada, 1995), 401.

³¹ Treasury Board Secretariat of Canada, *Department of National Defence Performance Report 07/08* (Ottawa, Ontario: Government of Canada, 2008), 125; <http://www.tbs-sct.gc.ca/rpp/0708/nd-dn/nd-dn05-eng.asp>; Internet; accessed 31 March, 2009).

“has enhanced the technological capacity and competitiveness of Canadian industry in many cases, Canada’s balance of payments situation, and has provided employment across the country.”³² Moreover, the IRB policy is attractive because jobs, foreign investments and regional development programs are quickly realized. However, these positive features have also had some interesting political side effects. “To many Canadian politicians, the real purpose of defence contracts was to produce jobs and regional development, not military hardware or something as nebulous as ‘national security’.”³³

The economic costs of the IRB policy, such as the overhead of the program and the cost of domestic sourcing versus off the shelf procurement are mostly unknown. In 1996, a study commissioned by both DND and Industry Canada had to evaluate the impact of the IRB policy and to provide recommendations on the viability of the program. This study, and others since, “suggests that the administration of the regional and industrial benefit policies may have added an expensive premium to the overall contract price of defence procurement.”³⁴ The lack of an overall vision in IRB implementation, the lack of an oversight body and the costs associated with the administration of the offsets are also of concern. These are still unanswered issues and a resolution would bring closure to this controversy. A reformed IRB policy could be a significant aspect of a potential Canadian defence industrial policy. However, due to the fact that the procurement process in Canada involves several Departments—including the Department of National Defence, the Treasury Board Secretariat, Public Works and

³² James Fergusson, "In Search of a Strategy: The Evolution of Canadian Defence Industrial and Regional Benefits Policy," in *The Economics of Offsets: Defence Procurement and Countertrade*, (Ontario: Martin Harwood Academic, 1996), 128.

³³ Middlemiss, *Defence Procurement in Canada*, 400.

³⁴ Solomon, *The Defence Industrial Base in Canada*, 191.

Government Services Canada, and Industry Canada — there would be a need to involve these multiple partners in the redesign of the IRB policy, and consequently, of the defence industrial policy. There is a need to ensure these measures foster sustainable benefits and grows Canadian industry’s global competitiveness at home and abroad.

2.2 Industry and Defence View’s on a Canadian Defence Industrial Policy

For sovereignty implications, “Canada and other Western countries must maintain an ability to equip and sustain military forces.”³⁵ The development and sustainment of a Canadian indigenous defence industrial capacity should be a long term political goal for the defence establishment. However, Slack and Skynner mentioned that “the perceived absence of a comprehensive, funded, sustainable and long-term Canadian governmental strategy for the DIB and even for science and technology”³⁶ is a structural weakness of the Canadian system. The same message has been repeated by the Canadian Association of Defence and Security Industries (CADSI) since then, in saying that “the defence and security industry does not benefit from either a long-term vision or a commitment from Ottawa.”³⁷

This situation has evolved since then by the release of CFDS in 2007. “The *Canada First* Defence Strategy provides a detailed road map for the modernization of the Canadian Forces, building on the Government’s investments in the military since taking office in 2006.”³⁸ Coupled with the 2005 release of the National Aerospace and Defence

³⁵ Slack and Skynner, *Defence Production and the Defence Industrial Base*, 365.

³⁶ *Ibid.*, 368.

³⁷ Tim Page, quoted in Norman Leach, "Defence Industry Proposes Roadmap to Future Success," *Canadian Defence Review* 13, no.2 (March 2007): 30.

³⁸ Department of National Defence, *Canada First Defence Strategy*, 4.

Strategic Framework, the major elements of both a national policy and key elements (vision, requirements and elements of available resources) of a defence industrial strategy are now available. These documents constitute the embryo and provide the basic structure of a policy, but an overall strategy and a governance structure still needs to be developed. As a matter of fact, CFDS responded to the needs of the industry by providing a clear statement of stable and increasing funding for the next 20 years. Figure 1 illustrates this reality.

Defence program FYs 1986–87 to 2027–28

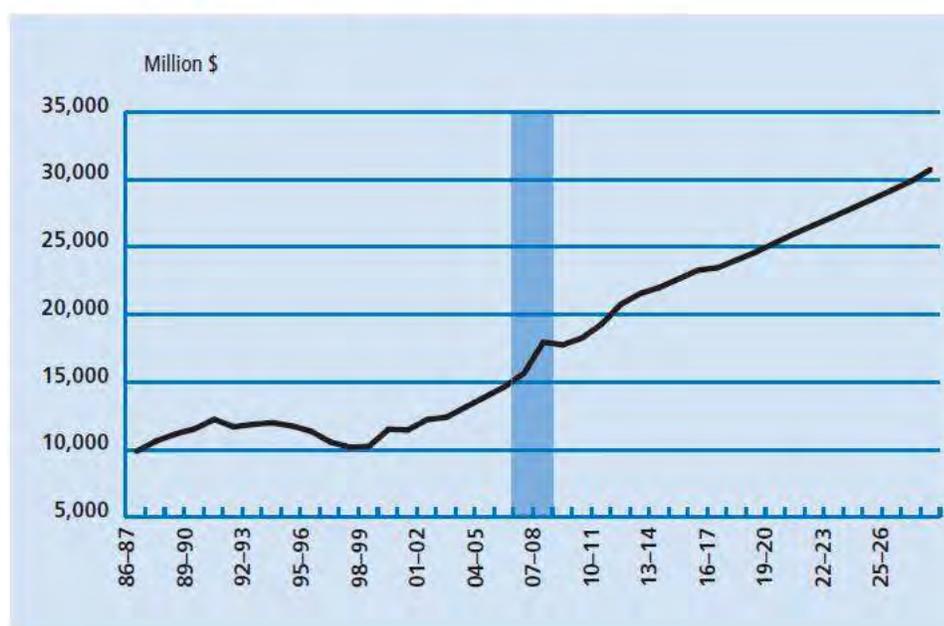


Figure 1 - Defence Budget Progression until 2027

Source: Department of National Defence, *Canada First Defence Strategy*, 11.

Additionally, CFDS also provided a clear list of capabilities, even of specific weapons systems, needed by the Canadian Forces for the next 20 to 30 years. Table 1 presents a summarized list of these requirements. CFDS bolsters its support to the Canadian defence industry. Its industrial section concludes that a new paradigm is needed

with the Canadian defence industry, in the development of a functional partnership based on trust. “The *Canada First Defence Strategy* will set the stage for a renewed relationship with Canadian defence industry and research and development organizations across the country.”³⁹

Table 1 - Total Defence Spending

PILLAR	AMOUNT	% OF TOTAL	REMARKS
Personnel	\$250B	51%	70,000 Regular and 30,000 Reserve personnel by 2028; includes 25,000 civilian workforce
Equipment			
- Previous announcements	\$15B	3%	Previously announced equipment purchases, including: <ul style="list-style-type: none"> ▪ C-17 Globemasters ▪ C-130J Hercules ▪ Arctic/Offshore Patrol Ships ▪ CH-47F Chinook Helicopters ▪ Trucks
- New Major Fleet Replacements	\$20B	4%	<ul style="list-style-type: none"> ▪ Fixed-Wing SAR Aircraft ▪ Destroyers and Frigates ▪ Maritime Patrol Aircraft ▪ Fighter Aircraft ▪ Land Combat Vehicles and Systems
- Other Capital	\$25B	5%	Includes individual weapons, communications equipment, etc.
Infrastructure	\$40B	8%	Increased investment in rebuilding and maintenance of infrastructure of approximately \$100M/year
Readiness	\$140B	29%	Approximately \$140M/year in new spending on spare parts, maintenance and training
Total Spending over 20 years	\$490B	100%	

Source: Department of National Defence, *Canada First Defence Strategy*, 12.

Procurement reforms, identification of clear priorities, communication strategy are only some of the expected measures identified to implement this new approach for enhancing this relation with industry. “Indeed, the *Canada First Defence Strategy* represents a

³⁹ *Ibid.*, 21.

significant investment in the country's industry, knowledge and technology sectors that will yield sizeable dividends for every region of the country."⁴⁰ The directions highlighted in both of these documents are clear and have been communicated to the industry.

Furthermore, new opportunities are opening up for industry in the wake of the major defence cuts of the 1990s. The transfer of a number of support functions (repair and overhaul, training, service support and many more) from the military to civilian industry has integrated industry into the overall defence framework at an increased rate. "This degree of reliance on industry will likely increase in the future as the Department of National Defence and the Canadian Forces adds a long-term support context to new capital projects."⁴¹

From a political viewpoint, the Canadian defence industry should not be propped up by government policies. The industry has to be competitive on its own, with clear indications of the intent of the Canadian government. "CADSI's members believe that the government must focus on developing, together with industry, a strategic view of the defence industry. What capabilities will Canada need in the next 20-30 years and how can that be achieved by industry?"⁴² However, after years of neglect, the Canadian

⁴⁰ *Ibid.*, 21.

⁴¹ Craig Stone and Binyam Solomon, "Canadian Defence Policy and Spending," *Defence and Peace Economics* 16, no. 3 (June 2005): 165.

⁴² Tim Page, quoted in Norman Leach, "Defence Industry Proposes Roadmap to Future Success," 31.

defence industrial base is clearly in need of support.⁴³ As with any other industry sectors, strengths and weaknesses are identifiable in the Canadian defence industry sector. A partial and selective integration into the U.S. defence industrial base, a low dependence on foreign non-US contracts for survival, a recognized and respected world-class expertise in a variety of fields and an active research effort (although small) are some of the most obvious strengths of the industry. On the weakness side, the potential impact of protectionist measures in the United States (such as ITAR), the dangers associated with an over-dependence on single product lines, the resistance to the introduction of leading-edge production technology on the part of smaller Canadian companies, the lack of coordination with the DND capabilities planning process and a large dependence of the CDIB on export to the United States are some of the most obvious shortcomings.

2.3 Absence of a Canadian Defence Industrial Policy

For the last sixty years, the Canadian defence agenda has been intrinsically tied to the Canadian domestic agenda. Through the release of multiple defence policies and White Papers since the Second World War, the Canadian defence industrial base has always been involved, sometimes actively, in these political statements. However, these involvements were always limited and did not really constitute the foundation of a substantial defence industrial policy. Such was the case in the 1964 White Paper on defence, which mentioned the positive impact of the defence industrial base on the Canadian economy, and the need for a closer relation between industry and DND, but did not lead to the development of a real defence industrial policy. It has since been

⁴³ See Slack and Skynner with “Defence Production and the Defence Industrial Base”; Solomon with “The Defence Industrial Base in Canada”; and Hobson with “Risk-Bound Rewards: Canada’s Defence Industry”.

demonstrated that the maintenance of domestic industrial capabilities has had no foundation in post-Cold War defence policy and strategy (the 1994 White Paper, Defence Strategy 2020 and the 2005 Defence Policy are silent on the roles of industry in supporting Defence in achieving defence outcomes).

Canada is still without a clear and concrete defence industrial policy. “DND will continue to practice a largely non-interventionist industry policy which is consistent with broader Government initiatives. In other words, DND will not support industry solely to ensure competition for future procurement initiatives.”⁴⁴ However, in the meantime, many ad-hoc initiatives have been implemented such as the Munition Supply Program (MSP), the Industrial and Regional Benefit policy (IRB) and the Framework for the Canadian Shipbuilding and Industrial Marine Industry. These initiatives do not constitute a comprehensive defence industrial policy as they only apply to some very specific segment of the industry. This is still true today, as the present government does not have the appetite for regulating industry through the development of an overarching Canadian industrial policy, as the present government’s strategy is more of the “hands-off” type.⁴⁵ Interestingly enough, the same government released CFDS, which really constitutes the foundation for such a defence industrial policy.

⁴⁴ Director General International and Industry Programs, *Defence Industry Policy and International Relations with Industry* (Ottawa, Ontario: 1998), 3.

⁴⁵ This political position is mentioned in Stone “Canada needs a Defence Industrial Policy”, Edgar and Haglund “The Canadian Defence Industry in the New Global Environment”, Solomon “The Defence Industrial Base in Canada” and DGIIIP “Defence Industry Policy and International Relations with Industry”.

3.0 SURVEY OF EXISTING DEFENCE-INDUSTRIAL POLICIES

Canada's defence policies have always portrayed the country's international interventions in a multilateral setting. Interestingly enough, several of the allies in these multilateral coalitions have exercised leadership in their defence industrial domain and have designed and implemented specific policies to support this segment of their national industrial base. This section will analyze and assess the defence industrial policies developed and implemented by Australia, the United Kingdom and the United States to identify their main orientations and goals. The relevance of these documents to the Canadian context is going to be considered, and appropriate sections or components identified for inclusion in our own draft policy. Finally, a short review of some countries without such policies will work at identifying the central rationale behind this political decision.

3.1 Australia

The geo-political location of Australia (proximity to Indonesia, South-East Asia, and many more unstable regions) and its isolation make it essential to develop a solid self-reliant defence strategy. "The priority task for the Australia Defence Force (ADF) is the defence of Australia. Our approach is shaped by three principles. First, we must be able to defend Australia without relying on the combat forces of other countries – self-reliance."⁴⁶ This same principle is also applied to the defence industrial base of the country, while staying realistic on the extent of the required capacity. The Australian Government summarizes its position on the subject by stating that its wants a sustainable

⁴⁶ Ministry of Defence, *Defence 2000: our Future Defence Force* (Canberra, Australia: 2000), XI; <http://merln.ndu.edu/whitepapers/Australia-2000.pdf>; Internet; accessed 17 January, 2009.

and competitive defence industry base, able to support the ADF. However, it limits the range of this statement by stating that “it is unrealistic to aspire to complete industrial self-sufficiency. Nor is complete self-sufficiency necessary, given our ability to access and acquire many important technologies from overseas.”⁴⁷

The Australian defence industrial base has witnessed iterative government interventions for the last ten to fifteen years. Released in 1998, the *Defence and Industry Strategic Policy Statement* set out a vision for a sustainable in-country defence industry capable of supporting a technologically advanced defence force. It “created a solid foundation for the Government’s defence industry policy...”⁴⁸ Despite the fact that the policy initiatives contained in this first document provided direction and momentum to the industry, “it must be acknowledged that defence industry policy has lacked robust implementation.”⁴⁹

In the meantime, *Defence Needs of Australian Industry* was produced. “It aims to provide Australian industry with guidance on Defence’s needs in support of the force-in-being and the development of that force over the next five-to-ten years.”⁵⁰ This initiative is part of a larger construct that Defence is taken to improve industry’s understanding of the needs and an awareness of industry’s capability. This document, released in 2000, consists of a set of tables providing specific information on military systems important to defence. “These tables firstly identify relevant subsystems (as well as their associated

⁴⁷ *Ibid.*, 99.

⁴⁸ Ministry of Defence, *Australia Defence and Industry Policy Statement 2007*, i.

⁴⁹ *Ibid.*, i.

⁵⁰ Industry and Procurement Infrastructure Division, *Defence Needs of Australian Industry 2000* (Canberra, Australia: 2000), 3; <http://www.defence.gov.au/dmo/id/publications/DefNeeds.pdf>; Internet; accessed May 2009.

technology, skill or product), then state the Australian industry that is to be given priority. Further detail on the level of priority that Defence places on this industry function is also provided.”⁵¹

Then, in 2004, the Australian Strategic Policy Institute (ASPI) document on security advocated the need for a renewed commitment towards the Australian defence industrial base. “A new industry policy statement should define what kind of industry Defence would like to see in 10-20 years, and detail the key industry capabilities essential to support the ADF goal of self-reliance ...”⁵² It also believed that there should be a high level of harmonisation between Australian and American defence industry capabilities.

“The Government is committed to ensuring the men and women of the Australian Defence Force (ADF) are equipped and supported through an efficient and capable industrial base.”⁵³ With such a clear statement, the Australian Government responded to the ASPI document, in recognizing the importance of industry and setting the stage for the implementation of a strong and comprehensive defence industrial policy for its country. In order to refine and refocus the directions identified in the 1998 document, the *Defence and Industry Policy Statement 2007* was released. With an unambiguous objective for the role of industry, this document “makes clear how a partnership between Defence and industry will determine Australia’s priority industry capabilities, the expectations of industry, and the operating environment to be shaped.”⁵⁴ The primary

⁵¹ *Ibid.*, 8.

⁵² Kenneth R. Peacock, "Challenges for Defence and Industry," in *Scoping Studies: New Thinking on Security* (Barton, Australia: Australian Strategic Policy Institute, 2004), 37.

⁵³ Ministry of Defence, *Australia Defence and Industry Policy Statement 2007*, i.

⁵⁴ *Ibid.*, i.

objective of the policy is to ensure cost-effective delivery of equipment and support to the ADF in the accomplishment of its missions.

The Australian Government has demonstrated a serious commitment at working with the Australian defence industry and the future will attest of their success. In order to accomplish its expectations, the policy identifies a series of nine strategies through which the Government will work with industry to develop and sustain the country's capabilities:

- A strategic approach to equipping and sustaining the ADF: the Australian defence industry is one component of the defence supply base, with overseas providers such as the United States, the United Kingdom and many more. Thus, a strategic decision must be made on what should be locally resident;
- Maintaining priority local industry capabilities: Defence will monitor the sustainability of these areas and respond accordingly through the procurement process to ensure the health of the industry;
- Securing value for money through best-practice procurement: a strategic choice between competition and sole sourcing to support the policy will be required;
- Creating opportunities for Australian firms: the Government will ensure that the Australian industry has a fair chance to compete through various initiatives;
- Encouraging small and medium enterprises (SME): these firms are a major source of innovation and are more agile than larger firms. The Government will foster an environment where capable SME can prosper as defence suppliers;
- Supporting the development of skills in defence industry: the Government will establish programs such as joint apprenticeship and graduate training;

- Facilitating defence exports: Government measures will be instituted to improve the sustainability of local industry;
- Driving innovation in defence technology: with this objective in mind, the Government will make a new substantial investment in defence S&T;
- Defence and industry working together.

Another important point to discuss in the present situation, and a motivation for specifically looking at Australia, are the similarities between Canada and Australia. “Both countries have a large geographic area, long coastlines, large tracts of sparsely populated land, relatively small economies and close national security relationship with the United States.”⁵⁵ These similarities lead to corollaries in the case of the defence industry for the two countries. Both are mostly foreign owned, both span a large segment of the overall industrial base of the country, they both have approximately the same impact on the rest of the countries’ economy (in terms of people employed, overall sales, etc...) and there are clear similarities for many other parameters.⁵⁶ Nonetheless, comparatively to Canada, Australia has put in place a defence industrial strategy.

Having analyzed the Australian situation, another Commonwealth nation, with a larger military and defence budget than both Canada and Australia is now going to be investigated.

⁵⁵ Craig Stone, "Australia's Defence Industrial Base: A Canadian View," *Australian Defence Force Journal*, no. 151 (November / December 2001): 37; <http://www.defence.gov.au/publications/dfj/adfj151.pdf>; Internet; accessed 6 May, 2009.

⁵⁶ Julian Kerr, "Going with the Flow: Australia's Defence Industry," *Jane's Information Group*, 23 February 2009; http://www.janes.com/news/defence/business/jdw/jdw090223_1_n.shtml; Internet; accessed 22 April, 2009).

3.2 United Kingdom

During the same timeframe as the Australian process, the United Kingdom released a defence industrial policy. A policy paper from the Ministry of Defence released in 2002, it was developed to complement the British Government manufacturing strategy and sectoral initiatives. The major objective of this policy was clearly articulated around the “need to provide the Armed Forces with the equipment which they require, on time, and at best value for money for the taxpayer.”⁵⁷ As in the Australian case, the British Government recognizes the important contribution made by a thriving, innovative and competitive defence industry in the development of the Armed Forces capabilities. The importance of the British defence industry is not to be underestimated: “The defence industry employs some 345,000 people directly and indirectly in the UK, and provides around 3% of the UK’s manufacturing output.”⁵⁸ It is also very successful at exporting British made goods and services. Interestingly enough, no specific initiatives were identified as part of this policy framework.

Just one year later, in 2003, a thorough assessment of the policy was performed by the Defence and Trade & Industries Secretaries. Their first conclusion was that “progress on the implementation of the Defence Industrial Policy has been encouraging, especially through the deepening of government-industry dialogue.”⁵⁹ This policy clearly demonstrated the new culture of openness between defence and industry in the search of a common goal for the military. This analysis examined many components

⁵⁷ Ministry of Defence, *Ministry of Defence Policy Paper no 5: Defence Industrial Policy* (London, United Kingdom: October 2002), 4.

⁵⁸ *Ibid.*, 7.

⁵⁹ Ministry of Defence, *First Review of the Implementation of Defence Industrial Policy* (London, United Kingdom: October 2003), 3.

of the policy, including acquisition, research & technology and market access. In many ways, this policy is an intermediate stage in the establishment of a clear and agreed way forward between defence and industry.

The Defence Industrial Strategy, released in 2005, takes forward the Defence Industrial Policy, by identifying the defence industrial capabilities needed in the UK to ensure sustainment of the United Kingdom military equipment.

The Defence Industrial Strategy (DIS) flows from the Defence Industrial Policy (DIP) published in 2002. Like that policy, it is driven by the need to provide the Armed Forces with the equipment which they require, on time, and at best value for money for the taxpayer.⁶⁰

In this Strategy, the British Government carefully considered which industrial capabilities were to be retained in the UK to ensure that the Armed Forces could continue to operate their equipment in the way that allows them to maintain appropriate sovereignty and thereby protect the national security.⁶¹ As set out in the document, the implementation of the strategy will require changes from both Government and industry, particularly in the way they interact together.

The defence industry and the Government do need to change the paradigm under which they operate to increase the level of trust in their relationship. Against this background and in order to implement the strategy, a number of guiding principles have been developed (just like the Australian Government implementation method).

⁶⁰ Ministry of Defence, *Defence Industrial Strategy - Defence White Paper* (London, United Kingdom: December 2005), 1.

⁶¹ *Ibid.*, 6.

- Maintenance of the appropriate degree of sovereignty over industrial skills, capacities, capabilities and technology to ensure operational independence in the accomplishment of the mission;
- Emphasis on through-life capability management, development of open architectures that facilitate this and enhancement of the systems engineering competencies that underpin it;
- In those areas where reduced British and export market opportunities cannot any longer provide a sustainable production profile, the Defence Industrial Strategy needs to address the challenge of maintaining key industrial capabilities;
- Ability to understand and manage the complexities, challenges and costs associated with overall management of design, manufacture and upgrade;
- Understanding of the role of Government and industry, in setting a framework which maximizes value and contributes to the national Science and Technology base;
- Clear intent from both industry and Government to change as a result of taking the Defence Industrial Strategy's conclusions into account.⁶²

As a result of this strategy, the British defence industry is well-positioned to weather the future changes in the defence world.

A formal assessment of the Defence Industrial Strategy has already been performed a year after its implementation. This assessment, requested by the House of Commons Defence Committee, was done in December 2006. This early assessment demonstrated that overall, good progress was being made. However, there are some

⁶² *Ibid.*, 18.

specific sectors presenting a larger challenge. “However, progress in reshaping the maritime sector, both surface ships and submarines, has been disappointing... There are signs that the restructuring is underway.”⁶³ Notwithstanding these specific deficiencies, the real performance appraisal of this strategy will come from the Ministry of Defence (MOD), which will “need to ask the Armed Forces whether they are seeing improvements and to measure its own performance in acquiring equipment and managing equipment on a through-life basis.”⁶⁴

As previously demonstrated for Australia, the British Government has put in place a framework to pursue a clear and well articulated development of its defence industrial capacity. As the next phase of this section, it might be interesting to contrast these two cases with the United States attempts towards its own defence industrial base.

3.3 United States

The United States, home of the largest defence industrial complex in the world, is really a case study on its own. During the Cold War, the American Government worked with the industry to develop an overwhelming defence research, development and production capability. “Defence currently is responsible for more than one of every ten jobs in the manufacturing sector and more than one of every four in the research and development area.”⁶⁵ The United States was one of the only countries in the world able to produce every single system needed by the military establishment, and still is today. The

⁶³ United Kingdom House of Commons Defence Committee, *The Defence Industrial Strategy: Update*, 3.

⁶⁴ *Ibid.*, 3.

⁶⁵ Jacques S. Gansler, "Needed: A U.S. Defense Industrial Strategy," *International Security* 12, no. 2 (Autumn 1987): 50; <http://www.jstor.org/stable/2538812>; Internet; accessed 25 November 2008.

end of the Cold War brought about reduced defence budgets, which was followed by a steady stream of rationalization in the American defence industry.

The American government has been overseeing these rationalization efforts to ensure the maintenance of the complete line of domestic research, development and manufacturing capabilities.

Table 2 Changes in the US Defence Market in the 1990s

DCD Industrial Base		Number of Suppliers	
		Past	Present
Aircraft	Bombers	3	1
	Fighters	5	2
	Helicopters	4	2
Space	BMD	6	2
	Launch Vehicles	3	2
	Satellites	5	2
	Rocket Motors	5	2
Shipbuilding	AC Carriers	1	1
	Submarines	2	1
	Surface Combatants	5	2
	Auxiliary/Amphibious	7	3
	Shipyards	8	4
Tracked Vehs	Tanks	1	1
	APC	2	1
Missiles	Strategic	1	1
	Tactical	8	3

Source: Tony Kausal, ed "A Comparison of the Defense Acquisition Systems of France, Great Britain, Germany and the United States, (Fort Belvoir; Virginia: Defense Systems Management College Press, 1999), 4-61.

This model provides a good representation of the overall procurement model of the United States, which effectively consists of being self-sufficient in all aspects of defence requirements, as illustrated in Table 2. The associated business model provides a larger

role to the defence industry in every aspect of the procurement process, from research to development to acquisition. It is a very different model than the one used by Canada and allies, who have a tendency to keep industry out of the capability definition process.

It is fascinating that even under these very favourable conditions, a political voice has been heard for the development of an American defence industrial policy. In the 1980s, there were talks about the need for a U.S. defence industrial strategy. The preliminary work identified the following five very interrelated foci as framework for such a strategy:

1. A Research & Development investment strategy;
2. Creation of incentives for productivity gains;
3. Far greater integration of civil and military production;
4. Implementation of the defence industrial strategy on the large resource commitments, through major weapon system and budget decisions;
5. Making defence industrial strategy part of the United States national security strategy.⁶⁶

These preliminary discussions did not lead to the implementation of a formal strategy.

These three examples of successful defence industrial strategies are only highlighting the absence of such a tool in the Canadian government toolbox when comes time to influence the global Canadian economy. Without clear orientations, the investments in this field are not optimized to support the provision of capabilities for the Canadian Forces and to sponsor the development of the Canadian economy. This also

⁶⁶ *Ibid.*, 54.

leads to a lack of focus in the whole defence industrial sector. This characteristic can also be identified in other foreign defence industrial sectors and countries without properly defined strategic orientations.

3.4 Other European Countries

Like the United Kingdom, France is another major player on the defence front in Europe. The state-industry relation in the French defence sector has experienced a decade of deep transformation. Defence-related activities evolved from a mainly state-owned and strong industry to a largely private production, characterized today by a clear withdrawal of the French defence procurement agency from industrial and technological activities. The same behavior has also been witnessed in Germany. The German Government now believes that it is not the sole responsibility of governments to pave the way for its defense industry to position itself strategically. However, both governments consider that without some kind of support, it could be hard for the European defence industry to flourish.

The withdrawal of this valuable governmental support from these countries' defence industrial base has coincided with the rise of the European Union initiatives in defence and the implementation of the European Defence Agency (EDA). "The European Defence Agency was established as a result of a Joint Action of the European Union Council of Ministers on 12 July 2004 with the goal of strengthening the European defence capability within the framework of the European Security and Defence Policy."⁶⁷

⁶⁷ German Defence Industries Committee, *Position Paper of the German Security and Defence Industry Regarding the European Defence Agency* (Berlin, Germany: 2006), 7; <http://www.germandefence.de/tce/frame/data/179.pdf>; Internet; accessed 5 May, 2009.

In order to accomplish its mission, four new organizational structures were set up, and were given the mandate to concentrate their efforts on the following domains:

- Defence capabilities development;
- Armaments cooperation;
- European defence industry and defence equipment market;
- Research and technology.

Since this implementation and the introduction of the European Security and Defence Policy (ESDP), the overall European situation has been rapidly evolving. Prior to the EDA, most European nations ensured most of their defence procurements were from domestic sources. Countries' industrial policies did not exist as such, but nations protected their defence industrial base by mostly procuring equipment domestically. This situation led to a lack of focus in the defence industrial sector of countries without specific defence industrial strategies. One of the functions of the EDA is to "work to strengthen the Defence Technology and Industrial Base and for the creation of an internationally competitive European Defence Equipment Market."⁶⁸ A Code of Conduct is being developed requiring defence contracts to be awarded on the basis of Europe-wide invitations to bid. The ultimate goal of these measures is the further integration of European defence procurement. "Greater cooperation in armaments could lead to significant benefits, including: better value-for-money for taxpayers; greater harmonization of military requirements and technologies; and a more competitive European defence industry."⁶⁹

⁶⁸ European Union, "European Defence Agency," <http://www.eda.europa.eu/>; Internet; accessed 31 March, 2009.

⁶⁹ Erkki Aalto, *et al*, *Towards a European Defence Market*, Chaillot Report #113 (Paris, France: 2008), 5.

However, even with the EDA, the defence markets will continue to be dominated by decisions made nationally. Larger producer countries will continue to protect their markets and all, including the smaller ones, will keep open their options to procure outside the realm of the EDA, particularly of course in the U.S.⁷⁰ However, there is a definite movement towards some kind of an integrated strategy. Each European member state is in the position to bring its core industrial capabilities to the European Security and Defence Policy (ESDP) table for this process. Therefore, it is the responsibility of every single state to position its industries for this European or transatlantic defense cooperation. But in critical areas like naval shipbuilding and land armament industry, the political decision-makers still seem to be lacking long-term strategic visions and initiatives.

Finally, what is important for the European government representatives and the national industry is to work even closer together in the future. Only through a better understanding of each other's problems and necessities can industry maintain its core competencies and the defence representatives keep face when it comes to big procurement programs. "Cooperation is key for strengthening the European defence industry through the consolidation of demand."⁷¹ This can lead to the establishment, once again, of a strong European defence industry. This possibility presents both an opportunity and a challenge for the Canadian defence industry. A strongly coordinated

⁷⁰ Martin Aguera, "Germany's Value to ESDP and European Defence Cooperation," *Real Instituto Elcano*, 2002, 1; [⁷¹ Erkki Aalto, *et al*, *Towards a European Defence Market*, 109.](http://www.realinstitutoelcano.org/wps/portal/rielcano/contenido?WCM_GLOBAL_CONTEXT=/Elcano/es/Zonas_es/Defensa+y+Seguridad/Germany%2Cs+value+to+ESDP+and+European+defense+cooperation; Internet; accessed 31 March, 2009.</p>
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Canadian defence industry would find ways to establish profitable cooperation with this new European entity and thrive under this new cooperation. While a disorganized and unfocused Canadian defence industry would find in this new European entity a strong competitor, even in the Canadian market.

3.5 Identification of Potential Policy Components for Canada

The previous four sections have provided a very interesting cross-section of measures put in place by Canada's closest allies. It is clear that some of the measures and some of the parameters used for the development of these measures can be directly applicable to the Canadian situation. Although defining the Canadian industrial defence strategy is not the intent at this point, it is worthwhile to identify some of the components from our allies that have the most relevance to Canada. In no significant order, this includes:

- Workers specialization and education;
- Research and development strategy;
- Clarification of the procurement rules;
- Involvement of the industry in the strategic planning process;
- Vision of the defence establishment for its required future capabilities;
- Government commitment for stable and sufficient funding;
- Value for money;
- Through-life capability management.

Again, these measures have been deemed appropriate for Canada's allies, but their relevance to Canada still needs to be assessed.

4.0 EXISTING CANADIAN DEFENCE-INDUSTRY FRAMEWORK

Notwithstanding the absence of a clear Canadian defence industrial policy, it is understandable that there have been various agreements between defence and industry in Canada in the past. A case in point is the Munition Supply Program (MSP). Prior to the 1960s, the Canadian Government had always owned and operated its own ammunition supply operations, supplemented by a small number of private suppliers. At the onset of the 1970s, the Government made the decision to privatize this function over a 15 to 20 year period. In 1978, in the midst of this privatization, the Government decided to establish the MSP. “The MSP was established in 1978 to foster the development of a domestic industry for conventional ammunition in order to address, what was considered at the time, a national security requirement for increased self-sufficiency in the supply of critical high-volume ammunition to the DND/CF.”⁷² The Government had decided that a domestic source was the solution to ensure an uninterrupted supply of these specific ammunition types during peace and war times alike. At the same time, it was expected for this industry to, over time, provide some level of cost-effectiveness in the procurement of munitions through becoming a truly competitive industry with international markets of its own.

The composition of the MSP has fluctuated over the years, primarily due to mergers and industry failures. Today, the following entities are part of the agreement:

- SNC Technologies Inc.⁷³
- SNC Expro Tec
- IMT Corporation

⁷² Department of National Defence, *Evaluation of the Munitions Supply Program* (Ottawa, Ontario: Chief of Review Services, December 2007), ii.

⁷³ It should be mentioned that both SNC Technologies Inc and SNC Expro Tec were acquired by General Dynamics Corporation in 2006.

- Bristol Aerospace Limited

The MSP program was based on an economic development model whereby, with support from the government, the firms in the program would become viable and eventually develop an export market to support the domestic industry. The firms in the program were given “Preferred” supplier status for the products they were producing. They were also provided a five-year procurement rolling-plan from DND, with the first two years as firm orders, and the remaining three years as planning purposes. The MSP primarily supports CF land and common user ammunition requirements. “MSP sales have averaged approximately 75 percent of the DND/CF’ recurring ammunition expenditures over the five-year period 2000 to 2005.”⁷⁴

While the domestic Canadian ammunition industry has been strengthened since the establishment of the MSP, it is not clear the strategic objectives of the program have been reached. “The absence of direction in the areas of defence industrial policy, defence capability plans, and strategic ammunition requirements are barriers to assessing the continuing need for an indigenous industrial capacity for conventional ammunition.”⁷⁵ However, the object of the present discussion is not to assess the value of the MSP, but really to acknowledge the fact that industrial policies for specific sectors of the defence industry (ammunition in this case) have been in existence for a number of years. The MSP does not constitute a comprehensive industrial policy for defence, but it demonstrates that the potential for such an arrangement exists.

⁷⁴ Department of National Defence, *Evaluation of the Munitions Supply Program*, 2.

⁷⁵ *Ibid.*, ii.

Other related sectors of the Canadian defence industrial base have received special attention from the Government. The Framework for the Canadian Shipbuilding and Industrial Marine Industry provides a specific outlook for the future of shipbuilding in Canada, and as such, sends a strong signal in support of the industry, and in particular of defence related shipbuilding projects. “With this policy, we are raising the shipbuilding and industrial marine industry to a new level within government”.⁷⁶ However, this document, released in 2001, falls short of providing a strong policy to support this industrial sector, but highlights five areas which are going to receive increased attention by the government:

- a. *Capturing domestic opportunities*: the government actively supports and facilitates the industry efforts in marketing its current capabilities and the development of new ones;
- b. *Looking globally*: the government works with the industry to explore additional export opportunities;
- c. *Innovation as key to competitiveness*: the government works with industry to encourage the development of innovative products and processes and to provide a competent workforce;
- d. *Financing*: the government continually monitors Canadian taxation rules related to shipbuilding to facilitate financing for the industry;
- e. *Stronger partnership*: the government support for the industry is constantly being upgraded by the establishment of new policy frameworks.⁷⁷

⁷⁶ Industry Canada, *A New Policy Framework for the Canadian Shipbuilding and Industrial Marine Industry* (Ottawa, Ontario: 2001), 4.

⁷⁷ *Ibid.*, 5.

The same can be said about the aerospace industrial sector. A framework providing general government guidelines and orientations was released in 2005. The document, the National Aerospace and Defence Strategic Framework, has a long term vision for Canada to “be home to a growing, innovative and diversified industry, recognized as a leader in serving global aerospace and defence markets and a preferred location for investment.”⁷⁸ Again, it falls short of providing a strong policy for this sector, but provides seven pillars for all stakeholders of the industry, including government, to focus efforts and investments:

- a. Securing strategic aerospace and defence investments;
- b. Technology development and commercialization;
- c. Skills development;
- d. Trade policy and trade development initiatives;
- e. Sales financing;
- f. Security and environment;
- g. Procurement.⁷⁹

The Canadian Government also demonstrated support and efforts for other sectors of the Canadian industrial base in the past for the establishment of special policies, such as for the automobile industry in the 1960s, but mainly in the form of generic guidelines and overall frameworks. The development of an integrated Canadian defence industrial policy could go a long way into providing these strategic Canadian industrial sectors a

⁷⁸ Industry Canada, *National Aerospace and Defence Strategic Framework* (Ottawa, Ontario: 2005), 25.

⁷⁹ *Ibid.*, 26.

clear and well-articulated focus towards long term and sustainable development. As mentioned previously, frameworks and guidelines already exist for the ammunition, the shipbuilding and the aerospace sectors. However, what is now required is a coordinated and focussed approach to the whole defence industrial sector allowing for the development of a strong defence industrial base prioritizing synergies between partners and innovations as engine of its development.

5.0 DESIGN OF A CANADIAN DEFENCE INDUSTRIAL POLICY

At the present time, the absence of a Canadian industrial policy, which would have provided overall guidance, direction and support to a defence industrial policy/strategy, has to be recognized. “Most observers argue that Canada does not have now and has never had in industrial strategy – with the possible exception of the C. D. Howe years.”^{80, 81} This is an important missing feature for this effort, as the future defence industrial policy is going to represent the direction of the defence world, without an overarching direction from the rest of the Canadian industrial base. Nevertheless, the present policy development exercise has to include an overall appraisal of the world and a Whole-of-Government approach in its application.

The primary source of guidance for such a policy has to come from official Government doctrines and orientations. The Department of Foreign Affairs and International Trade (DFAIT), Industry Canada (IC) and the Department of National Defence (DND) are the three most important collaborators for such an initiative. The foreign policy of Canada plays an active role in positioning the country on the international scene, in a display of Canadian national interests and values. This political discourse leads to the requirements for the development of capable armed forces and of a capable defence industrial base. The Canadian International Policy Statement released in 2005 reiterates the desire by Canada to work with other countries towards a more secure world. “Canada has long understood that multilateral cooperation is essential if the world

⁸⁰ McFetridge, *The Economics of Industrial Policy: An Overview*, 2.

⁸¹ C.D. Howe, born in 1886, was a leading Canadian politician. After his election for the Liberal party in 1935, he became the Minister of Munitions and Supply during the Second World War. He is credited for the development of a large part of the Canadian industrial foundation. More information can be found in “C. D. Howe – A Biography”, by William Kilbourn.

is to make progress in preventing and ending conflict, promoting sustainable development and enabling commerce.”⁸² In the Canadian political context, it has always been known that a military mission abroad can gain a lot more legitimacy by being additionally linked to the Canadian domestic policy. “A strong foreign policy is essential to the maintenance of national unity at home, just as a strong federal government at home is critical to our influence abroad.”⁸³ The Canadian foreign policy is a reflection of the Canadian values and national interests abroad. It is the promotion of our way of life and the defence of our citizens overseas and is promoted as part of Canada’s day to day interactions with the world. In order to ensure the realization of this goal, capable armed forces are necessary, even if the basic goal of diplomacy is not to resort to the use of force. The Defence volume of the same Canadian International Policy Statement supports such an endeavour. “In this context, Canada will continue to maintain modern, combat-capable maritime, land, air and special operations forces. Our military will also need to become more *effective, relevant and responsive*.”⁸⁴

An added sense of legitimacy can be provided to this industrial defence policy by linking its goals and objectives to the intrinsic mission of Industry Canada, which is to “foster a growing, competitive, knowledge-based Canadian economy.”⁸⁵ Industry Canada, having already established the National Aerospace and Defence Strategic Framework, the Framework for the Canadian Shipbuilding and Industrial Marine

⁸² Department of Foreign Affairs and International Trade, *Canada's International Policy Statement: A Role of Pride and Influence in the World: Diplomacy* (Ottawa, Ontario: 2005), 15.

⁸³ Michael Ignatieff, "The Foreign and Domestic: Getting the Balance Right" (Address to APEX Symposium, Ottawa, Ontario, 1 June, 2005); <http://apex.gc.ca/uploads/symposia/2005/michael%20ignatieff-bil.pdf>; Internet; accessed 2 April, 2009.

⁸⁴ Department of National Defence, *Canada's International Policy Statement: A Role of Pride and Influence in the World: Defence* (Ottawa, Ontario: 2005), 1.

⁸⁵ Industry Canada, "Industry Canada," http://www.ic.gc.ca/ic_wp-pa.htm; Internet; accessed 20 April, 2009.

Industry, the Automobile Pact, and many others, is a strategic partner with specific knowledge for the development of a sustainable Canadian defence industrial policy. It can provide the structure for the development of the policy towards improving Canada's industrial performance and its share of the global defence trade.

In order to fulfill their assigned objectives under these policies, the Canadian Forces (CF) have the mandate to pursue the growth of a specific set of skills and capabilities. The development of these CF capabilities is tied to a fairly convoluted and lengthy process, involving multiple civilian and military organizations and participants, and called Capability Based Planning (CBP). It is a very critical process requiring intellectual rigour and close cooperation amongst all participants, as it dictates, to a large extent, the capabilities required by the CF into the future.

CBP is part of a holistic Force Development process that begins with the development of the Future Security Environment (FSE), the Strategic Operating Concept (SOC) and the Force Scenario Planning (FPS) set, continues with the analysis of each scenario and a determination of which capabilities and capacities will be required in the future.⁸⁶

Following the establishment of political guidelines for the Canadian Forces, through the Department of Foreign Affairs and International Trade, a Speech from the Throne, the Prime Minister or any other means, strategic level directions are articulated to provide the common frame of reference and the Government's intent. This Government's intent is directly linked to the security environment facing the country.⁸⁷ This review will lead to the development of Strategic Operating Concepts that are intended to describe how the Canadian Government would approach future potential operations.

⁸⁶ Department of National Defence, *Force Development and Capability Based Planning* (Ottawa, Ontario: July 2007), 7.

⁸⁷ Department of National Defence, *The Future Security Environment 2007 - 2030: Part One DRAFT* (Ottawa, Ontario: November 2007).

Another important aspect underpinning the adoption of Capability Based Planning is resources. There is simply not enough money, despite several recent budget increases, to field every capability believed necessary. Therefore, Capability Based Planning will assist in this regard by allowing the Force Development community to examine different scenarios and through capability analysis and management, to recommend the best way forward – essentially to write a Strategic Capability Roadmap that takes into account resource issues and how best to move from our current set of capabilities to those we believe necessary for the future.⁸⁸

This whole process finally leads to the articulation of an integrated Strategic Investment Plan to acquire military capabilities.

The *Canada First Defence Strategy* (CFDS) can be viewed as the first iteration of an investment plan for the Canadian Forces (CF) in a long time. It highlights a long list of military capabilities required for the accomplishment of the CF mission for the next fifteen to twenty years. It also acts as a strong commitment by the Government in support of the development of a defence industrial policy. It legitimizes the demands from industry by providing solid indications of steady and increasing finances for the future, and by also identifying the broad capabilities that the CF intends to pursue in relations to its strategic plan. It provides the first real opportunity for the development of a defence industrial policy for Canada. The potential future of the Canadian defence industrial base is directly tied to the existence of the *Canada First Defence Strategy*.

5.1 Intent of a Canadian Defence Industrial Policy

Intrinsically, the existence of a domestic Canadian defence industrial policy is key to having a sovereign capacity to meet critical defence requirements. Effectively, Canada's defence industrial base has always been a basic component of the Canadian

⁸⁸ Department of National Defence, *Force Development and Capability Based Planning*, 1.

innovation system and a substantial source of products, know-how and solutions for Canada's military. As mentioned previously, it might be the appropriate time to take advantage of the opportunity offered by the release of many key documents and of the present national and international situations to put in place a framework linking defence procurement and industry.

Regardless of the way this policy is to be implemented, it needs to articulate clear indications of major guiding principles from the government. It needs to optimize socio-economic benefits for Canadians, while strengthening Canadian defence capabilities. It needs to promote the expansion of the Canadian defence industrial base, as well as being an ardent contributor to the Canadian economy.

5.2 Components of the Canadian Defence Industrial Policy

Any policy statement needs to be designed to provide the Government's position on the evolution and growth of the Canadian defence industrial base. In the development of the Government's position, the following series of eight guiding principles will be used to build the defence industry strategy:

- a. Strategic approach into equipping and sustaining the CF;
- b. Articulation of the Government – Industry relation;
- c. Integration of the defence industrial strategy into Canada's national security strategy;
- d. Creation of a strategic industrial regional benefit program;

- e. Implementation of a defence Science and Technology investment initiative;
- f. Development of best-practice policies in the procurement process;
- g. Prioritization of the development of skills in the defence industry;
- h. Identification of the critical domestic industrial capabilities.

5.2.1 Strategic Approach into Equipping and Sustaining the Canadian Forces

The release of the *Canada First Defence Strategy* (CFDS) is a major step in the realization of this guiding principle. Through CFDS, the Canadian Government has identified its intent and the basic capabilities required by the Canadian Forces in the accomplishment of its core mission. It needs to be realized that the signature projects clearly identifiable in CFDS are mostly all about major platforms requiring renewal.⁸⁹ There exists hundreds, if not thousands, of other pieces of equipment required in the future for the military, from individual weapons to tires to communication gear, to name just a few. Following the release of the information concerning these big tickets items, more needs to be done by the military towards the development of a comprehensive investment plan for the complete list of required equipment covering a relatively long period, such as 15 to 20 year. Australia has developed such a tool for its own need and for use by the Australian defence industry. This publication brought together comprehensive information on Defence's needs from Australian industry across *all* capabilities. A large number of expert Defence practitioners have provided advice and input into the compilation of the information found in this document.⁹⁰

⁸⁹ Department of National Defence, *Canada First Defence Strategy*, 12.

⁹⁰ Industry and Procurement Infrastructure Division, *Defence Needs of Australian Industry 2000*, 3.

As part of the same exercise, the Canadian Government needs to identify the capabilities or equipments that would need to be acquired locally in an effort towards some operational independence or expression of sovereignty.⁹¹ Realistically, Canada is not going to start building fighter aircraft again and cannot hope for complete independence from international suppliers. However, as demonstrated by the shipbuilding example, decisions have been made towards the local production of some defence related products and equipments. More clarity must be provided to the industry in the identification of these selected capabilities with the hope of maintaining key industrial capacities.

5.2.2 Articulation of the Government – Industry Relation

The old paradigm of the government-industry relation, based on suspicion and mistrust, needs to be set aside. “Maintaining a healthy Defence-industry relationship requires individuals on both sides with the right attitudes and skills, as well as a full understanding of each other’s perspectives and goals.”⁹² In order to put in place this objective, industry must be involved earlier than under the old procurement process. The principle of strong relationships in procurement issues is a solid foundation to be promoted. There is a need to develop a more collaborative and less adversarial relationship between the contractor and the customer. “Of greatest significance, it is the effective strengthening of trust and cooperation between parties through contracting for behaviour that is the key attribute of increasingly robust forms of relationship

⁹¹ Craig Stone, "Canada Needs a Defence Industrial Policy," *International Journal* 63, no. 2 (Spring 2008): 355.

⁹² Ministry of Defence, *Australia Defence and Industry Policy Statement 2007*, 30.

contracting.”⁹³ This improved relationship allows the implementation of enhanced procurement tools such as Integrated Project Teams (IPT)⁹⁴ and Project Alliancing.⁹⁵

Industry must be part of the planning and decision-making processes leading to the selection of future capabilities for the Canadian Forces. Industry participation in the Capability Based Planning process introduced in the previous section would go a long way towards meeting this guiding principle. Questions on intellectual property, conflict of interest and taxpayers’ interests would certainly arise, but ways to ensure an early participation from industry must be found. Such an early participation would ensure a buy-in from industry, and allow for the capability planning process to be informed by industry experts. Improved and more constant communications between industry and the government are necessary for the maintenance of a collaborative climate between these two institutions.

5.2.3 Integration of the Defence Industrial Strategy into Canada’s National Security Strategy

The legitimization of the Canadian defence industrial strategy needs to be one of the top priorities to ensure its staying power in the future. This is required to demonstrate the value of this strategy for Canada and for the Canadian Forces (CF). In the latest version of Canada’s National Security Policy, the Government recognized that the CF

⁹³ Donald F. Smith, “Trust is not a Four Letter Word – Better Capability Delivery through Project Alliancing” (Toronto: Canadian Forces College National Security Program Paper, 2009), 35.

⁹⁴ United States of America, General Accounting Office, “GAO 01-510: Best Practices – DOD Teaming Practices Not Achieving Potential Results,” <http://www.gao.gov/new.items/d01510.pdf>; Internet; accessed 12 May 2009.

⁹⁵ Donald F. Smith, “Trust is not a Four Letter Word – Better Capability Delivery through Project Alliancing”, 37.

constituted an essential national security capability. “In this increasingly unstable international threat environment, Canada must have armed forces that are flexible, responsive and combat-capable for a wide range of operations, and that are able to work with our allies.”⁹⁶ Then again, the CF would not achieve this high level of expectations without the continued support of a solid and diligent defence industry. The present Canadian mission in Afghanistan has demonstrated the importance of a solid defence industrial base for the delivery of critical and life-saving weapon systems under enormous time constraints.⁹⁷ The importance of the defence industry to the realization of Canada’s international expectations must be transmitted to the politicians. They must recognize it for its own value, and for its contribution to the mission of the Canadian Forces, and include it as a complement to the military component in the National Security Policy.

5.2.4 Creation of a Strategic Industrial Regional Benefit Program

Economic and regional developments have always been portrayed as strategic by every Canadian government. As such, an Industrial Regional Benefit (IRB) program has been in existence in Canada since the mid-1980s. “The IRB policy provides the framework for using federal procurement as a lever to promote these objectives [promote Canada’s international competitiveness].”⁹⁸ However, it is plagued with many

⁹⁶ Privy Council Office, *Securing an Open Society: Canada's National Security Policy* (Ottawa, Ontario; 2004), 50.

⁹⁷ Sharon Hobson, "Risk-Bound Rewards: Canada's Defence Industry," *Jane's Information Group*, 20 October 2008; <http://www.cdfai.org/PDF/Risk-bound%20rewards%20Canadas%20defence%20industry.pdf>; Internet; accessed 25 April, 2009.

⁹⁸ Craig Roswell, "Strategic IRB Policy: Getting a Foot in the Door," *Frontline Defence*, no. 1 (Jan/Feb 2007): 18.

deficiencies⁹⁹ and a reformed program would be a significant addition to the defence industrial policy. A strategic, coordinated and holistic approach to defence procurement and industrial regional benefits would help grow the Canadian defence industry and develop its global competitiveness at home and abroad. The first step would be to simplify the workings of the program. Its guidelines need to be revisited to ensure the program balances the needs of the Canadian industry with those of the Canadian Forces. The implementation, coordination and regulation of the program should also be imparted to one organization, out of the four or five major players presently involved with its management (the Department of National Defence, the Treasury Board Secretariat, Public Works and Government Services Canada, and Industry Canada). The program would then set reporting obligations on the coordinating organization to the other stakeholders, at regular intervals. Secondly, an independent organization should be mandated to conduct reviews and assessments of every IRB case, to determine the level of achievements of the specific project. Finally, the same organization should be made responsible “to undertake a study to determine the costs and benefits of IRBs”¹⁰⁰ which would go a long way into correcting some of the main deficiencies of the program.

5.2.5 Implementation of a Defence Science and Technology Investment Initiative

Defence is highly dependent on innovation, new ideas and new technologies for the development of improved defence capabilities. The Defence Industrial Strategy needs to contribute to the Canadian national science and technology base through the establishment of solid links between private and public S&T investments. The release of

⁹⁹ Alan S. Williams, *Reinventing Canadian Defence Procurement* (Kingston, Ontario: Breakout Educational Network, 2006), 66.

¹⁰⁰ *Ibid.*, 67.

the Defence Science & Technology Strategy in 2006, followed by the release of the Federal Science & Technology Strategy in 2007 have set in place the mechanisms required to synergize the private sector in increasing its share of defence related S&T. Building upon Advantage Canada, the Federal S&T Strategy aims at making Canada a world leader through S&T by implementing specific measures in support of enterprises, workforce development, knowledge distribution and many more.¹⁰¹ The Defence S&T Strategy has for aim to establish the working conditions to maximize the impact of the department investment in science and technology, through the development of strategic partnerships with domestic and international players, including industry. The overall goal is that “all parties are appropriately able to contribute their best ideas across all core processes and co-develop solutions to identified challenges through a sharing of ideas and provision of unique expertise.”¹⁰² This sets the stage for Canadian defence firms to identify collaborative opportunities with other private or government entities in an effort to increase the private sector defence S&T investment.

5.2.6 Development of Best-Practice Policies in the Procurement Process

Defence procurement in Canada has been overtly criticized on countless occasions in the last several years.

Are there shortcomings in the defence-procurement process? Yes. There is a lack of accountability at all levels, including the blurring of the separate military-civilian roles and responsibilities within DND. The organizational structures are flawed, as are the criteria for legal redress. Our industrial policies are outdated and adequate performance reporting is solely lacking.¹⁰³

¹⁰¹ Industry Canada, *Mobilizing Science and Technology to Canada's Advantage* (Ottawa, Ontario: 2007), 1.

¹⁰² Department of National Defence, *Defence S&T Strategy - Science and Technology for a Secure Canada*, 17.

¹⁰³ Williams, *Reinventing Canadian Defence Procurement*, 3.

A potential solution to this situation resides with some of the same governmental players introduced earlier during the discussion on the industrial regional benefit program. There is an obvious need to establish a new collaboration between these stakeholders to solve the procurement gridlock. The Department of National Defence, the Treasury Board Secretariat, Industry Canada and Public Works and Government Services Canada are the major participants in this process. Multiple suggestions have been proposed in the past to resolve these issues, from the establishment of small interdepartmental teams to perform daily work on the contracting issues, to the development of a single procurement organization encompassing parts of these three stakeholders under one single entity. The best solution has not been identified at the moment, but it remains certain that some major changes are required to the defence procurement process. Additional consultations are probably required on this subject to identify the best solution and to proceed with its implementation.

5.2.7 Prioritization of the Development of Skills in the Defence Industry

“Talented, skilled, creative people are the most critical element of a successful national economy.”¹⁰⁴ In these words, the Federal S&T Strategy recognizes the value of the Canadian workforce. As part of its implementation, the Federal S&T Strategy sets in place a series of measures to facilitate the development of the Canadian S&T workers to avoid a shortage of professional, technical and trades skills. Also recognizing this fact, the defence industrial strategy needs to champion these measures and put in place guidelines to train the best educated, skilled and most flexible workforce. After a

¹⁰⁴ Industry Canada, *Mobilizing Science and Technology to Canada's Advantage*, 73.

thorough survey of the industry workforce, concrete measures are needed to address any identified shortcomings. The objectives of these measures are to train additional skilled personnel, up-skill existing employees and improve the overall quality of training in the defence industry. An additional challenge with this guiding principle is presented by the fact that education is of provincial jurisdiction. Therefore, any progress with these actions necessitates extensive collaboration with the appropriate provincial authorities.

5.2.8 Identification of the Critical Domestic Industrial Capabilities

Having developed an approach for equipping and sustaining the Canadian Forces (see section 5.2.1), measures are required to maintain and expand some of the critical defence industrial capabilities in Canada. Programs such as the Munition Supply Program, the Canadian Shipbuilding and Marine Industry framework and the National Aerospace and Defence framework need to be reviewed with a new perspective in mind. The strong relevance of these industries to the defence industrial base has to be demonstrated with respect to the expected Canadian Forces requirements. If considered relevant, these industrial frameworks need to be included into the defence industrial policy. Notwithstanding the results from this analysis, other potential industrial sectors have to be considered for inclusion in the policy and for development of specific governmental support programs. Criteria for selection of these industrial sectors would have to be developed taking into account national prioritization, growth potential, dependency on foreign markets, etc. In all these instances, specific measures from the Canadian Government will be required to sustain these sectors of the industry.

5.3 Potential Negative Consequences of a Canadian Defence Industrial Policy

The implementation of such an instrument of economic development might also produce some negative outcomes to the whole defence industrial base and, consequently to Canada. The sources of these disturbances are multiple, and include both domestic and international elements.

The first potential drawback could appear from Canada's international partners. They could perceive the establishment of a defence industrial policy as an attempt to protect a large segment of the Canadian economy from competition with their own firms. Presently, although the major international trade agreements involving Canada already exclude defence-specific goods, the Canadian procurement practices is to not always exert this option in the contracting process and to allow foreign firms to compete for Canadian contracts. Consequently, the implementation of this policy might be seen as a step backward on the front of the promotion of free trade initiatives with Canadian partners.

Three major trade agreements also have an impact upon federal public sector procurement – the North American Free Trade Agreement, the World Trade Organization – Agreement on Government Procurement, and the domestic Canadian Agreement on Internal Trade. However, the first two exclude defence-specific goods and services; only the AIT includes them.¹⁰⁵

A second potential drawback could come from the Canadian industrial base itself. As mentioned previously, interventions by the Canadian government in favour of a specific industrial sector has not been a common sight in the past. Some frameworks have

¹⁰⁵ Williams, *Reinventing Canadian Defence Procurement*, 7.

been developed, such as the maritime industry and the aerospace frameworks, but a strong commitment demonstrated by a strategy has not been produced in a long time. Favouritism, felt by some industrial sectors, and the perception of producing clear winners and losers, could lead to political pressures being exerted on the government to abandon its plan for such a strategy. It is clear that the development of a defence industrial strategy needs to be accompanied by a solid and convincing communications plan to highlight the merit of such a policy for the whole Canadian industrial base.

A third point to consider is the potential for the development of a skewed perception of the program by the Canadian general public. Due to its clear political nature, a defence industrial strategy might be perceived as a type of subsidy for large international corporate players through the allocation of substantial defence contracts. Although this perception has always existed due to the large monetary values associated with these contracts, its prevalence in the media in the last few years has the potential for the development of a negative response towards the military. It will be important that, as the strategy is developed and implemented, the execution of a solid communication plan towards the Canadian society proceed very quickly to avoid the development of misperceptions.

A fourth and final point is the potential use or attempted use of this strategy by the political establishment to generate political clout. The objectives of the strategy must be clearly articulated to ensure the absence of interference from the political parties in the allocation of defence contracts. The obvious goal of this type of intervention would be to

produce jobs and regional developments in specific Canadian ridings. Job creation and regional development are going to be by-products of a clearly applied strategy, but they will not constitute the most important objective.

6.0 POTENTIAL OBSTACLES TO SUCH A POLITICAL INSTRUMENT

While working on the development of the policy itself, it might be worthy of attention to identify potential obstacles to its implementation. This would allow some time to consider these potential problems and initiate remedial actions to reduce or even negate their impacts. It is clear that some of these impediments are national concerns, while others are more from the international scene.

At the start, one of the main obstacles to the creation and implementation of a defence industrial strategy is the absence of an overarching Canadian industrial strategy. A defence industrial strategy cannot be developed as a stand alone document. It needs to be made across a whole of government, considering vital partners such as Industry Canada, Public Works and Government Services, the Treasury Board Secretariat, the Finance Department and many others. There are multiple interactions with these government departments that are necessary for the successful implementation of this inter-agency tool. As presented previously, it is necessary to tie the objectives of this strategy to any existing government initiatives. As a result, the links demonstrated with Advantage Canada, with the Federal S&T Strategy, with Canada's International Policy Statement, with the Naval and Aerospace frameworks and with *Canada First* Defence Strategy are fundamental for the acceptance of a Canadian defence industrial strategy by the rest of the government departments. As expressed in the previous section, the implementation of this strategy requires the buy-in from many government organizations.

This strategy also needs to be seen favourably by industry to ensure a solid buy-in. There are known cases in the past, and also in the present, of ill-defined policies that have been snubbed by the potential recipients. A case in point is the Strategic Aerospace and Defence Initiative (SADI), the actual Industry Canada industrial funding program for R&D conducted by Canadian aerospace, defence, security and space companies. Launched in early 2007, it was designed to replace the Technology Partnership Canada program. However, it has proven to be a lot less attractive for industry due to some of its repayment rules.

But the Ottawa-based head of Canada's defence industries association said there are significant differences in SADI's repayment rules compared to its predecessors, which make the latest program less attractive to companies. "The terms and conditions of the SADI program are such that industry, writ large, hasn't shown as much interest as they did in the previous Technology Partnerships Canada program," said Tim Page, president of the Canadian Association of Defence and Security Industries.¹⁰⁶

This situation highlights some of the dangers related to the design of major industrial initiatives. A lot of viewpoints need to be considered before the implementation phase of a strategy to make sure unexpected and unpleasant surprises do not spoil the policy's intended impact.

The new policy will also need to respect the multiple international treaties, trade obligations and regulations in place. There exist several such restrictions developed through the multiple rounds of the World Trade Organization (WTO) talks. However, more problematic is the existence of the International Traffic in Arms Regulations (ITAR) from the United States. As a large proportion of our defence equipment and that

¹⁰⁶ Peter Kovessy, "SADI Investments Fly by Ottawa Defence Firms," *Ottawa Business Journal*, 15 December 2008; <http://www.ottawabusinessjournal.com/293328707708993.php>; Internet; accessed 28 April, 2009.

many of our defence firms have strong links in the United States, the impact of this set of regulations could be devastating on the Canadian defence industrial strategy. “Any future defence industrial policy design in Canada has to explicitly consider ways and means to reduce the general level of insecurity in the U.S. that technological secrets do not find their way into the hands of a non-allied third-party.”¹⁰⁷ These measures could impede our access to American technology and intellectual property, and limit the ability of our industry to develop the next generation of weapon systems.

¹⁰⁷ Solomon, *The Defence Industrial Base in Canada*, 175.

7.0 CONCLUSION

Since the end of the Cold War, many of Canada's allies have issued defence industrial policies or strategies. After considering all the elements presented in this paper, it becomes clear that the time has come for Canada to develop and issue its own defence industrial policy. Although the Canadian defence industrial base occupies a small niche of the Canadian economy, it is an important niche for many Canadians, their communities and the Canadian Forces, and there are significant long term implications for not making this important decision. Ultimately, the choice to issue a defence industrial policy rests with our politicians and they must be convinced of the value of this initiative for the country. As highlighted throughout this paper, the political establishment now seems willing to push for a better alignment between Canada's defence industrial capability and Canada's military requirements to strengthen our national ability to provide the Canadian Forces with essential capabilities.

“ “Politics” will always remain an important element of Canadian defence procurement. This is how it should be. The real problem is that Canadian politicians do not get involved in the right way: they refuse to establish clear, overarching defence policy guidelines and then convincingly defend the procurement decisions which flow from them to the public, and they become so obsessed with industrial benefits that they fail to follow their own rules consistently.”¹⁰⁸

A renewed relationship is required with the Canadian defence industrial base. Needless to say, good intentions are not enough at this time and cannot compensate for the neglect of years past. Clear and decisive actions leading to the implementation of a solid defence industrial development tool are needed today. When making the choice of developing such a strategy, it has to be done the right way to deliver a solid instrument of

¹⁰⁸ Middlemiss, *Defence Procurement in Canada*, 407.

development and long-term economic growth. The components behind this tool must be engaging and strategic in nature, as well as easily implemented. Consequently, it is believed that the alignment with the remainder of the Canadian industrial context can be accomplished through the application of the eight guiding principles introduced previously:

- a. Strategic approach into equipping and sustaining the CF;
- b. Articulation of the Government – Industry relation;
- c. Integration of the defence industrial strategy into Canada’s national security strategy;
- d. Creation of a strategic industrial regional benefit program;
- e. Implementation of a defence Science and Technology investment initiative;
- f. Development of best-practice policies in the procurement process;
- g. Prioritization of the development of skills in the defence industry;
- h. Identification of the critical domestic industrial capabilities.

In the end, the Canadian Forces deserve a strategic and clearly articulated support plan from an industrial capacity point-of-view. There is a dire need for such a plan considering the overall world security situation and the high potential for Canada needing its Armed Forces to intervene in the future.

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