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**LETTER OF INTEREST  
LETTRE D'INTÉRÊT**

Comments - Commentaires

Vendor/Firm Name and Address  
Raison sociale et adresse du  
fournisseur/de l'entrepreneur

**Issuing Office - Bureau de distribution**

Victoria Class Modernization (VCM) / Modernisation de  
la classe Victoria  
Louis St-Laurent Building (2)  
2nd Floor - SC19  
455 De la Carrière Blvd  
Gatineau  
Quebec  
K1A 0S5

<b>Title - Sujet</b> RFI-Solid Waste Handling DDR - VCM Gestion des déchets solides MCV	
<b>Solicitation No. - N° de l'invitation</b> W8472-235896/B	<b>Date</b> 2023-03-09
<b>Client Reference No. - N° de référence du client</b> W8472-235896	<b>GETS Ref. No. - N° de réf. de SEAG</b> PW-\$VCM-004-28991
<b>File No. - N° de dossier</b> 004vcm.W8472-235896	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> Eastern Daylight Saving Time EDT <b>on - le 2023-04-21</b> Heure Avancée de l'Est HAE	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Lapointe, Simon	<b>Buyer Id - Id de l'acheteur</b> 004vcm
<b>Telephone No. - N° de téléphone</b> (343) 552-1397 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>  Specified Herein Précisé dans les présentes	

Instructions: See Herein

Instructions: Voir aux présentes

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



Destination Code - Code destinataire	Destination Address - Adresse de la destination	Invoice Code - Code bur.-comptable	Invoice Address - Adresse de facturation
D - 1	National Defence Headquarters MGen Georges R. Pearkes Building 101 Colonel By DR. OTTAWA ON K1A 0K2 CANADA	I - 1	DEPT. of National Defence NDHQ ATTN DGMEPM CAP D MAR P 101 Colonel By DR. OTTAWA ON K1A 0K2 CANADA W8472



Item Article	Description	Dest. Code Dest.	Inv. Code Fact.	Qty Qté	U. of I. U. de D.	Unit Price/Prix unitaire FOB/FAM	Destination	Plant/Usine	Delivery Req. Livraison Req.	Del. Offered Liv. offerte
2	RFI2	D - 1	I - 1	1	SU	\$	\$		See Herein – Voir ci-inclus	

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## ABBREVIATIONS AND DEFINITIONS

**CAF:** Canadian Armed Forces.

**Component:** The third level of decomposition, below that of system and sub-system, of physical installations to which ship-level capabilities are allocated. Components are typically wholly contained functions within a sub-system.

**DND:** Department of National Defence.

**NSE:** National Security Exception.

**PDF:** Portable Document Format.

**PSPC:** Public Services and Procurement Canada.

**RCN:** Royal Canadian Navy.

**RFI:** Request for Information.

**RFP:** Request for Proposal.

**SEMS:** Safety and Environmental Management System

**SOR:** Statement of Operational Requirements.

**STTE:** Specialized Tools or Test Equipment

**SWH:** Solid Waste Handling

**TRA:** Technical Readiness Assessment

**TRL:** Technical Readiness Level

**VCS:** VICTORIA class Submarines.

**VCM:** *Victoria*-class Modernization.

**Videoconferencing applications:** a set of tools designed for personal and corporate collaboration. Videoconferencing applications are used to connect to others, typically through the internet, and they allow you to communicate through audio, video, text, file sharing, whiteboard, and other features. Commonly used applications include Microsoft Teams and Cisco WebEx.

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## REQUEST FOR INFORMATION (RFI)

### FOR THE VICTORIA CLASS MODERNIZATION SOLID WASTE HANDLING PROJECT

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#### 1. Purpose of the Request for Information

Public Services and Procurement Canada (PSPC) is releasing a Request for Information (RFI) on behalf of the Department of National Defence (DND) in order to gather information for a potential future procurement opportunity related to the *Victoria*-class Modernization (VCM) Solid Waste Handling (SWH) Project. The responses provided will contribute to the further definition of the Statement of Operational Requirements (SOR).

The purpose of this RFI is to:

- To gain an understanding of available Solid Waste Handling systems; and
- To receive feedback from industry on the Solid Waste Handling questions contained at Annex A.

Changes to this RFI may occur and will be advertised on the Government Electronic Tendering System. Canada asks Respondents to visit [Buyandsell.gc.ca](http://Buyandsell.gc.ca) regularly to check for changes, if any.

#### 2. Background Information

VCM will provide modernized and increased capability to maintain the VICTORIA class Submarines' (VCS) operational relevance through the mid-2030s. VCM will be a collection of discrete projects that will be managed both individually and within a larger VCM portfolio to generate the necessary capability for Canada's submarines as detailed in *Strong, Secure, Engaged* - Canada's Defence Policy. Overall, the modernization outcomes will make Canada and its allies stronger and safer by:

- a. improving the habitability and deployment conditions onboard the VCS in support of Royal Canadian Navy (RCN) submariners;
- b. positioning the VCS to contribute meaningfully to Canadian Armed Forces (CAF) Joint Operations ashore; and
- c. ensuring the survivability of the VCS against an evolving threat in an increasingly complex and changing battlespace.

This RFI relates to the VCM SWH Project.

Solid waste management on the VCS is achieved by minimizing the packaging brought onboard and sorting waste and recyclables as prescribed by the Victoria-Class Safety and Environmental Management System (SEMS). The sorted waste and recyclables are stored in the mast well compartment until it is removed when the submarine returns to port. The non-plastic garbage can only be disposed of at sea while submerged, in accordance with the SEMS manual. The stored waste accumulates and rots, fouling the atmosphere, and impedes clear access to mast well equipment. No mechanism currently exists onboard to compact the solid waste to optimize available storage space, and there is no dedicated storage space to ensure crew hygiene.

As a result, the RCN operations may be limited in the Arctic latitudes because of inability to comply with environmental regulations applicable to the prohibition of overboard discharge of solid waste into the ocean.

The Solid Waste Handling Project seeks to improve the manner in which solid waste is managed on the Victoria Class Submarines. This will form part of the solution to address the VCM High Level Mandatory Requirement for Deployability.

The VCS consists of four diesel electric submarines which operate year round throughout the globe, from arctic to tropical conditions and diving depths of up to 200m. Typical deployments for the VCS are up to two months in duration. These vessels are therefore subjected to a broad spectrum of atmospheric and oceanographic conditions that evolve dynamically.

### **3. Directions to Respondents**

#### **3.1 Nature of the RFI**

This RFI is neither a call for tender nor a Request for Proposal (RFP). No agreement or contract will be entered into based on this RFI. The issuance of this RFI is not to be considered in any way as a commitment by the Government of Canada, nor as authority to potential respondents to undertake any work that could be charged to Canada. This RFI is not to be considered as a commitment to issue a subsequent solicitation or award contract(s) for the work described herein.

Procurement of the goods or services described in this RFI will not necessarily follow this request. Any procurements of this system / equipment / services will be in accordance with standard government procurement policies.

Respondents and potential suppliers of any goods or services described in this RFI should not earmark stock or facilities, nor allocate resources, as a result of any information contained in this RFI.

Participation in this RFI is encouraged, but is not mandatory. There will be no short-listing of potential suppliers for the purposes of undertaking any future work as a result of this RFI. Similarly, participation in this RFI is not a condition or prerequisite for the participation in any potential subsequent solicitation.

#### **3.2 Nature and Format of the Requested Responses**

Respondents are asked to format their responses in MS Word, Excel, or a PDF document with a suggested limit of 6 megabytes per response.

Respondents must identify if their response, or any part of their response, is subject to the Controlled Goods Regulations and/or any export controls.

If respondents wish to provide multiple submissions or volumes/versions in response to this RFI, respondents are requested to indicate on the front cover page of the title of the response, the Buy and Sell identification number, the volume/version number, full legal name of the respondent and a point of contact of the respondent including name, telephone number and email address.

Respondents should list and explain any assumptions / constraints that they make in their responses.

### **3.3 Response Costs**

Canada will not reimburse any respondent for expenses incurred in responding to this RFI.

### **3.4 Treatment of Responses**

#### **3.4.1 Use of Responses**

Responses will not be formally evaluated. However, the responses received may be used by Canada to develop or modify procurement strategies and to draft performance specifications or requirements.

#### **3.4.2 Review Team**

A review team composed of representatives from Canada will review the responses, yet they will not be formally evaluated. Canada reserves the right to hire any independent consultant, or use any Government resources or contractors that it considers necessary to review any response. Any consultants or contractors utilized will be subject to a Non-Disclosure Agreement. Not all members of the review team will necessarily review all responses.

Canada will review all responses received by the RFI closing date. Canada may, in its discretion, review responses received after the RFI closing date.

#### **3.4.3 Confidentiality**

Respondents should clearly identify any information they provide Canada that they feel is proprietary, commercial-in-confidence, third party, or personal information. Please note that Canada may be obligated by law (e.g., in response to a request under the Access to Information and Privacy Acts) to disclose proprietary or commercially-sensitive information concerning a respondent (for more information: <https://laws.lois-justice.gc.ca/eng/acts/a-1>).

#### **3.4.4 Post-Submission Review Meetings**

Canada at their discretion may request individual Post-Submission Review Meetings with respondents to obtain clarity on information provided. This may take place in the form of follow on meetings via videoconferencing applications.

Respondents will not be reimbursed for any cost incurred in participating in Post Submission Review Meetings if Canada requests this meeting to take place.

### **3.5 Format of Responses**

The respondents must identify all response data with the following information:

- a. name and address of the respondent;
- b. name, address, telephone number, and email address of the respondent's contact;
- c. submission date;
- d. RFI number; and
- e. version number of the submission.



### **3.5.1 Numbering System**

Each section has its own unique section number. Respondents are requested to prepare their response using the system that corresponds to the one in this RFI. Descriptive material, technical manuals and brochures included as part of the response should be referenced accordingly.

### **3.5.2 Submission**

Respondents shall send their responses directly to the PSPC Contracting Authority, identified in section 3.7, by 1400 EDT, April 21<sup>st</sup>, 2022. The PSPC Contracting Authority will provide positive confirmation of receipt.

Responses to this RFI will not be returned.

### **3.6 Enquiries**

Because this is not a bid solicitation, Canada will not necessarily respond to enquiries in writing or by circulating answers to all potential suppliers. However, respondents with questions regarding this RFI may direct their enquiries to the PSPC Contracting Authority. The use of email to communicate is required .

Canada may, in its discretion, contact any respondent for clarification on any aspect of the respondent's submission.

All enquiries must be submitted to the PSPC Contracting Authority no later than seven (7) calendar days before the RFI closing date. Enquiries received after that time may not be answered.

Documents may be submitted in either official language of Canada.

### **3.7 Contracting Authority**

The PSPC Contracting Authority for the Contract is:

Name: Simon Lapointe  
Title: Supply Officer  
Public Works and Government Services Canada  
Directorate: Marine Sustainment Directorate  
Address: 455 Boulevard de la Carrière, Gatineau, QC, J8Y 6V7  
E-mail address: [Simon.Lapointe@tpsgc-pwgsc.gc.ca](mailto:Simon.Lapointe@tpsgc-pwgsc.gc.ca)

### **3.8 Security Requirements**

There is no security requirement associated with this RFI.

On future procurement phases relating to the VCM SWH, Canada reserves the right to apply the National Security Exception (NSE).

### **4.0 Industrial and Technological Benefits (ITB) Policy:**

Canada is consulting with industry as part of the development of an economic leveraging approach for the SWH Project within the VCM. The Policy Framework for the ITB Policy, including Value Proposition, may be applied.

The ITB Policy, including the Value Proposition, applies to all eligible defence procurements over \$100 million and for which the National Security Exception

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Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur  
004VCM

Client Ref. No. - N° de réf. du client  
W8472-235896

File No. - N° du dossier  
004VCM.W8472-235896

CCC No./N° CCC - FMS No./N° E

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applies. Additionally, procurements valued between \$20-100 million are reviewed for the possible application of the Policy.

Under the ITB Policy, companies awarded defence procurement contracts are required to undertake business activities in Canada equal to the value of the contract. The ITB Policy includes the Value Proposition (VP), which requires bidders to compete on the basis of the economic benefits to Canada associated with its bid. Winning bidders are selected on the basis of price, technical merit and their VP. VP commitments made by the winning bidder become contractual obligations in the ensuing contract.

The objectives of the ITB Policy are to: support the long-term sustainability and growth of Canada's defence sector; support the growth of prime contractors as well as suppliers in Canada, including small and medium-sized enterprises in all regions of the country; enhance innovation through research and technological development in Canada; and increase the export potential of Canadian-based firms.

For more information regarding the ITB Policy, please visit:

<http://www.ic.gc.ca/eic/site/086.nsf/eng/home>

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## **ANNEX A – Solid Waste Handling Questions**

### **1. Acquisition Costs**

- 1.1 What is the acquisition cost breakdown of the system based on the following configurations:
- a. economic order quantities and the associated prices,
  - b. cost of one boat set,
  - c. cost of four boat sets,
  - d. cost of five boat sets;
  - e. cost of one training system set (if necessary); and
  - f. average annual maintenance costs (in-service support)?

### **2. Spares**

- 2.1 What is the anticipated cost for 2 years' worth of spares (initial provisioning) to support the purchase of four boats systems and a training system set?

### **3. Delivery Lead Time**

- 3.1 What is the production lead time for the system?

### **4. Installation Effort**

- 4.1 What was the level of effort required for previous installations of the system (in hours)?

### **5. Current Production**

- 5.1 Is the system currently in production?

### **6. Current Customer Base**

- 6.1 What customers have installed the system?

### **7. Description of System**

- 7.1 Respondents are requested to provide a description of the proposed SWH system including:
- a. performance specifications;
  - b. sub-systems and components;
  - c. interface requirements;
  - d. maintenance requirements; and
  - e. Integrated Logistic Support.

### **8. Functional Characteristics**

- 8.1 Is your system capable of operating at various humidity, temperature, and pressure levels?
- 8.2 What typical first line maintenance is required on the system while deployed?

## **9. Training**

9.1 Respondents are requested to provide information on training for equipment operators to include:

- a. where the training can be conducted (RCN establishment, respondent facility, other commercial facility),
- b. if the training already exists,
- c. facilities recommended for training (classroom, simulator, emulator, suitably-equipped submarine),
- d. cost for provision of initial cadre training (per student or per course),
- e. cost for provision of periodic training courses (per student or per course), and
- f. cost basis for provision of Training Material to the RCN.

9.2 Respondents are requested to provide information on training for equipment maintainers to include:

- a. where the training can be conducted (RCN establishment, respondent facility, other commercial facility),
- b. if the training already exists,
- c. facilities recommended for training (classroom, simulator, emulator, suitably-equipped submarine),
- d. cost for provision of initial cadre training (per student or per course),
- e. cost for provision of periodic training courses (per student or per course), and
- f. cost basis for provision of Training Material to the RCN.

9.3 Respondents are requested to provide details and cost of any recommended variant of the proposed equipment for use solely as a training system.

## **10. Certification**

10.1 What requirements qualification testing (e.g., Shock, Noise and Vibration, Electromagnetic compatibility / Electromagnetic Interference, Environmental, etc.) has your system been subjected to and to what standard?

10.2 Does the system require calibration/inspection? What is the frequency? Can calibration be done by Ship's staff? Are there special tools required for calibration?

## **11. Legacy Systems**

11.1 Which onboard systems does the system rely on? (i.e. power, low pressure air etc,)

## **12. Auxiliary Systems**

12.1 What are the system's cooling requirements?

12.2 How much heat does the system generate inside the pressure hull in metric?

12.3 How much noise does the system generate?

**13. Dimensions**

13.1 What are the dimensions of each of the system's major Components in metric?

**14. Weight**

14.1 What is the weight of each of the system's major Components in metric?

**15. Electrical**

15.1 What are the system electric power requirements?

**16. Sustainability**

16.1 What is the intended service life of the system?

**17. Availability**

17.1 What is the operational availability described as a percentage, over a Patrol Cycle and what is the confidence level in that number?

17.2 What was the methodology for determining the operational availability?

**18. Maintainability**

18.1 What is the recommended preventive maintenance profile of the system?

**19. Technical Readiness Level**

19.1 What is the Technological Readiness Level (TRL) of the system in accordance with Technology Readiness Assessment (TRA) Guidance?

**20. Trade Controls**

20.1 If the system is subject to export trade controls, what are they?  
Trade controls include but are not limited to, Controlled Goods, International Traffic in Arms Regulations and Export Administration Regulations.

**21. Other Information**

21.1 Is there any other important information the respondent feels will be of use to Canada?

**22. Availability of components**

22.1 For your solution(s), are there any limiting factors related to availability of components or customization that would impact supportability over a 10 year period? (i.e. component end of life or "one off" components).

### **23. Repair of components**

23.1 Which components in your proposed solution require the most repairs or replacements and when do these repairs or replacements historically take place?

### **24. Maintenance**

24.1 What is the maintenance regime proposed for your recommended solution(s) for the VCS? Can your solution(s) be maintained without removal from the submarine, or does it require periodic complete removal and transport to an overhaul facility? Please describe your approach.

24.2 Could you describe how any of the current customers of this solution are performing maintenance and how Canada might be able to perform similar maintenance on the proposed solution(s)?

### **25. OEM**

26.1 What are the major OEMs in the manufacturing, integration, and delivery of the proposed solution(s)? Is reach-back required in order to maintain or repair the proposed solution?

### **27. Related Publications**

27.1 Are there any related published materials associated with the proposed solution, including Operating Manuals, Maintenance Manuals, Parts Catalogues, or Technical Data Packages)?

27.2 Will you grant Canada use of these publications?

27.3 Will you allow Canada to have the right to transfer any related publications to a 3rd Party so that Canada has the ability to source maintenance and supply chain separately?