



RETURN BIDS TO:

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TPSGC

11 Laurier St./11, rue Laurier

Place du Portage, Phase III

Core 0B2 / Noyau 0B2

Gatineau

Québec

K1A 0S5

Bid Fax: (819) 997-9776

**SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise
indicated, all other terms and conditions of the Solicitation
remain the same.

Ce document est par la présente révisé; sauf indication contraire,
les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Letter of Interest

Lettre d'intérêt

Vendor/Firm Name and Address

Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Armoured Vehicles Support/Soutien des véhicules
blindés

11 Laurier St./11, rue Laurier

Place du Portage Phase III 6C1

Gatineau

Québec

K1A 0S5

Title - Sujet Next Generation Fighting Vehicle Pr Véhicule combat nouvelle génération	
Solicitation No. - N° de l'invitation W6399-19KH53/D	Amendment No. - N° modif. 005
Client Reference No. - N° de référence du client W6399-19KH53	Date 2022-01-20
GETS Reference No. - N° de référence de SEAG PW-\$\$BL-299-28290	
File No. - N° de dossier 325bl.W6399-19KH53	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Daylight Saving Time EDT on - le 2022-03-31 Heure Avancée de l'Est HAE	
F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input checked="" type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Parent, Derek	Buyer Id - Id de l'acheteur 325bl
Telephone No. - N° de téléphone (819) 790-8315 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: N/A	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date



Letter of Interest (LOI) W6399-19KH53/D

Amendment 005

Next Generation Fighting Vehicle (NGFV) Project

Amendment 005 is raised in order to: 1) provide an update on the NGFV project following the Industry Engagements that occurred against this LOI; and 2) share the documents that were prepared for the Industry Engagement One-on-One Meetings.

1. Update

All suppliers who requested an Industry Engagement One-on-One Meeting by completing Appendix 1 to Annex D, One-on-One Meetings Agreement and Registration Form, to the LOI were provided with the opportunity to take part in a One-on-One Meeting with Canada.

Virtual One-on-One meetings took place from October 27 to December 09, 2021 in which the topics from the Generic Agenda (attached) were discussed. Representatives of Canada included members from the Department of National Defence (DND), Public Services and Procurement Canada (PSPC), Innovation, Science and Economic Development Canada (ISED) and an independent third party fairness monitor (FM) to oversee the fairness and transparency of the NGFV industry engagement process.

Industry is encouraged to continue to monitor <https://buyandsell.gc.ca/> for further updates and/or any future solicitation regarding the NGFV Project. This notice is a general information update and responding to this notice is not a prerequisite to participating in any future solicitation(s) and is not to be considered as a commitment to issue a subsequent solicitation or award any contract.

All industry enquiries and other communications related to the procurement process should be directed exclusively to the PSPC generic email address: PAVCNG.APNGFV@tpsgc-pwgsc.gc.ca.

A formal line of communication with interested suppliers remains open until the solicitation closing date of March 31, 2022.

2. Documents

The information attached to this amendment consists of the documents that were prepared for or transpired from the Industry Engagement One-on-One Meetings:

Attachment I - The Rules of Engagement;

Attachment II - The Generic Industry Engagement One-on-One Meeting Agenda;

Attachment III - The Generic Presentation Provided by Canada for the One-on-One meetings;



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Attachment IV - The List of Generic Questions Provided by Canada for the One-on-One Meetings;

Attachment V - Industry Questions Received and Answers Provided by Canada During the One-on-One Meetings.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED

Attachment I

NEXT GENERATION FIGHTING VEHICLE (NGFV)

Letter of Interest (LOI) Number: W6399-19KH53/D

RULES OF ENGAGEMENT (RoE)

1. In this document:
 - a. “*Industry Consultation Process*” means the consultation process related to the Letter of Interest (LOI) dated July 21, 2021 for the Next Generation Fighting Vehicles Project and includes, but is not limited to, one-on-one meeting(s), working group session(s) and any other process(es) deemed necessary by Canada.
2. An overriding principle of the Industry Consultation Process is that it be conducted with the utmost of fairness and equity between all parties. Canada will be conducting this Industry Consultation Process in a way to ensure that no individual or organization receives nor can be perceived to have received any unusual or unfair advantage during this Industry Consultation Process.
3. All respondents to the LOI and their representatives that wish to be considered as a participant to this Industry Consultation Process (hereinafter referred to as “Participant”) must review and sign this document. By signing this document, which is legally binding, the Participant agrees to abide by the Rules of Engagement (RoE) contained herein. These RoE will apply to all Participants following the signature of this document and will remain in effect until the Industry Consultation Process has come to an end. All of Canada’s documentation provided throughout this Industry Consultation Process will be provided to all Participants.
4. Any suggestions or ideas brought to Canada during the Industry Consultation Process will be reviewed by Canada for further consideration and might be raised in subsequent working group(s). Participants must formally indicate/identify in writing any proprietary information. Canada will not disclose proprietary or commercially sensitive information concerning a Participant to other Participant(s) or third parties except and only to the extent required by Law. The information may be shared with an independent consultant (Fairness Monitor) or other Government of Canada resources as considered necessary by Canada.

TERMS AND CONDITIONS

5. The following terms and conditions apply to the Industry Consultation Process.

Participants agree to the following:

- a. To direct inquiries and comments relating to the Next Generation Fighting Vehicle Project (NGFV) only to the Public Services Procurement Canada generic email address: PAVCNG.APNGFV@tpsgc-pwgsc.gc.ca, where it will be given consideration. Any communication to unauthorized representatives of Canada will not be considered by Canada;
 - b. Participants are required to provide agenda items and any specific questions they would like to discuss to PSPC no later than 7 calendar days prior to this consultation;
 - c. If any clarification is sought on a participant response to the LOI, PSPC will provide to the participant such clarification request as agenda items no later than 7 calendar days prior to this consultation;
 - d. Clarifications resulting from questions raised by Participants during the consultation process will be released as an amendment to the LOI on BuyandSell.gc.ca;
 - e. Participants are expected to discuss their views concerning the NGFV Project. Everyone will have an opportunity to share their ideas and suggestions with Canada;
 - f. Participants will not reveal or discuss any information to media/newspapers regarding the NGFV Project during this consultation process. If participants receive a question from the media, participants are to direct the media to contact the PSPC Media Relations Office, [Media relations contacts: Public Services and Procurement Canada - Media - PSPC \(tpsgc-pwgsc.gc.ca\)](http://Media%20relations%20contacts%3A%20Public%20Services%20and%20Procurement%20Canada%20-%20Media%20-%20PSPC%20(tpsgc-pwgsc.gc.ca)).
6. The terms and conditions outlined above are to be complied with by all Participants, in order to ensure a fair consultation process and generate a discussion that will be beneficial to both Canada and Industry. Failure to comply with any of the terms and conditions of these (RoE) may result in the Participant and its representatives becoming ineligible to continue as a Participant of the Industry Consultation Process.

NEXT GENERATION FIGHTING VEHICLE

W6399-19KH53/D

RULES OF ENGAGEMENT

By signing this document, the Participant represents and warrants that the individual(s) executing this document has full authority to bind the Participant listed below and that the Participant agrees to be bound by all the terms and conditions contained herein.

Failure to agree to and sign the Rules of Engagement will result in the exclusion of the Participant from participation in the Industry Consultation Process. For greater clarity, agreement with the Rules of Engagement means compliance with the Rules of Engagement.

Name of Participant: _____

Name of Participant's Representative:

Signature: _____ **Date:** _____

Email address of the Participant's Representative:



Attachment II

Next Generation Fighting Vehicle (NGFV) Project Solicitation No. W6399-19KH53/D

Generic Industry Engagement One-on-One Meeting Agenda

Industry Participant

Date(s): YYYY/MM/DD

Opening Remarks (PSPC/Industry Participant)

Orientation and Logistics (PSPC)

Introduction of Participants (All)

- Public Services and Procurement Canada (PSPC);
- Department of National Defence (DND);
- Innovation, Science and Economic Development Canada (ISED);
- Fairness Monitor (FM); and
- Industry Participant

Purpose of the One-on-One sessions (PSPC)

Process/Ground Rules (PSPC)

Project Overview (DND)

- Project Scope
- Key High Level Mandatory Requirements (HLMRs)
- Project Schedule
- Clarifications Context

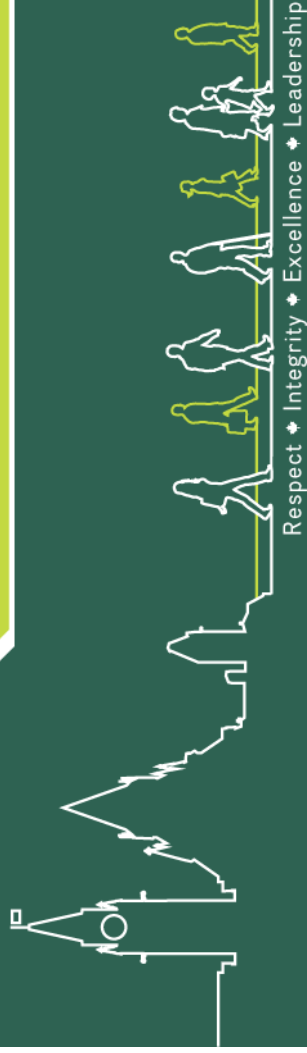
Industrial and Technological Benefits Policy (ISED)

Industry Presentation/Questions/Clarifications (Industry Participant)

DND Questions – Common and Specific (DND)

Round Table (All)

Conclusion (PSPC)



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Attachment III

Next Generation Fighting Vehicle (NGFV) Project

Solicitation No. W6399-19KH53/D

Industry Engagement One-on-One Meeting

Industry Participant

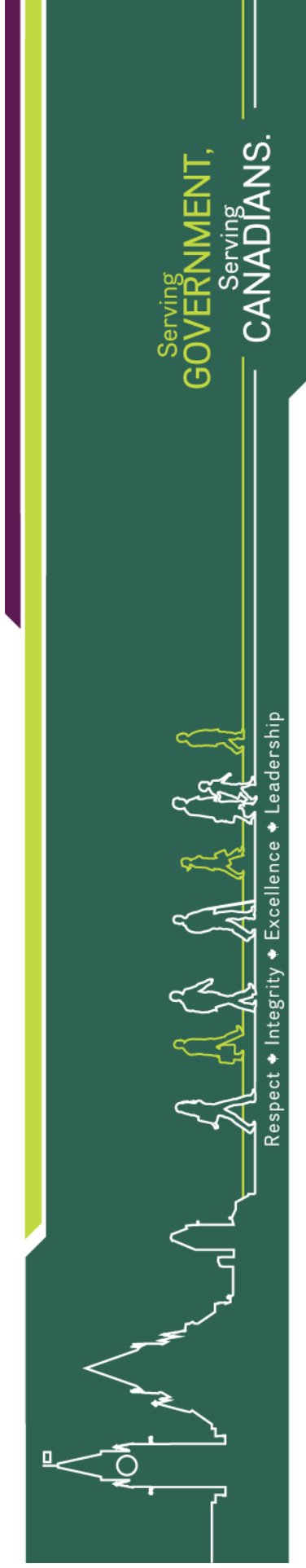
Date(s): YYYY/MM/DD



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Opening Remarks

Sylvain Proulx

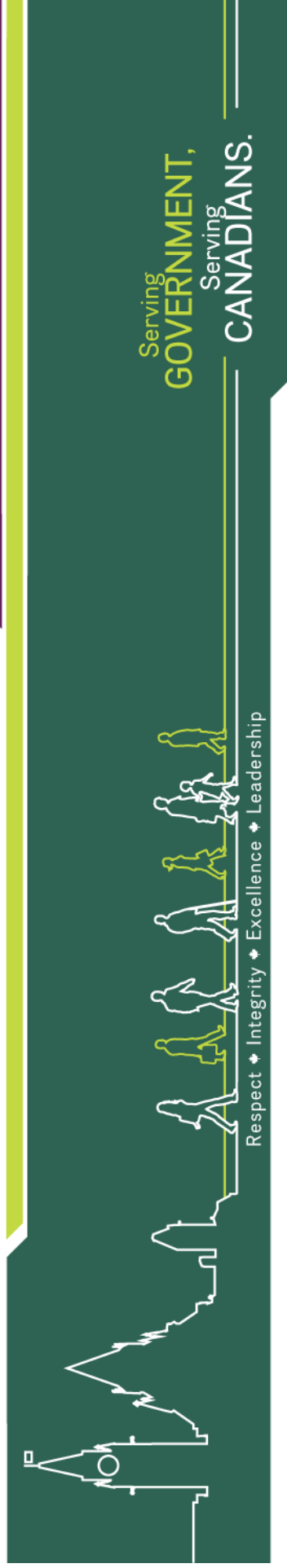
Manager

Public Services and Procurement Canada

Industry Participant

Agenda Topics

- Orientation and Logistics (PSPC)
- Introduction of Participants (All)
- Purpose of the One-on-One Sessions (PSPC)
- Process/Ground Rules (PSPC)
- Project Overview (DND)
 - Project Scope
 - Key High Level Mandatory Requirements (HLMRs)
 - Project Schedule
 - Clarifications Context
- Industrial and Technological Benefits Policy (ISED)
- Industry Presentation/Questions/Clarifications (Industry Participant)
- DND Questions (DND)
- Round Table (All)
- Conclusion (PSPC)



Orientation and Logistics

Stay on mute

Please stay on mute unless you are speaking – remember to turn on mute again when you have stopped speaking.

Keep video on when speaking and off when not speaking

Video creates personal connection and will assist in keeping the group engaged.

Ask questions

Ask questions using the Raise Hand function in MS Teams or simply ask your question. The chat function is disabled.

Breakout Rooms

If required, meeting will be put on hold to enable sidebar discussion.

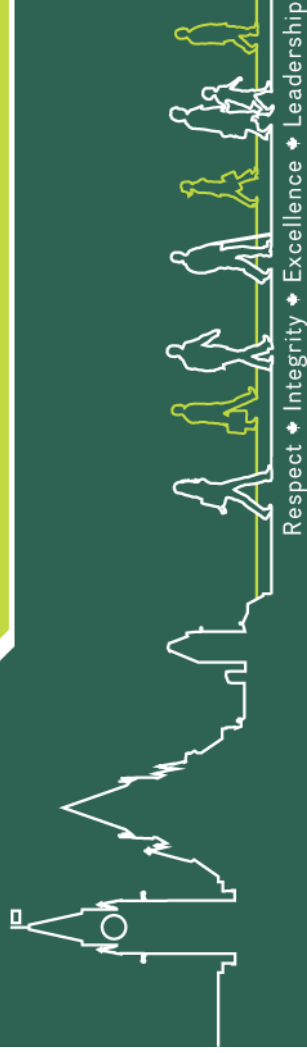
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Introduction of Participants

Public Services and Procurement Canada (PSPC)

Sylvain Proulx - Manager

Derek Parent - Contracting Authority

Department of National Defence (DND)

Francois Urbain - Project Manager

Major Kali Zizian - Project Director

Megan Buchanan - Procurement and Finance Manager

Patrick Thonon - Vehicle Engineer

Scott Carter - RWS Specialist

Capt Jeremie Legault - Project ILS

Introduction of Participants (Cont.)

Innovation, Science and Economic Development Canada (ISED)

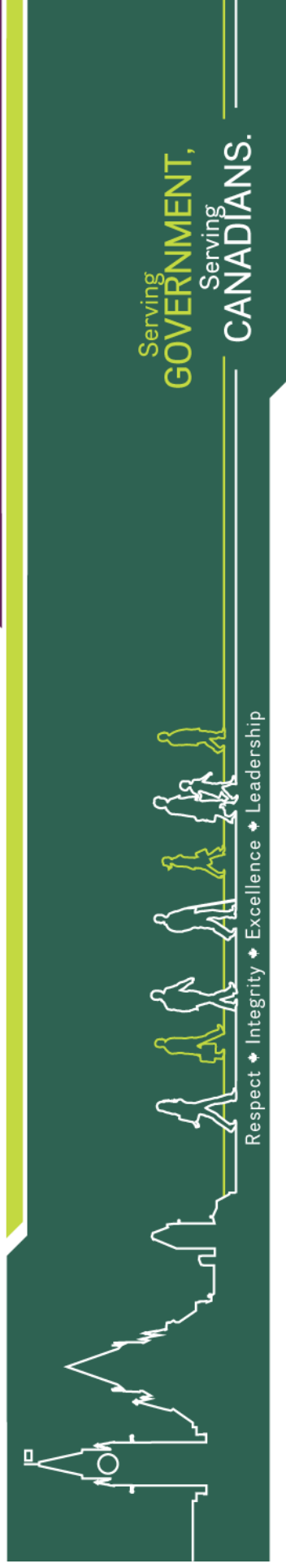
Edin Sabotic - Project Manager

Samson & Associates

Ted Pender - Fairness Monitor Specialist

Introduction of Participants (Cont.)

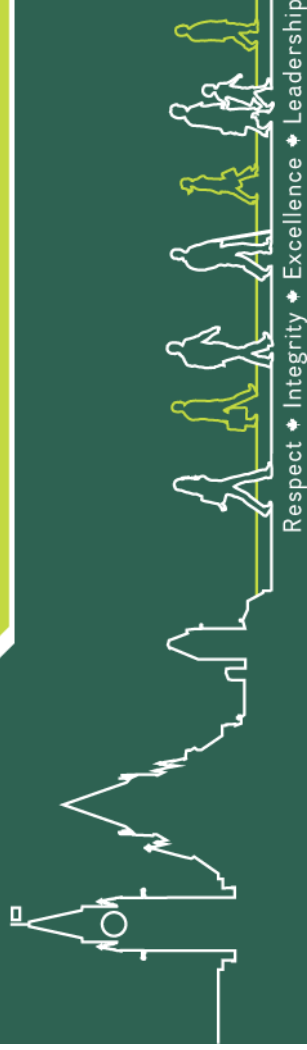
Industry Participant Representatives



Purpose of the One-on-One Sessions

The purpose of the one-on-one sessions is for Canada and Industry to enter into further discussions about the requirements and to follow up with additional questions, or for clarification of any aspect of Industry's responses to the LOI.

Relevant feedback/input from Industry is critically important to the overall success of this process and the information shared will help Canada refine its overall strategy for this potential requirement.



Process/Ground Rules

An overriding principle of the procurement process as a whole, including the one-on-one sessions, is that it will be conducted with the utmost openness, fairness and transparency among all parties. No potential Respondent/Participant will receive nor be perceived to have received any unfair advantage.

Canada will not discuss items or topics with Participants that were not provided in advance to the one-on-one meeting as requested. Questions may still be received during the meeting; however, Canada may choose not to answer them and will post the questions and answers that contain new information on www.buyandsell.gc.ca. Furthermore, in some instances it might also be a possibility that an answer cannot be provided simply because it is too early in the process.

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Process/Ground Rules (Cont.)

Please note that none of your comments are binding; they will only be used to help Canada better understand your proposed option(s)/solution(s).

Canada reserve the right to use any content of the information that you will provide in preparing our procurement documents. If any portion of the information that you are providing is proprietary or commercially-sensitive, please clearly mention it.

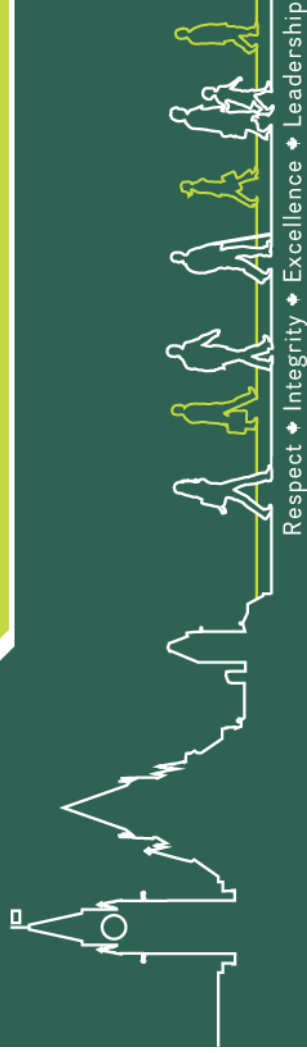
All questions from Industry Participants and Government of Canada answers that further clarify the NGFV requirements will be documented and posted on www.buyandsell.gc.ca.

No proprietary or commercially-sensitive information will be shared.

Process/Ground Rules (Cont.)

All enquiries and other communications related to this LOI and associated Industry Engagement activities must be directed exclusively to the PSPC generic email address: PAVCNG.APNGFV@tpsgc-pwgsc.gc.ca.

Recording: Participants are not allowed to record any part of the meeting.



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Project Overview

Francois Urbain

Project Manager

Next Generation Fighting Vehicle
Department of National Defence

Major Kali Zizian

Project Director

Next Generation Fighting Vehicle
Department of National Defence

Topics

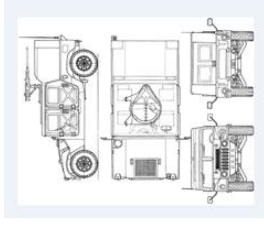
- Project Scope
- HLMRs
- Project Schedule
- Clarifications Context
 - HLMR 1 – Survivability
 - HLMR 2 – Lethality (focus on RWS)
 - HLMR 3 – Mobility
 - HLMR 4 – Electrical (focus on C5ISR)
 - HLMR 8 – Reliability

NGFV Project Scope

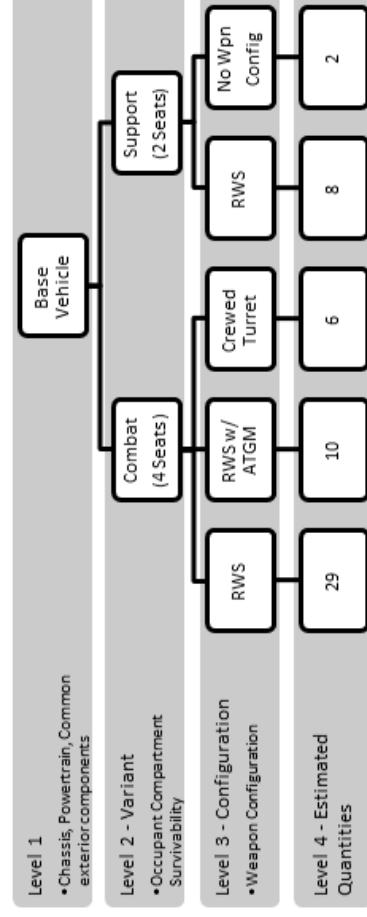


Next Generation Fighting Vehicle (NGFV)

The intent is to deliver a replacement for the HMMWV fleet which is obsolete and suffering from reliability and durability issues which are affecting operational readiness.



The NGFV fleet is expected to be between 55-75 vehicles comprised of two variants, Combat and Support, some equipped with an integrated Remote Weapons Station (RWS) or a crewed turret and include Command, Control, Computers, Communications, Cyber-defense, intelligence, surveillance and reconnaissance (C5ISR) integration.



- **Deliverables will include:**
 - RWS associated simulation training system; and
 - Add-on Armour Protection kits
 - Integrated Logistics Support (ILS)
- **Initial Operational Capability: 20 Vehicles**

The end state is a fully functional, integrated and supported Fighting Vehicle out of the production line

NGFV Project High Level Mandatory Requirements (HLMRs)

#	HLMR	Description
1	Survivability	The ability to enhance crew protection in the crew capsule from ST ANAG 4569 – Protection Levels for Occupants of Armoured Vehicles, level 1 against ballistic threats to Level 3 while achieving a base of ST ANAG 4569 level 2a/2b against blast.
2	Lethality	<p>The ability to mount a Remote Weapon Station (RWS) on the roof of the armoured capsule.</p> <p>Provide a scalable solution for a fully stabilized RWS and vehicle mounts that are able to accept a variety of weapons systems. The range of weapons configurations must encompass systems capable of achieving an effective range against armoured vehicles of 600m to at least 1800m at the lightest configuration. Armoured vehicles are those likely possessed by near-peer forces with ballistic protection levels at ST ANAG 4569 Level 3.</p> <p>Support an RWS with an optical system compatible with the ballistic capabilities of the weapons system and be able to operate in day/night and all weather conditions while static and moving.</p> <p>The NGFV fleet must operate at GVWR in a wide range of geographical regions around the globe, while traversing diverse terrain. This terrain shall include complex urban terrain, cross-country terrain as well as paved and unpaved roads.</p>
3	Mobility	<p>Achieve at least 450 km range, from internal fuel tanks, on level hard surface roads at gross vehicle weight, without refuelling.</p> <p>The ability to transport a minimum of 4 personnel in the armoured compartment of the Combat variant and a minimum of 2 personnel in the armoured compartment of the Support variant while simultaneously providing payload capacity of up to 3000 kg (excluding RWS and turret weight), while at ST ANAG 4569 ballistic protection level 1.</p> <p>The NGFV fleet will have a recognized, open, non-proprietary and proven industry standard vehicle architecture in order to integrate multiple electronic sub-systems which are controllable from the multi-functional crew display units.</p>
4	Electrical and Network Architecture	The vehicle must provide a minimum of 4.0 kW of additional exportable electrical power, excluding the electrical needs of the vehicle and the RWS, in order to supply and charge the on-board equipment while allowing the integration of future electronic subsystems.
5	Durability and Sustainability	The NGFV fleet will have the ability to perform its intended function throughout its expected life-cycle in the required range of climatic and geographical terrain without requiring excessive maintenance or repair. The NGFV fleet will be sustainable throughout its life-cycle.
6	Transportability	The NGFV fleet must be capable of being transported by road, rail, ship and on the following air platforms: CC-177, CC130 and sling loadable by CH-147.
7	Interoperability	The NGFV fleet must be able to operate on the NATO common fuel according to the ST ANAG 4362 and regular commercial diesel.
8	Reliability	<p>The NGFV fleet must comply with the identified NATO ST ANAG 4478 Emergency Towing and Recovery Facilities for Land Tactical Vehicles.</p> <p>The proposed NGFV must be currently in service by another NATO nation or 5 EYES military and have at least 55 NGFVs fielded.</p>



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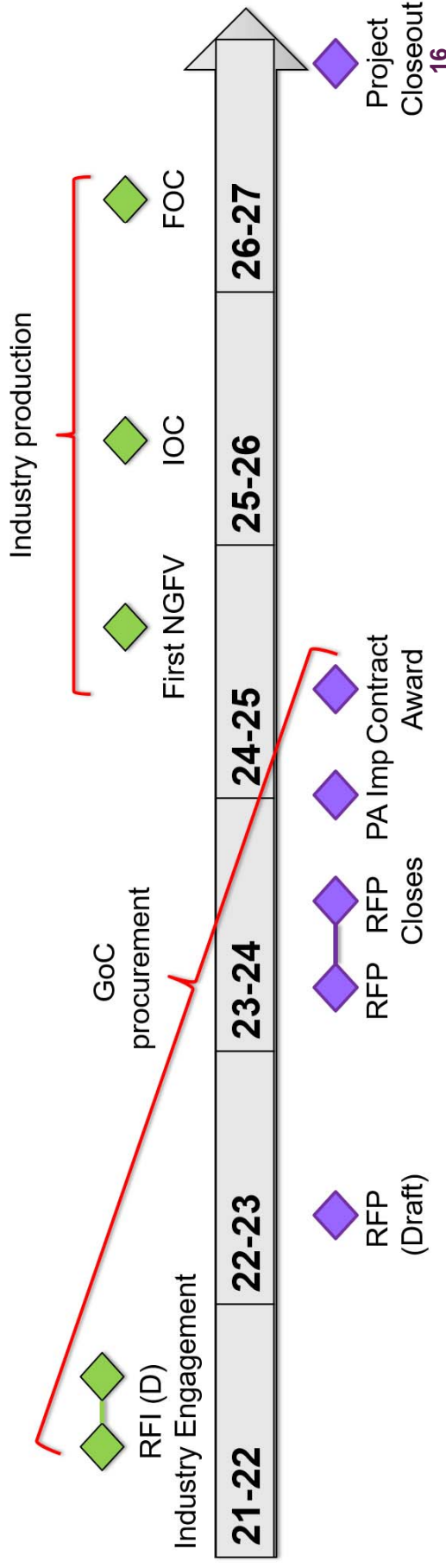
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Project Schedule

Estimated Project Schedule

Milestones	Timeline
LOI Responses requested date	September 30, 2021
Optional Industry Engagement One-on-One Meetings	October 25 to December 10, 2021
Draft Solicitation (RFP/Model Contract Clauses)	Winter 2022
Release Solicitation (RFP/Model Contract Clauses)	Fall 2023
Contract Award	Winter 2024
Initial Operational Capability (IOC)	Summer 2026
Full Operational Capability (FOC)	2027



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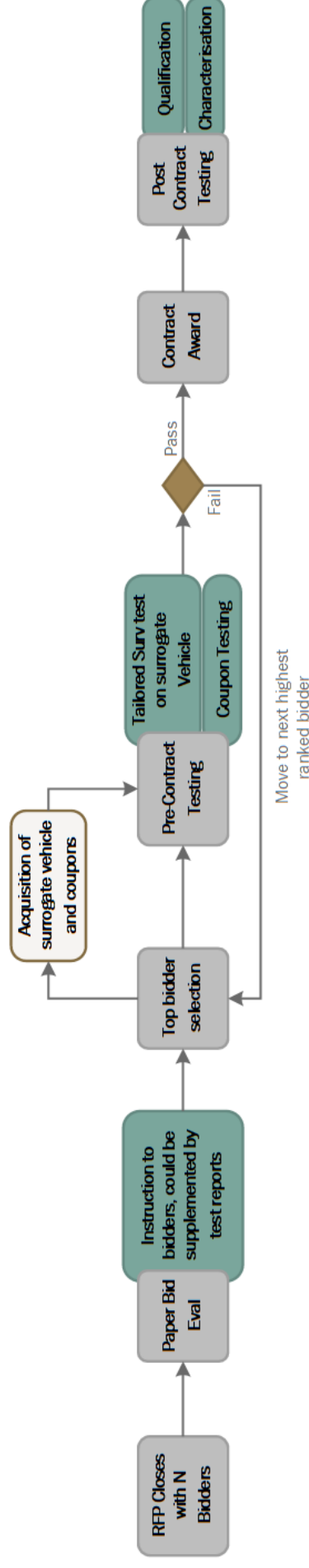
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Clarifications Context

- Clarifications are presented because some industry responses indicated different interpretations of the information provided in the LOI;
- In discussion with the industry, we will seek a way to clarify further DND's requirement;
- Later in this meeting, during the DND questions agenda points, the industry will be specifically asked to propose what additional information they recommend to clarify further the requirement. Amendment 2 and 3 also provided contextual basis for clarification on survivability and C5ISR;
- The outcome will be made available on Buy and Sell after the last 1-on-1 an and before LOI closes.

HLMR 1 - Survivability

Clarification to HLMR 1, in particular sections 2 of Table 5, of the LOI.

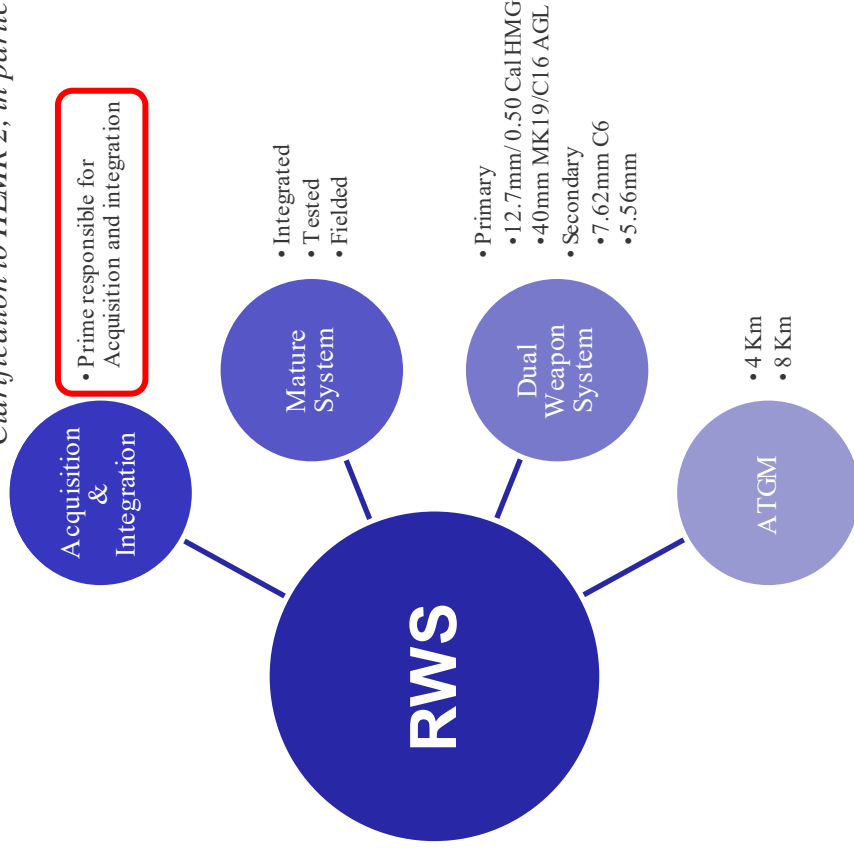


Notional context for LOI information as presented with respect to HLMR 1 - Survivability

Amendment 3 provided additional context on survivability, to provide an opportunity for industry to comment on a potential approach for HLMR 1 proof of compliance. The graphic above represents different element of information in the LOI and responses. Q&A session of the agenda will focus discussion on HLMR 1 to better understand from Industry what clarification could improve understanding of DND's requirement in the LOI context.

HLMR 2 – Lethality (RWS focus)

Clarification to HLMR 2, in particular sections 2.a, and 2b of Table 3, of the LOI.



Anti-Tank Guided Missile (ATGM)

- The ATGM is procured by Canada and provided as GSM for the integration to a portion of the RWS.
- The ATGM contract award is expected for Jan 2022

Q&A session of the agenda will focus discussion on HLMR 2 to better understand from Industry what clarification could improve understanding of DND's requirement in the LOI context.

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HLMR 3 - Mobility

The project is still assessing how Mobility evaluation will be part of the tendering process.

Details will be provided as the project further develops its strategy.

Q&A session of the agenda will focus discussion on HLMR 3 to better understand from Industry what clarification could improve understanding of DND's requirement in the LOI context.

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HLMR 4 – Electrical (C5ISR focus)

This clarification to HLMR 4, in particular sections 2.e and 2.f, of Table 3, 4a of Table 5, and 1.a.13 of Table 8 of the LOI.

Key topics that will greatly influence Industry's ability to meet requirement

Topics	
Acquisition of Comms Equipment	<ul style="list-style-type: none">• Prime NGFV to Acquire and hold Comms equipment specified by DND
Physical integration of cabling and Power Supply	<ul style="list-style-type: none">• NGFV Prime responsible to design build and deliver
Antenna Placement	<ul style="list-style-type: none">• NGFV Prime responsible for design and delivery, where GoC to lead, guide, and help industry
EMI EMC	<ul style="list-style-type: none">• NGFV Prime responsible for Electromagnetic Interference and Electromagnetic Compatibility testing of the NGFV capability;• Where and if applicable GoC will provide resources for complete coverage
Design Authority for integration into NGFV	<ul style="list-style-type: none">• Design Authority for C5ISR integration to rest with NGFV Prime• Comms equipment identification rest with DND

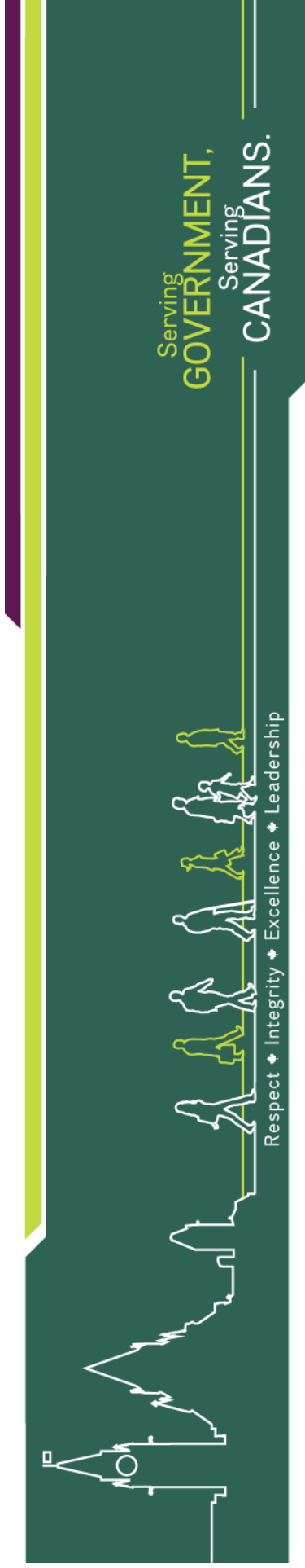
Amendment 3 provided additional context on C5ISR to help industry comment in this LOI context. Q&A session of the agenda will focus discussion on HLMR 4 to better understand from Industry what clarification could improve understanding of DND's requirement.

HLMR 8 - Reliability

This clarification to HLMR 8, in particular sections 8 of Table 1, of the LOI.

The LOI states the requirement of being in service capability within NATO nation or 5 EYES military with at least a fleet size of 55, and at TRL 9. It is anticipated that a capability in service will have usage data to demonstrate its reliability. Industry will be asked during the Q&A session of the agenda what they suggest ways to further clarify this requirement. It could be for example, but not limited to:

- Propose that a letter signed by a military customer is used to certify reliability claims;
- Propose a certain fleet-wide mileage (e.g. 100,000 km, 200,000 km);
- Propose a certain availability for NGFV to enable mission success (e.g. 95%);
- Propose that a formula should be used to measure availability;



Industrial and Technological Benefits Policy

Edin Sabotic

Project Manager

Innovation, Science and Economic Development Canada

Objective

- The Government of Canada is consulting with industry to support the development of an approach for leveraging economic benefit for the Next Generation Fighting Vehicle (NGFV) project.
- Feedback from industry will be used to:
 - Validate the Government of Canada's analysis of Canadian industry related to the NGFV project; and,
 - Develop an economic leveraging approach in support of the NGFV project.

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 between 10 – 20 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



DIRECT DEFENCE SECTOR WORK

Support the long-term sustainability and growth of Canada's aerospace and defence sectors



CANADIAN SUPPLIER DEVELOPMENT

Support the growth of prime contractors and suppliers in Canada, including small and medium business (SMBs) in all regions of the country



RESEARCH AND DEVELOPMENT

Enhance innovation through R&D in Canada



EXPORTS

Increase the export potential and international competitiveness of Canadian-based firms



SKILLS DEVELOPMENT AND TRAINING

Fill skills and training gaps within the Canadian economy to support a more innovative Canada

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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

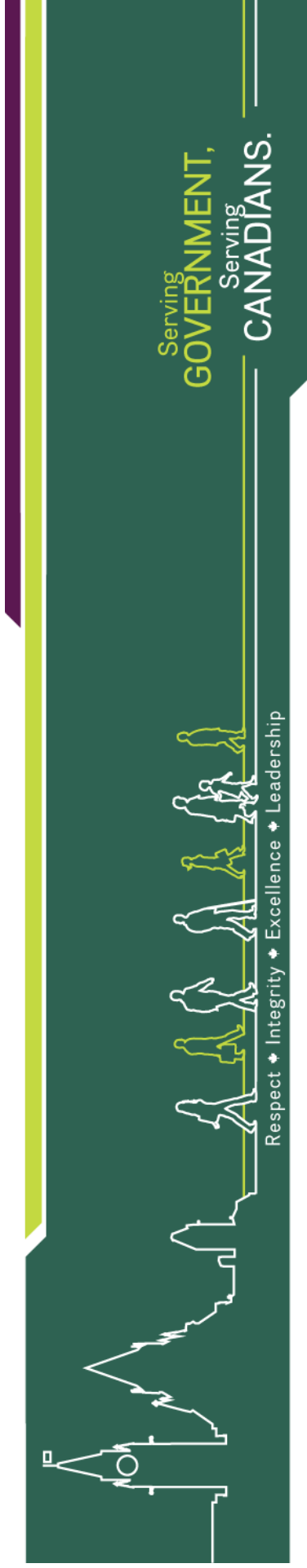
- Aerospace Systems & Components
- Defence Systems Integration
- **Ground Vehicle Solutions**
- Marine Ship-Borne Mission and Platform Systems
- Shipbuilding, Design and Engineering Services
- Training & Simulation
- **Armour**
- **Electro Optical / Infrared Systems**
- **In-Service Support**
- Munitions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

Industry Consultation

- The Government of Canada is seeking industry feedback to support the development of the economic leveraging approach for the NGFV project
- We encourage all potential bidders and suppliers to provide comments.

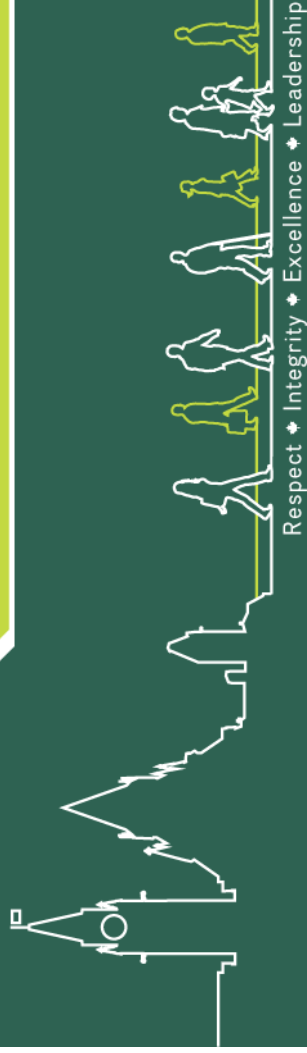
Next Steps

- Questions and feedback regarding the ITB/VP is to be submitted to the PSPC generic email address: PAVCNG.APNGFV@tpsgc-pwgsc.gc.ca.
- Information provided to the Government of Canada will be considered in the development of the economic leveraging approach for the NGFV project.
- For more information on Canada's Industrial and Technological Benefits Policy, please visit: <http://www.canada.ca/itb>



Industry Presentation / Questions / Clarifications

Industry Participant



Serving
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CANADIANS.

DND Questions

Francois Urbain

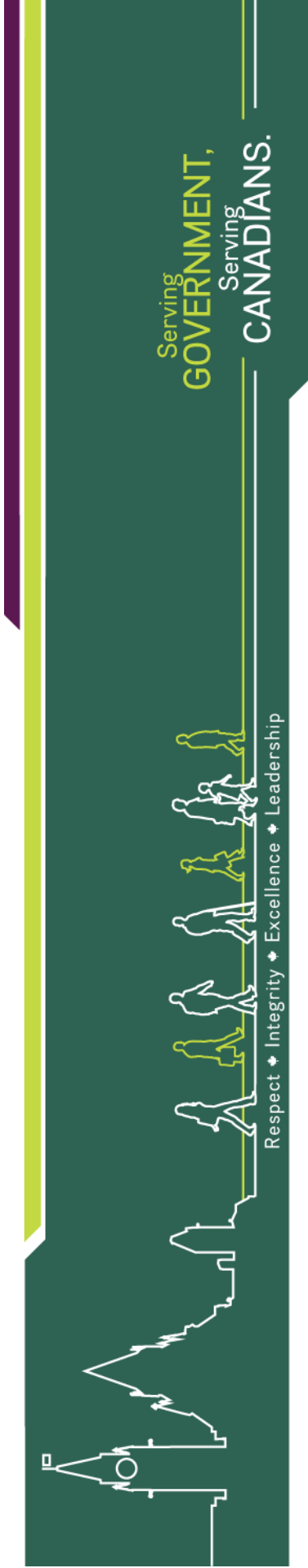
Project Manager

Next Generation Fighting Vehicle
Department of National Defence

Major Kali Zizian

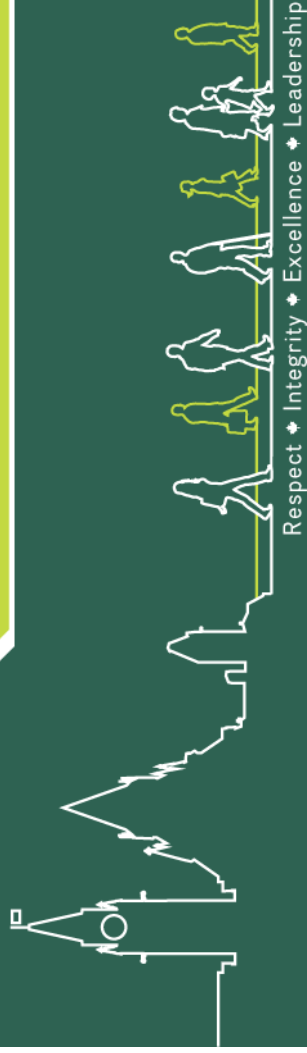
Project Director

Next Generation Fighting Vehicle
Department of National Defence



Round Table





Conclusion

A generic copy of the presentation along with the Industry Participants questions and Canada's answers that further clarify the NGFV requirements will be made available on www.buyandsell.gc.ca in both official languages at the conclusion of the industry engagement one-on-one meetings and prior to the closing of the LOI.

No corporate identification, names, commercially sensitive or non-applicable information will be published.



Attachment IV

1. **The List of Generic Questions Provided by Canada for the One-on-One Meetings**

1.1. **HLMR 1 – Survivability**

1.1.1. Considering the survivability Ballistic Level 1 and Mine Level 2a/2b in accordance STANAG 4569 AEP 55 volume 1 and volume 2 and in a context of paper bid evaluation, would you be able to provide proof of compliance according to DND's current intent? As per Solicitation no. W6399-19KH53/D amendment 002, documents will be made available on B&S to provide the required context to answer this question.

1.1.2. Would you be able to provide a surrogate vehicle under DND procurement for pre contract award test and would you be able to provide a timeline for the production and delivery of such vehicle including coupons?

1.1.3. Does industry have any concern with a strategy that would test the survivability of the Top ranked bidder prior to Contract Award?

1.1.4. Does Industry have suggestion to further refine the survivability requirement?

1.2. **HLMR 2 – Lethality (focus on RWS)**

1.2.1. Does industry have any concern with the vision of NGFV Prime to acquire and integrate the RWS?

1.3. **HLMR3 – Mobility**

1.3.1. Would you be able to provide a NGFV Combat variant with RWS for mobility testing purposes and what would be the timeline for the production and delivery of the vehicle?

1.3.1.1. Would you be able to provide that variant by the date RFP closes out (currently forecasted to end of 2023)?

1.4. **HLMR 4 – Electrical (Focus on C5ISR)**

1.4.1. Considering the provided C5ISR clarifications, do you have any concerns with these statements:

1.4.1.1. The Design Authority for C5ISR integration to rest with NGFV Prime. NGFV Prime would be responsible to design the cabling, power supply and antenna placement. (Note: Comms equipment identification design authority rest with DND)

1.4.1.2. Acquire and hold Comms equipment specified by DND.

1.4.1.3. Electromagnetic Interference and Compatibility (EMI/EMC) validation rest with Prime.

1.4.1.3.1. NGFV Prime to provide Radio Frequency design and EMI/EMC testing services.



1.4.1.3.2. Expect GoC SME guidance and support.

1.4.1.3.3. Dependent on comms equipment strategy / availability.

1.4.2. What would industry see could be provided by DND to further clarify the requirements related to C5ISR?

1.5. HLMR 5 – Durability and Sustainability

1.5.1. In order to validate compliance to HLMR 5 – Durability and Sustainability, would you be able to provide any Reliability, Availability, Maintainability & Durability (RAMD) reports and tests parameters accomplished based on similar Mission Profile than the NGFV?

1.6. HLMR 8 – Reliability

1.6.1. Are you able to provide a user certification letter certifying that your vehicle meet the HLMR 8 – Reliability considering the combat variant with RWS?

1.6.2. Do you have any concerns with providing proof of fleet-wide mileage (e.g. 100,000 km, 200,000 km);

1.6.3. Do you have any concerns with providing proof of availability for NGFV to enable mission success (e.g. 95%);

1.6.4. Do you have any suggestions for a formula to measure availability.

1.6.5. Based on the proposed timeline are you expecting the vehicle will still be in production when Canada will release the RFP?

1.6.6. Does industry have suggestion to improve the definition of the Reliability requirement?

1.7. Procurement Strategies

1.7.1. Does industry have recommendation on procurement strategies that would introduce a prequalification concept particularly aimed at optimizing financial resource and schedule of the project in order to meet IOC and FOC according to current schedule?

1.7.2. Does industry have prior experience with Invitation to Qualify (ITQ) process with Canada?

1.7.2.1. If so, does industry believe it would be useful for the NGFV procurement strategy?

1.7.3. Does industry have any concern with the scheduled First Delivery, IOC and FOC dates relative to the Contract Award planned schedule In reference to planned milestone from contract award to IOC and FOC?



Attachment V

Next Generation Fighting Vehicle

Solicitation No. W6399-19KH53/D Amendment 005

Industry Questions Received and Answers Provided by Canada During the One-on-One Meetings

Serial	Question	Response
1	What is the expectation concerning the estimated project schedule, will there be any foreseen changes in the timeline?	The Government of Canada (GoC) is currently working on the procurement strategy in order to meet the NGFV schedule as shared in the LOI. Pending definition of the NGFV bid evaluation strategy some changes could happen to the schedule, but no additional information can be provided at this time. All questions to industry related to the procurement and validation are meant to guide the GoC in the final outcome and potentially influence the schedule.
2	Since there is a reasonable/possible overlap between the NGFV, LUV and LFE projects, from a possible platform point of view, can Canada elaborate if there is cooperation/communication between these project teams? If so, to what extent?	The NGFV is not in the same program as the other two projects. Canada cannot comment about the LUV and LFE projects within the context of this LOI.
3	Is there a possibility for the NGFV project team to also do company visits (international)?	In the context of the LOI Canada will not visit any supplier. After that, we could entertain a company visit if it's deemed required and useful. However, to maintain the project schedule, we don't anticipate a requirement to visit Industry at this time.



4	Is there a possibility for the industry entity to visit or to demonstrate the proposed solution/platform to the project team/end users?	An Industry Vehicle Demonstration was held under Solicitation No. W6399-19KH53/A from October 28 to November 14, 2019 with interested suppliers and the outcome was shared under Solicitation No. W6399-19KH53/B on May 25, 2020. This event offered an opportunity for Industry to demonstrate their proposed solution/platform to the NGFV Project Team Members and End Users. Follow-on engagements of this nature are not expected at this time.
5	If Industry would visit Canada in the near future, is there a possibility to meet in person with (members of) the project team?	In the context of the NGFV, industry engagement is framed in the current LOI and includes this one-on-one meeting. After this process, industry could request in-person meetings for Canada's consideration. If such a meeting were to take place it would be conducted in a framework that is deemed open, fair and transparent and be justifiable by Canada.
6	Are there any comparative field tests planned for the interested industry entities? If not, how will a proper selection be made?	The bid evaluation strategy is still in development and Canada intends to use this LOI to gather as much suggestions as possible from Industry in order to determine the optimum approach.
7	When will the exact number of vehicles be set?	The final RFP, currently scheduled for September 2023, will establish a firm number for vehicle delivery which will be between 55 and 75.
8	Is there already a selected RWS for the NGFV project? If so, can details be shared?	The current procurement strategy for the RWS relies on Industry to acquire this component. The GoC did not select a specific RWS but provided the preliminary operational requirements (PORs) for the NGFV. Based on the market research performed during option analysis, the GoC understands that existing RWSs are compliant to the PORs.
9	Is there a requirement for controlling the RWS remotely, i.e. from another location than the vehicle crew stations?	The NGFV lethality requirement is for a fully stabilized RWS and will not include a remote controlled capability outside of the vehicle.
10	Is there already a selected ATGM system? If so, can details be shared?	The ATGM is procured by Canada and provided as Government Supplied Material (GSM) for the integration to the RWS. Details of the NGFV requirement with respect to ATGM integration will be shared through the draft RFP once the ATGM contract is awarded.



11	What are the current defined specifications of the crewed turret?	The preliminary crewed turret specifications were defined in this LOI in Table 3 – NGFV Project Preliminary Operational Requirements Para 2.c. Further specifications will be shared through the draft RFP.
12	What is the definition of full fighting order?	Soldier in Full Fighting Order will wear at the minimum: Helmet, Combat Shirt and pants, Gloves, Boots, Rifle, Pistol, Plate Carrier, and Front/Back Body Armour Plates.
13	What are the standards set for bow waves while fording?	The expectation is that the NGFV will be compliant to STANAG 2805 for such requirement.
14	Should stop/start also be possible?	The expectation is that the NGFV will be compliant to STANAG 2805 for such requirement.
15	The Support vehicle is with two seats (3.1..2 and Figure 1); is there a requirement to have a provision for additional (foldable) seats?	The NGFV requirement is for 2 personnel in the armoured compartment of the Support variant. Additional foldable seats are not a requirement at this time.
16	In pt 10.1 it says that National Security Exemption has been invoked. At what stage in the programme will this be introduced?	The NGFV strategy with respect to the invoked NSE is still under development at this stage.
17	Is the number of end users/operators already defined in view of the required onsite training?	The required number of end users/operators for the operator training is not defined at this time. This information can be expected with the draft RFP.
18	Is the number of technicians known, also in view of the above question?	The required number of technicians for the maintainer training is not defined at this time. This information can be expected with the draft RFP.
19	How are the end users involved in the program?	End users are fully embedded with the Project team at all stages.
20	What is the threat assessment that drives the protection level setting (blast)?	The survivability blast protection requirement was defined through a classified CANSOFCOM threat assessment. Feedback from Industry with regards to this requirement is welcome.



21	Can you please describe your precise test methodology with respect to the blast site pit preparation, certification, associated soil conditions (type, compression, moisture) and charge location under the vehicle, noting that STANAG4569/AEP-55 is open to interpretation.	<p>The Letter of Interest (LOI) W6399-19KH53/D, Amendment 003, provides additional information on the NGFV Survivability proof of compliance requirement. The information includes, but not limited to, the notional HLMR 1 Survivability Instructions in order to provide the required proof of compliance. Feedback from Industry regarding this additional information will be key for the NGFV Project.</p> <p>Given the validation strategy for eventual tests is not yet defined for NGFV, more information will be provided at draft RFP.</p>
22	What is the threat assessment that drives the protection level setting (Ballistic)?	The NGFV HLMR 1 - Survivability ballistic protection requirement was defined through a classified CANSOFCOM threat assessment. Feedback from Industry with regards to this requirement is welcome.
23	How have you calculated your payload requirements?	<p>The NGFV payload requirement was calculated to accommodate:</p> <ol style="list-style-type: none">1. The scalable armour, enhancing the ballistic protection level from 1 to 3;2. Additional protection systems such as the Automatic Fire Suppression System;3. The Winch and Spare wheel kit;4. The C5ISR;5. The weapon configuration (RWS or Crewed Turret);6. Crew members with their mission essential gear; and7. Ancillaries and other goods. <p>The vehicle Curb Weight, which must not exceed 7100 Kg, is defined as the base vehicle in working order with the threshold NGFV Survivability requirement as follow:</p> <p>STANAG 4569 Ballistic KE Level 1; and STANAG 4569 Blast Level 2a/2b.</p>
24	What is your typical mission profile duration, crewing and mission stores load? Including Add-on armour, C4I, RWS, mission equipment, stores etc.	More information will be made available through the draft RFP.



25	Over the ~25 year life of the vehicle do you see a need for a 5th mine-blast certified seat to accommodate the 5th to 95th percentiles of the Canadian Armed Forces (CAF) population while wearing full armored gear.	The NGFV requirement is for 4 personnel in the armoured compartment of the Combat variant and 2 personnel in the armoured compartment of the Support variant. Additional seats are not a requirement at this time.
26	What are your current on-board power requirements? Lol calls for 165Amps above vehicle operating base – is this at idle or when driving?	<p>The NGFV must have a 24V electrical system. The associated 28V charging system must provide a minimum of 165 Amp rating above the base vehicle power requirement (RWS included) at all time including at idle.</p> <p>The on-board power requirement is derived from the C5ISR requirement including ECM and considering integration of future electronic subsystems.</p>
27	The requirement for 4.0 kW of additional exportable electrical power is that “exportable” in terms of off-board systems or for additional systems mounted in the vehicle and are the 4kW required during engine off, idle or while driving?	The 4.0 kW is required to supply and charge the on-board equipment which include, but not limited to, C5ISR with ECM and excludes the electrical needs of the vehicle and the RWS. At this time, the requirement is for all situation (engine off, idle and while driving).
28	What do you see as the long-term growth in demand for power?	Canada does not anticipate any long term growth that would not be accommodated with the 4.0 kW of power.
29	What mission profile drives the demand for your silent watch capabilities, ie what is the demand on your battery system for silent watch and recharging, is it the 2-4 hours of “engine off” period? We note the “surveillance” profile intends on driving the vehicle for 6 hours and running the engine idle for 16 hours within a 24 hour period with only 2 hours with the engine off – is this correct? If so why do you need to run the engine for 16 hours?	More information will be made available through the draft RFP.
30	What scenario drives a requirement to defeat Level 3 ballistic armoured targets?	The NGFV HLMR 2 - Lethality requirement was defined through a classified CANSOFCOM threat assessment.



31	How do you derive your detect, recognise and identify requirements?	<p>The NGFV detect, recognise and identify requirements are derived from NATO standards and a classified CANSOFCOM threat assessment. Options are still being evaluated with regards to the NGFV Lethality requirements which could drive changes with the overall DRI requirements.</p> <p>More information will be made available through the draft RFP.</p>
32	What scenario drives ATGM requirements, ie SF role vs armoured cavalry?	<p>DND is still defining the employment concept of the ATGM. Industry engagement helps Canada understand what is currently feasible, has been done in the market or have been fielded, before laying out its final concept of operation. More information will be made available during the draft RFP.</p>
33	Will Canada incentivize the engagement of its world class armoured vehicle industry, through the basis of selection by allocating a higher weighting to the ITB/VP criteria to ensure Canadians benefit from this procurement?	<p>The weighting of a Value Proposition score relative to price and technical merit scores will be determined on a procurement-by-procurement basis and will generally be between 10 and 20 percent of the overall bid score. Factors that could influence an increase in the weighting of the VP may include alignment with Key Industrial Capabilities (KIC(s)), market capacity in Canada and export capability. Industry is welcome to provide any additional rationale on this matter, which will be considered by Canada.</p>



34	Protection (operational function of SHIELD) is a mathematical equation of survivability, lethality, mobility and sensing (ISTAR). How are the elements of protection being weighted to ensure the greatest holistic degree of protection?	<p>The NGFV Project Scope will not include additional sensing capabilities than the currently defined requirements.</p> <p>The NGFV validation strategy for all these elements of survivability, lethality, mobility and sensing is still under development. More information will be made available through the draft RFP.</p>
35	What C5ISR equipment will be provided as GFE and when will supporting GFI be provided (ICDs etc)?	<p>The Letter of Interest (LOI) W6399-19KH53/D, Amendment 003, provides additional context regarding the NGFV Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) requirement was provided and specifies equipment expected to be integrated, along with notional diagrams. Feedback from Industry regarding this additional information will be key for the NGFV Project.</p> <p>The GoC's intent is to keep GFE at a minimum in order to maximize the NGFV Prime's control over the schedule.</p>
36	Does Canada want a fully integrate C4ISR system to be delivered with the NGFV?	<p>Canada wants the Prime to fully integrate the C5ISR capability. However a user C2 system already exist and there is no intent to duplicate its capability with the NGFV. The Letter of Interest (LOI) W6399-19KH53/D, Amendment 003, provides additional context concerning integration of C5ISR.</p>



37	Can Canada define "Design Authority for C5ISR Integration"	<p>The 'Design Authority of C5ISR integration' in the NGFV context can be further defined as:</p> <p>1) different and complementary to the authority to define the communication means, i.e. the actual radios system NGFV users will use, e.g. 152, 163, 117, MANET, Rover, etc. That Authority rests with DND as it enables interoperability with systems outside the scope of NGFV.</p> <p>2) C5ISR Integration Design Authority covers everything else to enable the DND identified radio system to work as intended and allowing the NGFV to be integrated capability with CANSOF Comms. That includes but is not limited to design of cabling, power supply, antenna placement, EMI/EMC. It will be subject to a Design Process (PDR, CDR, etc.) where stakeholders will take part and where the responsibility will rest on the NGFV Prime.</p>
38	What is "Communication Equipment Identification Design Authority"	The authority for the Communication Equipment Identification i.e. the actual radios system NGFV users will use rests with DND as it enables interoperability with systems outside the scope of NGFV.
39	What are the cyber security standards applicable to NGFV	GoC does not have the complete information at this time and more information will be made available through the draft RFP.
40	How can we design the C5ISR solution without advance knowledge of GFE/GFI? When will this information be made available as some of it will be subject to ITAR and require TAAs	Letter of Interest (LOI) W6399-19KH53/D, Amendment 003, provides additional context regarding the NGFV C5ISR requirement and specifies equipment expected to be integrated, including context for GFE/GFI intent. Feedback from Industry regarding this additional information will be key for the NGFV Project.



41	EMC/EMI validation rests with the Prime. Industry cannot accept this without prior knowledge and testing/certification of GFE/GFI	<p>Letter of Interest (LOI) W6399-19KH53/D, Amendment 003, provides additional context regarding the NGFV C5ISR requirement and specifies equipment expected to be integrated, along with notional diagrams. Feedback from Industry regarding this additional information will be key for the NGFV Project.</p> <p>All systems are in use within the military and in accordance with MIL STD 461 D and MIL STD 462. GoC will support the integration effort by contributing Subject Mater Experts (SMEs) and help define design criteria such as acceptable noise floor level.</p>
42	What are the IT security requirements? Is the vehicle network considered System SECRET high?	<p>The NGFV cabling design must ensure the physical separation of C5ISR systems from the vehicle management system. A separate data bus architecture must exist for the installation of the C5ISR systems.</p> <p>The requirement is for a network separation, notionally a vehicle system/network, and a C2 network. Not all equipment in the NGFV is considered secret high, only the C2 system will be considered secret high.</p>
43	Has Canada considered requirements for collaborative combat - hand off of targets between platform base on the optimal allocation of sensors, effectors based on terrain/distance etc?	<p>The NGFV Scope does not include requirements for collaborative combat at this time.</p>



44	<p>The project schedule shows the Draft Solicitation being released Winter 2022/2023 followed by the Official RFP in the fall of 2023. Can you provide additional clarification on the timing of the release for the draft RFP? Is it possible to work with quarters or months as opposed to seasons of the year?</p>	<p>Reference LOI amendment 001: Canada will look at standardizing the dating format in future documents to minimize potential confusion. The current period of release of the draft Request for Proposal (RFP) for the Next Generation Fighting Vehicle (NGFV) is stated as Winter 2022-23. This is to mean any period between November 2022 to February 2023.</p> <p>The period currently planned for the release of the Request for Proposal (RFP) for the Next Generation Fighting Vehicle (NGFV) is stated as Fall 2023. This is to mean any period between September 2023 to December 2023.</p>
45	<p>Is there a projected timing period for the review and submittal for both the draft and the official RFPs?</p>	<p>Ref. LOI amendment 001: The period of review of the draft RFP and Final RFP will be provided once we have the details. A commonly used period for Final RFP has been 45 days.</p> <p>Based on the estimated NGFV Project schedule the Draft Solicitation is scheduled to be published on https://buyandsell.gc.ca as a Request for Information (RFI)/Letter of Interest (LOI) for a period of three (3) months to allow Suppliers time to provide comments/feedback on the Draft Solicitation documents.</p>
46	<p>Could you provide additional clarification on the differences between the Draft Solicitation and the Release Solicitation that are mention in the Estimated Project Schedule? In which areas might there be changes between the Draft and Official Release documents?</p>	<p>The Draft Solicitation will allow suppliers time to assess and provide information and feedback regarding the adequacy and clarity of the requirements as expressed and to provide ideas and suggestions on how the eventual solicitation might be structured. Responses are used to assist Canada in finalizing the Final Solicitation.</p>



47	<p>Recital 1.1.1 - States that some vehicles will be equipped with an integrated Remote Weapons Station (RWS) or a crewed turret and include Command, Control, Computers, Communications, Cyber-defense, Intelligence, Surveillance and Reconnaissance (C5ISR) integration. Can further clarification be provided related to the RWS and C5ISR, and the respective integration of these technologies?</p>	<p>Ref. LOI amendment 001: The current NGFV Project procurement strategy for the Remote Weapons Station (RWS) is for the vehicle OEM to supply.</p> <p>Letter of Interest (LOI) W6399-19KH53/D Amendment 003, provides additional context regarding the NGFV Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) requirement and specifies equipment expected to be integrated, along with notional diagrams. Feedback from Industry regarding this additional information will be key for the NGFV Project.</p> <p>The GoC's intent is to keep GFE at a minimum in order to maximize the NGFV Prime's control over the schedule.</p>
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48

The Value Proposition Guide states that the Skills and Development Training is the fifth Value Proposition pillar. On a procurement-by-procurement basis bidders will be encouraged to identify skills development and training opportunities for Canadians. This pillar may also consider under-represented groups (e.g. women, Indigenous Canadians) in the defence industry and other economic sectors. Will Canada expand its Skills and Development Training to include other disenfranchised entities beyond under represented groups such as women and Indigenous Resources? If so, please provide clarification and information on what they might include.

Skills Development and Training is one of the five Value Proposition pillars (Defence Sector, Supplier Development, Research and Development, Skills Development and Training, and Exports) and could be part of the Value Proposition Framework for NGFV. The Skills Development and Training Value Proposition Pillar was added in 2018 and promotes skills development and training to advance employment opportunities. Industry is welcome to comment on the application of specific Value Proposition pillars and whether, in relation to this project, work with underrepresented groups should be incentivized within this pillar.

Specific to Skills Development and Training transactions with an underrepresented group, a Credit multiplier may apply if the transaction “involves a contribution to Skills Development and Training for Indigenous peoples or majority Indigenous-controlled educational or training facilities.” (5x multiplier) – See Article 7.4. of the ITB T&Cs for full details on Skills Development and Training transaction types. The transaction eligibility criteria can be found in Article 8 of the Model ITB T&Cs.

The Model ITB T&Cs can be found [here](#).

In the case of **point multipliers** used in VP bid evaluation scoring, Canada will consider this type of incentive, and other competitive scoring incentives, in cases where opportunities exist to leverage significant benefits for Canadians, including under-represented groups (e.g. women, Indigenous Canadian). As such, industry is encouraged to provide feedback to Canada with explanation about what opportunities exist to support this sector.



49	Why is the multiplier of 7 to 1 for In-kind contributions only valid on for the Investment Framework and not part of the general ITB offering? This question applies to both the Acquisition and the In-Service Support sections.	ISED introduced the Investment Framework (IF) as a crediting tool to encourage contractors to make long-term investments in Canadian small and medium sized businesses (SMBs), in innovation-related areas involving R&D and commercialization activities. The IF awards credits on a multiplier basis, to reflect the estimated future potential economic benefit of an investment. Proposed IF transactions must meet the following criteria: <ul style="list-style-type: none"> • Involves R&D and/or commercialization activities • Investment is with a Canadian SMB • Meets the ITB eligibility criteria (causality, incrementality, timing and eligible donor) • Investment is an allowable IF investment (cash and/or in-kind) • Minimum investment duration of five years • Contains a business plan
50	We would like clarification on the threshold and objective kinetic energy survivability requirements. As the survivability requirements drive vehicle weight, size, complexity, payload, and cost, we would like to ensure that we understand the vehicle ballistic threat requirement. Reference paragraph appears to state the requirement as level 1 through level 3. Is STANAG Level 1 or 2 a threshold requirement and Level 3 an objective requirement (i.e., HLMR or Rated)? Can you provide additional clarification on what would be driving a STANAG 4569 Level 3 protection level?	The NGFV HLMR 1 - Survivability blast protection requirement was defined through a classified CANSOFCOM threat assessment. The threshold NGFV Survivability requirement is defined as follow: STANAG 4569 Ballistic KE Level 1 STANAG 4569 Blast Level 2a/2b The threshold requirement for the NGFV Combat and Support variants must also be designed with add-on armour kits that allows users to enhance the KE ballistic protection level 1 to the KE protection level 3 in accordance to the STANAG 4569 when required.
51	We would like clarification on the kinetic energy survivability requirements. As the survivability requirements drive vehicle weight, size, complexity, payload, and cost, we would like to ensure that we understand the vehicle ballistic threat requirement. Does the NGFV STANAG 4569 ballistic requirement in Table 2, line # 1, include the KE threat(s) only? Or will it include the STANAG overhead artillery requirement and the potential extra weight required to meet it?	The NGFV STANAG 4569 Ballistic requirement includes only Kinetic Energy Threats. The threshold NGFV Survivability requirement is defined as follow: STANAG 4569 Ballistic KE Level 1 The threshold requirement for the NGFV Combat and Support variants must also be designed with add-on armour kits that allows users to enhance the ballistic protection level 1 to the protection level 3 in accordance to the STANAG 4569 when required.



52	<p>During project execution and fulfillment, is there an action plan in the event that any of the required IT systems fail? Is there a Disaster Recovery Plan? If so, what can an OEM expect to ensure the protection of the OEM's IP and TDP? It is anticipated that there would be no penalties to the OEM as a result of the Government of Canada's system failure. What other systems do you have in place to mitigate COVID outbreaks, force majeure, and incidences of cyber security attacks? We want to understand the impacts to the OEM during the execution of this contract and its associated project schedule.</p>	<p>DND always use their systems of record for corporate data which has built in data protection measures. These systems enable managing data for which the IP rest with industry, such as ICDs and TDPs with appropriate measures. In the event of catastrophic failures, recovery of the data is provided by the systems for record, and the data is protected. However, there has been no occurrence that the project is tracking, nor is it anticipated for this project to suffer any impact to project execution from such IT failures.</p> <p>In terms of situation like the COVID-19, GoC assessment the evolution of methodologies used at work greatly evolved, such as use of platform enabling telework, and witnessed that industry has also evolved in the same fashion. It is therefore anticipated that no serious impact to the project business would ensue if a situation of similar magnitude as COVID-19 would arise. However GoC cannot predict all possible situation and will remain flexible.</p> <p>GoC would like to capture any lessons from learned that should be considered.</p>
53	<p>What type of competitive validation testing will be held, where, when, and how many prototypes will be required? Will FSR support be evaluated at competitive testing? Will our training support offerings be required to be presented for evaluation at validation testing?</p>	<p>The project is still assessing how evaluation will be part of the tendering process. Details will be provided as the project further develops its strategy.</p>
54	<p>What validation method is planned for blast and or ballistic testing?</p>	<p>The project is still assessing how evaluation will be part of the tendering process.</p>



55	What other equipment does CANSOFCOM wish to install in the NGFV? Does DND require special racks in the NGFV to mount this equipment in? If so, can DND provide us details on the equipment, racking size and relative spacing for each component?	<p>In the context of Lethality for which this question is asked, there are currently no other requirements for additional equipment beyond the ones identified in the LOI.</p> <p>Also as per the LOI Table 3 1.b.3 the vehicle should include racks for storage of user weapons:</p> <p>"The NGFV Combat variant must have room for all four operators to store personal weapons such as C7A2 automatic rifle, C8A3 carbine rifle and C9A2 light machine gun. The weapons must be immediately available and easy to access, but must not interfere with Ingress/Egress."</p> <p>In a wider context, including C5ISR, Canada expects the equipment installation will include appropriate mounting racks, for example in the case of C5ISR the load list is specified in LOI Amendment 003.</p>
56	Aside from the interoperability standards cited, does DND have any desire to have the NGFV have a level of interoperability within the existing fleet?	There are currently no other interoperability requirements beyond the ones identified in the LOI.
57	Will there be ergonomic requirements for the NGFV? i.e., Heated seats	There is currently no heated seats requirement for NGFV nor any other ergonomics related requirement beyond what is identified in the LOI.
58	Will DND be supplying the ATGM system, then why would DND not supply the RWS. Does DND want to standardize the current KONGSBERG system for the NGFV?	<p>The GoC wants the NGFV Prime to remain in direct control over key schedule contributing factors. As such, the favored approach is to have the NGFV Prime be responsible for the acquisition and integration of the RWS.</p> <p>The GoC's current strategy does not specify a RWS make and model for the NGFV. As the strategy evolves the project will provide more information via the Draft Solicitation.</p>
59	With respect to the RWS simulator, is the expectation that the vehicle OEM provide this or the RWS manufacturer?	The NGFV Prime is to provide all aspects of the RWS capability, including simulator.



60

What EDI format is required from Industry to interface into DND's data system? Although it is stated in section 4.6 that the Data Structure format will be detailed in the RFP, can a sample of this be provided to us prior to the RFP as this is a separate task that should not be tagged as part of the vehicle's true cost. Is the OEM expected to be able to integrate its data into DND's DRMIS system and PSPC's SIGMA system? If so, what is the preferred method to provide a quote on this portion, under the cost of the vehicle or as a separate line item?

As the maintenance concept strategy evolves the GoC will be providing more information answer at a later date on Buy & Sell through this LOI.



61	<p>Will the ITB Policy apply to this project? If the ITB Policy is to apply, when will industry be made aware of its applicability and the Value Proposition Framework for this project?</p>	<p>The ITB Policy, including the Value Proposition, will apply to all eligible defence and Canadian Coast Guard procurements over \$100 million and for which international trade agreements do not apply. All eligible defence procurements with contract values between \$20-100 million will be reviewed for the use of Value Propositions. The review will determine whether the application of a Value Proposition is consistent with achieving the appropriate balance between capability, cost and benefit to Canada. Once the project reaches Definition Phase, a decision on the applicability of the ITB Policy will be made. Details of the Value Proposition Framework and any other mandatory ITB requirements will be released in a draft RFP and Industry will be invited to comment.</p>
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62

Can GoC clarify the definition of surrogate vehicle for survivability testing.

The GoC will provide the surrogate vehicle definition through a later amendment to this LOI.