Science and Technology in Action: Delivering Results for Canada’s Defence and Security

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A Renewed Context for Defence and Security S&T

Key drivers:

- Evolving threat environment requires improved agility, responsiveness
  - Diminishing trend line for operations and budgets
  - Expectation to renew capability rather than expand capacity

- Innovation system dispersed, global – accessing external capacity, solutions wherever they can be found is crucial to success
  - Government scrutiny on internal versus external efforts
  - New Procurement Strategy

- Need to deliver S&T more effectively – meet client requirements through focus on strategic outcomes and through increasing burden-sharing required with Allies and partners
  - Areas for expansion and reduction pose challenges
  - Real outcomes must ensure delivery and influence
Policy Drivers for S&T Transformation

- **Canada First** Defence Strategy (refresh)
  - Realities of Afghanistan withdrawal, reduction in combat operations
  - Deficit situation forcing an “affordable” force structure and capital replacement program
  - Anticipate largest DND/CAF recapitalization program in history

- Global Engagement Strategy
  - Strategic plan to address Canadian objectives in Asia-Pacific, Americas and with traditional alliances

- Defence Procurement Strategy - Launched February 5, 2014
Why a New Strategy

Key drivers of change:

- Need to deliver S&T more effectively – meet client requirements through focus on strategic outcomes (versus tactical outputs).
- Innovation system dispersed, global – accessing external capacity, solutions wherever they can be found is crucial to success.
- Resources constrained – greater efficiency, accountability, coordination, burden-sharing required.
- Evolving threat environment requires improved agility, responsiveness.
- DND/CAF, security landscape – business process transformation a top priority, Strategic Review and Deficit Reduction Action Plan implementation ongoing, policy refresh on the horizon.
Defence and Security S&T Strategy

- Officially launched December 12, 2013.

- A long-term blueprint to ensure DND and the Canadian Armed Forces have tools and capabilities to defend Canada and carry out core missions and activities, and adapt to ever-changing demands.

- Outlines what will be needed to implement a successful defence and security S&T program focused on key partnerships.

- DRDC intends to pursue a collaborative approach marked by three principle modes of interaction:

Build, Collaborate, and Access.

What does this mean for DRDC?

1) Purpose-Built S&T Program
   - Generate a set of agreed priorities that drive S&T activities focused on strategic outcomes.
   - Integrated: **one Agency-wide** approach to program management.
   - Programs are reviewed and assessed at the Agency level prior to resource allocation.

2) Allocating Resources Strategically
   - Departmental S&T investment supports smaller number priorities while increasing effort in strategic, classified, and sensitive areas, to achieve maximum impact.
   - Resource allocation (including personnel) tightly aligned with program decisions.

3) New way of Delivering S&T Solutions
   - Defence and security S&T engages across the innovation system – catalyst to ensure best solutions are adopted, wherever they are generated.
   - Three principal modes of interaction: **Build, Collaborate, Access**.
   - Leverage the resources and expertise at all DRDC locations to manage a single program of work.
Strategic Decision Support

- Ross Graham
  - VCDS (CFD DGCSI, ...)
  - SJS
  - ADM (Pol), ADM(Mat)
  - ADM(Fin CS), ADM(IE)
  - CDI (S&T Intelligence)

Joint Force Dev.

- Julie Lefebvre
  - DG Space
  - DG Cyber
  - ADM (IM)
  - CDI

Force Employment

- Cam Boulet
  - CIOC
  - CANSOF
  - CFD
  - CMP (for SurGen)

Personnel

- Susan Truscott
  - CMP
  - AFM (HR-Civ)
  - C Res & Cadets for DND/CAF L1s

Navy

- Dale Reding
  - DGNFD

Air

- Dale Reding
  - DG Air FD
  - DG Air SP
  - DGAEPF

Army

- Guy Vézina
  - CAC (A/CLS, LFDT, COS Land Strat, COS Land Ops, COS Land Res, C-IED TF)
  - DGLEPM
  - DGMPD

Programs

- Strategic Decision Support
  - TERES

- Cyber
- Surveillance and Space
- Command and Control
- Intelligence

- CIOC
- SOFCOM
- CBR Defence
- CBRN Medical Countermeasures

- Personnel Readiness
- Personnel Protection

- Force Structure
- Above Water Warfare
- Underwater Warfare
- Maritime Information Warfare
- Naval Platforms

- Air Integrated
- Air Power
- Air Agile
- Air Reach

- The Soldier
- Land Combat Systems
- Tactical C4ISR
- The Force

Centre for Security Sciences – Public Security
3 Key Objectives of the Defence Procurement Strategy 5 Nov 13

1. deliver the right equipment to the Canadian Armed Forces (CAF) and the Canadian Coast Guard in a timely manner;

2. leverage our purchases of defence equipment to create jobs and economic growth in Canada; and

3. streamline defence procurement processes.
Delivering the right equipment to the Canadian Armed Forces and the Canadian Coast Guard in a timely manner

- Ensuring early and continuous industry and client engagement in the procurement process;

- Starting in June 2014, publishing an annual *Defence Acquisition Guide* that outlines National Defence (DND) procurement priorities; and

- Establishing within DND an independent, *third-party challenge* for military requirements.
Leveraging our purchases of defence equipment to create jobs and economic growth in Canada

- Using a weighted and rated *Value Proposition*, to assess bids for defence and major Canadian Coast Guard procurements;

- *Implementing an Export Strategy* to support international sales opportunities and participation in global value chains;

- Identifying and applying *Key Industrial Capabilities (KICs)* to inform potential economic benefits of individual procurements so that they meet the CAF’s needs and increase the competitiveness of Canadian firms in the global marketplace; and

- Establishing an independent, third-party *Defence Analytics Institute* which will provide expert analysis to support the objectives of the Defence Procurement Strategy (DPS) and its evaluation.
Industrial Benefits

- IRBs will be transformed into Industrial and Technological Benefits (ITBs) and will require regional assessment to balance benefits across Canada.

- *Rated and weighted* Value Propositions (VP) for defence and major Canadian Coast Guard procurement projects.

- Key Industrial Capabilities, or KICs, as originally identified by Tom Jenkins in his report *Canada First: Leveraging Defence Procurement Through Key Industrial Capabilities*, will be a significant factor in the rating and weighting of Value Propositions.

- Value Proposition ratings will favour actions that lead to improved economic outcomes – timing of fulfillment will be a factor.

- Requirement remains to reinvest work into Canada equivalent to 100% of the contract value.

- Early and extensive industry engagement, along with sound analytics and knowledge of the defence sector and its capabilities, will allow the Government to provide clearer direction.

- This will support the long-term sustainability and growth of Canada's defence and security industrial sectors.
Streamlining defence procurement processes

- Adopting a new regime to ensure *streamlined and coordinated decision-making* for defence and major Canadian Coast Guard procurements;

- Establishing a **Defence Procurement Secretariat** within Public Works and Government Services Canada to ensure close coordination among key departments; and

- Reviewing the current *National Defence delegated authority* to purchase goods with a view to increasing the level from the current $25,000 to achieve more efficient procurement practices.