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Intelligence Surveillance Reconnaissance Modernization (Land ISR Mod) Project

Industry Day
23 March 2020



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Today's presentation's will be provided in English only, but questions may be asked in either official language

Both the English and French versions of this presentation will be made available on
www.buyandsell.gc.ca



Agenda

DAY ONE – 23 March 2020**

1230 – 1300h	Registration
1300 – 1305h	Welcome and Administration
1305 – 1320h	Process Overview – Heather Mitchell, Contracting Authority (PSPC)
1320 – 1340h	Project Overview – Benoit Ouellet, Project Manager (DND)
1340 – 1400h	Health Break
1400 – 1430h	Requirements Overview – Captain Matt Becker, Acting Project Director (CAF)
1430 – 1445h	Costing Requirements – Heather Mitchell, Contracting Authority (PSPC)
1545 – 1600h	Industrial and Technological Benefits – Lexi Zamojski, Project Officer (ISED)
1600 – 1700h	Questions (via Email)

** Presentation only



Agenda

One-on-One Meetings** with Suppliers

Proposed Dates

- Wednesday 1 April 2020
- Thursday 2 April 2020
- Tuesday 7 April 2020
- Wednesday 8 April 2020
- Thursday 9 April 2020

** via Commercial Teleconferencing, to reduce Government Network/Resources





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Welcome & Administration Process Overview

Heather Mitchell

Contracting Authority

Land & Aerospace Equipment Procurement & Support
Sector (LAEPSS) QD Division

Defence and Marine Procurement Branch

Public Services and Procurement Canada



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Administrative Points

Communication

ALL questions, comments, communications and contact during the Request for Information process **MUST** flow through the PSPC Contracting Authority or Representative **ONLY**.

No offline discussions regarding this specific requirement, other requirements or current process are allowed with any other representatives of Canada (PSPC, DND/CAF or ISEDC).

Project Speakers

- **Ms. Heather Mitchell** – Contracting Authority, Public Services and Procurement Canada
- **Mr. Benoit Ouellet** – Project Manager, Department of National Defence
- **Captain Matthew Becker** – Acting Project Director, Canadian Armed Forces
- **Ms. Lexi Zamojski** – Project Officer, Innovation, Science and Economic Development Canada



Industry Day

A forum where Industry representatives will be presented with an overview of the requirement and for Canada to address any questions.

Ensures that the government exercises due diligence and maintains the integrity of the procurement process.

PSPC, in consultation with a 3rd party Fairness Monitor, will assure that the resulting Government of Canada procurement processes are conducted in a fair, open and transparent manner.

Industry Day

This is not a Solicitation; no Requests For Proposal (RFPs) will be established directly as a result of this Request For Information (RFI).

The intent of this RFI process is to seek information from Industry, to assist the Land ISR Mod Project:

- ✓ Provide Industry with initial information related to the Land Intelligence Surveillance Modernization (Land ISR Mod) project;
- ✓ Request information and feedback regarding indicative cost estimates;
- ✓ Determine the capability of Industry to satisfy the requirements;
- ✓ Obtain feedback on any issues that would impact any resulting solicitation or DND's requirements;
- ✓ Inform and engage industry on the Industrial and Technological Benefits (ITBs) Policy, including Value Proposition (VP)

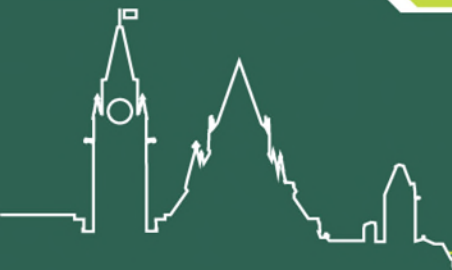
One-on-One Meetings

Provide interested participants with the opportunity to ask further questions and to present any suggestions on the Land ISR Mod Project requirements in a private setting.



Industry Day Questions

- All general Questions and Answers (resulting from this Presentation and from subsequent One-on-One meetings) will be documented and posted on www.buyandsell.gc.ca
- No information identified as Commercial Confidential, industry sensitive or proprietary will be shared



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Process Overview

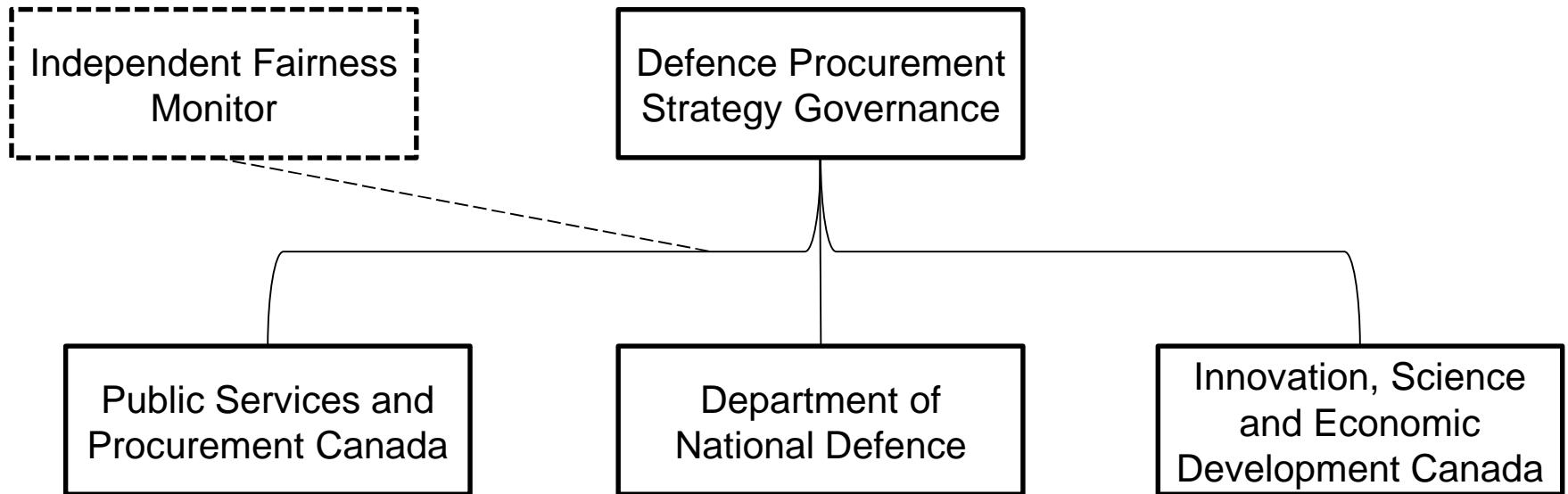


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Industry Engagement

The RFI process with Industry Engagement allows:

- Canada to refine the requirement based on technical feasibility, set realistic budgets, develop an informed procurement approach and contracting nuances
- Industry to provide crucial feedback on the requirement, procurement approach and offer potential alternatives

Request for Information (RFI) Structure

The Land ISR Mod Project RFI is structured in the following manner:

Part 1: Purpose, Terms and Conditions, Schedule, Contact, Submission

Part 2: Land ISR Mod Project description and Sustainment approach

Part 3: Questions & Response Templates

Annex C – Industrial Technological Benefits & Value Proposition

Annex D – Proposed Solution Costs: Acquisition costs, broken down, and overall annual Sustainment costs

Annex E – High Level Mandatory Requirements & Questions

Annex F – ISR Mod Sustainment Questions

A Response Matrix will be posted on Buy&Sell

After Industry Engagement

After analyzing Industry feedback, Canada will:

- Establish realistic and achievable requirements
- Develop accurate project budgets
- Gather information for draft Request(s) for Proposal (as applicable)

Objective is to gather the most realistic information possible to achieve these goals – but your help is needed.

Canada (PSPC - DND - ISED) is open to further discussion and technical demonstrations on a case by case basis (depending on availability and schedule) – and arranged thru PSPC.

Anticipated Resulting Procurement(s)

- Provide DRAFT Request(s) for Proposal to solicit feedback on the final requirements, procurement strategies and evaluation plans.
- Procurement Strategies are being developed. Industry Engagement and Options Analysis will help to influence the development of those procurement strategies for acquisition of the initial equipment and services as well as for the long-term sustainment support for the life of the equipment.



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Project Overview

Mr. Benoit Ouellet*

Deputy Project Manager

Land Intelligence Surveillance Modernization

Department of National Defence

* Note LCol Chad Johannes is Project Manager



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Canada's Defence Policy

Canada's new defence policy, ***Strong, Secure, Engaged***, sets the conditions for a full-spectrum, combat capable CAF to operate over the next twenty years putting '*people first*', while ensuring '*mission always*' through excellence in operations along a core set of eight missions.

Land Intelligence Surveillance Reconnaissance Modernization Project (ISR Mod) The ISR Mod project will enhance and improve the Canadian Army's ability to *detect, identify, and track threats to Canadian and Allied forces.*

It will deliver on three areas:

- *Networking ISR sensors for C2, queuing & cross-queuing and information sharing* with both CA C2 systems and Allied/Partner/Joint Forces **(key deliverable)**
- Modernize in-service sensors
- Introduce new sensors.

Funding Range \$100 million to \$249 million

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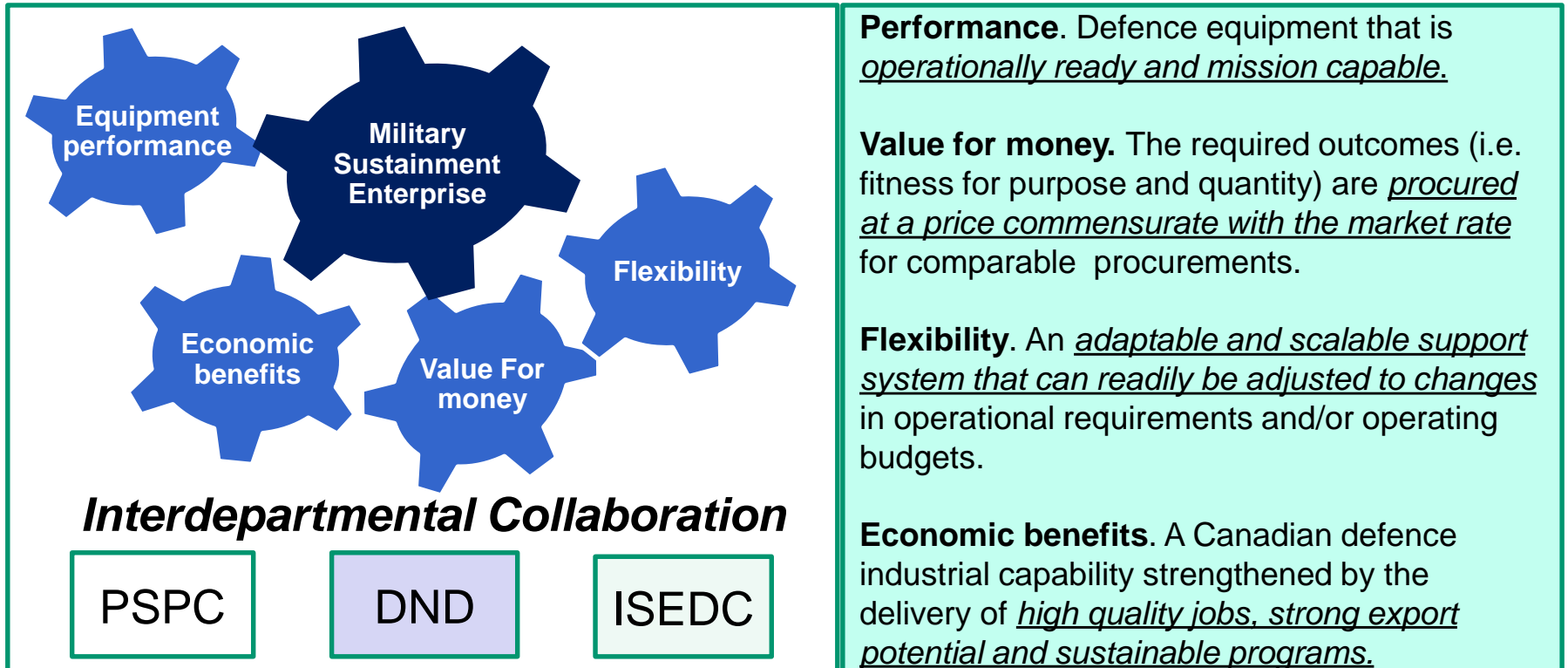


Proposed Project Schedule

<u>Procurement Milestones</u>	<u>Target Date / Timeframe</u>
Milestone 1 - Industry Engagement	2020/2021
Milestone 2 – Land ISR Mod Acquisition & Sustainment requirements available to be released as a Draft package.	2022/2023
Milestone 3 – Land ISR Mod Acquisition & Sustainment requirements available to be released as a Final package.	2024/2025
Single or Multiple Contract Award(s) in accordance with the approved Project Procurement Strategy.	2025/2026
Earliest Equipment Delivery	2027-2028
Final Equipment Delivery	2031-2032
Project Close Out / Sustainment Period Begins	2034

Sustainment

How DND approaches Sustainment - Four Principles



Performance. Defence equipment that is operationally ready and mission capable.

Value for money. The required outcomes (i.e. fitness for purpose and quantity) are procured at a price commensurate with the market rate for comparable procurements.

Flexibility. An adaptable and scalable support system that can readily be adjusted to changes in operational requirements and/or operating budgets.

Economic benefits. A Canadian defence industrial capability strengthened by the delivery of high quality jobs, strong export potential and sustainable programs.

The effectiveness of a sustainment solution will be judged by the degree to which the principles have been optimized.

Sustainment

Canada is seeking early engagement on sustainment in order to:

- Give industry the opportunity to propose innovative in-service support solutions that increase performance and efficiency;
- Increase collaboration;
- Focus on performance results and outcomes; and
- Implement industry best practices.

Health Break





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Requirements Overview

Captain Matthew (Matt) Becker *

Acting Project Director

Land ISR Modernization

Canadian Army

* Note Major Howard Han is Project Director



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Topics

- Definitions
- Current Situation/ Capability Gap
- Concept of Operations/ Industry Scenario
- High Level Mandatory Requirements
- Project Scope
- Project Deliverables



Disclaimer

The Land ISR Mod Project is in Options Analysis and, as such, the scope and requirements described within are subject to refinement.

The contents of this presentation may feature market items as representative images for the sole purpose of describing potential capability.

Definitions

LC4ISR

Land Command and Control, Communications and Computers Intelligence, Surveillance and Reconnaissance refers to the Canadian Army's projects that seek to integrate these functions into a cohesive modern network

Land ISR Network

Land ISR Network refers to the ability to link the necessary command and control personnel, their associated sensors and ancillary equipment to effectively accomplish LC4ISR tasks. While some military communications and information system hardware are in scope for the project, the primary focus of the Land ISR Network Solution is the Information System (i.e. software) to command and control Land ISR assets and turn ISR data into information.

Queuing/Cross-Queuing

Queuing/Cross-Queuing refers to the ability for the network to digitally share sensor information that enables another sensor to engage that same object in 3D environment

Definitions (con't)

Track

ISR capabilities are assigned and prioritized to track a target.

Tracking is a continuous process to monitor a target and is maintained until the successful prosecution of the target and engagement assessment.*

Fix

Focused sensors allow staff to identify and geolocate the target¹⁵ (typically via cross-cueing and intelligence fusing), conduct/confirm target mensuration (where applicable)¹⁶ and conduct an initial risk assessment.*

*NATO STANDARD

AJP-3.9

ALLIED JOINT DOCTRINE FOR JOINT
TARGETING

Edition A Version 1

April 2016

- **Mix Analog/Digital**

Network of sensors are providing both digital and analog information that are not digitally networked

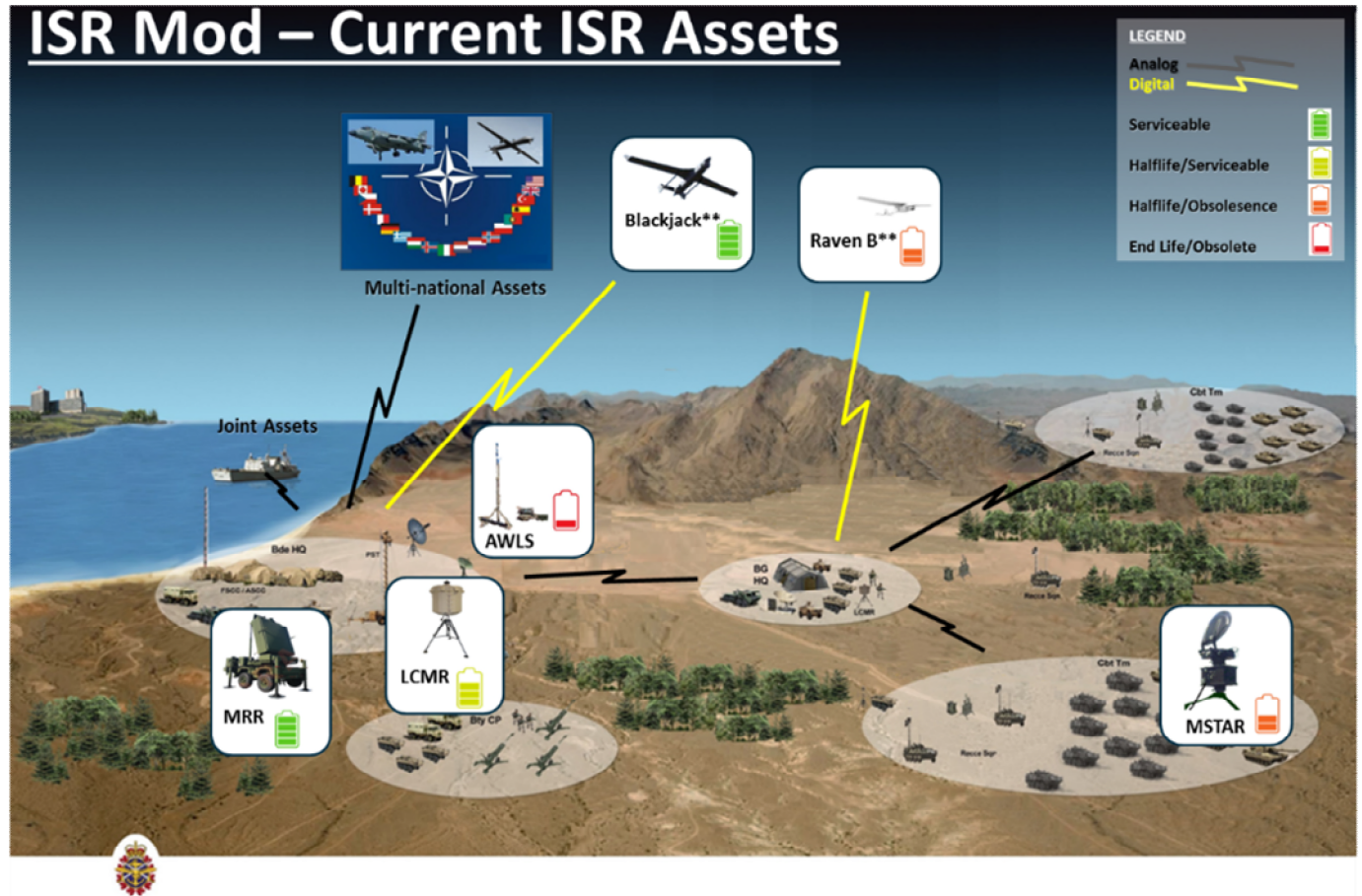
- **Interoperability** with

Joint and International Forces are via traditional analog means of information sharing

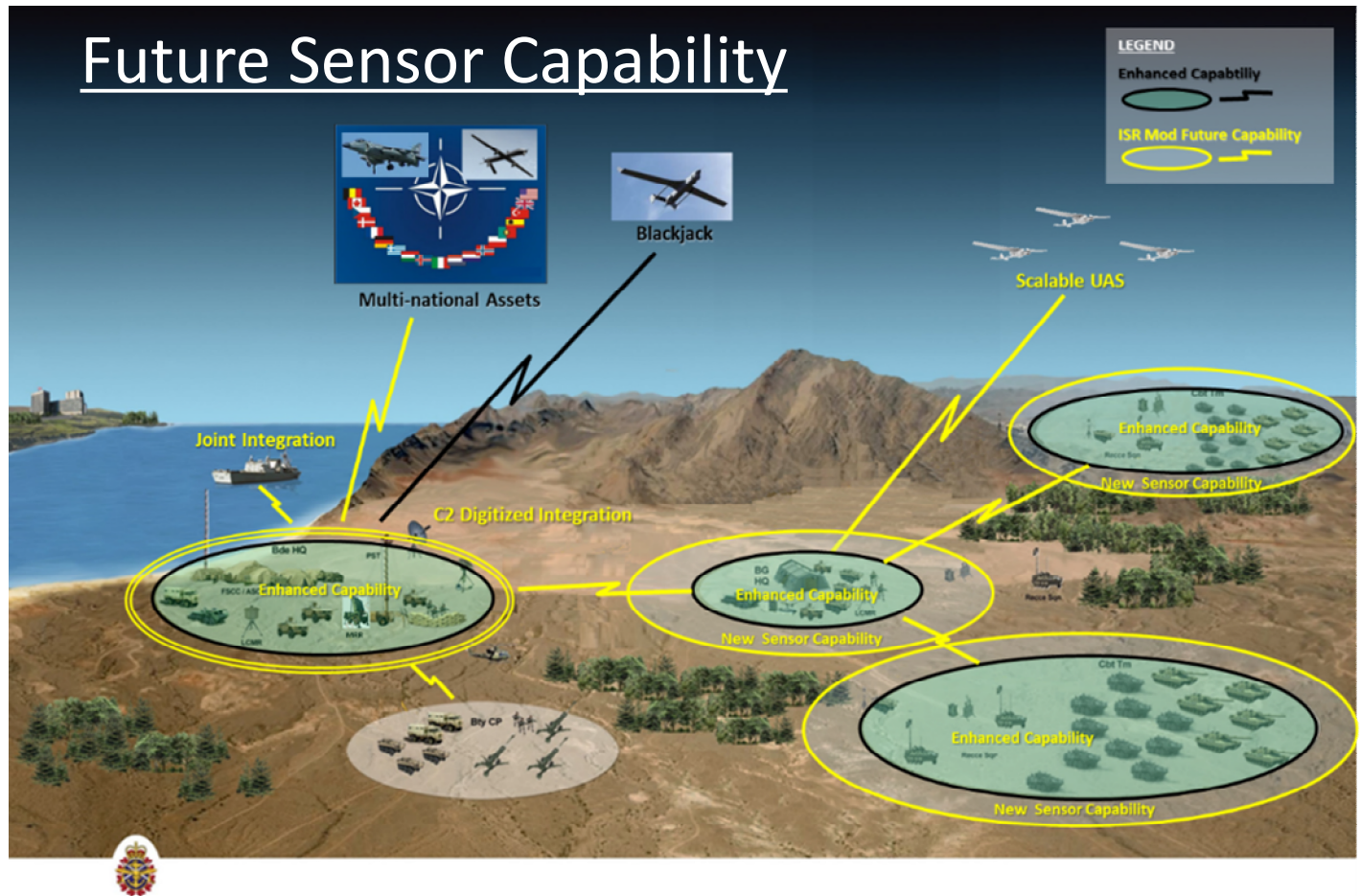
- **Aged Sensors** While some sensors like MRR and Blackjack are new, many of the sensors are aging and in some cases becoming obsolete

- **Limited Range and**

Mobility Much of the sensor fleet is static in nature and best used for static operations with limited mobility and range



- **Digitally Integrated**
Sensors which will enhance Decision-Action Cycle
- **Increased interoperability** with Joint and International Forces increasing precision and enhancing lethality
- **Upgraded Sensors** to Detect, Identify and Target Acquire Emerging Threats in the Battlespace (Enemy UAS) and enhancing reach
- **New Scalable and Mobile Sensors** to increase coverage, speed and flexibility to commanders at the Tactical and Operational Levels while maintaining current staffing



Clients/End Users

“CA ISR ”

1. Clients (Brigade ISR Assets)

- Surveillance, Target Acquisition Artillery Battery
- Composite Battery, 4th Artillery Regiment General Support
- Armoured Reconnaissance
- Infantry Reconnaissance/Snipers
- Staff Officers (company to brigade)

2. End Users – Commanders and Effects

- Commanders (Platoon to brigade)
- Joint Fires (Field Artillery, Air delivered munitions, etc)
- Manoeuvre forces
- Coalition (NATO) and Joint forces (RCN, CANSOF, etc)

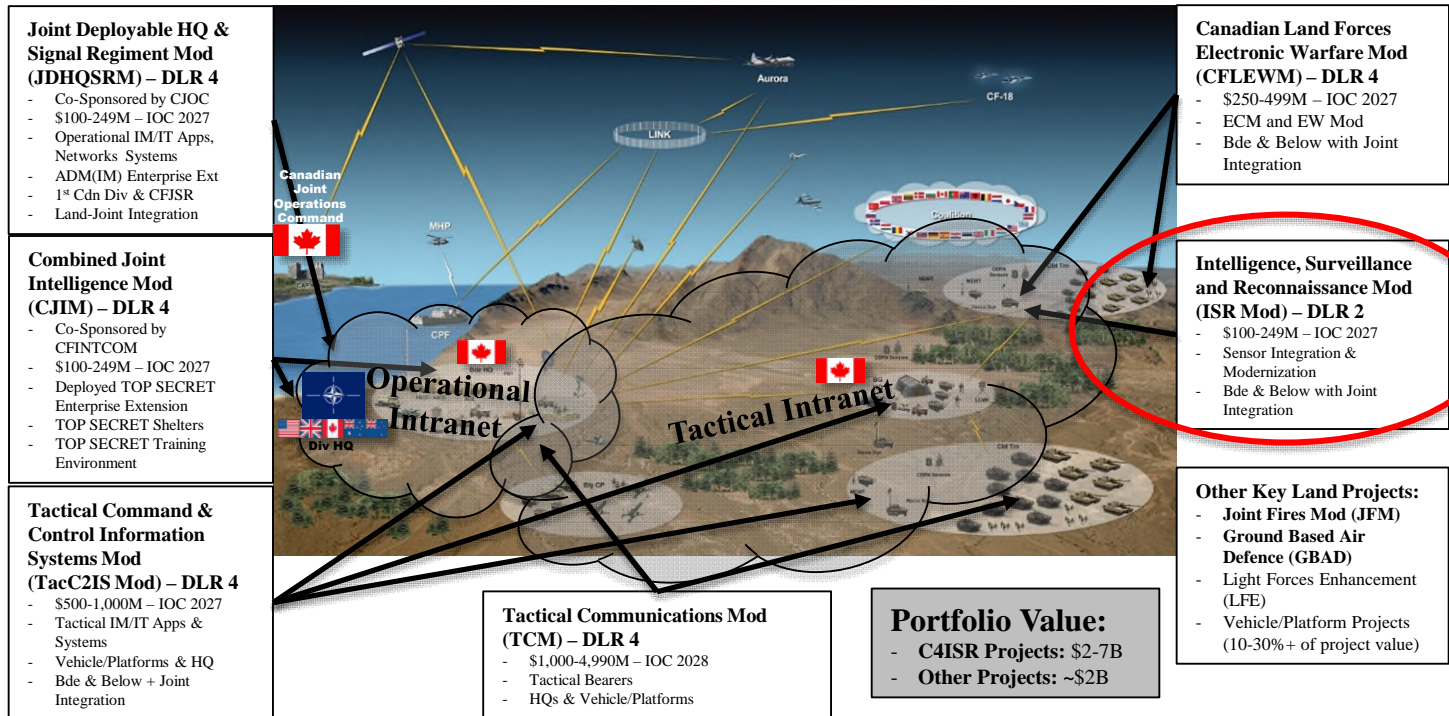
Note: List is illustrative and not comprehensive

CONOPS / Industry Scenario

Available through the Contracting Authority upon request



Land C4ISR Portfolio



High Level Mandatory Requirements (HLMR)

1. Interoperability - Technical
2. Informational - Interoperability
3. Flexibility
4. Persistent Awareness
5. Responsiveness

HLMR #1

Interoperability - Technical

- Connect all CAF sensors to Detect, Identify, Acquire & Track Objects of Interest on land & in low altitude air
- Make information accessible to C2 at Operational & Tactical level to enable planning & decision making



HLMR #2

Informational - Interoperability

- Display & exchange information to include Target Acquisition Data, in near real time to LCSS, coalition & allied forces, and to meet NATO Joint ISR Capability Implementation Plan to enable Joint/Multi-National Ops & targeting for Lethal & Non-Lethal Effects



HLMR #3 **Flexibility**

- Scalable, modular, and task-tailorable to enable CA to meet CAF core missions.
- Must detect, ID and acquire threats such as Mini UAS, and be upgradeable for emerging threats such as micro-UAS in the battlespace to increase situational awareness & force protection.
- Solution must work in a distributed environment to enable task tailoring.

HLMR #4

Persistent Awareness

- Constant network access regardless of geo location & extreme environments (STANAG 2895 applies), plus a layer of redundancy to ensure ISR coverage in all operational environments
- Must incorporate cyber resilience to mitigate risk in degraded/contested op environment to protect systems from hostile intrusion or counter ISR activities

HLMR #5

Responsiveness

- Coordinate and optimize integral & ad-hoc coalition assets throughout the operational environment to detect, recognize, identify & target threats in real time to enable timely responses to targets of interest or threats.
- Prioritize, queue and cross-queue objects of interest for sensors and system operators to reduce operator fatigue, accelerate analysis and info prioritization.

Training System

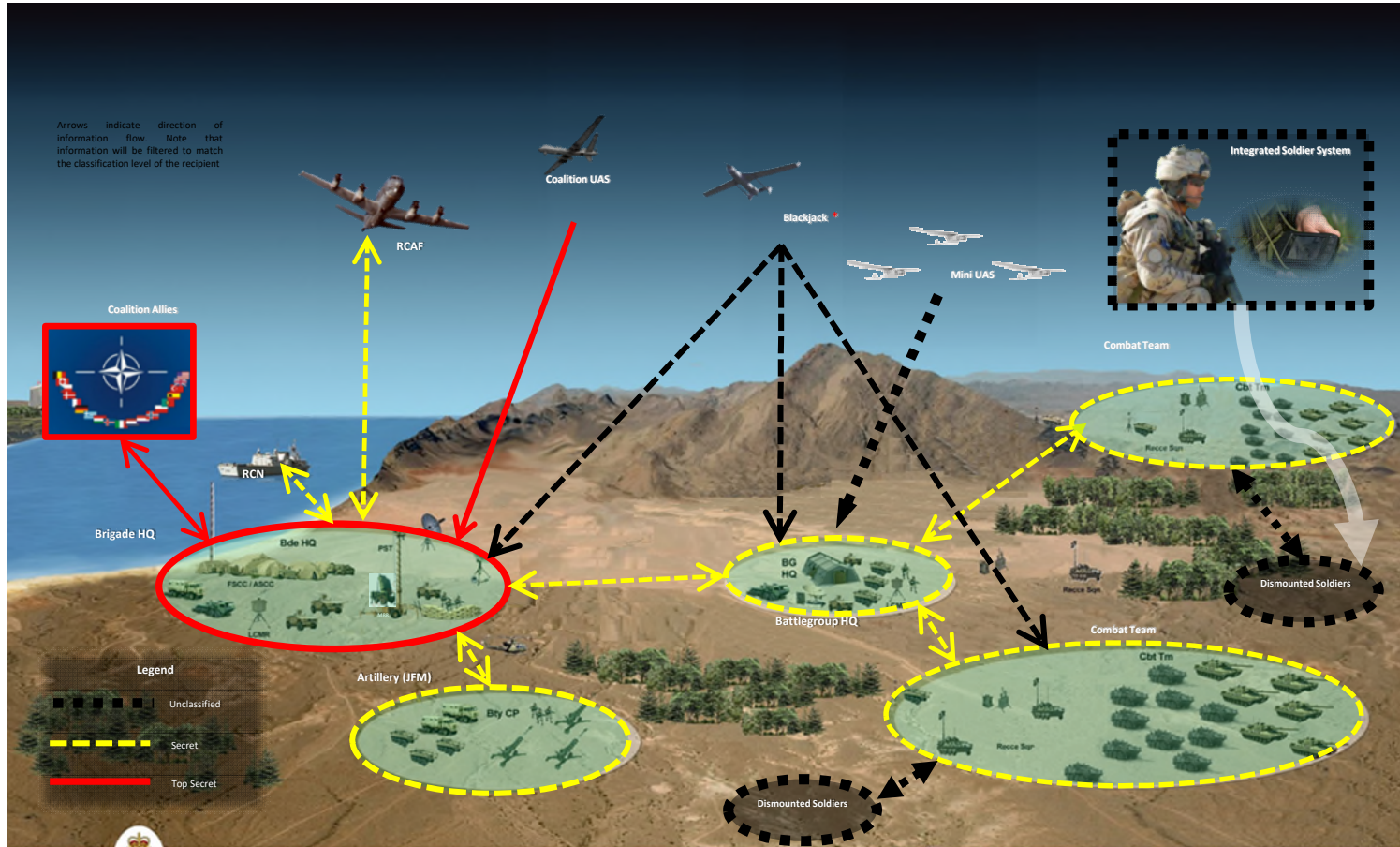
- Although not a HLMR there will be training requirements
- Ability to conduct individual and collective training within a networked synthetic environment.
- Infrastructure agnostic ideally utilizing existing infrastructure
- Provide realistic and immersive simulation by using in-service equipment or copies of the in-service equipment in customizable mission scenarios.
- Connect in a scalable joint training environment from the strategic to the tactical level across geographically dispersed simulation locations.

Project Scope

Land ISR Mod will deliver on three areas:

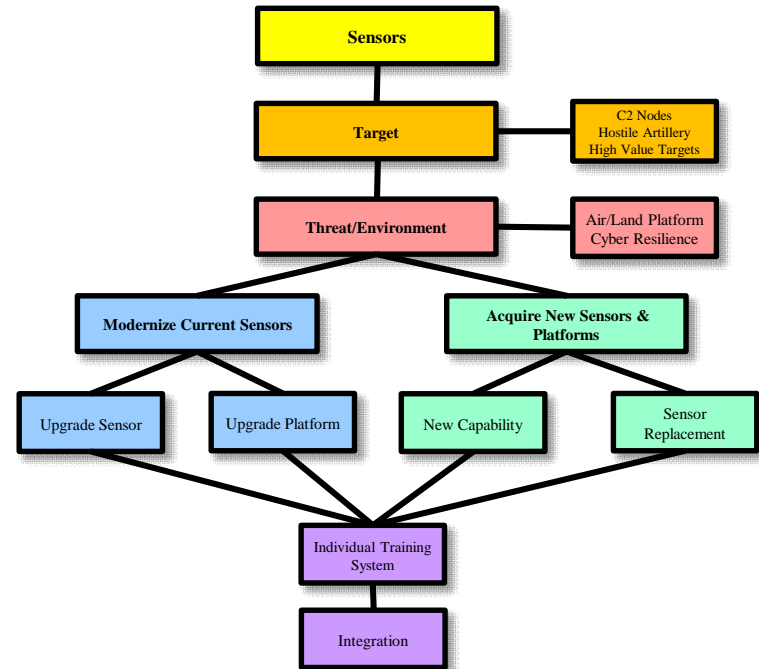
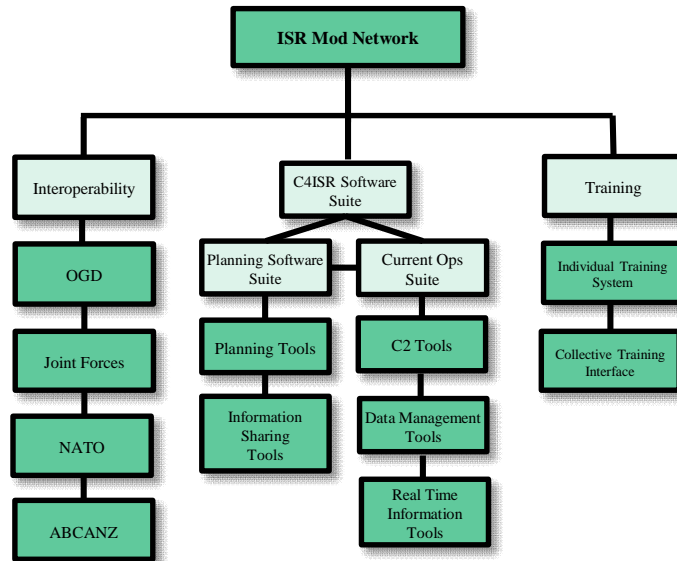
- Networking ISR sensors for C2, queuing & cross-queuing and Information Sharing
- Modernize In-service Sensors
- Introduce New Sensors

ISR Mod – ISR Network Diagram



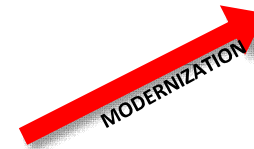
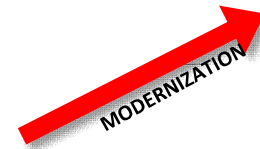
* Blackjack may carry secret payloads subject to a National Security Exemption

Project Deliverables



Requested Support from Industry

- Your expertise in ISR! In some ways you have a blank canvass to fill
- Feedback on HLMR Questions to refine requirements/SOR (Annex E of RFI)
- The CA wants to know what you have or will have ready to deliver for IOC (2024-2026 timeframe)
- Costing to support our estimates towards next Project approval gateway





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Costing Requirements

Heather Mitchell

Contracting Authority

ISR Modernization Project

Public Services & Procurement Canada



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Objectives of the Costing Annex

- Request detailed costing information and feedback from industry to gather indicative cost estimates.
- Establish indicative cost estimates associated with potential solutions.
- Allow Canada to prepare its documents for the Project Approval.



Requested Cost Details

The purpose of the Land ISR Mod costing annex is to:

Ask respondents to provide indicative or better pricing for as many questions and activities as possible in the annex.

- Pricing information on various components and subcomponents of your proposed Land ISR solution.
- Respondents are also asked to identify if a specific cost element has not been provided and if so for what reason (e.g. it is included in the price for another item).

Please provide as much detail and explanation as possible in your response.

- The more detailed the information provided the better
- This will facilitate and assist cost concurrence activities
- Please provide a breakdown, to the lowest level possible, of the cost of the Land ISR Mod solution your firm suggests that would enable Canada to meet all of the requirements laid out in Part 3's Annexes C,D,E and F.

Annex D Table 1 – Acquisition Costs

- Costing information requested from the Industry for key Project deliverables:
 - ISR Network Hardware/ Software
 - Sensors (current upgrades and new)
 - Training Systems (including simulation)
- Cost related to any other Land ISR Mod components required to meet the requirements.
- Costing information related to integration of the various ISR Mod components and current CA sensors to interface to other systems in order to meet the ISR Mod requirement.

Annex D Table 2 – Sustainment Costs

- Costing information requested from the Industry for the sustainment of key Project deliverables:
 - ISR Network Hardware/ Software
 - Sensors (upgraded or new)
 - Training Systems (including simulation)
- For the Sustainment Requirements – Please provide your best annual cost breakdown based on the various aspects related to sustainment of the C2 & targeting software, tactical equipment and training systems.

Please describe your proposed deliverable(s), associated annual costs with margins of accuracy and life cycle duration.



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Industrial and Technological Benefits / Value Proposition

Lexi Zamojski

Project Officer

Innovation, Science and Economic Development Canada



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Outline

- Objective
- Defence Procurement Strategy
- Industrial and Technological Benefits including Value Proposition
- Key Industrial Capabilities (KICs)
- Industry Consultation
- Preparing for a Procurement
- Next Steps

Objective

- The Government of Canada is consulting with industry to support the development of an approach for leveraging economic benefit for the ISR Mod Project
- Feedback from industry will be used to:
 - Validate the Government of Canada's analysis of Canadian capabilities related to the ISR Mod Project; and
 - Develop an economic leveraging approach in support of the ISR Mod Project

Canada's Defence Procurement Strategy

- **Announced in February 2014, by the Ministers of:**
 - Public Works and Government Services (now Public Services and Procurement Canada)
 - National Defence
 - Industry Canada (now Innovation, Science and Economic Development Canada)
- **Goals:**
 - Deliver the right equipment to the Canadian Armed Forces and the Canadian Coast Guard in a timely manner;
 - Leverage purchases of defence equipment and services to create jobs and economic growth in Canada;
 - Streamline the defence procurement process.

Industrial and Technological Benefits (ITB) Policy

- The Industrial and Technological Benefits (ITB) Policy has been in place since 1986. In 2014, it was renamed and transformed to include the Value Proposition (VP).
 - Winning bidders are selected on the basis of price, technical merit and their Value Proposition.
 - The VP includes bidder's commitment to undertake work in Canada and will generally account for 10 percent of the overall score.
 - Companies awarded procurement contracts must undertake business activity in Canada equal to the value of the contract.

Value Proposition

- Commitments/activities proposed at bid time
- Rated and weighted during bid evaluation

Outstanding Obligation

- Activities identified after contract award
- Brings identified activities up to 100 percent of contract value

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Value Proposition Pillars

1. Supports the long-term sustainability and growth of Canada's **defence industry**;
2. Supports the growth of bidders' Canadian operations as well as their **suppliers in Canada**, including SMBs in all regions of the country;
3. Enhances innovation through **research and development (R&D) in Canada**;
4. Increases the **export** potential of Canadian-based firms; and
5. Promotes **skills development and training** to advance employment opportunities for Canadians.



The VP is a Flexible Framework

On a procurement-by-procurement basis, there is flexibility to:

- Increase/decrease the 10% weight of the VP
- Weigh individual evaluation criteria differently
- Apply all or some of the evaluation criteria
- Add additional evaluation criteria
- Apply mandatory requirements
- Develop different rating grids



Informed by:

*Industry
engagement*

*Research and
analysis*

3rd party experts

The Value Proposition Bid Proposal

The VP bid proposal is prepared by the prime contractor and typically consists of:

Mandatory Requirements

- Ex: A commitment of 15% of bid price for work with SMBs

Rated Criteria

- Based on Commitments under the Value Proposition Pillars

Identified Transactions

- Equal to no less than 30% of bid price

Key Industrial Capabilities (KICs)

- Key Industrial Capabilities (KICs) were introduced in April 2018 to ensure that defence procurements can better drive innovation, exports and the growth of firms through the ITB Policy.
- KICs represent areas of emerging technology with the potential for rapid growth, established capabilities where Canada is globally competitive, and areas where domestic capacity is essential to national security.
- KICs are defined as the skills, technologies, and supply chains required to support the growth of these capabilities. They are broader than the companies associated with the end solution; they include the post-secondary institutions that develop skills and research, the SMEs that form part of the value chain, and intellectual property that is developed in Canada.

Key Industrial Capabilities

EMERGING TECHNOLOGIES

- Advanced Materials
- **Cyber Resilience**
- Remotely-piloted Systems and Autonomous Technologies
- **Artificial Intelligence**
- Space Systems

LEADING COMPETENCIES & CRITICAL INDUSTRIAL SERVICES

- Aerospace Systems & Components
- **Defence Systems Integration**
- Ground Vehicle Solutions
- Marine Ship-Borne Mission and Platform Systems
- Shipbuilding, Design and Engineering Services
- Training & Simulation
- Armour
- Electro Optical / Infrared Systems
- In-Service Support
- Munitions
- Sonar & Acoustic Systems

Industry Consultation

- The Government of Canada is seeking industry feedback to support the development of the economic leveraging approach for the ISR Mod Project.
- Industry engagement questions were published on Buyandsell in advance of the ISR Mod Project Industry Day.
- We encourage all potential bidders and suppliers to provide comments.

Preparing for a Procurement

Potential bidders and suppliers should:

- Familiarize themselves with the **ITB Policy & VP**
- Determine the **Canadian Content Value** of their products and services, and those of their suppliers
- Engage **Regional Development Agencies (RDAs)**
- Determine what **certifications and credentials** may be required to participate in the project

Next Steps

- Written feedback regarding the ITB/VP questions is to be submitted to the PSPC Contracting Authority.
- Information provided to the Government of Canada will be considered in the development of the economic leveraging approach for the Land ISR Mod project.
- For more information on Canada's Industrial and Technological Benefits Policy, please visit: <http://www.canada.ca/itb>.

Questions

All questions and answers will be noted, translated and published on www.buyandsell.gc.ca in both official languages shortly after Industry Day consultations

No corporate identification, names, commercially sensitive or not-applicable information will be published.

Questions may be asked in either official language

Thank You

