

IMPROVING CANADIAN DEFENCE PROCUREMENT

FEEDBACK FROM INDUSTRY CONSULTATIONS ON
THE OPPORTUNITIES AND CHALLENGES FACING
THE DEFENCE INDUSTRY AND MILITARY PROCUREMENT

November
2009

General Observations from Consultations

Overview:

Over the course of 5 weeks, September and October, 2009, a series of eight focus groups was conducted in eight cities. In addition, 20 one-on-one interviews were conducted. This section of the report encapsulates the main points made by participants in both the focus groups and in the one-on-one discussions, based on the issues and questions raised in the Consultation Workbook (Annex C).

The comments and points made within this section reflect the views of the participants. Every attempt has been made to capture consensus where it existed, and to ensure that dissenting points of view are also reflected. The statements throughout this section of the report are those of the participants, as we heard them, with minimal editorial changes from the authors of the report. Quotes have been included in many places to provide the reader with a sense of the tone and substance of participant comments.

Before examining the specific comments related to the industry and the procurement process, there were several observations regarding the outlook of the participants in these sessions. In terms of the process and the context within which the engagement was being conducted:

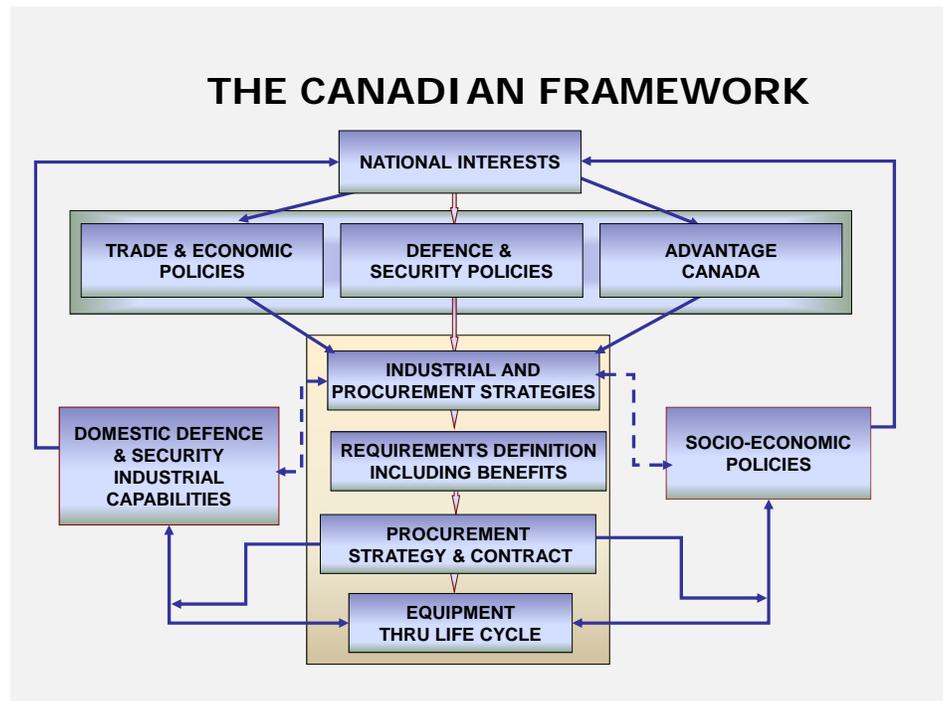
All Participants:

- appreciated government's interest in the defence industry's views on defence procurement and on leveraging economic growth and jobs in Canada from those procurements.
- recognized the strong commitment of the current government to refurbish the Canadian military and to bring economic value to Canada from its investments in the military at the same time.
- believed that there was considerable room for improvements to be made that would provide the Canadian Forces with the equipment it needs to perform the missions, asked of it by the government in a more timely and cost-effective manner while delivering greater economic benefit to Canada. And they did not believe that these two objectives were mutually exclusive.

Some participants:

- were uncertain that the government would act on industry's advice and all felt that, if they do, there was an urgency to make decisions to effect change before the current spend out of \$240B has largely worked its way through the system;
- were looking for an improved environment within which they could operate and provide competitive capabilities to the Canadian military and international customers that met their customers' needs;
- hoped that their input would result in timely changes to improve the environment within which businesses operate in the defence sector.

The Canadian Framework and Industry Position



The above chart reflects one way of looking at the Canadian Framework within which the Military Procurement Process is carried out. While the Observations on Military Procurement Process itself are addressed, there were many observations on the rest of the framework that can be addressed under each of the sections in the chart.

Throughout the discussion, there were several underlying assumptions and realities that were recognized by the participants related to the defence industry.

- **Managed international market** - The Canadian defence industry operates in a managed market, both domestically and globally, rather than an open market. There is no free trade in defence materials and national governments play a direct and interventionist role in the defence market. In fact, trade agreements, such as NAFTA and the WTO contain specific national security exemptions for that very reason. Furthermore, industrialized nations have created and support a special relationship with their domestic defence industries because they see the value in having indigenous and autonomous capability to respond to their nation's security and sovereign interests.
- **Small domestic market** - Canada has a relatively modest defence market and, in order to be competitive, industry needs to win business internationally in addition to selling successfully to Canadian customers at home.
- **Small Domestic Companies with many foreign-owned** - Canada's defence industrial base is comprised of thousands of companies, most of them small and medium sized enterprises by Canadian and international standards. The vast majority of Canadian companies serve both commercial and military markets, and are technology-dependent, knowledge-based and export-driven.

- **Very few domestic OEM's** – The largest defence contractors in Canada generally have American or European parentage, and most of Canada's defence industrial strength lies in niche capabilities that contribute to the production and support of larger military platforms and systems (Tier II, III and IV companies) originating from foreign OEM's. This means that, for many in Canada's defence industrial base, their main customer is the OEM or its principal sub-system suppliers. In many cases, however, the Canadian government is also a very important customer.
- **Common defence product base** – While each of the defence environments – land, sea and air – is different and requires different procurement strategies to maximize domestic economic activity, there are a great many common products, technologies and services offered by Canada's defence industrial base that are in demand across the three environments.

Acknowledging these realities of the domestic defence industry, respondents were clear in their belief that their support of strategic national objectives will be optimized when the government elevates the importance of Canada's defence industrial base in its policy and program orientation from a whole of government stand-point.

The Challenges of Doing Business in Canada

Respondents expressed frustration with the current environment for the defence industry in Canada and sought improvements to allow them to better meet the needs of the Canadian military. Participants offered several observations related to the challenges of doing business in Canada:

- Canada is among the most difficult nations with which to do business in the defence world - Routinely cited examples of this included the following.
 - **The length of Canada's procurement process.** Canada is seen to have a more onerous and unpredictable procurement process than other nations.
 - **Bureaucracy and weak decision-making structure.** The layers of bureaucracy that are built into the Canadian system without consistent decision-making or accountability, uncertainty as to what the customer is looking for either from an equipment or an IRB perspective.
 - **Inflexible and one-sided contracting.** Many people commented that the contracting process lacks flexibility for innovative solutions, and that the contracting and proposal process is onerous and over-burdened with obligations. In addition, the contractual obligations are written in a one-sided manner with no flexibility to change the "standard terms and conditions."
 - **Lack of transparency.** The inability of contractors to communicate with government officials, even in advance of the issuance of a proposal, leads to a sense that there is a lack of transparency in the procurement process. This in turn contributes to the perception that specifications are wired to achieve a specific outcome.
- **Concern over the decline in the knowledge and experience in the federal public service on defence procurement matters** - This is a common concern across most NATO countries and is largely attributable to retiring baby boomers, yet Canada's predicament was seen to be compounded by the hiring freeze from the late 1990s and by the turnover of federal public servants and rotational nature of the military personnel.

- **Increased complexity and cost are driving clients towards standardized solutions** - Participants were aware that the defence world is becoming more standardized, rationalized and integrated. High and increasing development and production costs, reduced military budgets, the pace and sophistication of technology are driving customers to inter-operable equipment and open-architecture software solutions.
- **Canada could take economic advantage of the move towards standard solutions** - Canada could take advantage of this evolving defence environment through a strong and collaborative relationship with the federal government and maximum direct participation in the government's CFDS.

Economic and Industrial Objectives

Overview

There are roughly 70,000 Canadians who are directly employed in this sector, responsible for generating over \$10 billion in direct annual sales to defence customers, 50% of which is earned internationally.

Canadian Economic Policy

Participants were asked about their level of awareness and understanding of federal policy and programs supporting Canada's economy, including Advantage Canada.

- Advantage Canada - By and large, the government's economic levers, including Advantage Canada, were neither known nor understood. From a purely defence perspective, the view was articulated that federal policies and programs are not effectively aligned to maximize defence industrial activity in Canada or exports abroad.
- Canada First Defence Strategy (CFDS) is viewed to be an important document - a statement of the government's overall assessment of Canadian defence/military requirements.
 - There was, however, an even stronger sense that CFDS requires further elaboration and dissemination to industry in terms of ranking program priorities and associated timelines and required budgets, and a companion document that articulates a Canadian defence industrial strategy, aligned to the CFDS' military procurement strategy.
 - Though unsolicited, there was a widespread belief that the objectives established in CFDS could not be achieved within the \$240 billion budget detailed in CFDS. In fact, many industry participants observed that the government did not adequately consult with industry as to the size and scope of the program tasks at hand in order to develop realistic budgetary expectations.
- Concern was expressed at the perceived low level of awareness and appreciation within the federal government of the role and importance of Canada's defence industrial sector in support of national security, jobs, innovation, economic growth and trade.

"We have a transactional defence industry, we go piecemeal after individual opportunities and the industry isn't able to develop a long-term ability to sustain the CF. At the same time, government does not have an integrated strategy. If government had an integrated approach it would lead to strategic development of the industry."
[Toronto, Quote 2.4]

"Competition within Canada is not necessarily a good thing in the defence market because it's not an efficient, pure market; it's a market that must be managed." [Montreal, Quote 6.26]

Defence Industrial Policy

A policy would be beneficial for small medium and large enterprises in making intelligent decisions on where to invest their money. We can do that better if we have an overarching policy on what Canada wants. A policy would be highly desirable, so long as it doesn't get degraded into the micro management of Canadian industry. The debate was whether we could implement it quickly enough. [Vancouver, Quote 4.5]

There was unanimous support within the participant community that Canada requires a formal Defence Industrial Policy. Such a policy would provide a framework for domestic industrial activity consistent with the current and future requirements of the Canadian military, Canada's national security interests and global market opportunities. It would also set a helpful framework to define the relationships and roles and expectations of industry, the government and the military.

The rationale provided in support of a Defence Industrial Policy for Canada included:

- **Defence Industrial Policy is standard fare in Western countries** - Western countries have national policies that align domestic defence procurement priorities with domestic industrial and economic objectives.
- **Defence is a managed market** - All countries, for sovereign, economic, trade and/or national security reasons, manage their relationship between the equipment requirements of their militaries and the capabilities and capacity of their domestic industrial base (e.g. export controls/permits/licenses, government to government sales, national security exceptions). For Canada to not better manage its own domestic marketplace leaves Canadian industry at a distinct disadvantage at home and in a position of weakness to effectively compete on a level playing field with foreign competition. Participants believed that industrialized countries recognize the importance of domestic industrial capabilities of strategic value to their national interests.
- **A domestic defence industrial base is an important element of domestic sovereignty** – The indigenous capability to customize equipment for Canadian needs and maintain our equipment to serve the Canadian Forces on a first priority basis is seen as an essential element of a capable, sovereign defence force.
- **One participant offered the example of the Munitions Supply Program (MSP)**, which ensures that certain ammunition is

"You can have a policy. The next government can always review it. But when there's no policy, personality always reigns. So even if the next government could change policy, at least there's a policy up on the board." [Toronto, Quote 2.16]

"So now you have people who are in senior positions, in middle management, deciding the fate of entire industrial sectors in Canada, billions of dollars of economic activity in Canada based on their interpretation of the rules. For us a strategy would be more implementable. It would be critical for some of these rules to be defined in that strategy." [Montreal, Quote 6.27]

"If we didn't have that capability [MSP] in country we would have been saying "bang-bang" instead of shooting bullets in Afghanistan." [Ottawa Quote 8.13]

"In industry, we find it difficult to plan our R&D around programs that are only a year or two away, and so options are limited when the time horizon is quite short. Because of the numerous programs in the past that have not materialized we're quite careful about investing in new business expenses." [Halifax, Quote 1.13]

"Too many decisions are made too low down. If there's no strategy and no stated objectives you get somebody at a fairly low level or a Major level or even a Colonel level who are sunning the place on a day to day basis who can make gigantic turns because there's no policy structure for them to operate in" [Calgary, Quote 5.13]

- **As a relatively small domestic market, Canada has to decide what industrial capabilities it needs to be good at, what capabilities it needs to nurture and develop to promote Canada’s sovereign, future military requirements and economic interests.** A plan lays out what is important to Canada and how it intends to bridge the gap of where it wants to go.
- **A defence industrial policy creates political stability for the defence market.** Although any new government can change the policy if it sees fit, it would at least have to use the current policy as a reference point against which changes would be made.
- **A plan is needed to set rules under which officials and the military conduct procurement.** It sets parameters, coordinates direction and provides metrics for evaluation. A plan is required to ensure that Canada and the Canadian defence industry can plan appropriate resources, including investment in plant, R&D, manufacturing, human resource strategies, key technologies, etc. to meet the needs of the Canadian Forces.
- **Canadian industry relies on domestic defence sales as a base and exports for growth and diversity to offset commercial and defence procurement cycles** – If Canada is to maintain a viable defence industry over the long-term, it is important to ensure that the industry has domestic support and export market access. The domestic market, and the Canadian government as a buyer and supporter of Canadian defence capability, forms a cornerstone of the industry’s long-term viability.
- **Some emphasized “without the government marketplace and a long-term commitment to the defence industrial base, it made little sense for companies to locate or remain within Canada”.** Some participants stated this view explicitly, expressing the view that they have “no logical reason to locate within Canada without a defence industry strategy”. Others expressed the view that business uncertainty, in the absence of a defence industry strategy, discouraged corporate investments in R&D and process improvements and undermined future business success.

Participants offered varied opinions as to the attributes of a Canadian defence industrial policy. Common elements included:

- **Protect Canada’s sovereignty and strategic interests** – The federal government, guided by its strategic defence priorities, needs to identify and support technologies and capabilities that are necessary to retain Canadian sovereignty.

While participants understood and accepted the fact that it is in Canada’s interests to maintain its international obligations and

*“We need an industrial policy that will line up, not just through the manufacturing phase, but also through the supportive phase.”
[Toronto, Quote 2.15]*

*“Engaging industry early, before the RFP goes to the street, can really put you ahead of the game in terms of defining a program that’s executable and so you don’t have any surprises.”
[Ottawa, Quote 8.46]*

« Si on ne réussit pas à faire des rencontres au préalable, s’ils ne savent pas ce qu’on est capable de faire, depuis qu’ils ont fait des derniers achats massifs, il y a 10 ans, nos produits ont changés. Ils doivent être plus ouvert à la présentation de nos produits. » [Québec, Quote 7.4]

« On a noté un manque de notification; les industriels ont du mal à se positionner, ils ne savent pas à l’avance quelles technologies a développer. » [Montreal, Quote 6.9]

“Australia has eight or nine key areas. They won’t allow more than one or two companies in each because they don’t want to saturate the market. If you go there they’ll say; here’s one or two companies you should team with and if you don’t you will not be successful.” [Calgary, Quote 5.5]

“Il faut maintenir sur le long terme un savoir-faire et une capacité industrielle, pour pouvoir maintenir ces capacités. Il faut avoir une vision à long terme [Montreal, Quote 6.12]”

allegiances to both NATO and NORAD, there was also recognition that our strategic interests may be divergent on occasion.

- **Maintain strategic, critical domestic defence infrastructure** – Canada must have the industrial capability and capacity to maintain, repair, overhaul and upgrade, and have sufficient access to and use of intellectual property required, to fix what the Canadian military flies, drives and sails.
- **Industry is a partner in domestic security** – Acknowledge that the defence industrial base in Canada plays a vital role in support of Canada’s national interests as suppliers, operators and stewards of military capabilities.
- **Early, open and ongoing consultation between industry and government are essential** – Improved and earlier information to industry was seen as a major impetus for Canadian industrial participation in upcoming military procurements because it would leave time for industry to prepare through investments in R&D, process improvements, and establishing industrial partners and supply chain opportunities before programs come to market.
- **Support the domestic development and sustainment of critical capabilities that respond directly to Canada’s long-term national interests** – It was broadly recognized and accepted that Canada, as a relatively small defence market, could never have a full-service capability for all of its defence needs but that it should focus on, and support the domestic development and sustainment of, those critical capabilities that respond directly to Canada’s long-term national interests.
- **Support Canadian companies in export markets** – Export markets are critical to the defence industry’s competitiveness, however, there are a number of barriers to achieving greater success. Those barriers included:
 - unfocused and insufficient coordination of federal support to Canada’s defence industry;
 - EDC was identified to be ‘shy’ when it came to supporting defence contractors; CCC as being supportive, not always user friendly and not supportive enough in riskier markets;
 - Canadian defence attaches as being more interested in finding foreign industrial solutions than in promoting Canadian capabilities abroad; and,
 - DFAIT’s declining support for pure defence-related trade shows and weak institutional support for the promotion of Canada’s defence sector is seen as a major hindrance to international sales and success.

« On a l’impression au Canada qu’on est très timide comme gouvernement, on ne veut pas offusquer la communauté internationale, ailleurs dans le monde, ils ont 50% de subventions pour les dépenses en capital pour acheter de l’équipement. Dans le cas des IRB, on en a parlé souvent, le gouvernement canadien veut être plus blanc que blanc et plus catholique que le pape. Les Américains supportent leur industrie de la défense, ça se fait d’une façon quelconque, au Canada ça ne se fait pas comme ça.» [Montreal, Quote 6.14]

“The people at NATO headquarters were promoting their own companies. Canada seems too embarrassed to do that.” [Calgary, Quote 5.11]

“Canadian industries had to go offshore and prove their goods in the UK, in the US, in Australia and in NZ before Canada would even consider buying and yet the technologies were there, they were mature, and yet for whatever reason they couldn’t demonstrate the relatively low risk capacity at home.” [Halifax, Quote 1.9]

“Foreign governments aggressively go after foreign markets for their defence industries and we are the boy scouts looking in.” [Ottawa, Quote 8.4]

- **Canada must recognize the need to support our defence industry in the same way that other countries support theirs.** Industry is not seeking a handout. They want the government to be a partner in places where government can be of assistance, often on a similar basis to other domestic industries.
- **Some participants mentioned that they had been successful in the past through “loaner” programs where Canadian equipment was lent to other countries.** Such a concept could be formalized and implemented to help industry succeed in export markets.
- **The Canadian Automatic Firearms Country Control List (AFCL) is viewed to be ambiguous and inhibits Canadian exports.** Because the system is based on inclusion rather than exclusion, it creates confusion, making it difficult for industry to determine to whom they can sell. Several participants suggested that Canada should follow established conventions in other countries of creating a list of prohibited countries rather than a list of permitted countries.
- **Help industry deal with ITAR –** Many respondents noted the crippling effect of the US ITAR was having on Canada’s defence industry. Participants believe that they are in an impossible situation which will result, if not addressed, in lost technology jobs in Canada and disinvestment in the domestic defence industrial sector.
- **Be the first customer –** Many believe that export success is dependent on the willingness of the Canadian government to demonstrate confidence in their products, services and technologies by being the first customer. Other nations routinely support their promising domestic firms by purchasing their defence products and technologies. Foreign countries are reticent to purchase Canadian technology that has not already met with some success in the domestic market. Three specific streams of thought were expressed which supported the importance of Canada as a first customer:
 - SMEs noted that it was difficult to establish credibility in the international marketplace if the Canadian (domestic) government does not support the product or service through purchases;
 - It was noted that taking a “buy and try” approach has been very beneficial to industry in the past; and,
 - International companies with significant facilities in Canada noted that their presence in Canada is logically dependent on support for their product through domestic sales.
- **Recognize and enable the role of R&D and innovation as a key driver of competitiveness –** Participants reaffirmed consistently

“Canadian industries had to go offshore and prove their goods in the UK, in the US, in Australia and in NZ before Canada would even consider buying and yet the technologies were there, they were mature, and yet for whatever reason they couldn’t demonstrate the relatively low risk capacity at home.” [Halifax, Quote 1.9]

“I better be successful at selling something here before I can sell it in Australia. I need to provide a track record; I need Canada to be my first customer.” [Toronto, Quote 2.9]

“Government is not dedicated to innovation in Canada; there are no feet on the ground committed to making this happen.” [Toronto, Quote 2.1]

that as a knowledge-based industry driven by a market with highly complex technology-based requirements, that it needed to be at the leading edge of technology and innovative solutions if it was to be competitive and of interest to the global supply chains of major original equipment manufacturers.

- **Flatten out 'lumpy' procurement cycles** - The government procurement process has been very sporadic. Across the country, there were repeated appeals for a better procurement planning environment. It was stated that one of the most important changes to increase competitive Canadian industry participation in defence procurements would be to smooth out the purchase cycle and give stronger, earlier indications to industry as to the government's anticipated needs. This "lumpy" purchase cycle results in a feast or famine mentality in industry that makes it difficult for Canadian industry to maintain capabilities and capacity. Industry acknowledged that the CFDS is a significant step in the right direction in this respect and that it should be supplemented by an Investment Plan that laid out which programs were coming to market and when.

Several ideas were raised to address this issue.

- **Ensure that government provides maximum lead-time to industry as to their expected purchases:** Many participants mentioned that if they know a requirement is coming, they would be able adapt and put measures in place to meet the demand.
- **Create realistic timelines for the purchase and stick to those timelines:** The financial and human consequences of delays in purchase cycle were emphasized over and over again. On major procurements, suppliers assemble project teams who are dedicated to the individual project. Delays cause project teams to fall idle and often lead to layoffs. All of this idle time, delays and restarts have financial consequences and make industry less competitive.
- **Allocated and scheduled program delivery:** Wherever possible taking delivery over a period of time to allow a steady stream of production was a common perspective shared by participants from the shipbuilding and marine industries sector. Industry sees this as a logical approach that allows Canadian firms to participate in a meaningful way over a prolonged period.

Two main themes arose with respect to the formation and implementation of a Canadian Defence Industrial Policy.

- **Time is of the essence** - The development and implementation of a defence industry policy needs to be completed on an urgent basis

*« On encourage DND d'aller faire une consultation, d'aller expérimenter un produit avant de faire un RFP. »
[Montreal, Quote 6.10]*

"Five years ago I used to work with international companies that would put bids into Canada because they knew that the Canadian solicitation process was so pure and so transparent that it actually gave you an advantage in the international market. That process has become so muddy that Canada is unable to do any major procurement without sole-source, and it's that triangle of cost-schedule and requirements that they fix at the very outset that is killing us. Yeah have a rough estimate, and then run your definition phase, design phase, feasibility analysis, at the end of that, that's when you say how much it's going to cost and on what schedule." [Ottawa, Quote 8.37]

« Le retard, ça coûte de l'argent aux entreprises, ça coûte des milliards, c'est inacceptable. Le donneur d'ordre, lui, il sait ce qu'il veut, quand ça tombe dans TPGC ça tombe dans un trou noir; c'est une perte de temps incroyable. » [Québec, Quote 7.6]

in order to allow the benefits of this policy to be felt within the context of the current \$240 billion of CDFS commitments. A perfect policy after the spending is complete would represent a pyrrhic victory for industry.

- **Remain flexible in approach towards the future** - Keep the policy broad and flexible enough to allow for change over time by government. Part of this flexibility is the recognition that policy should not create an environment in which anything that falls outside the policy parameters is abandoned or written-off.

“The government in defence acquisitions is an interesting situation because it doesn’t come up every day or two days, so industry can’t say “oh I’ll just wait for the next one” they all have to bid on it or they’ll go bankrupt.” [Ottawa, Quote 8.48]

Economic Return on Investment

Participants were asked to consider the economic impact of the defence industrial base to Canada's economy from defence spending. Their views are summarized below:

- **Not a zero sum game** – Supporting the domestic economy and equipping the military are not incompatible objectives. With proper planning and advance notice to industry of the upcoming needs, industry can anticipate, invest and hire in an efficient way.
- **Economic activity through-life not just acquisition** – The acquisition of defence products and services creates an ongoing stream of industrial activity throughout the life of the equipment or contract. This ongoing activity, or ISS in-service support, which typically exceeds the acquisition contract value, provides important business stability to participating suppliers for decades given that Canada uses its equipment longer and harder than most nations. This in turn allows these companies to provide stable employment and to seek export and other business opportunities that bring added wealth to Canada.
- **When Canada buys Canadian capabilities there is a direct pay back to the Canadian economy in respect of exports, innovation, wealth creation, tax revenue and job creation sometimes in underemployed regions of Canada that exceeds the contract value by as much as 10 to 1** - Past decisions by the Canadian government to promote Canadian industry through procurement has resulted in a long-tail of international sales and commercial (non-defence) opportunities. On several occasions, it was estimated that initial orders by the Canadian military resulted in export and commercial sales almost twenty times greater than the initial DND order over the life-cycle of the product or service. This occurs as companies derive the ability to build capacity, develop and acquire intellectual property that allows them to pursue other clients, including defence and non-defence sector clients in both domestic and international markets.
- **First customer** - Participants frequently mentioned examples where their firms are competing successfully on the international stage against other international companies in both military and civilian projects but observe that the Canadian customer does not often consider them when Canada goes to market with similar requirements.

"If the Government of Canada buys Canadian it will solve a lot of problems. Canada will end up paying one way or another. Don't reduce the requirement, [Canadian] business will rise to the challenge." [Halifax, Quote 1.22]

"Don't reduce requirement, business will rise to the challenge." [Halifax, Quote 1.22]

- **Short-term cost decisions have long-term consequences for the Canadian economy** - When Canada buys capabilities from foreign suppliers that could have been supplied and/or supported from domestic sources, the capacity of the domestic industrial base is eroded and the associated long-term costs to the economy greatly exceed any initial savings in acquisition.

“At the macro level it’s get the least expensive compliant solution in ISS without considering the implications of Canadian capabilities in the next 20 years, it’s myopic.” [Ottawa, Quote 8.35]

Canadian Industrial Capability

Defining Canada's Defence Industrial Base

Canada's defence industrial base is a vital partner to the government in support of Canadian sovereignty and national interests, both for acquisition and in-service support of the purchased equipment. And while Canada will never be self-sufficient in its defence materiel needs, like all other industrial nations, Canada should identify, nurture and support key strategic capabilities that are of national interest.

Generally speaking, Canada's defence industries include products, technologies and services from across the industrial spectrum that serve to equip, enable, support and protect men and women in Canada's Armed Forces to perform the duties assigned to them by the federal government in as safe and effective manner as possible. This includes but is not limited to Canada's shipbuilding and marine industries, aerospace industry, automotive sector, electronics, information technology and management industries, textile industry, and satellite and space technologies.

Overall observations from participants relative to Canada's defence industrial base include the following.

- **The role of industry in support of the Canadian Forces will continue to evolve from a supplier of products, technologies and services to a mission-critical operator of military assets** e.g. un-manned vehicles, robotics, logistic and operational base support, flight and simulator training, active force reservist roles in engineering and technology trades etc.
- **As a result of the longevity of equipment and the high turnover of government staff, industry believes that it has been and will continue to be the true steward of Canada's military assets.** Participants were emphatic that now is the time to act as Canada commits to spend \$240B over the next 20 years to renew the Canadian Forces to support existing and proven capabilities.
- **As a small domestic market, Canada should, as it has done in the past, unabashedly adopt procurement strategies and practices that build domestic capability and capacity in areas of national strength and security interest.** And, that priority interests should include not just what is required by the Canadian military today but what its needs will be in the future, what activities support a strong domestic economy and where international market opportunities lie into the future.

"People need to take a look at what do we have in the way of indigenous capability. What are we good at? What do we need to do to keep that?" [Toronto, Quote 2.14]

What happens is you end up doing the (contracted) work; provide another upgrade in the field and then over time the operator software changes and we're now in a position where DND has come up to us and said "this is what we need" and we said "5 years ago, that would have cost you 0.5 million dollars, and today it will cost you \$40M because we've allowed those tools to go away." And that's shortsightedness." [Ottawa, Quote 8.34]

- **Canada undervalues Canadian suppliers.** There was a sense among participants that decision-makers do not understand the implications of awarding certain large-scale contracts abroad. “In using foreign companies, we are de-facto deciding to abandon a Canadian capability”. For instance, it is strongly believed in parts of the ISS aerospace sector that decisions related to Single Point of Accountability for aircraft, the concept that the government would issue a single contract for the purchase and lifetime maintenance of aircraft, would have severe negative consequences for the domestic aircraft support industry. This industry requires skilled labour, which would be difficult to re-establish once it is gone.

- **In concept, participants mentioned that a strategic capability could be defined as expressed by one participant:**

“Capabilities necessary to achieve Canada’s strategic objectives or essential to the sustainment of the Canadian Forces.”

Participants expressed the view that the leadership of the Canadian Forces and government should apply this principle. They are best positioned to understand and support the strategic objectives and mission of the Canadian Forces and the anticipated threats to Canadian sovereignty. However, they need to also be mindful that a healthy economy is also an important element of Canadian sovereignty.

- **Participants commented that the government needs to know more about Canadian industrial capabilities and suggested that there are two categories of defence industrial capability that should be built into a defence industrial policy:**

- **Capabilities key to the defence, security and sovereignty of the nation** - In the first category, the ability to receive, fuse and analyze information - data, voice, print - is at the heart of security and defence operations.

While countries can buy much of their equipment internationally, they need to be able to integrate the systems and, if they are to keep their secrets secure, they need to have an array of encryption mechanisms designed to protect against unauthorized access. Signals intelligence (SIGINT) is intelligence-gathering by interception of signals, whether between people (communications intelligence (COMINT) or between machines (electronic intelligence (ELINT), or mixtures of the two). As sensitive information is often encrypted, signals intelligence often involves the use of cryptanalysis. Thus, a country is interested in both the capability to protect its own information and the capability to intercept and interpret that of other nations.

“I think it’s important in this kind of thing for the government to provide the political and economic environment that allows industry to prosper and thrive but otherwise get out of the way. You can do it through tax benefits or R&D, but you can’t support everything, so its got to pick something.” [Ottawa, Quote 8.31]

“We must obtain resources to control, modify and update our own fleets, which is fundamental to our sovereignty.” [Halifax, Quote 1.3]

For example, the scenarios used in simulation, modeling and training need to be kept secure.

Another example is the software that is used to operate autonomous equipment like UAVs.

Sometimes these capabilities are referred to under the heading of Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR). Equipment in this category includes: unmanned/autonomous vehicles,

- acoustic sensors,
- high frequency sonar,
- optronic sensors, and,
- radios and radar.

Canada might consider that this area is critical to:

- arctic sovereignty,
- ports and border security capability,
- energy ,and
- federal, provincial and municipal critical infrastructure security.
- Ability to maintain, modify, upgrade and repair what Canada flies, drives and sails for military purposes.
- Ability to provide soldier systems and equipment that meet the survivability test of the Canadian government.
- Shipbuilding and associated marine industries.
- Munitions.
- Cyber security.
- Satellite technology.
- The Canadian government should take an active role in promoting, fostering and protecting these capabilities premised on two basic tenets:
 - An understanding that these companies need to have a steady stream of business in order to maintain their capability from both domestic and international customers; and
 - Acceptance of the fact that sometimes the products and services acquired may not be “lowest cost,” but this cost

“Getting back to the question of whether or not there’s a need for policy. This goes back to needed long term strategic planning. To some extent what I’ve seen happen is that this planning is done within DND without really having a good understanding of what are some of the capabilities and technologies that are available in industry, and we say it’s up to DND, but they can’t do that. I’ve seen examples of people trying to lay out objectives, without an understanding of the technologies that are available to them; but if they don’t get industrial input into strategic planning process they get equipment they’d like that doesn’t exist or they’re setting down a champagne budget for beer equipment. Without engaging industry in a meaningful way, they are going to get it wrong if they don’t have a full understanding of what industry can provide.” [Ottawa, Quote 8.2]

differential needs to be weighed against the alternative - losing the capability altogether – and the overall value to the Canadian economy.

- **Capabilities key to the economic infrastructure of the nation through employment, taxes and exports** - There are a range of capabilities that Canada either has or should strive to have that would help to support the country's economic base. These include, but are not limited to:
 - Armoured Vehicle Platforms.
 - Aircraft Modification and Maintenance.
 - Aircraft Engines.
 - Composite Materials.
 - Landing gear. and
 - Search and rescue responsiveness.

Existing Canadian Capabilities

The consultation process asked participants to indicate where they thought Canada excelled in defence industrial capability. Frequently mentioned companies included:

- MDA - Satellite and remote sensor and robotics capability
- CAE - Simulation and training capability
- GDLS - Capability to build world-class armoured land vehicles

Participants also focused on where they believed Canada should have indigenous capability today and into the future, some of which we may have, some of which would need to be nurtured and developed. In this respect, participants mentioned:

- **Cold weather technology** - Canada is a cold country with unique circumstances not faced by most other countries. Focus on problems unique to cold climates was widely recognized. Two specific examples raised by respondents were clothing and ice breaking technology for ships (improving ice breaking hulls). On the latter capability it was noted that Finland is the current world-leader in ice breaking hull technology and it that it acquired that knowledge from Canada when Canada last produced similar vessels.
- **Shipbuilding** - Several Canadian firms have the necessary capabilities to design, build and outfit ships. It was noted that although there are several countries capable of building low-cost hulls and cargo ships, that Canadian industry is cost-competitive

“We ended up in Canada setting up our own software development capability that existed in California for a while. And through that we were able to take a lot of unique Canadian changes in aircraft, so you can end up buying equipment and wanting to make changes and suddenly your priorities in the user group are way down there. So for putting additional equipment on board it is crucial. If you don't have capability in country and you don't have IP to make that happen it makes it very, very difficult.” [Montreal, Quote 6.23]

“We run our airplanes 35-40 years and I will argue they've been well maintained in-country by local suppliers. They are the highest-use C-130s in the world and they run great. They have a lot of value in them” [Vancouver, Quote 4.2]

and more capable of building the more complex ships that are required for defence and security.

- **Technology necessary to monitor Canada's borders** - "One of our national imperatives is to protect the entire living space to know what's going on in the country" [Halifax]
- **C4ISR** - "If we are to be a sovereign country and protect our air, water and land we cannot rely on other countries for C4ISR." [Halifax Quote 1.1]
- **UAVs** - Canada should maintain an indigenous capability to monitor our airspace and maritime domain and interpret the data we collect.
- **ISS** – In service support was considered by many to be a strategic capability because Canada has a unique operating environment with special requirements. We keep our equipment for much longer and harder than other countries. This requires ISS providers to develop unique maintenance capabilities.
- **Soldier survivability systems** - This would include clothing and chemical, biological, radiological and nuclear explosives (CBRNE).

Building the Defence Industrial Base

Participants offered an array of recommendations to bolster existing capabilities and to ensure that strategic capabilities are developed and maintained. Participants proposed that the government adopt a procurement strategy for critical capabilities that required officials to default to domestic suppliers for targeted capability clusters; leverage IRBs and R&D to facilitate industry's participation into global supply chains; and reconsider its current approach of awarding long-term ISS contracts to the original equipment manufacturer.

- **Procurement strategy needs to recognize the intrinsic and strategic value of indigenous content in critical capabilities for equipment modifications and upgrades even in an environment of buying off the shelf product largely from foreign OEM's** - Although Canada has a strategy to buy 'off the shelf, in-service equipment with an appropriate eye to reducing risk, cost and delivery timelines, it almost always modifies what it opts to buy and it almost always uses its equipment harder and for longer than its expected life. Often what it seeks to modify, both from a hardware and software perspective, is deemed to provide Canada with greater functional use of the equipment for unique and sovereign Canadian purposes. And it is in many of these hardware and software requirements that participants believed it to be in Canada's national interests to have and to hold indigenous and

"We need an industrial policy that will line up, not just through the manufacturing phase, but also through the supportive phase." [Toronto, Quote 2.15]

"There is a level of technical capability that you want to retain: A world-class engineering and integration capability be it product or service related, there is a layer of that capability that Canada must absolutely retain and train, develop, nurture, grow to be world-class competitive." [Ottawa, Quote 8.5]

"Centres of excellence are extremely important; initiative in-hand to establish centers of excellence in geomatics and spatial information applications: It is a vehicle where funding and priorities can be obtained and set. "[Ottawa, Quote 8.6]

"If you don't use a company, that company will disappear." [Ottawa, Quote 8.14]

autonomous industrial capability – cold weather hardware and technologies, software interfacing and information management systems, intelligent systems, sensors, ISS capability and capacity, communication tools, maritime domain awareness capabilities, soldier survivability and system integration skills. Participants agreed that these areas also offer the most knowledge based, value added jobs.

- **Create and support ‘capability clusters’** - In a global market defined by large vertically integrated foreign defence contractors, increasingly complex technology driven products and services, and the relatively small sized domestic market, Canada should decide what capabilities are important to it for economic and national security interests and support those capabilities when purchasing equipment and services.

Where Canada has proven world-class capability and/or the government has identified a capability of national interest and/or where the capability makes a strong contribution to the Canadian economy, Canada should establish a preferred supplier relationship with that capability cluster.

For instance, participants believe that the armoured land vehicle business, which is heavily embedded within Canada’s automotive supply chain sector, is a logical and proven case for a capability cluster based on its economic contribution to the economy. Consequently, the view was expressed that the government should establish a procurement strategy that contracts a domestic participant within an armoured land vehicle cluster to be the prime contractor for the military’s required armoured vehicle solution, contingent on the cluster’s ability to retain its innovative and competitive edge to the customer’s satisfaction.

- **Access to Global Supply Chains** - Over the long term participants resolved that there is more value for Canada and greater viability for companies in the defence sector to earn business on a global fleet of aircraft or land vehicles than to work exclusively on the quantity that Canada buys. Participants also agreed that government policies should be structured so as to facilitate Canadian access to global supply chains of OEMs for full fleet production on defence programs whether Canada is an actual buyer of that capability or not.
- **Leverage IRB and R&D to supply Global Supply Chains** – For many in Canada’s defence sector – Tier III and IV companies with niche capabilities - their competitiveness will be as a result of gaining access to the global supply chains of major OEMs for their products, software solutions and services. Their success will be largely determined by whether they can offer and sustain leading edge

“People need to take a look at what do we have in the way of indigenous capability. What are we good at? What do we need to do to keep that?” [Toronto, Quote 2.14]

“Don’t sign the acquisition contract until the ISS contract is ready to be defined, otherwise were handing out a blank check.” [Montreal, Quote 6.5]

technology-based solutions that meet the OEM’s program requirements on a cost competitive basis. To be successful Canadian defence companies require an aggressive export promotion strategy, leveraged support from Canada’s IRB program and R&D support.

- **Reconsider Single Point of Accountability for long-term ISS –** Participants from the aerospace ISS sector recommended that the government reconsider its current practice of contracting a 20-year ISS program through the OEM as part of the original acquisition contract.

Some called on the government to obtain the right to use all required IP from the OEM at the acquisition phase and to contract the OEM to be accountable for ISS during the fleet’s initial warranty period. During the warranty period, the crown would then run a competition to choose a domestic prime(s) for the full life of the program (as has been done in both Britain and Australia);

- **Avoid boom and bust in shipbuilding –** The shipbuilding and marine industries sector called on the government to avoid traditional boom and bust cycles and to build ships in Canada through a managed production schedule. Participants are aware that there is much talk about the construction of ships in Canada over 1,000 tonnes but they also noted that there will be plenty of work for ship building under 1,000 tonnes, mostly of a commercial nature. Building in Canada increases the opportunities for Canada’s marine industries to be chosen suppliers to fit up the ships with its systems and reduces life-cycle support costs. For complex military vessels the value of the fit up can be as much as 70% of the total cost of construction (i.e. hull construction about 30% of the total value);
- **Collaboration and open communications was considered essential** between the military customer and industry given the pace of technology change, complexity of military procurement and asset management and the agility of industry to come up with technology solutions to meet ever changing military needs. In this context, participants applauded the government’s efforts to introduce pre-competitive tools that help the military to better leverage industry capability and innovation as it relates to current and future military needs and encouraged the government to adopt ACCORD and continue with programs like the Soldier System Technology Road Map.

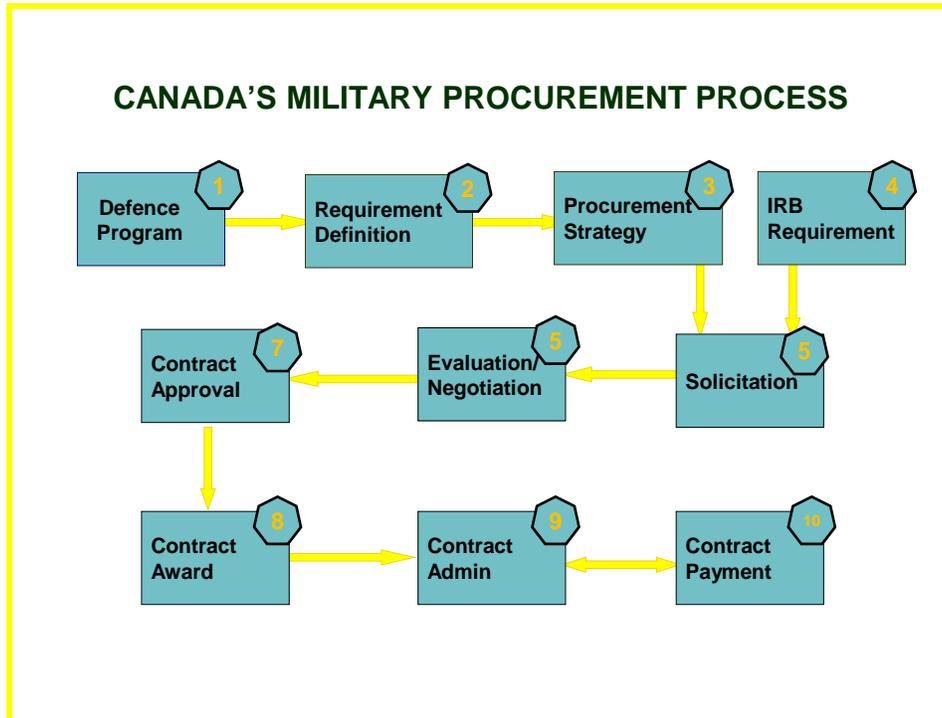
“It’s feast or famine in defence. We buy on short timelines and in large waves. The Dutch buy one or two ships a year to sustain industry and smooth out peaks and valleys. [Calgary, Quote 5.23]

“Engaging industry early to draft RFPs can really put you ahead of the game in terms of defining a program that’s executable and so you don’t get any surprises.” [Ottawa, Quote 8.46]

Canada's Military Procurement Process

CANADA'S MILITARY PROCUREMENT PROCESS

For convenience, the observations on the procurement process are grouped in terms of the process chart below. In addition, there were a few, overarching observations that are identified at the end of this section.



Overview

There was overwhelming dissatisfaction with the current procurement process and practices. Participants seemed genuinely confused and dismayed by what they understood from the process and many believed they didn't have a firm grasp on how the system was supposed to work in the first place - they only knew that, from their perspective, it wasn't working well for the CF, to their advantage or to Canada's benefit.

The majority of conversation throughout the discussion groups related to challenges and proposed changes to the procurement process in defence. This discussion permeated all areas, from the earliest stage of defining Canada's economic objectives through the discussion of industry capabilities and include the following observations.

- **Efficient defence procurement has a direct impact on the lives of soldiers** - Several participants echoed the concern that a drawn-out military procurement process was unfair to the men and women who put their lives in danger on behalf of their country. Several comments underlined the fact that military procurement reform isn't merely about spending money faster.
- **Canada's defence procurement process is not being executed efficiently or effectively** - There was unanimous agreement that the system is heavily burdened with too many layers of bureaucracy, relatively inexperienced program and contract managers, a systemic focus on 'outputs' not on successful program delivery and 'outcomes', a culture of risk avoidance, legalese and a significant absence of accountability within government – referred to by some as lack of 'adult supervision'.
- **The current system lacks incentives for positive outcomes** - There was equal agreement that these shortcomings were not deemed to be the result of a lack of effort within the public service. Rather, participants agreed that the current system stymies creative, innovative thinking and decision-making by either industry or by public servants. Neither industry nor public servants are rewarded for good outcomes in the current system.

There was lots of effort to identify the core problems they believe are resulting in sub-optimal procurements.

- **Structural problems** - Some attributed the problem to structural issues – too many departments involved with no clear accountability – while others were prepared to find one core department or another to be principally to blame.
- **Process Problems** - Others recognized the structural issues, but believed the immediate priority should be to fix the multiple problems in the current procurement process and the required structure will flow from there.
- **Cultural Problems** - Others believed that the root cause of modern day procurement hiccups should be laid at the feet of behavioural and cultural issues within the federal public service and Canadian Forces due to 'people not staying in their mandated lanes', friction between 'competing' departments and antipathy and an adversarial relationship towards industry.

Participants recognized that there was an inevitable and synergistic relationship between these issues that required simultaneous, bold and immediate attention for future procurements to be successful.

“We’re talking about men and women who entered into a contract with unlimited liability. We have a responsibility to provide them with the best we can provide them with in a timely and efficient manner.”
[Calgary, Quote 5.3]

“At the end of the day you’re asking young men and women to put their lives on the line. And you want to get your people to be able to do the best job they can do in a hostile environment and survive. We have a responsibility to the people who are using the equipment. You want to make sure they have the equipment they need to do the mission; government and industry should be secondary.” [Ottawa, Quote 8.47]

“DND has some of the most complex and voluminous requirements and the most Byzantine procurement system in the world and I think that is something that needs to be addressed and brought into line with other countries.” [Calgary, Quote 5.12]

“I think it should be a question of accountability and consequence, there’s none of either. Right now the accountability is between three departments so everyone can blame each other for delays. If you manage a company the first thing you want to do is make sure your employees are accountable.” [Québec, Quote 7.15]

“You break culture by putting in incentive or disincentive systems that push the culture in a different direction.” [Ottawa Quote 8.28]

Observations related to the Procurement Process

1. Defence Program

- **The CFDS is a good start to defining what defence wants to buy and in providing stable and predictable long term funding.**
- **An Investment Plan with a precise schedule is needed, although it was recognized that future governments might choose to amend the plan.** Projects should be rolled-out in a manner that avoids the boom or bust cycle that has damaged Canada’s shipyards and also so that the maintenance and modification can be made in Canada.
- **There was concern that the CFDS is not a multi-party document and that it might be subject to change by subsequent governments.**
- **The CFDS is over-programmed and that its identified programs could ultimately be dropped or be significantly delayed as a consequence.**
- **The “decades of darkness” in terms of defence spending has resulted in a backlog of projects and enormous pressure to do everything at once.** This can strain the resources of both the government and industry.
- **The “boom and bust” cycle of acquisitions has an economic effect on Canada’s defence industry and this effect flows on to DND.** A major result of this cycle is that the private sector does not invest in either equipment or human capital during the “bust” times and thus there is a higher cost to re-equipping and training during the “boom” times – not an efficient approach for either the industry or the government.
- **Unanticipated and lengthy delays in contracts and project approval are costly to companies and government.** Participants commented that DND and government frequently delay projects without consideration to the impact on industry and suppliers. Project delays result in additional costs as project teams allocated to a job are left without work. These unproductive costs are ultimately either passed on to customers, or result in financial losses to the supplier who must attempt to recoup these losses in other procurements.
- **Canadian companies are also very interested in the procurements that are smaller than the major ones identified in the CFDS and have trouble getting information about them.**
- **Consideration should be given to how the Canadian Defence Industry could become more involved in meeting the Defence Program and this would best be done with a defence industrial**

“From a tactical point of view we really struggle on a day-to-day basis to meet the needs of three different customers. We accept it but we find it tough. DND we have a fantastic relationship with. We deliver in half the time anyone ever has. Costs are 30% less than what they were paying before. Costs are down, more availability, PWGSC has no mandate to recognize any of that, it’s all about compliance with the contract and our single biggest issue is there’s no real ability to negotiate with the Contract Authority. There’s no recourse to negotiate, so DND is as frustrated with PWGSC as we are because on the one hand we’re doing a fantastic job and then PWGSC beats the crap out of us.” [Vancouver, Quote 4.3]

“The one big issue that we found is that nobody is in charge. Because of the system; the way it’s put together with 3 departments that never come together; although at some point there is a head, none of the bureaucrats report to it, they are loyal to their own reporting chain and you lose the focus; to buy equipment for the military.” [Ottawa, Quote 8.39]

strategy. Such a strategy would also give direction about how the procurement process should operate in order to support the Canadian Defence Industrial Base.

- **Concern was repeatedly expressed about the number of federal departments and agencies that have a role in defence procurement.**

2. Requirement definition

- **Performance Specifications are better than rigid, technical specifications** i.e. defining the requirement in terms of outcome rather output is better. This problem is worse when the specification is out of date and requires suppliers to bid less sophisticated kit than they could otherwise.
- **The concepts of COTS/MOTS (Commercial/Military Off The Shelf) are misnomers because Canada always Canadianizes the requirement.** Industry believes that the real meaning of COTS/MOTS is not “Commercial Off The Shelf”/ “Military Off The Shelf” but rather “Customised Off The Shelf”/”Modified Off The Shelf”. One respondent summed-up the consensus by saying that in the defence world, there is no such thing as “off the shelf.”
- **Industry believes that the specifications are written in the absence of knowledge about Canadian industrial capability.**

Industry believes that over-specification can result in the following.

- higher costs e.g. deck material for a Coast Guard vessel was required to be the same as that on a US aircraft carrier on which you can land an F-18
- No one willing to bid
- No successful bidders
- Innovation being stifled because companies have to bid the old technology since that was what was specified
- *De-facto* “Lowest Cost Compliant” rather than “Best Value” procurement. By making almost every technical requirement mandatory, the end result is that the most significant criterion differentiating bidders becomes the price-tag, not performance
- Increased cost to the government in terms of suppliers passing on the cost of bidding but more significantly passing on the cost of managing the risk that is downloaded
- The perception that some specifications appear to be “wired” to one product – some suggested that this may be

“Help us understand what you want and we’ll help you define how you’re going to get there.” [Toronto, Quote 2.12]

due to lack of knowledge of what is available rather than a desire to undermine competition

- **Industry does not understand under what circumstances the government chooses to invoke a National Security Exemption (NSE) and why.**
- **Industry is concerned that the people defining and evaluating the requirements may not have sufficient project management and industrial knowledge** (education, training and experience) to do an effective job in defining and signing-off on specifications for our fleets.
- **In parallel with the preparation of the requirement definition (and before the establishment of the procurement strategy) consideration needs to be given to the necessary and desirable level of support that should be retained through Canadian Content and/or IRBs to achieve Canadian economic objectives.**
- **Single Point of Accountability (SPA) with an OEM**
 - The current approach is unlikely to solve the problem that it was created to solve
 - Bundling of contracts makes it harder for Canadian companies to participate
 - Requiring that the prime contractor be an OEM means in the aircraft business that the work will go to a multi-national whose parent is not Canadian
 - Life-cycle control is ceded to the OEM even though Canada uses its equipment longer and harder than other nations and has world-class capability to meet the ISS requirement. This could result in shortening the life of equipment purchased under this model.
 - The government should be required to demonstrate why they shouldn't have the ISS work performed in Canada after the initial warranty phase (i.e. the default position should be to use Canadian ISS providers after the initial warranty period and, if they are not going to follow that approach then they have to demonstrate why not.)
 - The Single Point of Accountability need not be the OEM. For instance an integrator or other domestic company could act as the accountable party if the contract structure is set up appropriately. This would retain control over equipment in Canadian hands.

"I think the most important point is that we have to differentiate between single point of accountability and OEMs. The two have been used in the same sentence too many times in the last 3 years. Although OEMs can act as primes in certain industries, Canadian industry should also be able to act as primes. To date, we have been explicitly excluded from doing so, and that in itself is very telling; it sends two very different messages. For us, the way the policy has been interpreted so far has been devastating. It has taken an industry where, with full access to IP from the OEM, we have been able to double the life of an aircraft for the Canadian Forces." [Montreal, Quote 6.16]

"ISS should be competed separately from the OEM. There are companies in Canada that have been doing this for many years. We need to give them a channel to express that and have their experience considered." [Montreal, Quote 6.21]

"Single point of accountability: I'm personally not opposed to the idea as it makes fundamental business sense. However you can adjust that for the realities of market dealing. For example, having them responsible from acquisition to the shake-down period only (5 years), thereafter you compete it amongst Canadian companies only." [Montreal, Quote 6.29]

- Single Point of Accountability for ISS gives a de-facto sole source to the OEM for work that exceeds initial acquisition contract value.
- **Intellectual Property (IP) was seen as linked to sovereignty - maintenance of Canadian equipment is viewed by many as a strategic capability over which Canada should retain control.** IP is essential to maintain control of Canadian military equipment for both configuration control and cost reasons.

Participants expressed divergent views on the topic of acquiring intellectual property, including:

- **IP is no longer sold.** Some expressed the belief that OEMs would never accept purchase of IP that could result in Canadian suppliers competing with the manufacturer on an international scale.
- **Unlimited IP rights must be acquired as a condition of sale.** Some believe that the government should obtain IP, including the right to use the IP for all purposes such as letting companies use it to compete for non-DND business.
- **Be a smart buyer of IP.** Some participants stated that it is essential for cost and sovereignty reasons that the government purchase enough IP to domestically maintain Canadian Forces equipment. The timing of the IP must be at the time of equipment acquisition (because there is bargaining leverage at that time).
- **Acquire limited IP; only what you need** – Some participants were also of the view that IP can be of limited value to the Canadian government. They noted that Canada should be careful not to waste money on unnecessary intellectual property - buying “just in case” is not a strategy for saving money.

Others thought that the government need only purchase a limited amount of IP, including all IP developed specifically for the Canadian acquisition, and the ability to “reach-back” to access the IP related to the purchased equipment at a reasonable cost and obtain the necessary information within a reasonable timeframe.

Access to IP has allowed and will allow Canadian companies to learn from their experience and develop new IP that can help to develop and sustain the Canadian defence capabilities.

“If you’re going to bundle the support with the acquisition, you’re effectively sole sourcing the support phase of a major procurement.” [Halifax, Quote 1.17]

“IP is also a big roadblock. A company that builds an aircraft over a long time won’t give all of the foreground and background information. Foreground information maybe; we’ll give enough information to maintain the aircraft in Canada but we’re not in a position to give [the government, and competitors our] IP so that they can go out and compete with us in the world.” [Ottawa, Quote 8.41]

“I believe Canada needs a domestic sovereign ISS capability. They need to have access to the data. Not necessarily own it, but be able to modify it for its own use and not be beholden to a foreign OEM. It’s not easy to negotiate that because foreign OEMs more and more will want to control their IP. It’s a high order business; but there’s no negotiating power afterwards. When you’re in the process of procurement you have a lot of leverage. (OEMs)- all they care about is selling airplanes, they’ve not proven themselves experts in long-term support. I think the end goal is to have sovereign capability over our own fleets.” [Vancouver, Quote 4.1]

3. Procurement Strategy

▪ Competition vs. allocation

- Industry expressed the opinion that the government uses competition as a surrogate for good contracting and best value.
- The policy that should be pursued for procurement needs to be “competition if necessary but not necessarily competition.”
- Sometimes “We can’t afford competition” for example in the area of shipbuilding it may not be feasible to keep several yards up to the standard needed to produce naval vessels but it would be feasible to keep at least one at world class standard and, thus, the government should likely use an allocation approach to shipbuilding
- If we have a Canadian capacity, then the government should purchase from within that capacity unless it can be demonstrated that it is not suitable e.g. If you have a “capability cluster” group – you should use it
- **Foreign Military Sales (FMS) Cases** are believed to be used sometimes to avoid the procurement process, thus removing the possibility of Canadian firms bidding and limiting the possibility of IRBs
- **Advanced Contract Award Notices (ACANs)** used to be posted on MERX whenever the government intended to sole source a contract – now they are not posted if the government believes that no other supplier is capable of delivering the product or service
- **In R&D contracts the government is very covetous in terms of Intellectual Property** – on the other hand, when buying major platforms it seems content to not acquire the Intellectual Property needed to have its equipment maintained and modified in Canada.
- **Canadian industry believes it is in the awkward situation** that: if they are offering new and innovative approaches, DND says that it does not want to be on the “bleeding” edge of technology for risk reasons; if they are offering stable, legacy systems, then DND says they have to have “state-of-the-art” equipment from foreign sources.

*“If you decide to buy IP, you can’t buy it all. You need to determine what you want to buy. ... It’s probably going to cost you the cost of a C-17 to get the drawings of the wing.”
[Ottawa, Quote 8.38]*

“It’s more important that you have assured engineering reach back so that when you have questions you can ask them rather than buying all this IP and putting it into a trunk because you’d be buying a whole bunch of crap that you’re never going to use and you don’t know how to use.” [Winnipeg, Quote 3.6]

*“Unlimited rights are never something that you need; you don’t need operational background information on an aircraft to maintain it. A good compromise in a lot of cases is certainly the ability to maintain and possibly to modify.”
[Ottawa, Quote 8.42]*

“It’s the trust between Ministers, politicians and civil servants. Too much emphasis on competition. From a government point of view it’s the right way to do things because it assures us we get the best price, well I’m not sure about that, there’s a lot of cost of competition for industry and those costs are passed on to somebody.” [Ottawa, Quote 8.54]

Industrial and Regional Benefits Requirements

In the midst of this industry engagement, the government made a significant and positive announcement related to changes in the Industrial and Regional Benefits (IRB) program. As a result, some of the comments made by participants may have been overtaken by current events. Nevertheless, there were some broad considerations worth mentioning:

- **IRBs are important but not as good as direct Canadian Content**, IRBs should be used as a tool to nurture and develop domestic capability in the context of a national defence industrial policy; not a substitute for a Defence Industrial Framework.
- **IRBs seem to be defined in isolation from the requirements and to be added on late in the process.** Determining the IRBs earlier in the process would allow greater opportunity for companies to identify and participate in fulfilling IRB obligations.
- **If IRBs are used they should focus on supporting development and sustainment of defence capabilities** that the government deems strategic either for security and sovereignty reasons or for economic reasons
- **SME's expressed frustration and lack of knowledge as to how to reach out to companies with IRB obligations** (e.g. names and phone numbers i.e. How do you find them?).

4. Solicitation

Participants frequently mentioned that the process of responding to Requests for Proposals is too onerous:

- **The main problem cited with the solicitation process was thought to be that the process is risk averse** and so overloaded with checks and balances. Each review layer adds more complexity and requirements.
- **SMEs in particular find the Requests for Proposals (RFPs) to be too onerous.** Larger firms see it as a cost of doing business, which is passed on by the winning bidder to the government. Smaller firms view them as a barrier to participation in government contracts.
- **RFPs are often too long, and contain too many pages – contracting/legal requirements are added on top of the specification and sometimes the result is contradictory** i.e. more than one clause may address the same issue with a different or even mutually contradictory approach.
- **There are too many certifications and the certifications are often required at the time of submission rather than at contract award.**

“One, it is always easier to tell someone what you think it should cost them to do something than it is for them to do it. They come up with budgets for things. The adequacy of that up front estimate is one issue. A number then gets set, presented to TB or leadership or public. So you have huge scope-creep in capability but no change at all in the budget because it is now a fixed component of the project. Escalation is another problem with general creeping costs and project delays. Specific supply issues that spike in prices.” [Halifax, Quote 1.14]

“You look at mandatory requirements. There is a bias towards known solutions rather than operational requirements. A few rated requirements, so you've eliminated everybody else so you may as well be lowest cost provider, you haven't allowed any innovation.” [Calgary, Quote 5.24]

- **The government down-selects too late in the process.** If the decision is to compete major requirements then the government needs to down-select earlier.
- **RFPs contain too many mandatory requirements rather than rated requirements.** The over-reliance on mandatories excludes many solutions and discourages innovation. It tends to favour existing solutions and lowest-cost compliant bidder which may not provide “best value” for Canada.

4. Evaluation/Negotiation

- **Selection criteria need to be established early and be made public and then the government needs to stick to them.** This is not to say that the criteria should replace the use of judgment. It is believed that decisions are often made by rote in favour of contract/legal concerns with little regard for the business of government concerns.
- **IRBs should be rated requirements** based on economic benefit.
- **Another consequence of over-reliance on mandatory requirements is that price becomes the determining factor.** By default the selection method becomes a lowest cost compliant rather than a best value one.

5. Contract Approval

- **The approval process takes a long time** and means that a company is not able to re-allocate resources to other projects. Many participants referred to the cost implications of time delays in the procurement process. Companies have to assemble teams and these teams are devoted to projects. Furthermore, costs and business conditions could change over time. The time delays create cost and uncertainty for business.

Of special interest to some participants was the length of time it takes to get agreement to announce a contract award after the decision has been made as to the winning contractor.

6. Contract Administration

- **Scope creep during the contract without associated price increase.** Many noted that the scope of projects tends to increase over time without any commensurate increase in budget. This puts companies in a difficult position of having to either accept the change, or put the project into limbo.
- **Once you get a personal services or engineering services contract – they don’t use it but you need to keep resources on hand in case they decide to use it.**

“I think from my perspective it’s predictability, this business, and you heard frustration from small companies but were facing same thing. You sign up to a contract and you make plans and you have a ceiling contract of \$75M a year but then all of a sudden were only going to do \$30M and they ask if that’s a problem? Well yeah, we staffed up for \$75M.” [Calgary, Quote 5.4]

“MOTS are so customized that it is not off the shelf, you may as well start with a blank piece of paper.” [Calgary, Quote 5.21]

- **Profit is not a 4-letter word.** There was a sense among some participants that many in government believe that if a supplier is profitable as a result of a government contract then the contract itself has failed. This does not recognize the benefit of a win-win situation that exists when companies succeed and the client is well-served.
- **Quality assurance:**
 - even on MOTS/COTS they can ask for special QA
 - in the marine area this is so serious that you have a hard time doing both navy and civilian work in the same yard
- **Canada keeps its equipment a long time** and there needs to be flexibility in long term contracts for technology. Participants referenced the DSAB report as a template for government action.

7. Contract Payment

- **Contingent liability issues** - Some respondents noted that the government is slow to take work off their books. While they are timely in paying invoices, they make payments “subject to later verification.” Because the government pays interest on payables past 30 days, there is pressure on contracting staff to make these payments. However, if the government then makes those payments “subject to later verification” and they don’t do that verification in a timely manner, then the company is left with a liability on its balance sheet causing potential financial problems for the company down the road. It was felt that this practice may be employed by government staff, who are concerned that a problem may arise in the future for which they could be held responsible.

“We’ve done about 40 aircrafts in 2 ½ years and they’ve only cleaned up the invoices for 2 or 3 of them. They haven’t checked the bills and signed everything off. There’s a huge risk, because it’s 3 years ago, they could always come back and claw back. We have a huge contingent liability even though they’ve advanced us the funds”. [Vancouver, Quote 4.7]

General comments

1. Single Point of Accountability in Government:

There was a strong sense that the current process involving three Ministers and their respective departments causes more strife and less room for compromise and decision-making. The three-department model, which forms the basis of Canadian procurement, provides government with many opportunities to say “no,” and not enough to say “yes.” As a result, it is believed that the problem of procurement delays is exacerbated by the multi-department model. “Anybody in the process can say no. It is very difficult to push something through. Anyone can shut the process down and start it all over again.”

While there is recognition of the need for checks and balances in government, it was noted that government could streamline the process depending on the size of procurement. There was a strong sense by participants that exactly the same level of checks and balances are applied without regard to the size of the procurement. Participants expressed a desire for a system that is scalable to the size of procurement.

Many respondents touted the merits and potential advantage of a single procurement entity modeled around those established in Great Britain and Australia. The objective of the entity would be to create a single “touch-point” to consider and address all aspects of procurement - what does the military need, what industrial benefits should be required, and how can the Crown receive the greatest value for money.

Participants in favour of this approach described a mandate for a single procurement entity that included:

- Providing the equipment necessary to fulfill the CFDS
- Carrying out the mandate of the Defence Industrial Strategy
- Defining the specifications of the equipment and services
- Managing the contract process
- Ensuring Industrial Benefits
- Promoting the Canadian Defence Industry and Canadian defence capabilities to international clients.

2. Human Resources in Government:

- **Many participants were of the opinion that the procurement system is not familiar with Canadian capabilities**, has an inconsistent understanding of the products and services they are

“From a tactical point of view we really struggle on a day-to-day basis to meet the needs of three different customers.” [Vancouver, Quote 4.3]

“When we downsized in the defence department, (we lost) a core of professionals, the PG group, and they were key for a couple of reasons; they knew how the system worked; they could move the projects through the system interdepartmentally; they built up contacts over time and they were responsible for financial aspect of the project. We’ve lost that.” [Ottawa, Quote 8.49]

purchasing and has too thin a layer of knowledgeable and experienced procurement professionals to deal with complex defence procurements.

- **The decision-making process in government has become stifled.** As with the case of contingent liability, the process often seems to become backed-up whenever a decision needs to be made that contains possible legal implications. Often, participants relayed stories of staff being unwilling or unable to use any discretion and a hierarchy within the public service that was unwilling to overrule subordinates for fear of being seen as acting improperly.
- **Loss of institutional knowledge about procurement** began during the 90s. During that era, the pace of large-scale defence procurements came to a halt. This resulted in a loss of procurement expertise in the public service, which will take years to rebuild.
- **High turnover is a major problem.**
 - The cycle of minority governments since 2004 has created an unstable environment for business, Ministers change, senior bureaucrats move frequently, and at the staff level in all areas, including the Canadian Forces, turnover is frequent. This makes long-term and large procurements more difficult to manage effectively.
 - The procurement process in defence exceeds the rotation of contracting and procurement staff. As a result, procurements are routinely handled by numerous people in the same position on the government side. The result is loss of continuity, re-learning and re-negotiating terms and conditions.
 - Technical staff on the government side often lack the experience and knowledge of the complicated technical and contracting issues that arise in defence procurements. This can result in specifications being written incorrectly, such that they only allow for one solution and in delays as approvals are sought throughout the system. Specifications can be overly technical for standard components or overly vague on highly specialized or technical portions of the specification.
 - The life-cycle of equipment far outlasts the lifecycle of government fleet managers. As one participant observed, “it is industry, not government, who are the stewards of the equipment.” The ISS supplier is on the hook long after the government employees who negotiate the contracts have moved on.

“I think turning people over in 3 years is a good thing as long as the people coming in have training and guidelines so they don’t change the programs on short notice and they come into a position where they have the ability to make decisions. The problem they were complaining about is guys coming in with no experience, who have never been in Ottawa, they’re from a military background. He comes in and he wants to revolutionize the system.” [Calgary Quote 5.6]

« Ce qu’on note c’est qu’il y a beaucoup de rotation du personnel. Pense au système de posting des FC ou chaque personne doit aller à un nouveau poste chaque trois ans. Prends un projet de grande envergure qui dure 9 ans, le personnel va changer trois fois dans la durée du projet; ce qui peut créer des vides au niveau de la mémoire corporative au fur et à mesure que les projets sont exécutés. Si on regarde d’autres pays, par exemple en France, on n’a pas cette situation-là. » [Montreal Quote 6.17]

“We have engineers that have been with that fleet since it was inducted. We don’t have to deal with transfers and posting-out. It’s not that we’re better, we’re just in a different environment.” [Halifax Quote 1.16]

“In the UK we met collaboratively with the military and industry on a regular basis. Here you go to do that and its got to be in a public place, can’t make decisions, got to make sure there are three or four people there. The message it sends is “it’s us vs. them, don’t trust them.” [Calgary Quote 5.14]

- There is an opportunity for greater interaction and exchanges with industry as well as developing a professional designation for government contract and program managers.
- **Collaboration between industry and government officials is essential to effective program delivery and was found to be lacking in Canada.** Many participants noted that Government treats any communication with industry as suspect and unhealthy. By contrast, other countries forge strong collaborative partnerships with their domestic industry to facilitate effective program delivery and optimum economic benefits.

“On exchange programs, after two years we got the Space Agency to put an LO at our company. It’s about more than just educating people; it greatly solves a communication problem. An industry guy sitting up in a project manager’s office who the president of the company can call and send walking around the building to solve problems he doesn’t understand has saved huge amounts of money in meetings, reports and travel. It’s so obvious yet hard to understand why it isn’t used, particularly in a military contract where everyone is familiar with use of an LO.” [Ottawa, Quote 8.21]

“They need to establish a career path that will allow them to establish that expertise; placing them in internships or outplacements, bringing back some of that technical management role back within the military.” [Winnipeg, Quote 3.13]

3. Risk Management:

There are two facets to risk management which were raised repeatedly during the consultation:

- Government passes risk to industry, including those risks that do not logically belong to industry.
- Government is more concerned with the risk of a bad contract than the risk of not receiving the product or service in a timely manner.

Government Passes on Risk: Under this facet of risk, participants raised three recurring points:

- Government and industry spend too much effort trying to allocate risk and not enough developing ways to reduce the total risk.** The government passes risks to the contractors that do not logically belong to the contractors (because the events are outside the span of control of the contractor). The most commonly cited examples of such risks were: currency, inflation and commodity price risk. Contractors have little control over these eventualities, yet they are contractually obliged to carry these risks.
- The contractors must make a determination as to the size and cost of the risk and include a premium in the cost of the contract.** This results in increased cost to government. The requirement that the contractor assume these risks results in less competition. In particular, small companies who are unable to hedge against commodity or currency fluctuations may find it prohibitively risky to participate in the competition. In essence, competitors are being excluded for reasons other than their ability to perform a service or provide a product.
- Regardless, government, wittingly or unwittingly, ultimately assumes the final risk on these projects.** At the end of the day, there is a spectrum of risk outcomes.
 - At one end of the spectrum the risk never materializes, in which case the government has paid a premium and the company has profited as a result.
 - At the other end of the spectrum, a “catastrophic” event (including bankruptcy), forcing the government to renegotiate its contract or lose time or money already invested without ever receiving the equipment from that supplier. In this situation, the government will have

“We should have a fundamental theme that government should never offload risk to industry where industry cannot control that risk. (Such as currency fluctuation) Everyone tends to lose because it ends up being a cost driver to the overall program.” [Halifax Quote 1.12]

“The fact that exchange rate fluctuation is a responsibility of a program manager makes no sense. Governments and industry pay individuals a lot of money to manage that for them and yet in the Canadian system it’s the poor program manager. That should be done at government level, not individual level.” [Ottawa Quote 8.44]

“Unlimited liability; I’m not sure people understand what that really means. If you’re a large successful corporation you take this very seriously, there’s only so much you can do at any one time to accept unlimited liability and I’m not convinced PWGSC understands that.” [Ottawa Quote 8.23]

“What if they bid wrong, you’re going to put them into bankruptcy? So who’s the most aggressive or accurate person to hedge? Government will end up paying for it in a premium, and that hedge price alone can put them over the top in terms of cost effectiveness, do you really want to do that?” [Ottawa Quote 8.45]

ultimately assumed the risk, regardless of the contractual terms of the contract.

This begs the question: if the government will assume the risk in the extreme, does it make sense to pass the risk to the contractor at all?

One participant summed up the concern best when he stated, "Government should never offload risk to industry where industry cannot control that risk."

Contract Risk Management: A second facet of risk management that was raised is the tradeoff between writing a perfect contract and receiving a timely service.

- There is a common perception that government relies heavily on lawyers and excessively on air-tight contracts. The outcome of over-thinking legal aspects of the procurement is that government may protect itself to the exclusion of industry, cost and the timely delivery of equipment and services. As one participant summed-up "You can't cover everything in a contract, every eventuality." [Halifax] Another way of looking at this is: if you don't have the vaccine until after the pandemic hits, it doesn't matter how good the contract may have been. You have not met the government's need.

"You have to deliver something, not stand up on your legal hind legs and accuse others of wrongdoing and assign penalties. The focus has to be on delivering stuff and compromise; and sometimes you win and sometimes you give up something." [Ottawa, Quote 8.53]

"What is the value of program success? What are the issues if a weapon system is delivered three years late? [Halifax, Quote 1.18]

"We understand the sponsorship issue in the past; it's a matter of individuals. It feels like every single year were facing a different lawyer and every single year it doesn't matter what they reviewed the year before they are going to change the T&C's all over again. Last year we went through 3 different lawyers. PWGSC doesn't have an assigned one so they use whoever will look at the file. One was sick, the other resigned. In the whole process, that part is taking lots of time." [Montreal, Quote 6.31]

4. Research and Development

Defence and the military have historically focused on R&D because the military wants the best (most technologically sophisticated) equipment and it wants to protect its men and women in uniform when they put themselves in harm's way. Industry focuses on R&D because it is a cornerstone to competitiveness. Thus, the discussion of defence R&D takes on a special significance.

There were three specific areas identified by participants related to defence R&D:

- **There is a perceived disconnect between the work supported by DRDC and the purchasing practices of DND** - On several occasions respondents cited examples of working cooperatively with DRDC to develop a capability for the military only to find their efforts thwarted and money poorly allocated.
 - One respondent observed that DRDC projects are not always aligned with the demands of the Canadian Forces - either in terms of research priorities, or in terms of the timelines.
 - There were examples cited where DRDC undertook to develop a product with a Canadian company, only to discover in the midst of the research and development that DND was contracting for the product. The misaligned timeframe left the company unable to compete.
 - A second example cited situations in which DRDC worked co-operatively with industry to develop a certain product. Having developed the exact product sought by DND, the contractor was informed that the product would be competitively tendered, thereby leaving the domestically developed product to compete internationally on its first sale. Indeed, in other discussions, it has been suggested that cooperative participation with the government might even mean that the company might be deemed to be ineligible to participate in such competition as a result of having had "privileged access" before the competition.
 - Companies working in concert with DRDC believe that they should expect to serve the Canadian Forces' need if they are successful in developing a product, at least in the initial stages of the product lifecycle, particularly since they are putting capital at risk in the development of a product.

"Clearly there is a divergence between DRDC pursuing technologically interesting paths and the specific equipment needs [of DND]. [Halifax, Quote 1.19]

"When it comes down to a Canadian acquisition, it seems they're not even familiar with the capabilities we have and some of those have been developed with Canadian funding [...] There doesn't seem to be that much synergy and connection between these initiatives." [Ottawa, Quote 8.26]

"We don't want a free ride; we're prepared to spend our own money and we're prepared to invest and we're certainly not afraid of competing. What we would like to be able to do is leverage capabilities we have and acquire business with the Canadian government. We do have the capability, getting there however is very expensive." [Ottawa, Quote 8.32]

Often when you talk to someone in DRDC and look at TDPs that they're putting out there and talk about operation side at DND and they don't align. It seems like pet projects that are in left field that have no chance of occurring. Often when they are aligned, they aren't aligned temporally. Canada just announced approval of land combat vehicles, DRDC was working on technology for a number of years but it will never get done in time to get on these vehicles so it's wasted. [Calgary, Quote 5.18]

- **Intellectual Property Ownership Issues** - Some respondents expressed strong hesitation for developing technology with the Canadian government. They were concerned about how the government treats background and foreground intellectual property. While participants noted that there is a genuine difference of opinion related to intellectual property that is the resulting from co-developed research (foreground IP), they are extremely nervous about losing R&D that was developed by a company prior to co-investing with the government (background IP). On the issue of foreground IP, some participants stated that the government is better off to leave the IP with the companies who know how to successfully exploit the IP. However, on background, they do not believe the government has any legitimate claim to such IP.

There were four recurring observations with respect to R&D:

- The government should co-ordinate R&D more closely between DRDC and the Canadian Forces / DND to ensure that the proposed products meet the needs of the CF both in terms of performance, and timing.
- As products are developed through DRDC / industry partnerships, DND should show preference to purchasing these products, at least initially.
- The government of Canada should examine the treatment of Intellectual Property developed through partnerships with private industry to ensure that “background” IP remains the property of the company, and that allows the company rights over foreground IP.
- The government does not provide adequate support to private sector led R&D, particularly for SMEs, who are important innovators.

5. ITAR:

The Canadian defence industry is intertwined with that of the United States. Although participants generally did not raise the issue of ITAR compliance spontaneously, it was nonetheless a real concern when the issue was raised. Many participants from SMEs were confused by the ITAR issues, particularly the methods for compliance.

Those who did understand the ITAR rules made three key observations:

- Tough ITAR regulations and compliance rules create exposure to US criminal law, when companies are fully compliant with Canadian laws and regulations.

“We did some work with DRDC once. We have problems with software license. Now the lawyers are involved, we can’t even talk to DRDC. That’s been going on for 15-20 years. The British guy went over there and in 2 days hammered out a license agreement with MOD.” [Calgary, Quote 5.16]

A problem we’ve run into: why don’t you move operations in the states? Because we keep running into ITAR issues and Buy America. [Winnipeg Quote 3.16]

“I think we’re being completely hung out to dry on ITAR. When Canadian government got an exemption for their own people, including contractors, that was such a slam in the face for industry. That goes back to the sovereignty thing, were in a position where the US government is telling us who can and can not work on programs. It has nothing to do with security risk and everything with country of origin. It’s a major fiasco and it’s frustrating as a Canadian and the real insult was when the Canadian government got an exemption for their own staffers. So we couldn’t hire the same person.” [Calgary, Quote 5.10]

“ITAR limite les exportations à l’extérieur. Par exemple, l’Inde ne voulait pas acheter l’Aurore; ni aucun équipement Américain parce qu’ils ne voulaient pas d’ITARS.” [Montreal, Quote 6.7]

- Canadian companies believe that in complying with the US ITAR they run the risk of being off-side with Canadian domestic legislation. There was a strong consensus that Canada needs to address the issue for industry, or see a weakening in its technological base.
- Some participants pointed out that Canadian government has negotiated an exemption for itself; however, they have yet to secure the same exemption for industry.

In terms of the potential opportunities for Canada that arise from ITAR, two opposite points of view emerged:

- A few participants believe that ITAR can become a competitive advantage for Canada, particularly if Canada can come to a workable settlement with the United States on ITAR compliance. Participants expressed the view that many foreign companies prefer the Canadian work and political environment to that of the United States. Having the ability to serve the US market from Canada and employ Canadian suppliers would be advantageous to foreign companies who seek a gateway to the US market.
- Other participants presented the opposite perspective. They believed that the ITAR situation gives Canada a strong message that we should be pursuing non-ITAR solutions and serving the world from Canada.

6. Small Business Issues

A number of issues were raised affecting small businesses and their ability to access government contracts, particularly those in the defence sector.

- **Office of Small and Medium Enterprises (OSME)** – PWGSC’s office was mentioned on a few occasions. Overall, there was a low awareness of this office and its role in assisting smaller companies to access federal procurement opportunities. Among those who had attempted to use this service, there was a sense that it was not helpful in guiding them in how to win defence business.
- **IRB Challenges for Small Businesses** – Several small businesses commented that the IRB system makes it challenging for small businesses to partake in defence procurements. The sheer magnitude of IRBs on defence contracts makes the use of small businesses an impractical method of meeting IRB obligations. IRB obligations are often in the millions of dollars, while small businesses may potentially be seeking opportunities of only a small fraction of that obligation.

“The government of Canada needs to move to a security clearance based system instead of dual national system.” [Montreal, Quote 6.6]

We had to develop processes where we were ITAR compliant, to be compliant in a quick manner to respond to some of the world. The reality is we can export US technology through Canada in an ITAR efficient way that in some countries gives us a competitive advantage. [Toronto, Quote 2.17]

“There is very little incentive within Canadian defence industry to partner with SMEs. In the States not the case; most contracts have small business set-asides. It fosters growth across country. It’s a bit of an incubator to help them grow.” [Calgary, Quote 5.17]

- **Small Business Set-Asides** – Many participants across Canada referred to the US Small Business Administration’s policy of Small Business Set-Asides as a model that could be used in Canada. Such a policy could be used as part of the IRB process, and would foster the growth and development of the small business sector.

Participants offered two possible criteria for a Canadian small business set-aside program. Some favoured the establishment of a hard dollar amount, below which projects would be set-aside for small business. Other participants favoured a strategic approach to small business set-asides - essentially, they want the government to prioritize certain key strategic capabilities and allocate contracts within those priority areas to SMEs in order to foster the development of Canadian technology.

- **Research and Development** – In addition to small business set-asides, many small business participants favoured greater targeting of R&D programs to small business, thereby allowing for increased small business investment in research and development needed to build their companies.
- **Risk Balance** - As was mentioned in another section of the report, small businesses are challenged to participate in defence procurements because they are incapable of assuming the level and type of risk being imposed by the customer. This results in reduced participation by SMEs in defence procurement.
- **MERX** - Participants representing small businesses expressed frustration with the MERX system. Some respondents noted that MERX is difficult to navigate and difficult to use for identifying opportunities. Other respondents noted that by the time an opportunity is posted on MERX, there is insufficient time to prepare to service the potential contract, leaving smaller firms unable to compete for many projects.

There was also some expression by companies of all sizes, but especially by smaller companies, that the information available on MERX is not sufficient to allow the development of a proposal. The absence of technical data from which to estimate the cost of production is an example. To some extent, though, this was seen to be inevitable given the potential issues surrounding intellectual property.

*“Focus on SME in US: it is driving so much work into SME industries. It is an excellent program. The challenge with us is all of the programs are going to integrators and they’re swallowing everything up.”
[Winnipeg, Quote 3.9]*

« Ça part d’un plan à moyen terme au niveau de la défense; le besoin n’est pas défini. On va sur MERX pis y’a personne qui a entendu parler des besoins, personnes peuvent se préparer en temps. Ça serait beaucoup un avantage pour les industries canadiennes d’avoir de l’information en avance. On pourrait personnaliser des choses pour eux qui seraient mieux pour eux. » [Québec, Quote 7.3]

“MERX only works for Prime contractors. If they’re looking for a piece part, they can’t tell you anything about it because Boeing has IP but they want us to bid. That’s a waste of time. » [Calgary Quote 5.25]