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National Procurement Strategy Research and Development April 2013

*“Promoting R&D investment in Canada through
procurement”*



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Executive Summary

Introduction

Public Works and Government Services Canada (PWGSC) has completed the review of how research and development (R&D) is procured for federal government departments with the objective of developing a National Procurement Strategy. PWGSC is the common service procurement provider for R&D goods and services for the Government of Canada (GC), as mandated by Treasury Board's (TB) Common Services Policy.

During the development of this National Procurement Strategy (NPS), the government has identified clear and pertinent direction about mobilizing science and technology procurement to improve Canada's long term economic and social advantage. This was seen through a number of key recommendations and reports, including: "Mobilizing Technology to Canada's Advantage" (2007), which was further supported by the "Innovation Canada. A Call to Action – Special Report on Procurement (2011) and the follow-on report, *Special Report on Procurement*, both submitted by Tom Jenkins. These tenets of leveraging R&D goods and services procurement were further alluded to in many federal budgets. Consequently, PWGSC, in line with the Smart Procurement Initiative, has outlined this strategy to move from a largely reactive procurement model to a more engaged and outcome-oriented role.

As a result of all of these factors, along with a significant, broad-based public consultation process, PWGSC is proposing a series of actions that will improve procurement's ability to support leveraging and economic and social advantage. It is acknowledged that this transformation is in early stages and will evolve with the support and advice of stakeholders.

Enhancing and streamlining GC investments in R&D procurement through:

- Leveraging our early investments, through innovative approaches such as an improved Value Proposition model;
- Working with departments and suppliers to improve communications and awareness of opportunities, through the creation of Communities of Practice,
- Simplifying and standardizing the procurement process, as it is delivered by PWGSC nationally,
- Collaborating with other levels of government, to create synergies and maximize our access to the supplier community,
- Examining the policy framework to remove barriers and identify areas of opportunity,
- Leverage the complementary and different roles of the private and academic sectors, and
- Closing the pre-commercialization gap, with programs such as BCIP.

Government and business are important contributors to R&D. Government is concerned with ensuring sustainable socio and economic growth, private investors are more concerned about the potential commercialization of R&D investments. As a result, government and other public funds have been devoted in part to basic research. This type of research can result in major breakthroughs, but can often result in no practical outcome (Organization for Economic Co-operation and Development (OECD, 2008)).

Several factors can influence the demand for R&D, including the economic cycle (which goes hand-in-hand with R&D growth), specifically priorities at the time which can be influenced by the international political climate (such as wars and environmental issues), the arrival of new technology, the number of incentives to private sector (e.g. grants, loans and policies) and the labour market (such as the workforce, materials, facilities, etc.).

R&D work is commonly conducted over a long time frame, somewhat insulating research enterprises from normal economic cycles and fluctuations in research investment.

In developing this NPS, PWGSC took into account:

- Historical policy and procurement process information;
- Mobilizing Science and Technology to Canada's Advantage (2007);
- Feedback from the preliminary public consultation process (2010);
- Innovation Canada: A Call to Action Special Report on Procurement (2011)
- Innovation Canada: A Call to Action, Review of Federal Support to Research and Development, Expert Panel Report (2011);
- The November 2011 Report of the Standing Committee on Government Operations and Estimates on the Effectiveness of the Office of SMEs and the Build in Canada Innovation Program (BCIP); and,
- Feedback received during consultations on the draft R&D National Procurement Strategy from industry, academia and government departments (2012).

In October 2011, the "*Innovation Canada A Call to Action – Special Report on Procurement*" (submitted by Tom Jenkins) was released. The main focus of the Special Report is the recommendation to leverage federal procurement in support business innovation. This report sets the foundation for a more innovative economy that encourages and supports R&D in Canada through various mechanisms, as well as a commitment to improve procurement, in consultation with industry. The Standing Committee Report confirms suppliers support for the Build in Canada Innovation Program (BCIP) and recommends the program be made permanent. The government proposed in the Economic Action Plan 2012, to make the program permanent in 2013/14.

The NPS sets out PWGSC's approach to stakeholder engagement early in the planning stages of R&D goods and services procurement. This is to establish an

environment of trust, flexibility and transparency among the GC, industry and academia. PWGSC has sought to bolster innovation, enhance competition and increase both engagement and collaboration with industry and support small and medium enterprises (SME) through existing programs such as BCIP. PWGSC will continue to develop, refine, promote, and expand these engagement programs, as feasible.

Definition

R&D goods and services are procured by the federal government to increase scientific knowledge; apply increased scientific knowledge or exploit the potential of scientific discoveries and improvements in technology to advance the state-of-the-art; and, systematically use increases in scientific knowledge and advances in state-of-the-art to design, develop, test or evaluate new goods or services prior to commercialization.

Background

Over a five-year period (Fiscal Year (FY) 05/06 to FY09/10), the average value of contracts awarded annually by PWGSC for R&D goods and services was approximately \$300 million and the average number of contracts and amendments awarded was 1,559 annually.

The GC is a major contributor to R&D activity in Canada through areas such as Tax Credits, Grants and Contributions, as well as performing R&D work itself. This document focuses on R&D goods and services that are delivered by the private sector, not-for-profit and academia under contract, for the government.

Market Analysis

Procurement is one of the means available to governments to stimulate business innovation. Government and Private industry are important contributors to R&D, although their focus is not the same. Governments have a mandate towards ensuring sustainable economic growth. Private industry is more concerned with the commercialization of R&D. As a result, government and other public funds have been devoted in part to basic research. This type of research can result in major breakthroughs, but can often result in no practical outcome (Organization for Economic Co-operation and Development (OECD, 2008)). To move forward, the National Goods and Services Procurement Strategies changes how PWGSC will work with industry and clients in leveraging the Government investment and increasing commercialization and other opportunities.

Several factors can influence the demand for R&D activity, including the economic cycle (which goes hand-in-hand with R&D growth), the international political climate (such as wars and environmental issues), the arrival of new technology, the number of incentives to private sector (e.g. grants, loans and policies) and the labour market (such as the workforce, the materials, the facilities, etc.). Programs such as the BCIP allow Canada to help SMEs bridge the “pre-commercialization gap” in priority areas of interest.

R&D work is commonly conducted over a long time frame, insulating research enterprises from normal economic cycles and fluctuations in research investment. Government's recognition of priority investment areas and future planning ensures R&D goods and services procurement spending remains steady across the economic cycle.

Consultation Findings

In developing the National Procurement Strategy, PWGSC did two consultations. The preliminary consultation sought to understand issues of stakeholders. The second consultation was to seek feedback from industry and government departments on the recommendations in the draft National Procurement Strategy, which responded to the issues identified in the preliminary consultation.

During the course of the development of this strategy, Innovation Canada: A Call to Action was released. This was also taken into account in the development of this strategy.

The purpose is to improve the alignment between PWGSC procurement and support commercialisation, economic and social advantage with government expenditures.

The draft strategy was posted for consultation March 30, 2012 through June 1, 2012. (64 days). Comments were received from 24 federal government department respondents representing 12 federal government departments, 333 supplier respondents and 21 respondents from academia. 94% of respondents identified themselves as micro, small, or medium enterprises. 6% of respondents are large enterprises covering a broad range of activities. The overall goal of the draft NPS was to establish a common national frame of reference and provide guidance on R&D goods and services procurement, to improve efficiency and effectiveness of R&D goods and services procurement, to enhance engagement amongst all stakeholders (PWGSC, government departments, other levels of government, industry and universities) and to address challenges and leverage opportunities associated with R&D procurement.

Overall, the feedback from government departments and industry was positive and the recommendations put forth in the draft strategy were supported.

During the consultation process, stakeholders identified the following issues:

- The bidding process is too complicated, time-consuming, and resource-intensive;
- Minimum financial and experience bid requirements do not accurately reflect supplier quality or capability and pose a significant barrier to SME participation;
- Consistent approaches and information on Warranty, Limitation of Liability, Canadian Content and Intellectual Property needs to be developed;
- Mandatory requirements are too extensive and restrictive;
- Supplier Collaboration should be increased; and

- The “Value-added” bid evaluation component in R&D should be pursued.

Strategic Direction

PWGSC is committed to improving the services it provides to federal clients. PWGSC will support the GC as an R&D Investor by streamlining processes, enhancing Canadian Content, reducing barriers, enhancing competition, increasing engagement and collaboration with stakeholders.

As part of the strategic direction for R&D goods and services, in the near-term, PWGSC will improve the procurement process by:

- Establishing a Community of Practice (CoP);
- Developing a R&D Contracting Body of Knowledge (BOK);
- Simplifying and standardizing templates and providing guidance on contracting processes, strategies and approaches with respect to: collaborative initiatives, solicitation process, Canadian Content, Intellectual Property, Limitation of Liability, Warranty, and Value Proposition etc.
- Offering more meaningful engagement;
- Exploring supplier training opportunities;
- Tailoring and developing tools; and
- Supporting emerging environmental technologies.

This will position PWGSC, as the common service procurement provider to further leverage the government R&D needs for the economic and social advantage of Canadians. This strategy sets the foundation for further enhancements to the management of R&D goods and services procurement as a lever to support Canada’s socio and economic advantage. With additional iterations, PWGSC will identify new opportunities to be a strategic support for R&D development.

1 Research and Development Procurement Review

In 2012, Public Works and Government Services Canada (PWGSC) engaged key stakeholder groups including federal government departments and suppliers, as part of a detailed review of how it procures Research and Development (R&D) goods and services on behalf of the Government of Canada (GC). The review identified strengths in the current procurement process; it also uncovered areas of opportunity that, if leveraged, should benefit federal government departments, existing and potential suppliers, and Canadians overall. More specifically, standardized approaches to procurement should lead to enhanced transparency, greater efficiency, and greater consistency.

This NPS outlines the strategic direction for procuring R&D, based on the opportunities identified by stakeholders and direction of the GC.

2 Scope

This NPS examined the procurement of R&D goods and services by PWGSC on behalf of federal government departments.

2.1 Definition

R&D goods and services are procured by the federal government to increase scientific knowledge; apply increased scientific knowledge or exploit the potential of scientific discoveries and improvements in technology to advance the state-of-the-art; and, systematically use increases in scientific knowledge and advances in state-of-the-art to design, develop, test or evaluate new goods or services prior to commercialization.

Projects in the applied R&D category are highly innovative, generating new, world-class knowledge and science and technology capabilities. They are high risk, but with the potential to provide high payback and impact to end-users.

2.2 Trade Agreements

North American Free Trade Agreement (NAFTA)

All Research and Development services are excluded from NAFTA as per Annex 1001.1b-2 Services, NAFTA treaty.

World Trade Organization - Agreement on Government Procurement (WTO-AGP)

Research and Development services are excluded as per Annex 4 of the WTO-AGP.

Agreement on Internal Trade (AIT)

Research and Development services are subject to the provisions of this agreement.

3 Background

3.1 R&D Expenditures in Canada

Government and business are important contributors to R&D. Government is concerned with ensuring sustainable socio and economic growth, private investors are more concerned about the potential commercialization of R&D investments. As a result, government and other public funds have been devoted in part to basic research. This type of research can result in major breakthroughs, but can often result in no practical outcome (Organization for Economic Co-operation and Development (OECD, 2008)).

Several factors can influence the investment in R&D, economic cycle (which goes hand-in-hand with R&D growth), specifically priorities at the time which can be influenced by the international political climate (such as wars and environmental issues), the arrival of new technology, the number of incentives to private sector (e.g. grants, loans and policies) and the labour market (such as the workforce, the materials, the facilities, etc.).

R&D work is commonly conducted over a long time frame, somewhat insulating research enterprises from normal economic cycles and fluctuations in research investment.

In 2012, gross domestic expenditures on R&D reached \$30 billion in Canada. Business enterprises accounted for 52% of the total spending and higher education institutions were responsible for 38%. With \$2.5 billion R&D expenditures, the federal government represented 8% of R&D spending in Canada. The remaining R&D activities in Canada, valued at \$547 million in 2012, were performed by provincial governments, provincial research organizations and private non-profit organizations, (Statistics Canada, 2012).

The federal government contributed \$5.8 billion in R&D funding in 2012, and Canadian businesses invested \$14.1 billion. Funds also come from provincial governments, Canadian private non-profit organizations, and the international organizations (Statistics Canada, 2012).

Compared with other Organisation for Economic Co-operation and Development (OECD) countries, Canada's business R&D intensity is relatively low which is partially explained by the resource-based structure of the Canadian economy (OECD, 2012). Industrial R&D used to be mainly concentrated in a handful of companies but this changed over the last 25 years. The top 25 R&D performing firms represented 34% of total business expenditure on R&D in 2012, down from 49% in 1988. Similarly, the share of the top 100 firms in total business R&D spending fell from 68% in 1988 to 51% in 2012. On the other hand, small companies with less than 100 employees become more important, accounting for approximately 30% of business R&D expenditures. Geographically, Ontario and Quebec were responsible for 76% of business enterprise expenditures on R&D in 2010 (Statistics Canada, 2012).

In Canada, public-sector spending on R&D is high. As an example, higher education expenditure on R&D was at 0.65% of GDP in 2011, well above the OECD median (0.44%), (OECD, 2012; Industry Canada, 2012). Status in the academic arena (publishing and patents) is an important factor that is perceived as a major advantage in the R&D market in terms of securing funding for innovation (OECD, 2008). In addition, the Government of Canada fosters R&D activities and innovations through direct funding, tax incentives as well as policy support. For instance, Canada is among the leading OECD countries in terms of fiscal and tax incentives for R&D conducted by private-sector firms (OECD, 2011). In the 2012 federal budget, the government pledged to spend \$1.1 billion over the next five years directly supporting R&D and another \$500 million for venture capital (Budget 2012).

3.2 Government of Canada Leveraging Departmental Needs for R&D

The analysis of GC spending on R&D goods and services procurement through PWGSC identified that, over the FY05/06 to FY09/10 period, PWGSC's total annual average contract value awarded for R&D goods and services was approximately \$300 million.

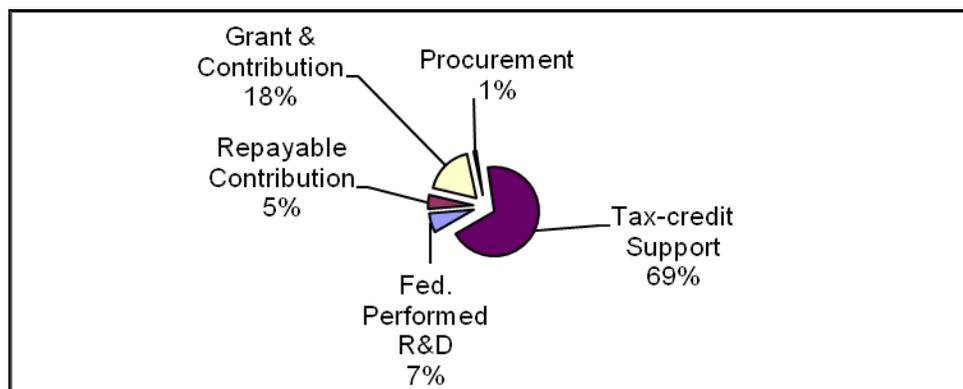
Innovation Canada: A Call to Action, a Review of Federal Support to Research and Development an Expert Panel Report, and the subsequent Special Report on Procurement identified a budget of \$240 billion (*Canada First Defence Strategy*¹) to be expended on defence and security over a 20 year period, which was initiated in 2007. When reviewed in conjunction with the total direct federal support by program area in fiscal year 2009 – 2010 (Refer to Figure 1) representing:

- Procurement approximately 1% of the figure
- Non-repayable grant and contribution programs 18%
- Repayable contribution programs 5%
- Federally performed R&D expenditure 7%
- Directed to tax-credit support 69%

R&D contracts with industry promote business innovation while potentially improving outcomes for Government departments and strengthen their ability to deliver on their mandates, including commercialization and leveraging the initial investment.

¹ <http://www.forces.gc.ca/site/pri/first-premier/defstra/summary-sommaire-eng.asp>

**Figure 1:
2009–2010 Total Direct Federal Support to Defence and Security by
Program Area**



Source: *Innovation Canada: A Call to Action, a Review of Federal Support to Research and Development an Expert Panel Report, and the subsequent Special Report on Procurement*

3.3 PWGSC Contract Activity for Research and Development²

Over a five-year period (FY05/06 to FY09/10), the average value of contracts awarded annually by PWGSC for R&D goods and services was approximately \$300 million, the average number of contracts and amendments awarded was 1,559 annually. (See table 1).

Original contracts accounted for 30% of the number of documents awarded and 64% of the value awarded. Amendments used to modify contracts including exercising options, accounted for a large proportion (70%) of the annual business volume as would be expected with an R&D project. (Refer to table 1).

Table #1 Number of Documents and Value Awarded by Document Type

Document Type	Value Awarded	% of total value awarded	# of documents	% of total documents
Contract	\$191,778,888	64%	469	30%
Amendments	\$106,920,717	36%	1,090	70%
Total	\$298,699,605	100%	1,559	100%

Source: AIS based on 5-year average. AIS Data: FY05/06 to FY09/10.

On average, between FY05-06 and FY09-10, HQ accounted for 37% of the number of contracts/amendments awarded and 58% of the value awarded. Quebec Region, which has large clients, such as the Canadian Space Agency and Defence Research and Development Canada (Valcartier), handled 30% of

² Source: Acquisitions Information System (AIS) based on 5-year average FY05/06 to FY09/10. AIS contain contractual data for contracts and standing offers awarded by PWGSC only. Contractual data for contracts and standing offers awarded by government departments directly is not included.

the number of documents and accounted for 25% of the average contract/amendment value awarded.

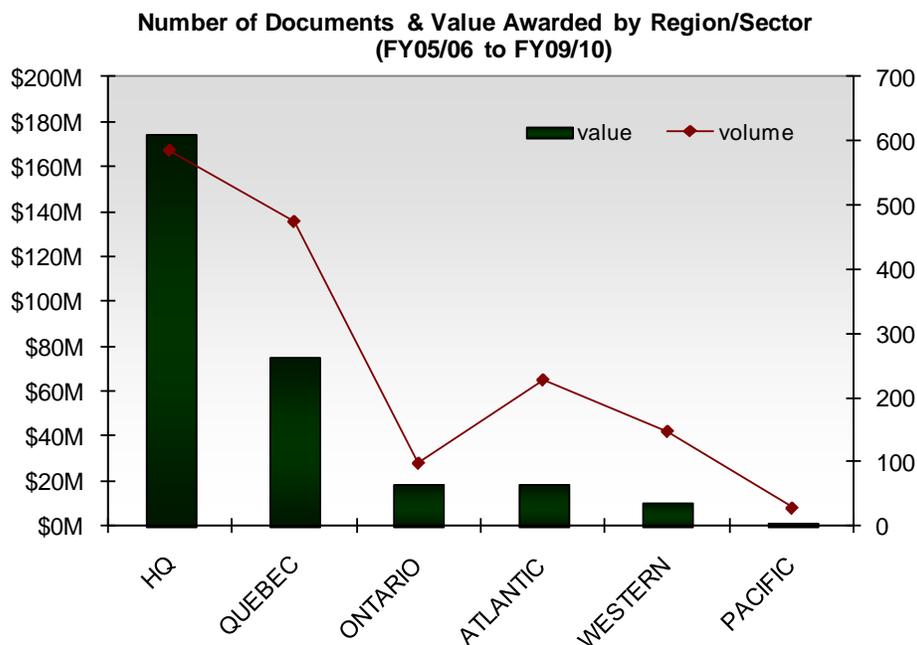
Table #2 Number of Documents and Value Awarded by PWGSC Region/Sector

Region/Sector	Value Awarded	% of the total value awarded	# of documents	% of total documents
HQ	\$174,377,703	58%	584	37%
QUEBEC	\$75,002,601	25%	473	30%
ONTARIO	\$18,866,421	6%	98	6%
ATLANTIC	\$18,329,822	6%	227	15%
WESTERN	\$10,710,328	4%	147	9%
PACIFIC	\$1,412,730	0.5%	28	2%
TOTAL	\$298,699,605	100%	\$1,559	100%

Source: AIS based on 5-year average. AIS Data: FY05/06 to FY09/10.

Notes:

- HQ = Commercial Acquisition and Supply Management Sector (CASMS), Defence and Major Project Sector (DMPS), Service and Specialized Acquisitions Management Sector (SSAMS) and Service and Technology Acquisitions Management Sector (STAMS)
- Western also includes: Nunavut, Yukon, and Northwest Territories.



3.4 Benefits of R&D Contracting to Industry by the GC

There is strong and continuing support in government for contracting out R&D. The benefits of R&D contracting out for the Government are:

- Access to the best outside expertise selected through a competitive process.

- The optimum benefit to Canada and Canadians through the competitive process.

Industry benefits from contracting with the government by:

- Increasing revenue to support their operations;
- Being able to retain and/or support technical staff;
- Obtaining scientific feedback from government to integrate improvements into their goods and/or services being developed;
- Acquiring business experience (acumen) with a sophisticated, demanding (but friendly) client;
- Gaining credibility when dealing with other clients, as an important reference sale; and,
- Testimonials from government scientists when selling to other clients.

3.5 Results of Preliminary Consultation

Preliminary consultations with both suppliers and government clients occurred in October of 2010. Comments received follow.

3.5.1 Suppliers

From the supplier perspective, the following works well:

- Individual contracts ensure work is well-detailed;
- Procurement officers are knowledgeable; and
- Contracts provide opportunities for SMEs.

Suppliers indicated that the following can be improved:

- Competing for contracts (developing a bid) can be expensive;
- More emphasis in the evaluation criteria on quality rather than price;
- With respect to Request for Proposals (RFPs):
 - Statements of work are complicated and unclear,
 - Evaluation places too much emphasis on past experience, and
 - There is a perception that some requirements are tailored towards specific suppliers.

3.5.2 Government Departments

Overall, Government departments were satisfied with respect to the following:

- The level of PWGSC procurement expertise;
- The use of contracts as the main method of supply for R&D; and
- Inclusion of green strategies, such as receiving electronic documentation from suppliers to assist in meeting the Policy on Green Procurement.

Government departments expressed concerns with respect to the following:

- The procurement process is too long, including numerous steps and reviews, the combination of which does have a high perceived value.

The procurement process lacks flexibility:

- There exists a level of uncertainty that accompanies R&D projects which requires a more flexible approach, to allow for the normal iterative development cycle to operate while still respecting the contractual agreement; and
- Statements of work can change during the contract to address research results, which can affect the required good/service.

PWGSC is too risk averse:

- Increased risk is inherent in R&D projects and contracts, but the normal terms and conditions used by PWGSC are unsuitably restrictive, for example a project that has a high likelihood of failure would be ill matched with terms and conditions created for use with normal commercial products, where, for example, one would require a warranty,
- High level of risk aversion is counter-productive – it prolongs/prohibits moving forward with the R&D project, and
- Varying understanding of issues specific to R&D goods and services (warranties, Canadian Content, cost-sharing, etc) results in inconsistent approaches to procurement across PWGSC – contracting officers, quality control, legal services, multiple regional offices, all impact on consistent quality of service and creates obstacles during the procurement process.

Better communication and application of basic principles:

- Regular, more frequent, communication with contracting officers is required;
- Status updates on delays, process would be welcomed by clients, and
- Explanations or training related to the procurement process, including the approval procedure, is needed for clients.

Continuity of PWGSC Service:

- Staff changes have an impact on the quality of service as each officer can approach procurement from a different perspective,
- There is a learning curve for the new officer with a resulting impact on the timeline,
- There is a lack of consistency across PWGSC in terms of applying legal principles to R&D projects and interpreting and applying policy, and
- There is a need to build relationships with government departments.

Government departments recommended the following:

- Introduction of more flexibility and less risk aversion into the procurement process;
- Distribution of checklists and template documents to help develop the statement of work (SOW) and evaluation criteria and better understand the approval process;

- Establishment of consistency in procurement approach among different offices;
- Provision of regular communication on the progress of the procurement; and
- Provision of consistency in the application of approaches to similar issues, such as warranty and limitation of liability.

4 Innovation Canada: A Call to Action – Special Report on Procurement

In October 2011, the “*Innovation Canada A Call to Action – Special Report on Procurement*” (“submitted by Tom Jenkins” was released. The main focus of the Special Report is the recommendation to leverage federal procurement in support business innovation. PWGSC has recently participated in several initiatives that are identified in the Special Report. These initiatives include the Build in Canada Innovation Program (BCIP).

As stated in the Special Report, “government has a huge, ongoing need for an array of goods and services in a broad range of innovative activities.” In the Jenkins Report, there are a number of significant recommendations that when implemented, will have a significant impact on R&D procurement. The recommendations from the Jenkins Report include:

- Establishing a new sub-objective to contracting policy to support innovation (in line with current sub-objectives such as green, aboriginal and SME considerations);
- Encouraging innovation through specifying requirements in terms of their performance or functional characteristics rather than their design characteristics;
- Encouraging the use of value propositions through the use of point-rated evaluation criteria to support Canadian innovation-oriented enterprises; and
- Encouraging collaboration among government, industry and academia.

5 Overview of the Procurement Processes

Introduction

PWGSC uses several methods to acquire R&D goods and services in order to reflect the unique, innovative and state-of-the-art nature of the work. These approaches are:

1. An approach based on individual requirements through:
 - Competitive Requests for Proposal (RFP); and
 - Directed Contracts (Sole-Source).
2. A program-focused approach based on competitive Call for Proposals (CFP), which allows for solutions to be proposed.

3. Collaborative partnerships that demonstrate new approaches to procurement in specific areas.

Approximately 70% of all R&D contracting out within PWGSC is competitive in nature, with 30% undertaken through directed contracts with suppliers. Each method of supply is detailed below.

5.1 Competitive Requests for Proposals

The most common method of supply for R&D contracting is the use of competitive RFP. These are published on the Government Electronic Tendering Service (GETS) for a specific period of time (based on various factors, such as complexity, application of the trade agreements, etc.).

A RFP is a form of bid solicitation. Bidder selection is mainly based on best overall value rather than on price alone. Under this method of supply, Bidders propose a response to the same requirement. Bids are evaluated and the successful supplier must be selected in accordance with specific criteria and procedures as set out in the bid solicitation. The criteria can take the form of mandatory, point rated, and financial criteria.

The RFP clearly defines and communicates the method of selection such as: a) highest combined rating of technical merit and price; b) highest technical score within a maximum stipulated budget.

In some cases, consideration can be given to soliciting bids in two steps: during the first step requests that suppliers provide letters of interest and qualifications, from which a short list is developed; in the second step, suppliers on the short list are requested to submit detailed bids; potential bidders not included on the short list are still able to request the bid solicitation and submit bids.

5.2 ACAN Awards or Sole-Source

When it is believed that only a single supplier exists, a contract can be addressed in one of two ways: a) through an Advanced Contract Award Notice (ACAN); or, b) issued without publication to a specific supplier. This determination is based on the degree of certainty as to the potential existence of alternative suppliers.

An ACAN is the announcement of the GCs' intention to contract with a specific supplier and is published on GETS for a minimum of 15 days to allow potential bidders to submit a statement of capabilities demonstrating they can provide the good or perform the service. Within the ACAN there is a description of the challenge mechanism, and mandatory requirements, and the stipulation of the Treasury Board Government Contracting Regulations and applicable trade agreement exceptions to competitive contracting, with justification for selecting the chosen supplier. If a statement of capability is received, and accepted as valid, the procurement is then tendered through the RFP process. If no challenge is received and accepted, the GC proceeds with the contract negotiations with the selected supplier.

5.3 Competitive Call for Proposals – Program Approach

The Call for Proposals (CFP) is a competitive method of supply that meets strategic government requirements, promoting excellence and stimulating innovation by soliciting project proposals in a competitive environment.

Under this method of supply, the focus of the CFP is on collaboration between government, industry and/or academia in various proportions. Such an approach is in keeping with the Centres of Excellence concepts detailed in the *Advantage Canada Economic Plan* (2006).

Statements of the problem or general research interest, priorities or gaps are defined and the resulting solutions and technology domains proposed by bidders can vary widely. Each bidder proposes its own project, technical approach and Work Plan/Test Plan as applicable. All proposals must respond to the identified gaps, priorities and general interest. Each proposal is unique and will not propose the same product or action.

Bids are evaluated against the same combination of mandatory, technical and quality of ideas or solutions versus financial criteria as published in the solicitation. There is technical competition in the market place. Cost or price is rarely the sole deciding factor.

Proposals undergo a scientific review process based on priorities and gaps. A proposal that may be weak in one area yet reflects strength overall, may be considered for award if its final evaluated score falls within the order of highest ranked proposals and the financial proposal within the allocated budget of the specific Call. The CFP follows clearly defined/communicated methods of selection which is consistent with the approved project. The selected proposal forms the basis of a Statement of Work, which will be used in the resulting contract.

The SOW is developed through consultations with the Contractor, PWGSC Contracting Authority and client, based on the proposal submitted and recommendations from the Evaluation Committee. A well defined SOW is a key component to the success of the contract and therefore requires substantial consideration. This process must be carefully managed as it is one of the highest risk components of the Call for Proposals method of supply.

Currently, PWGSC uses CFPs for three different government programs, these are:

1. The Build in Canada Innovation Program

The Build in Canada Innovation Program (BCIP) supports innovation, Canadian businesses, and improves the efficiency and effectiveness of government operations by providing innovation evaluation to assessments to government end-users and feedback of pre-commercial goods and services to the Contractor.

The BCIP has identified four Priority Areas of interest. Each proposal must demonstrate 80% Canadian Content, be provided by Canadian bidders, offer an innovation that has not been sold commercially. Financial proposals must be \$500,000 or less (GST/HST extra).

2. The Canadian Safety and Security Program

Since 2006, Defence Research & Development Canada (DRDC) Centre for Security Science (CSS) has been the focal point in coordinating a shared approach to the delivery of three public safety and security science and technology (S&T) programs: the Chemical, Biological, Radiological, Nuclear and Explosives Research and Technology Initiative (CRTI), the Public Security Technical Program (PSTP) and the Canadian Police Research Centre (CPRC) through partners at all levels of government, industry, and academia. In 2012, DRDC integrated these three individual programs into a single harmonized program, the Canadian Safety and Security Program (CSSP).

Program priorities have been identified to guide CSSP investment decision making. These investment priorities emphasize capability areas, objectives and threats/hazards that are relevant to the CSSP.

Investment priorities are linked to the CSSP outcomes. The CSSP long term outcomes have been articulated to enable the development of greater resilience to global and domestic high-consequence public safety and security events. The CSSP's investments strive to increase the nation's economic vibrancy, sovereignty, multi-jurisdictional security/intelligence and national emergency management systems, and public confidence through the application of S&T.

The CSSP CFP process involves a three-stage procurement process (Stage One: Synopsis, Stage Two: Full Proposal and Stage Three: PWGSC Contracting).

3. The Defence Industrial Research Program

The Defence Industrial Research Program (DIRP) is led by DRDC. The primary objective of the DIRP is to support the strategic research interests of the Canadian Forces and to introduce new and innovative technologies into the Department of National Defence. In addition, the program supports and complements the areas of S&T expertise associated with DRDC. The program is also designed to stimulate research and innovation among the Canadian defence and security industrial base through the provision of cost-shared contracts and scientific support. DIRP fulfills a need and provides direct benefit to the GC, achieves objectives and assists in delivering on DRDC's mandate. The requirement is intended for eligible industry-initiated research projects relevant to the defence of Canada.

The DIRP is a cost-shared program that contracts eligible R&D projects at a maximum 50% sharing ratio to a maximum value of \$500,000. DIRP focuses

on projects from the laboratory to the experimental model of proof-of-concept stage. Projects must have a strong research component.

The Open Season Call for Proposals methodology is open for a one-year period on the GETS, with proposals being received during the “open season” bidding period. This new approach to R&D contracting is critical for DRDC to continuously be exposed to innovative and emerging technologies. It also permits DRDC to remain active in identifying priority gaps. The “open season” concept stands out due to the flexibility and collaborative nature of the process. Bidders are permitted to engage DRDC scientists prior to submitting their final proposals – an important step to ensure quality proposals are received by all suppliers.

The DIRP includes five major categories and 38 distinctive topic areas which can be submitted as proposals for consideration.

5.4 Collaborative Partnerships

In addition to the approaches demonstrated through the program focused Call for Proposals, PWGSC, along with other departments, the private sector and academia have entered into collaborative arrangements to address certain R&D requirements. The following is a list of collaborative initiatives either currently underway, in place or being considered. This strategy foresees the possibility of other such collaborative initiatives.

5.5 PWGSC/CSA/NASA

PWGSC facilitates contracting with Canadian firms on behalf of the Canadian Space Agency (CSA) in response to missions advertised through competitive Announcements of Opportunity (AO) issued by International Space Agencies such as the National Aeronautics and Space Administration (NASA), European Space Agency (ESA) and Japan Aerospace Exploration Agency (JAXA). PWGSC issues a parallel solicitation to Canadian Industry and Academia requesting proposals related to the AO. Bids are selected on scientific merit and compatibility with the mission and CSA objectives. The CSA and PWGSC evaluate, select and the CSA will subsequently endorse proposal(s) submitted by Canadian bidders. If the selected proposal by NASA has a Canadian component, PWGSC negotiates and issues the resulting contracts on behalf of CSA for Canada's contribution to the Mission.

5.6 Canadian Institute for Military and Veteran Health Research

The Canadian Institute for Military and Veteran Health Research (CIMVHR) is an innovative organization that is building a pan-Canadian coordinated academic approach to health research relating to military personnel, veterans and their families by engaging existing academic research resources and facilitating the development of new research, research capacity and effective knowledge exchange. A unique collaborative and contractual arrangement has been established between CIMVHR and PWGSC. The federal government of Canada is represented by CF Health Services, Veterans Affairs Canada and Defence

Research & Development Canada (DRDC). The CIMVHR is physically located at Queen's University, Kingston, Ontario.

With a network of more than 25 Canadian universities, the CIMVHR will serve all Canadian stakeholders interest in military and veteran health research and provide a conduit between the academic community, not-for-profit groups, government and relevant international organizations with a focus on ensuring sustainability through increased public awareness and public-private funding. Collaboration with provincial partnerships is a potential future benefit that may be explored during later stages of the program.

6 Leveraging and Improving R&D Procurement

6.1 Leveraging Government R&D Needs

Departments and agencies have needs for R&D goods and services. PWGSC procures these needs from private sector and universities. While doing so, PWGSC seek to leverage and enhance the benefits from this procurement. This provides incentive to industry, which typically drives innovation. Thus, the GC is in the enviable position of being able to support further development through to commercialization by identifying areas of potential R&D investment through solicitation. The GC creates viable market demand, as demonstrated through the CFP (Call for Proposals) program.

6.2 Integrating and Applying a Value Proposition Model in R&D Procurements

Utilizing the innovative value proposition approach in the procurement of R&D, where feasible and appropriate, PWGSC can offer the competitive advantage to those firms that, for example, demonstrate the capability and capacity to commercialize in Canada.

A Bid Evaluation Models Working Group (BEMWG) within PWGSC was tasked to assess the application of existing bid evaluation models and to develop a value proposition (VP) based conceptual model. In addition to addressing performance, cost and delivery, the VP model will also consider economic benefits and other national objectives. Some examples of additional value proposition elements are the capability, capacity and commitment of the bidding firm to sustainability, innovation, efficiency and technology transfer related to the production of the good or delivery of the service.

The VP Model will allow bidders to supplement their technical expertise with additional value-added skills and capabilities in domains of interest to the federal government, such as:

- Cost-sharing / In-kind contribution;
- Multi-disciplinary collaboration or involvement;
- Commercialization in Canada;
- Potential for commercialization;

- Innovation to increase the state-of-the-art;
- Utilization of Canadian SMEs as sub-contractors;
- Canadian content; and,
- Environmental sustainability.

Such VP considerations will allow bidders to identify areas of quality to maximize the potential direct and indirect benefits to Canada and demonstrate their commitment over and above the technical capabilities. To ensure the quality of the technical evaluation is not compromised, PWGSC will utilize a balanced approach, by ensuring the value added considerations do not inordinately outweigh the proposed solution to the actual requirement.

6.3 Focusing Industrial and Regional Benefits

Industry Canada (IC) has recently endeavoured to better align the Industrial Regional Benefit (IRB) policy with the emerging technology needs of the Department of National Defence (DND). As such, IC is introducing a new Enhanced Priority Technology List (EPTL) that contains the emerging and transformational technologies needed by DND over the long term. The value proposition under the new process associated with the EPTL will require bidders to identify how they will align IRB activities with technologies and services identified on the EPTL. In this way, Canadian industry is encouraged to perform R&D activities. For further information on the EPTL, refer to the following website <http://www.ic.gc.ca/eic/site/042.nsf/eng/00062.html>.

IRBs are being applied on high value Defence Projects, including those involving Space Science and Technology. The following represent challenges and considerations that were identified during preliminary consultations on the draft R&D National Procurement Strategy.

6.3.1 Private Sectors R&D Performers

A critical concern in the procurement of R&D goods and services is reaching highly specialised R&D performers that have not traditionally done business with the GC, or have difficulty in submitting a compliant proposal. Many suppliers that are capable of supplying innovative goods or services are not aware that opportunities exist with the federal government.

Provinces and universities have already developed a network and communication channels that likely provide better access than PWGSC currently has to further access performers that will help procurement.

PWGSC will work with these communities to help to better access R&D performers while maintaining our traditional solicitation approach. PWGSC will seek to complement these engagement channels using different methods, such as:

- Social media
- Press release
- Industry associations

- University alumni.

To achieve this objective PWGSC will establish a CoP for R&D Procurement to facilitate engagement with specific subject matter experts from both PWGSC and government departments. The CoP will encourage communication between universities, government departments and industry. PWGSC will continue to engage more directly with government networks.

6.3.2 Contracting with Universities and Not-for Profit Organizations

PWGSC will explore increasing the level of direct engagement with various Science & Technology (S&T) communities, including universities and Not-for-Profit organizations to improve their participation in procurement opportunities offered by PWGSC.

Contracting with universities poses unique challenges. First and foremost, university scientists often lack the support to respond to RFPs. Universities are often not equipped to accept Government of Canada-imposed indemnification clauses, or give up the Moral Rights to deliverable items as required by the standard terms and conditions. Furthermore, intellectual property IP rights require negotiation due to the universities' need to own and publish the results.

In the past there were specific General Terms and Conditions used in contracts with universities, but as part of the Standard Acquisitions Clauses and Conditions (SACC) Manual consolidation undertaken a few years ago, these were set aside.

Frequently, the R&D contracts that the GC puts in place are 'subsidized' by grants and stipends through other programs within the university as it supports their core research activities. The use of students as researchers promotes knowledge and expertise, contributing to a highly skilled workforce.

To achieve the objective of rationalizing the challenges of costing and application of IP policy for public institutions, PWGSC will engage stakeholders by establishing a CoP for R&D Procurement to facilitate engagement with specific subject matter experts from both PWGSC and government departments. The CoP will encourage communication between universities, government departments and industry. PWGSC will continue to engage more directly with Government networks.

6.4 Addressing Specific Challenges to Improve Effectiveness of R&D Procurement.

6.4.1 Harmonization of the Application of Individual Strategies and Terms and Conditions

There exists the perception of inconsistent practices in the procurement process between Headquarters and the Regional Offices due to lack of communication, evolving legal advice and interpreting complexities stemming from the "web of

rules.” This is most frequently seen in the application of Intellectual Property, Limitation of Liability, warranty and Canadian Content policies.

PWGSC will clarify and standardize on the application of socio-economic policies, and provide relevant examples of requirements, including where the Canadian Content approach was tailored to meet the needs of clients and achieve socio-economic objectives. This guidance will be documented in the R&D Contracting BOK and through the CoP.

6.4.2 Canadian Content

The Canadian Content Policy encourages industrial development in Canada by limiting, in specific circumstances, competition for government procurement opportunities to suppliers of Canadian goods and services. The Canadian Content Policy frequently plays a significant role in the procurement of Research and Development.

The standard definition of Canadian content is: a minimum of 80 percent of the total proposal price must consist of Canadians goods and/or services. The Policy encourages industrial development in Canada by limiting, in specific circumstances, competition for government procurement opportunities to suppliers of Canadian goods and/or services.³

There are several challenges in applying the standard Canadian Content Policy to R&D, particularly with respect to Technology Demonstration Projects. These are:

- Technical requirements are exigent, which tends to constrain the number of suppliers who meet the requirement;
- Limited interest by suppliers to bid on R&D is influenced by a perceived fit;
- When the solicitation calls for cost sharing by contractor;
- Limited response from bidders on certain requirements due to narrow market such as pharmaceuticals for defence applications.

The parameters for Canadian content should be adjusted based on a strong business case analysis. PWGSC will provide relevant examples of requirements, where the Canadian Content approach was tailored to meet the needs of clients and achieve socio-economic objectives. This guidance will be documented in the R&D Contracting Body of Knowledge.

6.4.3 Limitation of Liability

In contractual matters, both parties are responsible for managing risks and liabilities under their control. This division of responsibility reflects both common

³ Source: Annex 5.1: Canadian Content Policy
Supply Manual version 08-1
http://publications.gc.ca/collections/collection_2009/tpsgc-pwgsc/P26-1-2008-2E.pdf

and civil law. Based on this legal principle, Canada may or may not include a clause (or clauses) in procurement contracts, to ensure that it is protected from losses caused either by the contractor's performance of the contract or from the performance of the good or service delivered.

Treasury Board's Policy on Decision Making in Limiting Contractor Liability in Crown Procurement Contracts defines Limitation of liability as the establishment by contract of a predetermined maximum financial responsibility that might be more or less than that imposed by law in the absence of such contractual limitation.

The TB Policy on Decision Making with Respect to Limiting Contractor Liability in Crown Procurement Contracts splits all covered procurement contracts into four Models. The four risk-based Models have been developed to assist departments by providing administrative groupings for expeditious and consistent consideration of limitation of liability.

Generally, in R&D contracts, Canada is 'silent' on liability as stated in our general conditions. General Conditions – Research & Development (2040) states that *“The Contractor is liable for any damage caused by the Contractor, its employees, subcontractors, or agents to Canada or any third party. Canada is liable for any damage caused by Canada, its employees or agents to the Contractor or any third party. The Parties agree that no limitation of liability or indemnity provision applies to the Contract unless it is specifically incorporated in full text in the Articles of Agreement. Damage includes any injury to persons (including injury resulting in death) or loss of or damage to property (including real property) caused as a result of or during the performance of the Contract.”* The liability will then be subject to the common or civil law. In certain circumstances, it is in the public interest for the Crown to assume all or part of a contractor's potential liabilities. This transfer of potential risk or liabilities is set out in a limitation of liability or indemnification clause. This policy provides for a risk-based, administratively efficient management regime that responds to program delivery challenges, recognizes market place realities, and supports effective stewardship of public funds.

PWGSC will examine limitation of liability in greater detail and document case-by-case assessments to determine the technology or domains where issues typically surface in R&D contracts and include this intelligence in the Body of Knowledge. This may include the development of a “groupings”, which will enable a further standardization of approach. Further linkages will be made with the current Risk Management Framework. This will ensure consistency of service and increase certainty for suppliers.

6.4.4 Intellectual Property

Intellectual Property (IP) includes any rights resulting from intellectual activity in the industrial, scientific, literary, or artistic fields including all intellectual creation legally protected through patents, copyright, industrial design, integrated circuit topography, and plant breeders' rights, or subject to protection under the law as

trade secrets and confidential information. IP does not include prototypes or any other physical embodiments of intellectual creation when such physical embodiments are deliverables of a Crown Procurement Contract.

Treasury Board's Policy on Title to Intellectual Property Arising under Crown Procurement Contracts recognizes that the primary objective in entering into Crown Procurement Contracts is to receive the deliverables contracted for, and to be able to use those deliverables, and any IP arising by the virtue of such Crown Procurement Contracts for GC activities. The application of this policy is misunderstood by part of the target supplier community. Feedback received during the consultation on the draft NPS indicates that there will need to be additional communication efforts and to support this activity, PWGSC will develop a concise survey to assess which areas and industries are highest priority. This will help mitigate the communication challenge that may preclude suppliers from bidding.

6.4.5 Warranty

It is difficult to place a warranty for an R&D good or service. The nature of R&D is such that requiring a warranty may not be appropriate in all cases. It is not generally possible to determine what the expected useful life span of an R&D output actually is.

General Conditions – Research & Development (2040) identifies specific provisions for warranty that states, *“the contractor warrants that, for twelve (12) months (or any other period stated in the contract), the Work will be free from all defects in design, material or workmanship, and will conform to the requirements of the contract.”*

Contractors have, understandably, taken issue with this provision. Most R&D projects include some degree of technical uncertainty and risk, and in some cases, projects incorporate learning through trial and error. Discretion is therefore required in differentiating between advancement of knowledge and defects in R&D work.

Related to the warranty issue is “fitness for purpose”; that is, whatever is being purchased will do what it is supposed to do. In an R&D environment, projects often identify target performance and process objectives. The degree to which they are met through the course of the contract may vary based on technology readiness level and many other considerations. A strict interpretation of the current standard clauses may not be appropriate.

In the short-term, PWGSC, in consultation with the client, will determine on a case-by-case basis if the warranty clause will be altered or removed from the general terms and conditions. PWGSC will explore with departments and industry, when and under what groupings or circumstances the warranty provisions should be modified and to what degree. This will reduce a barrier to suppliers and help to standardize the procurement service, which will further allow new suppliers to participate.

6.5 General Procurement Elements that Can Impact R&D Procurement

There are a number of programs and initiatives at PWGSC and across government that influence procurement strategy.

6.5.1 Small and Medium Enterprises (SME)

SME represent an important source of business in Canada and an important industry for the procurement of R&D goods and services. During fiscal years 2005-2006 to 2009/2010, R&D contracts with large business an average of 36% of the total contract value; but only 29% of the number of contracts awarded.

R&D contracts with SME represented an average of 61% of the total contract value and 65% of the total number of contracts awarded.

The remaining 3% of value awarded and 7% of contracts issued under other are foreign suppliers and suppliers with an unknown business size, which are usually businesses in joint venture.

The BCIP in particular, has simplified the procurement process to enhance SME participation in GC opportunities, and increases innovation in Canada. Similar efforts will also be made to simplify and streamline the procurement process for other programs and projects.

Figure 2: R&D Awarded Documents

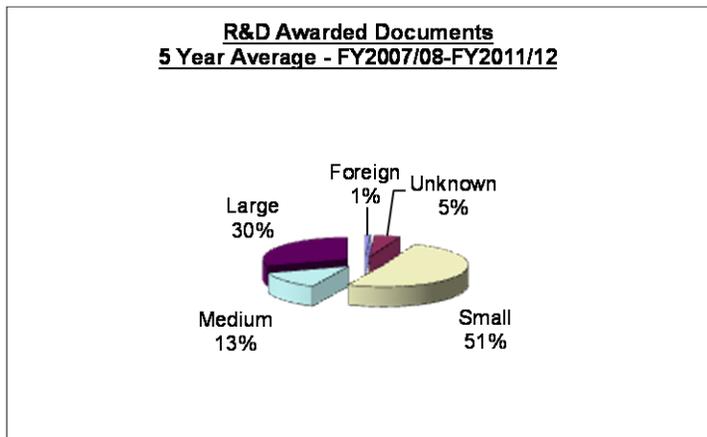
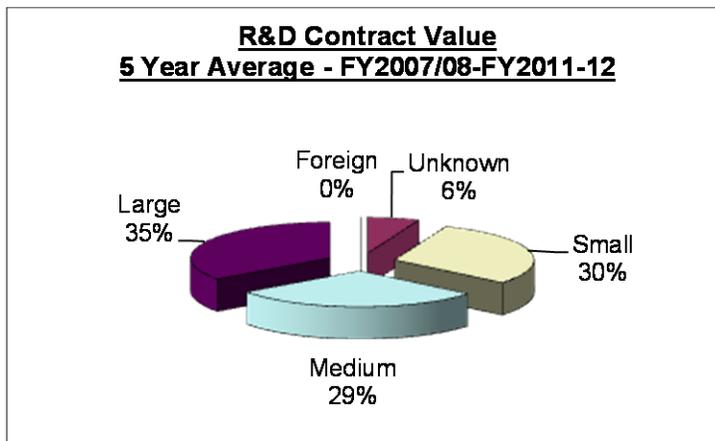


Figure 3: R&D Contract Value



Source: Acquisitions Information System (AIS) based on 5-year average from FY07/08 to FY11/12. AIS contain contractual data for contracts and standing offers awarded by PWGSC only. Contractual data for contracts and standing offers awarded by government departments directly is not included.

6.5.2 Aboriginal Enterprises

The mandatory set-aside element of the Procurement Strategy for Aboriginal Business (PSAB) opportunities is rarely used for R&D, as there are no known Aboriginal suppliers. All procurements valued over \$2 Million are sent to the Procurement Review Committee (PRC) for review, and provide recommendations for socio-economic benefits. Comprehensive Land Claims Agreements (CLCA's) are rarely applied since the procurements do not involve the delivery of goods and/or services to the settlement areas. CLCA's are notified of solicitation opportunities published on GETS.

6.5.3 Complexity Risk Assessment

As part of the Procurement Modernization Process, PWGSC has put in place a strategy that reflects:

- Streamlining requirements based on complexity (Basic / Standard/ Complex);
- Risk management considerations in the approval process;
- The removal of unnecessary oversight; and
- Increased approval authorities.

Approval authority is now based on the risk associated with the requirement, rather than dollars alone. The increased delegations for contract entry and associated amendments will reduce the administrative burden associated with the approval process and thus reduce the time to contract award.

6.5.4 Government Department Engagement

Acquisitions Branch has created a team dedicated to developing and improving relationships with government departments and agencies to better plan, understand and influence GC demand.

6.5.5 Goods and Services Identification Number (GSIN) Review

PWGSC has reviewed all commodities, identified by GSIN, to develop clarity in how commodities are defined and identified, remove obsolete and redundant commodities, and consolidate similar commodities into a single GSIN.

This will be further enhanced by the development of a web portal describing all active GSINs, applicability of R&D, more specific terminology, the office of primary interest (OPI) and contact information. The website will also provide examples of what could be included within that commodity listing, as well as exclusions, and a listing of all vendors who have registered as a supplier to the Government of Canada. The Office of SME will incorporate this site into the Buy and Sell section (<https://Buyandsell.gc.ca/>) of their site.

It is expected that rationalizing the GSIN listing for R&D and providing a more effective means of understanding the different commodities will enhance access to, as well as the quality of information, aid suppliers in identifying the services they provide more accurately, and provide government departments with ready access to PWGSC representatives.

6.5.6 Development of Service Standards

PWGSC has committed to new Service Standards across the department to ensure PWGSC continues to deliver high quality services and programs that meet the needs of our clients. This includes robust performance measures and tools, such as the client satisfaction barometer to take stock of and respond to issues raised by clients; and champion a client service culture by integrating service excellence into all facets of organization, from staffing, orientation to training.

6.5.7 Environmental Considerations

The Policy on Green Procurement was created in 2006 to advance the protection of the environment and support sustainable development by integrating environmental performance considerations into the procurement decision-making process.

As part of the 2011-2014 Federal Sustainable Development Strategy, participating departments and agencies must develop an organizational Sustainable Development Strategy that reflects the targets specific to their organization for each of the key areas.

At Bid Submission

Currently PWGSC implements the following green procurement practices to ensure the Bidder respects the following with their bid submission:

- Use 30% recycled paper;
- Print double sided (duplex printing); and
- Submit bound bids using plastic comb binding, staples, etc. (in lieu of binders with rings).

In addition, under various CFP methods of supply (Build in Canada Innovation Program (BCIP), Canadian Safety and Security Program (CSSP) and others), proponents submit their proposal electronically. Hardcopy submissions are the exception and are usually related to specific security requirements.

During Contract Period

PWGSC encourages the following practices during the contract period:

- Contractor can submit electronic documents such as invoices, supporting documentation, progress reports and other information; and
- Teleconferences / Videoconferences preferred over travel for meetings.

7 Summary of Consultation

In 2012, Public Works and Government Services Canada (PWGSC) engaged key stakeholder groups including federal government departments and suppliers, as part of a detailed review of how it procures Research and Development (R&D) goods and services on behalf of the Government of Canada (GC). The review identified strengths in the current procurement process; it also uncovered areas of opportunity that, if leveraged, should benefit federal government departments, existing and potential suppliers, and Canadians overall. More specifically, standardized approaches to procurement should lead to enhanced transparency, greater efficiency, and greater consistency.

Overall, the feedback from government departments and industry was positive and the recommendations put forth in the draft strategy were supported.

R&D is a specialized and strategically significant category. Through recommendations that were included in the Draft NPS, PWGSC indicated that it

would develop guidance and tools, establish a CoP and create an R&D Contracting BOK. The implementation of these recommendations will serve to address the majority of feedback received, making the procurement process more efficient and effective. PWGSC will seek to simplify and standardize the procurement process for R&D.

Stakeholders identified the following key issues during the consultation process:

- The bidding process is too complicated, time-consuming, and resource-intensive;
- Minimum financial and experience bid requirements do not accurately reflect supplier quality or capability and pose a significant barrier to SME participation;
- Consistent approaches and information on Warranty, Limitation of Liability, Canadian Content and Intellectual Property needs to be developed;
- Mandatory requirements are too extensive and restrictive;
- Supplier Collaboration should be increased; and
- The “Value-added” bid evaluation component in R&D should be pursued.

Strategic Direction

PWGSC is committed to improving the services it provides to federal clients. PWGSC will support the GC as an R&D Investor by streamlining processes, enhancing Canadian Content, reducing barriers, enhancing competition, increasing engagement and collaboration with stakeholders.

PWGSC will improve the procurement process for research and development further by:

- Establishing a Community of Practice (CoP);
- Developing a R&D Contracting BOK;
- Simplifying and standardizing templates and providing guidance on contracting processes, strategies and approaches with respect to: collaborative initiatives, solicitation process, Canadian Content, Intellectual Property, Limitation of Liability, Warranty, and Value Proposition, etc.;
- Offering more meaningful engagement;
- Exploring supplier training opportunities;
- Tailoring and developing tools;
- Supporting emerging environmental technologies; and
- Developing strategies to enhance and streamline GC investments in R&D procurement.

8 Action Plan

Public Works and Government Services Canada (PWGSC) will improve the procurement process for Research and Development further by:

8.1 Establish a Community of Practice

Strategic Direction

PWGSC will establish a Community of Practice (CoP) for R&D Procurement to facilitate engagement with specific subject matter experts from both PWGSC and government departments. The CoP will encourage communication between universities, government departments and industry. PWGSC will continue to engage more directly with Government networks.

Through the CoP, PWGSC will improve the consistency in the application of procedures, risk management, legal interpretations and the identification of options available in R&D contracting, understanding that the nature of R&D procurement means that there will always be a need for an appropriate degree of flexibility.

Context

Quantitative analyses from both the government departments and suppliers indicate that a majority of suppliers and those in government who responded see a benefit of CoP. Suppliers demonstrated significant interest in participation in the CoP. Although the interest from government departments was lower than suppliers, based on feedback from other channels, PWGSC is confident that there is significant interest from government departments in participating in the CoP.

It was identified that there is a need for shared knowledge, ideas and best practices across PWGSC offices involved in R&D contracting. The CoP is the specific focus around which stakeholders will develop, share and maintain its core of R&D contracting knowledge. The CoP will be an integral part of PWGSC's structure as a means to capture and disseminate relevant information. PWGSC will encourage, support, and sponsor the CoP in order to leverage the expertise and dialogue that will lead to smarter procurement.

Implementation Plan

PWGSC will implement as follows:

Activity	Timeframe
Consult PWGSC Regional Offices, government departments, other levels of government, universities, S&T networks, associations and suppliers.	Fall 2013
Develop Terms of Reference for CoP.	Spring 2013
Disseminate Terms of Reference for CoP.	Winter 2013
Communicate with CoP and hold meetings as outlined in the Terms of Reference.	Ongoing

8.2 Create a R&D Contracting Body of Knowledge

Strategic Direction

PWGSC will establish a R&D Contracting Body of BOK containing insight, guidance, examples, decision trees, reference material, best practices, lessons learned and scenario-based options to address collaborative partnerships, contracting with universities, socio-economic strategies, Canadian Content, Intellectual Property, Warranty, Limitation of Liability and Value Proposition. The purpose of the BOK is to ensure consistency of decisions.

The Contracting BOK will be an evolving repository that will be updated on a regular basis.

Context

Due to a high turnover of procurement personnel, a very complex commodity and the distance between PWGSC Regional Offices across Canada, R&D contracting could greatly benefit from a repository of intelligence that will facilitate harmonized approaches across PWGSC in R&D contracting.

Implementation Plan

PWGSC will implement as follows:

Activity	Timeframe
Research and consult on options for web tools to host the BOK.	Spring 2013
Prioritize and set a timeline for the inclusion of topics to be developed and added to the R&D Contracting BOK.	Summer 2013
Develop procedures for: <ul style="list-style-type: none">• request for content to be modified in the BOK;• request for content to be added to the BOK;• request to contribute to BOK;• quality control of BOK; and• allocation of costs associated with creating, maintaining, translating information for the BOK.	Summer 2013
Select web tool to host Body of Knowledge	Fall 2013
Send out formal request for content for BOK across PWGSC Regional Offices.	Fall 2013
Develop and arrange content for BOK.	Winter 2014
Disseminate BOK.	Spring 2014
Update BOK as per priorities and timeline for topics.	Ongoing, as required
Validate with stakeholders if the BOK has clearly identified the steps so that processes and policies are consistent.	Ongoing, as required

8.3 Collaborative Partnerships

Strategic Direction

Through the CoP, PWGSC will continue to support collaborative initiatives such as PWGSC/CSA/NASA to address R&D requirements. Furthermore, PWGSC will document best practices and lessons learned in the R&D Contracting Body of Knowledge.

Context

Overall suppliers feel that R&D procurement is on the right track with collaboration, as seen through support for the Build in Canada Innovation Program (BCIP). The majority of respondents believes there can still be an increase in SME participation, and enhanced client-supplier relationships.

PWGSC, along with other departments, the private sector and academia have entered into collaborative arrangements to realize certain R&D requirements. The strategy foresees the possibility of other collaborative initiatives to enhance overall benefits for Canadian stakeholders. This will also enhance the engagement of client departments.

Implementation Plan

PWGSC will implement as follows:

Activity	Timeframe
Through the CoP, PWGSC will consult with stakeholders on strategies, best practices and examples of collaborative partnerships.	Spring 2013
Review and summarize feedback received through the CoP on collaborative partnerships.	Fall 2013
Disseminate feedback to the CoP for comments.	Fall 2013
Document best practices on collaborative partnerships.	Winter 2014
Disseminate best practices on collaborative partnerships as part of the first content rolled out in the Body of Knowledge.	Spring 2014

8.4 Challenges and Considerations

Strategic Direction

PWGSC will simplify and standardize the RFP template so that it is more SME friendly, enhance opportunities for more meaningful supplier communication and provide guidance on the RFP process, in order to more effectively manage the timelines between bid receiving and award of contract. PWGSC will offer more opportunities for meaningful communication and diversify the engagement approach (webinars, face-to-face, bilateral meetings, as appropriate).

PWGSC will engage in dialogue at both the procurement and project level to ensure clear and direct communications with government departments. Opportunities for significant engagement will be enhanced through the CoP and exchange of information in the CoP. PWGSC will utilize Request for Information (RFI) processes to engage with R&D suppliers.

OSME will continue to offer free in-person supplier training on doing business with the federal government and will create an online learning center to provide 24/7 access to both generic and specialized supplier training, including a module on defense and security procurement which references R&D procurement. Development of additional online seminars will be considered based on the needs of the supplier community. OSME also will continue to make information available to suppliers through its Buyandsell.gc.ca Web site and national Info Line (1-800 -811-1148), as well as to provide one-on-one or tailored counseling sessions through its six regional offices (Halifax, Montréal, Gatineau, Toronto, Edmonton, Vancouver).

PWGSC will engage university and college associations and incorporate insight and lessons gained from this engagement in the Body of Knowledge. PWGSC will build and tailor existing documents and tools developed by other levels of government such as those developed by the Province of British Columbia and the Province-University Research Relationships Working Group to streamline and simplify the procurement process.

Context

Some of the barriers or challenges encountered by suppliers in the R&D procurement process include; the qualifications are excessive; the suppliers believe in some cases the same suppliers are always being awarded contracts; there is overly restricted government-supplier dialogue and that Buyandsell.gc.ca/Tenders further complicates the process.

Suppliers have indicated a few ways that PWGSC can increase participation in R&D procurement opportunities including: Increasing transparency of the process; facilitating client-supplier collaboration; and shortening decision making timelines.

Majority of the suppliers believe that free seminars given by OSME offer value.

Implementation Plan

PWGSC will implement as follows:

Activity	Timeframe
Review current R&D RFP templates and seek to simplify the template with SME in mind.	Spring 2014
Disseminate and implement procedures for distribution of template to Regional Offices.	Summer 2014
Update and disseminate RFP template.	Ongoing
Develop best practices for supplier communication	Summer 2014

and engagement on the RFP process etc.	
Engage University and College Associations via RFI process.	Fall 2014
Develop content on insight and lessons learned from University and College Associations engagement.	Winter 2015
Tailor Toolkit developed by Province of British Columbia and University Research Relationships Working Group and for PWGSC/Federal Contracts.	Winter 2015
Include developed content in BOK for dissemination.	Spring 2015

8.5 Canadian Content and Socio-Economic Considerations

Strategic Direction

PWGSC will provide guidance on socio-economic strategies, and provide relevant examples of requirements, including where the Canadian Content approach was tailored to meet the needs of clients and achieve socio-economic objectives. This guidance will be documented in the R&D Contracting Body of Knowledge. This would enhance Canadian Content in R&D.

PWGSC will provide guidance regarding Value Propositions in R&D Contracting with stakeholders to best leverage Value Proposition for the optimal benefit for clients and suppliers.

PWGSC will develop scenarios that will explain cost-sharing contracts to better leverage outreach with clients and suppliers. A CoP working group will examine the scenarios and best practices in industry. The outcome will provide better clarity and will be documented in the Body of Knowledge.

The Value Proposition (VP) Model will allow bidders to supplement their technical expertise with additional value-added elements for assessment in domains of interest to the federal government.

Context

An overall majority of government departments and suppliers support the application of flexible Canadian Content approach. The majority of respondents feel that there are no additional elements to be considered in the value proposition model, a few had specific suggestions of interest.

The value proposition model needs to be further explained and socialized among client departments and industry.

Implementation Plan

PWGSC will implement as follows:

Activity	Timeframe
Research socio-economic strategies of federal R&D Clients.	Summer 2013
Develop guidance on socio-economic strategies, and provide relevant examples of requirements where the Canadian Content approach was tailored to meet the needs of clients and achieve socio-economic objectives.	Fall 2013
Include this guidance in BOK for dissemination.	Winter 2014
Convene the CoP to discuss best practices to leverage value proposition in R&D contracting.	Fall 2014
Document and disseminate best practices on value proposition in BOK.	Winter 2015
Develop scenarios and guidance on requirements involving cost sharing.	Fall 2014
Include and disseminate scenarios and guidance in BOK.	Winter 2015

8.6 Intellectual Property

Strategic Direction

The current Intellectual Property (IP) Policy works well. Based on feedback, it is clear that there are misconceptions and a lack of understanding of IP and the IP Policy. This may be a barrier in preventing suppliers from bidding. In order to resolve this, PWGSC will provide additional guidance in the BOK for contracting officers and clients to ensure that the current IP approach is well understood and can be applied consistently. PWGSC will also be adding a frequently asked question document for R&D suppliers.

Context

Over 80% of government departments and suppliers agree with the current Intellectual Property approach effectively supports Canadian industry and academia.

Implementation Plan

PWGSC will implement as follows:

Activity	Timeframe
Develop brief survey tool to identify misapprehensions about GC IP policy as well as priority industries or sectors.	FY 2013/14
Identify IP related training opportunities for contracting officers.	Fall 2013
Develop guidelines and FAQ's for IP in R&D Contracting.	Winter 2014
Include and disseminate guidelines and FAQ's on IP	Spring 2014

in the Body of Knowledge.

8.7 Limitation of Liability

Strategic Direction

PWGSC will examine limitation of liability in greater detail and document case-by-case assessments to determine the technology or domains where issues typically surface in R&D contracts and include also commonly occurring scenarios and responses and this analysis in the Body of Knowledge. This may include the development of a “commodity grouping”. Further linkages will be made with the current Risk Management Framework. This will ensure consistency and increase certainty for suppliers.

Context

The Government departments and the Suppliers have indicated that Case-by-case approach should be used for Limitation of Liability in R&D contracts.

Implementation Plan

PWGSC will implement as follows:

Activity	Timeframe
Examine and research R&D domains where limitation of liability issues are most prevalent and how they may be categorized.	Fall 2015
Explore development of groupings for these domains. Develop suitable options to address concerns.	Winter 2015
Where groupings are not created, PWGSC will develop guidelines for using the Risk Management framework to assess the limitation of liability.	Winter 2015

8.8 Warranty

Strategic Direction

PWGSC will examine warranty in greater detail to identify and document case-by-case assessments to determine the approach to be used for warranty in R&D contracts and include this analysis and commonly occurring scenarios in the Body of Knowledge. A decision tree will be included to have a clear method of how warranty in R&D will be applied; in most cases warranty will only apply to commercial-off-the-shelf products.

Context

The majority of respondents felt that warranties are difficult to place in R & D procurement; the best method for using a warranty is a case-by-case assessment.

Implementation Plan

PWGSC will implement as follows:

Activity	Timeframe
Research R&D Warranty related issues.	Spring 2015
Develop a decision tree to provide guidance on the best application of warranty for R&D requirements.	Summer 2015
Include and disseminate the decision tree through the Body of Knowledge, to ensure consistent application of the process across PWGSC.	Fall 2015

8.9 Environmental Considerations

Strategic Direction

PWGSC will support emerging environmental technologies and demonstrate environmental leadership by encouraging suppliers and government departments to use environmentally preferable goods, services and processes while striving for the optimal balance between departmental requirements, supplier capabilities and ensuring value to Canadians.

Context

A continual integration of environmental considerations will be included in the procurement of Research and Development. PWGSC will integrate environmental considerations to encourage green practices, where possible, in consultation with the client departments. PWGSC will continue to explore all applicable environmental considerations and standards and include them in the evaluation criteria as appropriate.

Implementation Plan

PWGSC will implement as follows:

Activity	Timeframe
Include environmental consideration options in RFP templates.	Spring 2014
Disseminate RFP template.	Summer 2014

8.10 General Direction

Strategic Direction

PWGSC will explore opportunities for simplifying, streamlining and reducing barriers by engaging suppliers and getting a better understanding of their concerns. PWGSC will provide clearer and more frequent communication and will be looking at moving towards online reporting.

Context

Overall the majority of respondents feel that there is a need to simply, streamline and have a fair procurement process. It was also noted that they would like to see clear and more frequent communication and moving towards online reporting.

Implementation Plan

PWGSC will implement as follows:

Activity	Timeframe
Research opportunities to streamline and reduce barriers.	Spring 2014
Incorporate streamlining opportunities into RFP template.	Summer 2014
Disseminate RFP template.	Summer 2014
Document best practices to reduce barriers.	Fall 2015
Include best practices in Body of Knowledge.	Fall 2015
Research options for online reporting and other web tools.	Fall 2015

9 Next Steps

The NPS for Research and Development will be reviewed and updated periodically. This strategy sets the foundation for further enhancements to the management of R&D goods and services procurement as a lever to support Canada's socio and economic advantage. With additional iterations, PWGSC will identify new opportunities to be a strategic support for R&D development.

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