National Defence / Défense nationale

CANADIAN ARMED FORCES / FORCES ARMÉES CANADIENNES

Innovation for Defence Excellence and Security

Drone surge: Scaling tactical UAS manufacturing for modern defence

Contest

APPLICANT GUIDE

IDEaS
INNOVATION FOR DEFENCE EXCELLENCE AND SECURITY

Canada

1. IDEaS Contests

The Innovation for Defence Excellence and Security (IDEaS) program supports, expands, and sustains Science & Technology (S&T) community capacity outside of the Department for National Defence (DND) that can generate new ideas and formulate solutions to Canada's current and future defence and security innovation challenges. These innovative solutions are critical for Canada and its allies to mitigate new threats and stay ahead of potential adversaries, while generating knowledge and economic benefits for Canada.

Compete in dynamic contests designed to address the evolving defence and security challenges. Whether it's strengthening continental defence, advancing military technologies, or anticipating future global threats, these Contests provide you with a platform to innovate and push boundaries. Participation in an IDEaS contest provides an opportunity to directly engage with military experts to foster a culture of innovation and excellence.

2. Challenge statement

This contest invites innovators to tackle the key priorities outlined in the ***Drone surge: Scaling tactical Uncrewed Aerial Systems (UAS) manufacturing for modern defence*** challenge statement:

The Department of National Defence and the Canadian Armed Forces (DND/CAF) seek innovative, low-cost, attritable Uncrewed Aerial Systems (UAS) to address gaps in military readiness and industrial capacity. The aim is to accelerate the development of scalable, cost-effective UAS solutions that enhance operational effectiveness, improve interoperability, and strengthen Canada's domestic industrial base.

For this challenge, "uncrewed aerial systems" refers specifically to the first-person view drone air vehicle and its associated control unit.

The development of cost-effective, attritable UAS represents a transformative opportunity for Canada's defence and security industry. By fostering innovation and enhancing domestic capabilities, this challenge will position Canada at the forefront of UAS technology while ensuring the protection of national sovereignty. DND/CAF are hosting this challenge to:

- Observe advancements in Canadian low-cost UAS capabilities relative to the current state of the art.
- Stimulate the growth of Canada's domestic UAS industry and workforce.
- Establish patterns of component supply chains and vulnerabilities.
- Enhance Canadian capabilities for rapid UAS deployment and iteration.
- Increase DND/CAF familiarity of the design principles and features that drive UAS innovation at scale.

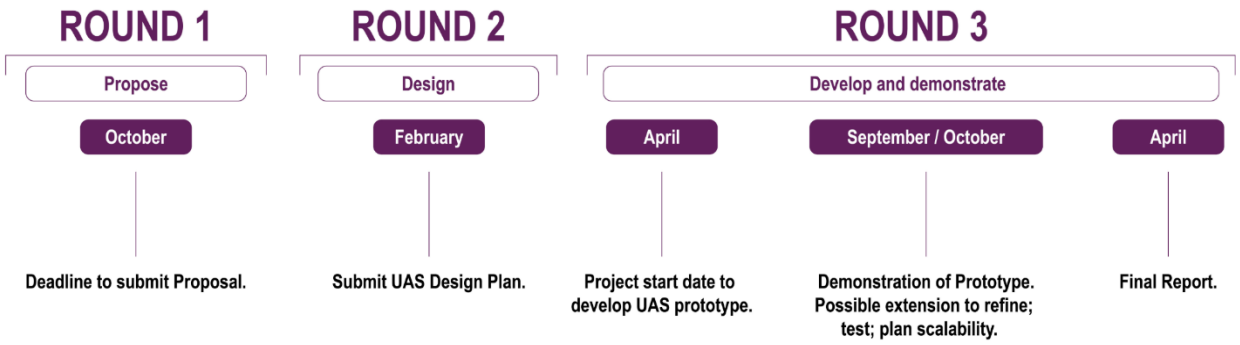
DND/CAF look forward to groundbreaking solutions that will define the future of uncrewed aircraft operations. Annex A provides the full challenge statement and defines the research area to be addressed under this contest.

3. Contest structure

This contest will follow a three-round, stage-gated approach, where successful applicants will undergo an evaluation and selection process to potentially access financial incentives that support the advancement of their proposed solution's technology readiness level.

DND reserves the right to not accept proposals or to increase or reduce the amount of available funding for each round at its entire discretion.

This contest will consider only proposed solutions currently within Technology Readiness Levels (TRLs) 1 to 6 inclusively. IDEaS aim to encourage and progress innovative solutions along the Technology Readiness Level (TRL) maturity scale.



ROUND ONE – PROPOSAL SUBMISSION

In the first round, applicants must complete a proposal submission form describing their innovation and how it aligns with the challenge. Participants are encouraged to propose cutting-edge solutions that not only enhance current systems but also anticipate and adapt to emerging threats. Proposals will be evaluated to establish a group of semi-finalists, who will receive a grant prize for this round and move on to round two.

Round one grant prize: up to 30 semi-finalists; $35,000 per semi-finalist

Round one submission deadline – Call for Proposals (CFP) closing date and time

Activity	Timeline
Deadline to submit round one proposal	**Wednesday, October 8, 2025, 14:00 Eastern Time**

Note: This guide provides information on the application process for round one. Once selected, semi-finalists from round one will receive further instructions for subsequent rounds. The following information is provided to outline what to expect for rounds two and three, should you be selected.

ROUND TWO – DESIGN SUBMISSION

Semi-finalists will have three months to scope and design a plan for their Uncrewed Aerial Systems (UAS). Applicants must submit a design submission package, which includes :

- Solution design form: concept of solution, technical details and capabilities, estimated cost per unit, domestic availability of parts, interoperability.

- Design schematic: high-level schematic of the proposed system.
- Project budget: detailed budget by cost category to build 1-2 prototypes for demonstration.

The design package will be evaluated to select a group of innovators invited to round three, where they will build 1-2 prototypes of their design. Selected applicants will receive a conditional approval email and be invited to enter into a Contribution Agreement.

Round two contribution funding: up to 12 semi-finalists; $350,000 for up 5 months.

ROUND THREE - DEMONSTRATION/PRESENTATION

In round three, semi-finalists from round two will have up to five months to build and test one to two prototypes. Semi-finalists will present their prototypes through a demonstration or presentation, where evaluators will assess each design's progress and the impact of its innovations. To accommodate the diverse nature of these demonstrations, evaluations may be conducted either in person or virtually, depending on project requirements. Evaluation criteria will be provided in advance of the demonstration/presentation.

Following the demonstrations, DND/CAF will review each project to identify those that have shown outstanding innovation and advancement. The highest-performing projects selected for additional funding will be invited to enter into a contribution agreement for a five-month period to complete work activities needed to enhance and test their designs and determine mass scalability plans.

A final report must be submitted detailing the designs along with the test results achieved. DND/CAF may or may not decide to pursue solutions developed from this CFP through a separate procurement process.

Round three contribution funding: up to $650,000 for up to 5 months.

4. Eligibility

Eligible applicants are:

- Canadian universities and educational institutions chartered in Canada;
- Canadian incorporated for-profit organizations;
- Canadian incorporated not-for-profit organizations; and
- Canadian provincial, territorial, and municipal government organizations.

Federal departments, agencies, or crown corporations, and any person that is employed under one of these, are not eligible for funding.

Applicants must be legal entities duly incorporated and validly existing in Canada.

If partnering with an organization, partners must also be from one of the above eligible organizations.

5. Round one proposal submission

5.1. Contest proposal form

Applicants must use the *Contest Proposal* form. For submission details, refer to the instructions below. Applicants are and will remain solely responsible for the accuracy and completeness of their submission. Applicants should read the applicant guide and the challenge statement in its entirety prior to submitting their proposal. At round one, only the estimated cost per uncrewed aerial unit system is required; detailed project costs are not required at this stage.

The proposal must be submitted by an eligible Canadian applicant organization/institution, by the stated deadline, using the DND Contest Proposal form template. No proposal submissions will be accepted after the deadline. Proposals not using the DND contest form will not be accepted for consideration.

5.2. Proposal submission

Applicants are required to register and submit their proposal(s) using the CPC Connect digital platform provided by Canada Post Corporation (CPC). CPC Connect is a digital delivery platform that facilitates sending and receiving confidential messages and documents. Proposals will not be accepted by email. It is the applicant's responsibility to hold an account with CPC Connect and to complete the submission steps to submit the proposal.

- Request your Connect conversation (step 2 below) at least five (5) days prior to the CFP closing.
- Classified proposals will not be accepted for this CFP.

5.3. Submission steps

Step	Action	Details
1	Create a CPC Connect account	**Existing Account:** - If you have an existing account, proceed to Step 2. **New Account Registration:** - Create an account on CPC Connect. - Click on "Login to Connect" on the CPC Connect webpage. - Select "Register now" and complete your personal Canada Post profile. - **Note**: There is no cost to register.
2	Request a Connect conversation	**How to Request**: - Send an email to IDEaS-IN.IDEeS-RI@forces.gc.ca to request a Connect conversation and provide the email address associated with your CPC Connect account. - This request must be sent **at least five (5) business days** prior to the CFP closing date. **Important**: Indicate the number of proposals you will submit to ensure individual file numbers are assigned. - The IDEaS Program will initiate the Connect conversation and assign a file number for each proposal. **Email Notification:** - The applicant will receive an email notification from CPC prompting them to access the conversation. - Through this conversation, the applicant will be able to submit their proposal before the CFP deadline.
3	Submit the proposal via CPC Connect	**Upload Your Proposal**: - Submit the proposal by uploading it within the Connect conversation. - Ensure submission occurs **before the CFP closing date and time**. **Confirmation**: - A confirmation message will be provided within the Connect conversation after submission or after the CFP closes.

5.4. Transmission issues or late submissions

DND will not be responsible for any failure attributable to the transmission or receipt of the proposal including, but not limited to, the following:

- Receipt of a garbled, corrupted or incomplete proposal;
- Availability or condition of the CPC Connect service;
- Incompatibility between the sending and receiving equipment;
- Delay in transmission or receipt of the proposal;
- Illegibility of the proposal;
- Security of proposal data; or
- Inability to create an electronic conversation through the CPC Connect service.

Late submissions will not be accepted. Records will be kept documenting the transaction history of all late submissions. The only acceptable evidence of submission time and date is the CPC Connect service timestamp recorded in the conversation history that clearly indicates that the proposal was submitted before the deadline.

6. Proposal evaluation and basis of selection

DND is committed to a consistent, fair, and transparent process for selecting projects that align with program objectives. Round one proposals will undergo a two-step evaluation process:

- Compliance check to ensure all **mandatory criteria** have been met.
- Evaluation by DND/CAF representatives and/or subject matter experts using the **point-rated criteria**.

Final selections will be made based on strategic considerations. Proposals will be evaluated and scored according to the criteria listed in Annex B - Evaluation Criteria.

6.1. Mandatory criteria

Each proposal will be assessed against the mandatory criteria. Only proposals that meet all mandatory requirements will proceed to the next stage. Proposals that fail to meet any mandatory criteria will be deemed ineligible and will not move forward in the selection process.

6.2. Point-rated criteria

Proposals will be reviewed by subject matter experts selected by DND/CAF and may include representatives of other Canadian government departments.

6.3. Pre-qualified proposals

A pool of pre-qualified proposals will be compiled of potential solutions that DND/CAF may consider selecting for funding. Only proposals that pass the mandatory and point-rated criteria will be considered compliant and included in the of pre-qualified pool. Inclusion in the pool does not obligate the Government of Canada to award grants or contributions, nor does it guarantee that a proposal will be selected or funded.

6.4. Proposal selection

DND/CAF will consider the evaluation results and may make funding decisions based on strategic parameters, such as:

- Operational investment – Justifies operational resource investment.
- Solution distinction – Avoids duplication of existing or planned work by Canada.

- Impact potential – Potential to disrupt or advance the Challenge domain significantly.
- Solution type – Selection across various solution types, methodologies, military environments, or technology readiness levels with preference towards proposals currently at TRLs 3-6.
- Benefit to Canada – Contributes to technological advancement and economic growth in Canada.
- Distribution of investment – Ensures investment across maximum defence and security applications and environments.

Selection decisions are final. There is no appeal process. DND may select one, multiple, or no proposal at its sole discretion.

7. Privacy notice statement

DND will comply with the federal Access to Information Act and Privacy Act with respect to proposals received. By submitting personal information, applicants consent to its collection, use and disclosure in accordance with the following Privacy Notice Statement, which explains how the applicant's information will be managed.

Necessary measures have been taken to protect the confidentiality of the information provided by applicants. This information is collected under the authority of DND's terms and conditions for the IDEaS Transfer Payment program.

Personal information included in all proposals will be kept along with the proposal results as Information Records of Business Value and retained. These data are protected under the Access to Information and Privacy Acts. According to the Privacy Act, data linked to an individual and included in the proposal being evaluated can be accessed by the specific concerned individual who has rights with respect to this information. This individual may, upon request, (1) be given access to his/her data by making an official privacy request through DND for the attention of the Director, Access to Information and Privacy (DAIP) and (2) have incorrect information corrected or have a notation attached.

The Access to Information Act governs the protection and disclosure of information, confidential or otherwise, supplied to a federal government institution.

Paragraph 20(1) (b) of the Act states that a government institution [such as DND] shall refuse to disclose any record requested under the Act that contains financial, commercial, scientific or technical information that is confidential information supplied to a government institution by a third party and is treated consistently in a confidential manner by the third party.

Paragraph 20(1) (b) of the Act sets out two mandatory criteria to protect applicants' confidential information supplied to DND from disclosure. First, the applicants' documents supplied to DND must contain financial, commercial, scientific or technical information. Second, the applicant must consistently treat such information in a confidential manner. In other words, DND will protect the applicant's confidential information in its possession as much as the applicant protects said confidential information in their own establishment.

Any Privacy or Access to Information request made under their respective Act and completed, will be retained by DAIP for a duration of two (2) years following the date the request was responded to. After the retention period of two (2) years, the Privacy or Access to Information request file will be destroyed.

For additional information on privacy matters prior to submitting a proposal, please contact:
Director, Access to Information and Privacy (DAIP)
Department of National Defence (DND)

Telephone: direct: 613-992-0996 or toll free: 1-888-272-8207
Email: ATIP-AIPRP@forces.gc.ca

Applicants shall note that key information related to all grant and contributions agreements (e.g., amount and name of the recipient) will be made available to the public on Government of Canada websites.

8. Enquiries about this CFP

It is the responsibility of the applicant to obtain clarification of the requirements contained herein, before submitting a proposal. Applicants must send enquiries **no later than five (5) calendar days before CFP closing date** to the IDEaS mailbox at: IDEaS-IN.IDEeS-RI@forces.gc.ca.
Note: enquiries received after that time may not be answered.
Applicants must:

- Reference as accurately as possible the numbered item of this CFP to which the enquiry relates
- Provide sufficient detail to enable an accurate response.

Questions and answers received during the CFP may be made available to all applicants.

9. General information

Applicants selected for funding will be invited to sign either a Grant Agreement or a Contribution Agreement depending on the Contest round. In the agreement, the applicant becomes the recipient. This section contains information relevant to proposals that are selected for funding by DND.

9.1. Intellectual property

All intellectual property rights that arise, as a result of this Contest, shall vest in the recipient.

9.2. Funding

Funding for this contest is twofold; if selected, provided via Grant Prize or via Contribution Agreement.

- **Grant prize:** A grant awarded to selected recipients providing a cash prize to recognize achievements and innovation in their field. Grant funding is not subject to the eligible and ineligible expenditures requirement. The winner of the Grant will receive all funds and is not required to disclose expenditures. Recipients cannot redistribute funding received through the IDEaS Contest.
- **Grant agreement:** semi-finalists selected for a grant prize are required to sign a grant agreement which is established to outline the terms of the grant prize subject to pre-established eligibility and other entitlement criteria. A grant is not subject to being accounted for by a recipient nor normally subject to audit by the department. The recipient may be required to report on results achieved.

- **Contribution funding:** is funding provided by Canada under the Contribution Agreement. Advance payments are provided in fiscal year instalments based on receipt of progress and financial reporting.
- **Contribution agreement:** is the legally binding agreement between the DND and the recipient embodying the terms and conditions governing the contribution program.

9.3. Contribution agreement terms:

Contributions will be made towards eligible expenditures that, DND has deemed are reasonable, and required to achieve the objectives and results of the project. Eligible costs are direct costs that are associated with the delivery of the approved project activities and that are required to achieve the expected results. A full list of eligible and ineligible expenditures applicable to the Contribution Agreements are provided in Annex C – Eligible and ineligible expenditures.

The Contribution Agreement will outline the fiscal year budget; start and end date of eligible costs; and documentation required for allocation of payments. Under no circumstance shall DND funding be provided or used for any eligible costs incurred until a Contribution Agreement has been executed between DND and the recipient. The Government of Canada's fiscal year begins April 1 of any year and ends on March 31 in the following year.

DND will make contribution payments to the recipient in the form of advance payments upon receipt and acceptance by DND of the recipient's financial report(s) signed by the recipient's duly authorized officer. An authorized officer is an appointed official (e.g. chief executive officer, vice president, chief financial officer, general partner, board chair, director, or direct owner) to whom the recipient has granted the legal authority to create financial obligations on its behalf.
Reporting requirements will be outlined in the contribution agreement and include:
a) Forecast report: Projection of the eligible expenditures to be incurred each fiscal year; and
b) Actuals report: Summary of eligible expenditures incurred during the reporting period.

The recipient shall use the advance payment only for eligible costs and are expected to spend all funds received by the end of the fiscal year before receiving an annual advance payment. Where an advance payment is not fully expended in a fiscal year for which it was provided, DND may consider the remaining balance as an overpayment that is subject to the contribution agreement overpayment terms.

The recipient must be prepared to provide supporting documents related to all eligible expenditures incurred. Final payment will not be made until all final reporting requirements are deemed acceptable by DND. A reasonable holdback may be applied and released once all conditions of the contribution agreement have been met.

If the applicant requires or decides to incur costs that are not eligible costs, or exceed the Contribution amount they may do so, at their own expense. DND's contribution will apply to eligible costs incurred on or after the Effective Date of the Contribution Agreement and can not be used for any costs incurred before the Effective Date.

Other sources of funding: cash and in-kind contributions: Recipients must identify all sources of funding and are encouraged to demonstrate relevance and collaboration by leveraging resources from other sources. In-Kind contributions are cash equivalent goods or services provided by an organization that represent an incremental expense that would have to be paid for by the recipient if not provided. Cash contributions provide the recipient with the flexibility to increase their research allocations, cover expenses outside of the eligible costs of the DND Contribution Agreement and generally expand the scope of the project.

Stacking provisions and other government assistance: The total Canadian government (federal, provincial/territorial and municipal) assistance cannot exceed 100% of total project costs.

Canadian content: Generally, eligible costs, under all cost categories, are to be incurred in Canada. However, DND may support eligible activities and associated costs incurred outside of Canada when necessary to ensure project success. In no case can more than 50% of eligible costs be incurred outside of Canada.

9.4. Public announcements and publications

The Government of Canada retains the right to make primary announcements about the contest. The recipient must, prior to any public announcement or publication, provide notification and a copy of the announcement or publication, including without limiting, proposed scientific publications, reports,

demonstrations, conference proceedings and presentations arising from the project's work to IDEaS for review and to determine if information could be sensitive or prejudicial to national security to which DND may impose measures for the recipient to protect national security.

9.5. Research security

In March 2021, the Government of Canada released a Research Security Policy Statement encouraging all members of the research community, including academia, private sector, and government to take extra precautions to protect the security of research, intellectual property, and knowledge development. Canada is working to develop specific risk guidelines to integrate national security considerations into the evaluation and funding of research projects and partnerships. These guidelines will better position researchers, research institutions and government funders to undertake consistent, risk-targeted due diligence of potential risks to research security and provide recommendations for complementary tools and measures to ensure researchers and research organizations working with national security partners have the capacity and resources necessary to implement the guidance.

When available, it is envisioned that the guidelines will be integrated in the due diligence assessment process undertaken by DND in support of research and development initiatives. In the meantime, recipients are encouraged to work collaboratively to identify and mitigate potential security risks by utilizing existing tools available through the Safeguarding Your Research portal and Safeguarding Science's workshops. Recipients should conduct consistent and appropriate due diligence review of potential security risks to research activities and put in place timely measures to appropriately mitigate these risks.

DND may review project activities on national security grounds to ensure any national security risks are identified and addressed.

9.6. M-30 for Québec Applicants

The Act Respecting the Ministère du Conseil Exécutif (M-30) may apply to an applicant that is a municipal body, school body, or agency located in the Province of Québec. As part of the proposal, these applicants will be required to complete an additional information form and, if they are subject to the requirements of the Act, to obtain written authorization and approval from the Government of Québec prior to receive funds from DND.

ANNEX A – CHALLENGE STATEMENT

Drone surge: Scaling tactical UAS manufacturing for modern defence

Contests

Competition between innovators is the fuel we use to foster the best innovative solutions.

The Challenge

The Department of National Defence and the Canadian Armed Forces (DND/CAF) are seeking innovative, low-cost, attritable Uncrewed Aerial Systems (UAS) to address critical gaps in military readiness and industrial capacity. The aim is to accelerate the development of scalable, cost-effective UAS solutions that

- Enhance operational effectiveness;
- Improve interoperability;
- Strengthen Canada's domestic industrial base.

For this challenge, "uncrewed aerial system" refers specifically to the first-person view drone air vehicle and its associated control unit.

What IDEaS provides

- A chance to pitch your Canadian-made innovation to our military experts;
- Compete against other innovators for a chance to progress through the three contest rounds.

What Innovators bring

- Low-cost UAS solutions that demonstrate increased defence capabilities
- Systems capable of operating effectively in Canadian environments.

Background and Context

As global threats evolve and technology reshapes modern warfare, uncrewed aerial systems have become indispensable to military operations. Canada's Armed Forces require a new class of affordable, attritable UAS to support diverse missions, including surveillance, logistics, and combat. Existing platforms suffer from high costs, rigid designs, and foreign dependencies, limiting scalability and flexibility.

Rising accessibility to the Arctic due to climate change has intensified strategic concerns, including unregulated shipping, resource exploitation, and foreign military activities. UAS technology plays a critical role in ensuring Canada's sovereignty, bolstering early detection and rapid response capabilities while fulfilling NATO and NORAD obligations. However, Canada's reliance on foreign-made UAS introduces vulnerabilities such as supply chain disruptions and cybersecurity threats.

A domestic, resilient UAS industry is essential to ensure self-sufficiency in national defence, strengthen the Canadian economy, and maintain technological leadership. The demand for massed, attritable UAS systems that integrate seamlessly with existing military platforms has never been greater. The arrival of 3D printing technology has transformed the UAS repair process, it offers an avenue for the military to manufacture adapted components on-demand and enables soldiers a wide range of design optimizations. This challenge aims to drive innovation in UAS design, manufacturing, and deployment with next-generation capabilities tailored to Canada's defence and security needs.

Objective

The development of cost-effective, attritable UAS represents a transformative opportunity for Canada's defence and security industry. By fostering innovation and enhancing domestic capabilities, this challenge

will position Canada at the forefront of UAS technology while ensuring the protection of national sovereignty. DND/CAF are hosting this challenge to:

- Observe advancements in Canadian low-cost UAS capabilities relative to the current state of the art;
- Stimulate the growth of Canada's domestic UAS industry and workforce;
- Identify supply chain patterns and vulnerabilities;
- Enhance Canadian capabilities for rapid UAS deployment and iteration;
- Increase DND/CAF familiarity of the design principles and features that drive UAS innovation at scale.

DND/CAF look forward to groundbreaking solutions that will define the future of uncrewed aircraft operations.

Essential outcomes

Each proposed UAS design must:

- Achieve low-cost production to enable mass adoption (low-cost is defined as less than $800 per unit). For this challenge, a 'unit' includes to both the drone and its control unit.
- Feature interchangeable components and open architectures for seamless integration.
- Provide versatility across multiple operational roles, including intelligence gathering, supply chain logistics, and combat.
- Prioritize domestic supply chains to enhance national security and reduce foreign dependence.
- Support scalable manufacturing using efficient production techniques.

Our objective is to prioritize drone designs with the highest possible flexibility in structural and modular parts, to maximize cost-efficiency and enable rapid field replacement, such as highest percentage of 3D-printed components.

Design considerations

Applicants are encouraged to include the following design considerations in the proposed solution:

Interoperability and Modularity

- Design interchangeable components for rapid adaptation to different roles, from ISR (intelligence, surveillance, and reconnaissance) to logistics and basic combat.
- Use open architecture that allows future upgrades or modification by the military or contractors.
- Lower production costs and increased speed and flexibility of manufacturing.
- Components should be designed to allow rapid repair and replacement using basic tools and minimal technical expertise, such as components that can be easily printed locally, reducing reliance on complex or foreign supply chains. This is especially important in remote and austere environments like the Arctic.

Environmental and Technical Constraints

The UAS must function reliably in cold, arctic, harsh operational environments, requiring special consideration for battery life, temperature resilience, and weatherproofing. The system must be energy-efficient to maximize flight time and reduce dependency on frequent recharging. The system must be easy to operate with minimal training, particularly in harsh environments where specialized support may be unavailable.

Scalability and production feasibility

The design should allow scaling from 1 unit to 100+ units within weeks to months. This ensures that production can meet growing demand and respond to emerging operational needs quickly. The solution should utilize efficient production methods (such as modular design and 3D printing) to support scalable manufacturing that can meet military needs in a time of conflict or crisis.

Proven utility in core military functions

- Demonstrate effectiveness in basic military roles (e.g., light surveillance, or reconnaissance);
- Include payload capacity for basic sensors (e.g., cameras, environmental sensors);
- Ensure range, with suitable endurance, for short to medium-distance operations.

Security and Cybersecurity

Given the rising concern over cybersecurity, especially with foreign-made systems, the UAS should be designed with basic cybersecurity measures to prevent hacking, jamming, or other forms of disruption. The design must rely as much as possible on domestic supply chains to reduce dependence on foreign countries for critical components, enhancing national security and reducing vulnerabilities.

To guide your design approach, we encourage participants to avoid the following pitfalls that could limit the real-world applicability of your solution:

Do not overcomplicate the solution

Avoid Excessive Complexity. The solution should not be overly complex or technologically advanced in ways that would increase costs, slow down development, or hinder rapid scaling. The drones must be simple enough for quick deployment and easy maintenance in remote, austere environments. While the system should be capable of multiple roles, it should not demand overly specialized or third-party components that would limit mass production and increase costs.

Do not rely on non-domestic or specialized parts

Avoid Foreign Supply Chain Dependency. The system should not rely on parts or materials that are imported or subject to geopolitical risks. The goal is to avoid vulnerabilities associated with foreign-manufactured components, especially in critical military applications. The design must not require highly specialized or difficult-to-produce components that could create bottlenecks in production or require advanced, high-cost manufacturing techniques.

Do not introduce dependence on limited expertise

Avoid Complex Operational Requirements. The drones must not be designed to require extensive training or highly specialized knowledge to operate, repair, or maintain. The military operators should be able to use and maintain the drones with minimal training, especially in remote locations where expertise is limited. Avoid creating a design that requires specialized assembly or technical skills that could limit the ability to deploy the drones in large quantities or in diverse environments.

Do not neglect the feasibility of scalable production

The design should not result in a prototype that is hard to scale up for mass production. The drones must be designed with a focus on affordable scalability and rapid production, avoiding any complexity that could delay or limit the ability to produce large quantities in a short time. Features or technologies that may be cutting-edge but difficult to mass-produce (or are prohibitively expensive) should be avoided, even if they seem innovative. For instance, relying heavily on custom-designed parts that are hard to replicate at scale should be minimized.

Do not compromise security and safety

The drones must not lack basic security measures to safeguard against cyber threats or hacking attempts. Neglecting cybersecurity in favor of a quick, low-cost design could expose vulnerabilities in operational environments. The system should not be unsafe for use by personnel, even in low-risk scenarios. The design must avoid introducing risks that could compromise operator safety or the safety of the mission.

Do not overlook affordability

The challenge should not result in solutions that focus too heavily on cutting-edge technology that drives the cost of the system too high. The key goal is to create a system that is affordable and attritable, which means avoiding overly expensive or niche solutions that would push the drones out of reach for large-

scale deployment. The design should not aim to create a premium product that is only suitable for high-value missions. The goal is to ensure affordability for widespread use, making it suitable for a variety of mission types, including those requiring expendability.

Do not delay the implementation process

The system should not get bogged down by extended testing cycles or bureaucratic red tape that delay deployment. The focus should be on a fast-to-market solution that can meet urgent needs, rather than overly long development timelines. The challenge should not result in a solution that is too rigid or difficult to iterate quickly. The focus should remain on creating a prototype that is flexible enough for rapid testing, feedback, and improvement, leading to accelerated deployment.

Do not overlook the logistics of deployment

The system should not create complex logistical chains for parts, training, or operational support that would delay or hinder the ability to deploy in real-world scenarios. Simple, low-cost logistics and resupply solutions should be prioritized. The design should not result in a system that is difficult to modify or upgrade as needs evolve over time. The system must allow for quick iterations and upgrades, especially in response to evolving military demands or technological advances.

Contest Structure

Applicants interested in participating in this Contest must be prepared to:

- Round one: Provide information on a proposed solution to the challenge.
- Round two: Provide detailed plans for a scalable, low-cost UAS system, including schematics, information and availability of materials, and production processes.
- Round three: Deliver at least one working UAS prototype. Participate in an event to show case the UAS capabilities and provide explanation of system's utility across various military scenarios, including payload capacity, range, and interoperability. Submit a final report.

ANNEX B – EVALUATION CRITERIA FOR ROUND 1 OF CONTEST

Applicants must complete the DND Proposal form with sufficient detail to enable Canada to assess the proposal against the established evaluation criteria. The provided information should clearly demonstrate how the proposal meets each criterion.

Part 1: Mandatory criteria – Round 1

Proposals must achieve a "Pass" for all mandatory criteria to advance to Part 2. Proposals failing to meet any mandatory criteria will be disqualified and will not receive further consideration.

Mandatory criteria	
Criteria	**Evaluation**
Eligible Applicant and, if applicable, Partners	**Pass:** The applicant is a legal entity duly incorporated and validly existing in Canada. The applicant/partner is an eligible Canadian recipient: - Canadian universities and educational institutions chartered in Canada. - Canadian incorporated not-for-profit organizations or associations. - Canadian incorporated for-profit companies, organizations or associations. - Canadian Provincial/territorial, or municipal government organizations. **Fail:** The applicant/partner **is NOT** an organization or institution legally incorporated and validly existing in Canada. OR The applicant/partner is a federal department, agency, or provincial crown corporation.
Technology Readiness Level	**Pass:** TRL Levels 1-6 (At the time of submission); **Fail:** TRL Level 7-9 (At the time of submission)
Proposed Low Cost	**Pass:** The estimated cost per uncrewed aerial system unit is less than $800 CAD. **Fail:** The estimated cost per uncrewed aerial system unit is $801 CAD or more. For this challenge, a 'unit' includes both the drone and its control unit.

Part 2 - Point-rated criteria

If the proposal provides insufficient or no information for a criteria, it may result in a failing score or zero points being awarded.

Point-rated criteria	
Criteria	**Evaluation**
Proposal Summary	The applicant must provide a clear and concise high-level statement of the proposed proposal summary.
Defence and Security Alignment	The applicant must describe how the proposed innovation responds to the Challenge Statement. The Applicant must include the scientific and technological basis upon which the solution is proposed and clearly demonstrate how the solution algins with the Challenge Statement and the strategies required to tackle the Challenge objectives and outcomes.
Proposed Objectives and Expected Outcomes	The applicant must clearly outline the objectives and technological approach, expected outcomes; and potential impact of the completed work. The information must include: the objectives of the proposal; the expected outcomes; and potential impact.
Innovation - Novelty	The applicant must describe the novelty of the proposed research and how it advances basic and applied research, analysis, technology development and knowledge transfer in support of the Challenge.
Scalability	The applicant must outline key performance indicators and market potential to illustrate the scalability and repeatability of the project. This includes assessing technological feasibility, operational efficiency, and resource requirements. The

Point-rated criteria	
Criteria	**Evaluation**
	applicant should identify any risks associated with the development of proof of feasibility and propose strategies for their mitigation.
Management and Scientific/Technical Capabilities	In three separate text sections, the applicant must clearly demonstrate the applicant's: a) proven managerial capacity and structure to complete the project; b) scientific/technical expertise, showcasing their ability to effectively execute this project. Highlight relevant accomplishments and experience in the field, underscoring capabilities to deliver successful outcomes; and, c) describe the potential project risks, potential impacts and mitigation strategies.
Benefits to Canada	Describe the general benefits to Canada and to stakeholders by outlining how the proposed research will strengthen Canadian capabilities such as the Technological benefits (e.g. Technology Readiness Level (TRL) stages advanced, lasting impact on the field in Canada, creation of intellectual property), Operational benefits *(e.g. novel insights by synthesizing a body of knowledge, integrating existing capabilities, employing novel user technologies, or through other means)*; Social and economic benefits *(e.g. patents filed, jobs created, training opportunities for students, revenues expected, cost reductions from using your solution over solutions commercially available today)*, and other benefits *(e.g. if the project includes a diverse team, leadership positions held by women, Indigenous peoples, youth, persons with disabilities, visible minorities)*.
Technology Readiness Level	The applicant must describe the research and development activities that have taken place to bring the proposed solution to the stated TRL. Notes: The TRL must be within TRL 1 to 6 inclusively. DND, may at its discretion, apply strategic considerations towards proposals currently at TRLs 3-6.
Contest Round Two Work Plan	The applicant must provide details to outline its capabilities to prepare and submit a design plan, if selected to advance to round two of the contest. Demonstrate a feasible round two project plan.

ANNEX C – CONTRIBUTION AGREEMENT ELIGIBLE AND INELIGIBLE EXPENDITURES

The following information applies only to contestants advancing to Rounds 2 and 3.
Eligible costs are limited to the following categories:

Cost Category	Restriction
1. Stipends, salaries and benefits for students, research assistants and technical staff	Must be directly related to project activities and reflect exact costs associated with payment of salary and benefits. Benefits: maximum 20% of salaries Salary: not to exceed $200,000 per full-time equivalent (excluding benefits).
2. Equipment acquisitions or rentals	Maximum $25,000 per acquisition Maximum 20% of total approved eligible costs
3. Consultant services (provided by third parties not affiliated with the recipient)	None
4. Laboratory analysis services	None
5. Materials and supplies	Meets at least one of the following conditions: a) is an expendable tangible property; or, b) has a useful life of 1 year or less; or, c) has a cost of less than $2,000.
6. Publication, outreach and communication costs	None
7. Travel expenses	Must be in accordance with the National Joint Council's Travel Directive
8. Administrative overhead costs	15% of eligible costs before overhead

1. Stipends, salaries and benefits for students, research assistants and technical staff

Salaries and benefits are eligible as long as they are directly related to project activities, including project management, and reflect the exact costs associated with the employees.
Benefits are defined as employment costs paid by the employer and may include the following:

- Employer's portion of CPP/QPP
- Employer's portion of Employment Insurance (EI)
- Employer's portion of group insurance
- Employer's pension contributions

Benefits must not exceed 20% of an individual's salary.

Maximum remuneration

Contributions from DND funds toward the total annual remuneration (fixed or variable) of each member must not exceed $200,000 per full-time equivalent (excluding benefits). This maximum applies to all positions (including employment contracts) and shall be pro-rated on the basis of the proportion of time worked relative to the full-time equivalent.

2. Equipment acquisitions or rentals

Equipment is defined as any item (or interrelated collection of items comprising a system) which is used wholly or in part for the research proposed and meets all three of the following conditions:
1) non-expendable tangible property;
2) having a useful life of more than one year; and,

3) a cost of $2,000 or more.
An item that fails to meet all three conditions listed above shall be classified as materials and supplies.

The equipment category also includes research infrastructure such as scientific collections and information databases used wholly or in part for the research proposed.

The Recipient will be responsible for obtaining the fair value of equipment at the time of purchase. Equipment category must not exceed $25,000 per acquisition and 20% of total approved eligible costs.

3. **Consultant services (provided by third parties not affiliated with the recipient)**
Upon request, recipients will provide DND a copy of contracts for services under the project.
The Contribution Agreement should not be used or replicated for contracting with other parties. A recipient's own contract should detail the activities and outcomes to be achieved under that contract, the costs, and deliverables.

It is the responsibility of the recipient to ensure that all costs from service providers providing contracted services are eligible project costs.

4. **Laboratory analysis services**
Examples include physical, chemical or biological property analysis of samples, standardized testing laboratory services, and calibration services from fee-for-service laboratories.

5. **Materials and supplies**
Material and supplies includes items that meet at least one of the following conditions:
   1) expendable tangible property; or,
   2) useful life of 1 year or less; or,
   3) a cost of less than $2,000.

As an example, a laptop computer that costs less than $2,000 would be considered a consumable even though it is a non-expendable tangible item with a useful life of more than one year.

6. **Publication, outreach and communication**
This cost category may include publication costs related to web support, newsletters, brochures, translation costs, printing and mailing costs, public relations associated expenses, and the costs of publishing in open access journals and/or outreach costs related to scientific conference fees relevant to the project activities.

7. **Travel Expenses**
Travel expenses must be incurred in accordance with the National Joint Council travel directive.

8. **Administrative overhead**
Administrative Overhead costs are indirect expenditures incurred by recipients, which are required for the research activities, but cannot be specifically identified as project costs. These costs relate to the use of the organization's resources, which may include, but are not limited to:
   - Administrative support (e.g. accounting, payroll administration, meetings);
   - Information Technology support;
   - Internet, telephone, excluding long-distance charges;
   - Use of photocopiers, fax machines, and other office equipment;
   - Use of existing workstations, including furnishings and equipment (e.g. computers, scanners);
   - Normal office software (not including software specifically required for the project);

- Memberships and subscriptions only if required to complete project activities;
- Staff recruitment and training;
- Routine laboratory and field equipment maintenance (e.g. oil changes);
- Building occupancy and operating costs (i.e. use of space); and,
- Facilities maintenance.

The administrative overhead costs cannot exceed 15% of the total Eligible Expenditures (before overhead).

9. Ineligible Costs

Ineligible costs include, but are not limited to, the following:

- Salaries and benefits for university investigators receiving direct and continuous salary through the university;
- In-kind contributions;
- Professional training or development, such as computer or language courses;
- The purchase of land or buildings;
- Costs of moving a lab;
- The purchase or lease of private/personal vehicles, vehicle maintenance costs or “Rental” charges for company-owned vehicles;
- Assets and capital items not specifically required for the execution of the project;
- Normal costs of establishing a commercial operation;
- Costs for activities that are deemed to be part of normal business practice for any Recipient, such as: Review engagements and audits, unless required in the agreement, Board of Directors’ meetings, Insurance
- Depreciation;
- Interest or overdraft charges and credit card fees;
- Refundable portion of the GST/HST, value-added taxes, or other items for which a refund or rebate is receivable;
- Hospitality – such as catering, alcohol, entertainment, honorariums, gifts (e.g., gifts for speakers or facilitators);
- Monthly parking fees for vehicles, unless specifically required for field work;
- Costs of regular clothing;
- Membership fees, unless specifically required for the project, must not already have membership;
- Discretionary employee benefits (e.g., parking at employer’s location, relocation costs for employees hired for the project, supplementary employment insurance benefits for maternity/paternity leave, staff awards and recognition);
- Patent fees;
- Costs for activities intended to directly influence/lobby governments;
- Direct marketing, business promotion or one-on-one extension types of activities;
- Costs associated with the review of graduate and PhD thesis; and,
- Other costs not specifically required for the project.