Launch the North:
Accelerating Canada's Sovereign Access to Space

APPLICANT GUIDE

IDEaS
INNOVATION FOR DEFENCE
EXCELLENCE AND SECURITY

Canada

Section 1: Space Launch R&D Initiative

As Canada's reliance on space-based systems for communication, navigation, intelligence, surveillance, and early warning continues to grow, so does the need for secure, sovereign access to space. The federal government has announced its intention to establish a sovereign space-launch capability, ensuring that Canadian missions — from surveillance and communications to science and security — can reach orbit without dependence on foreign providers or restricted technologies. To meet this need, the Department of National Defence (DND) and the Canadian Armed Forces (CAF) are launching the IDEaS Space Launch R&D Initiative to advance the development of sovereign Canadian space launch capabilities. This initiative seeks to mobilize innovators, industry, and academia across Canada to drive progress in domestically developed launch systems, propulsion, and supporting technologies, paving the way for the launch of Canadian payloads from Canadian soil and strengthening Canada's role in the global space economy.

This initiative will support the following objectives:
- Secure Canada's strategic autonomy in space by reducing reliance on foreign launch providers;
- Enhance national defence and security through responsive and resilient space access;
- Stimulate Canadian innovation and dual-use technology development in the commercial and defence sectors; and
- Position Canada as a global leader in commercial space launch and advanced aerospace technologies.

Recognizing that access to space is as critical as the payloads themselves, this initiative will foster Canadian industrial and academic collaboration to develop launch systems capable of supporting future DND/CAF missions. These may include hosted payloads for Space Domain Awareness (SDA), Intelligence, Surveillance and Reconnaissance (ISR), Satellite Communications (SATCOM), Navigation (Positioning, Navigation, and Timing) and Space Control.

Through this initiative, DND/CAF aims to build a resilient and future-ready Canadian space ecosystem, one that ensures Canada's security, prosperity, and leadership in the space domain (see Annex A for a list of relevant challenge topics). The initiative aims to accelerate Canadian space launch capabilities by fostering collaboration across industry, academia, and government. It addresses emerging threats, advances R&D, and drives innovation in defence, strategic autonomy, and sustainable space operations.

The initiative will unfold through three coordinated streams, each addressing a different time horizon and capability layer:

1.1. Stream 1 – Responsive Light Lift (2025–2028)
- A three-year, up to $105 million outcome-based challenge focused on small payloads of at least 200 kg.
- Using Contests, IDEaS will incentivize demonstrations of Canadian-built launch systems capable of reaching low Earth orbit (LEO) by 2028.
- This stream emphasizes speed, agility, and proof-of-concept — establishing the foundation for Canada's first sovereign launch.

1.2. Stream 2 – Medium Lift Capability (10-year horizon)
- A longer-term stream aimed at developing 4000 kg-class launch capacity through industry-led innovation networks.
- These networks will be delivered via non-repayable contribution agreements through the IDEaS Innovation Networks.

- This stream will strengthen the national industrial base, maturing key technologies and building sustainable capacity over the next decade.

1.3. Stream 3 – Rocketry Talent and Workforce Development
- A $5M dedicated stream focused on growing Canada's next generation of launch innovators through IDEaS-funded student-led projects, competitions, and early-stage research that advance enabling technologies and hands-on experience.
- These activities will build highly qualified personnel (HQP) and foster collaboration across disciplines — ensuring Canada has the expertise to sustain sovereign launch for the long term.

Section 2: Challenge Statement

2.1 Background

Canada's national security, resilience, and innovation objectives increasingly depend on the ability to launch small payloads into space rapidly, safely, and from Canadian soil. A sovereign, responsive launch capability will allow Canada to place satellites, sensors, and experimental payloads into orbit on demand — strengthening strategic autonomy while ensuring secure, independent access to space.

This challenge is currently focused on Stream 1 of the Space Launch R&D Initiative: Responsive Light Lift, with the goal of building Canadian capacity and expertise in small-scale launch capabilities. Success in this challenge will lay the foundation for potential future iterations, including a Medium Lift challenge, allowing participants to expand and scale their solutions over time.

2.2 The Challenge

Innovation for Defence Excellence and Security (IDEaS) is seeking innovative solutions that advance Canada's sovereign space launch capabilities. Timely, secure, and independent responsive light lift launch capabilities are critical to supporting national security, resilience, and innovation objectives. This would allow Canada to place small satellites and experimental payloads into Low Earth Orbit (LEO) on short notice, using International Traffic in Arms Regulations (ITAR)-free, mobile, and safe launch systems.

This challenge seeks to accelerate the advancement of Canadian-designed launch vehicles and supporting technologies, enabling the launch of Canadian payloads from Canadian soil with an initial operational capability for light lift by as late as 2028.

Canadian innovators are asked to develop and demonstrate innovative technologies, subsystems, or integrated solutions that can form the foundation of a Canadian light-lift launch capability able to:
- Deliver at least 200 kg payloads to LEO (~500 km altitude); and
- Conduct a launch within 96 hours of receiving a formal notice.

Solutions must be designed using ITAR-free components and subsystems to maintain export flexibility and strengthen the domestic industrial base.

This contest seeks systems that are operationally relevant, scalable, and demonstrably on track toward a launch-ready capability by 2028.

2.3 What Innovators Need to Do

Innovators are invited to propose technologies, architectures, or operational concepts that advance Canada toward a responsive launch Initial Operational Capability (IOC) by 2028.

Proposals may address one or more of the following focus areas:
- Launch vehicle design — propulsion, staging, avionics, and guidance solutions suitable for 200 kg class payloads;
- Rapid deployment and launch operations — mobile launch platforms, quick-connect payload interfaces, and automated ground support;
- Safety systems — integrated Flight Termination Systems (FTS), range safety, and telemetry;
- Propellant storage and handling — Canadian-compliant, environmentally safe, and field-deployable solutions;
- Infrastructure and logistics — minimal-footprint, mobile or modular ground systems;
- Reuse and scalability concepts — enabling cost reduction and higher launch cadence beyond IOC.

Solutions should clearly articulate a credible and integrated roadmap that achieves flight demonstration and readiness milestones leading to IOC by 2028.

2.4 Key Considerations
The IDEaS program seeks solutions that will:
- Demonstrate capability to deliver ≥ 200 kg to a 500 km LEO orbit;
- Execute a safe, compliant launch within 96 hours of notice;
- Be built using non-ITAR or export-permissive components;
- Include a scalable roadmap beyond 2028 toward routine responsive launch operations.
- Incorporate a robust and tested Flight Termination System;
- Demonstrate safe fuel handling and storage in line with Canadian standards; and
- Provide a clear path to IOC for light-lift launch by 2028.

2.5 Advantageous Characteristics
Solutions may receive higher consideration if they:
- Use green or low-toxicity propellants;
- Demonstrate reusable or modular architectures;
- Be concealable, mobile, low footprint, and infrastructure-light;
- Enable automated or semi-autonomous launch operations; and
- Present Canadian supply-chain participation for critical subsystems.

Section 3: Challenge Structure

3.1 Overview and funding

DND/CAF are calling on innovators to help propel Canada's sovereign space launch capabilities. The Responsive Light Lift challenge provides grants to selected participants, distributed across three fiscal years to support the development and demonstration of breakthrough technologies.

The challenge unfolds through a multi-phase, stage-gated process, where prizes are awarded at each stage based on evaluation against pre-established criteria, driving both innovation and measurable progress. In the event that only one participant remains, the challenge will continue to the next stage to ensure that strong, strategically relevant solutions are recognized and supported. The maximum total payout per project across all phases will not exceed $100 million.

The table below shows the notional funding allocations for the duration of this challenge.

2025-26	2026-27	2027-28	Total
$25,000,000	$40,000,000	$40,000,000	$105,000,000

3.2 Submission deadlines

Activity	Timeline
Deadline to submit Round One proposal	**January 9, 2026 at 12:00 pm ET**
Round One proposal evaluation	**Winter 2026**
Announcement of Round One participants	**Winter/Spring 2026**
This schedule is subject to change. Any changes will be communicated to applicants directly via e-mail or on the IDEaS website.	

3.3 Challenge objective

Enable rapid, flexible launch of small payloads from Canadian soil to support national security, scientific research, and commercial applications. This challenge focuses on developing mobile, low-footprint systems capable of launching on short notice with minimal infrastructure.

3.4 Challenge format

The Responsive Light Lift challenge is designed to fast-track Canada's space launch capabilities by spotlighting and rewarding the most innovative, high-potential concepts. This competitive, stage-gated challenge pushes participants to turn bold ideas into tangible results.

The challenge will run over three years (2025-26 to 2027-28), with a total prize pool of $105 million awarded through grants in three progressive rounds. Participants will advance based on their submissions, performance, and demonstrated progress, as evaluated against pre-established criteria and strategic considerations.

3.5 Challenge phases

Phase 1: Proposal & Initial Selection (2025-26)

Applicants will submit proposals outlining their concept and approach to enabling rapid, flexible launch of small payloads from Canadian soil, including key future milestones and timelines to achieve them. Proposals should present cutting-edge solutions that advance national capabilities and anticipate future operational needs. The submissions will be evaluated using a pre-determined evaluation matrix and strategic considerations.

Up to 3 winners will be selected, with the total prize pool of $25 million divided equally among them. If 3 winners cannot be identified, the challenge will continue to the next stage only with one or two strong and strategically relevant solutions. The selected participants will then advance to Phase 2 for concept development and testing.

Phase 2: Concept Development (2026-27)

Participants will have a year to refine their approach, strengthen their solutions and demonstrate progress against the key milestones they identified. At the end of that year, participants must submit a

year-end progress summary, which may include reports, presentations, demonstrations, or other appropriate deliverables. Submissions will be evaluated against pre-established criteria to determine which participants are selected to move on to Phase 3.

The prize pool of $40 million will be divided among participants selected to advance in the challenge. Only the two top-performing projects will advance or qualify for Phase 3. If only one participant meets evaluation criteria, the initiative may continue to ensure promising concepts are recognized and developed.

Phase 3: Demonstration & Grand Prize Award (2027-28)

Participants must submit final deliverables such as prototypes, demonstrations, or technical reports summarizing their progress and results. These deliverables will help assess progress and performance against pre-established criteria and will serve as a basis for determining the recipient(s) of the grand prize. The evaluation may consider factors like technical achievement, innovation and problem-solving, operational or strategic impact, scalability, and alignment with challenge objectives.

A grand prize of $40 million will be awarded based on the final evaluation results. Depending on the results, the grand prize may be awarded to a single top-performing project or divided among multiple participants demonstrating exceptional innovation and advancement towards the challenge objectives.

Section 4: Eligibility and Participation

4.1 Eligible recipients

The applicant must be a legal entity duly incorporated under Canadian federal or provincial law and validly existing in Canada, including:

- Canadian universities and educational institutions chartered in Canada.
- Incorporated Canadian not-for-profit organizations or associations.
- Incorporated Canadian for-profit companies, organizations, or associations.
- Canadian provincial/territorial, or municipal government organizations.

Federal departments, agencies, and crown corporations are not eligible for funding.

4.2 Advancement criteria

Advancement to subsequent rounds is based solely on meeting the evaluation criteria provided to participants for each phase. Selection does not depend on the number of participants advancing. If only one participant meets the applicable criteria in a given round, that participant may progress to the next phase or be considered for prizes, provided all requirements are met. This approach ensures that progression is determined by merit and project quality, while upholding fairness and transparency.

4.3 Technology readiness level

To be eligible, proposals submitted under the Responsive Light Lift challenge must focus on technologies or concepts at Technology Readiness Levels 4 to 8.

4.4 Redistribution of grants

Recipients cannot redistribute grant funding received through the IDEaS program. The lead organization will be responsible for managing the grant, ensuring compliance with all terms, and coordinating project activities. Although redistributing funds to other organizations is not allowed, the lead organization may reimburse partners for their contributions related to project activities.

Section 5: Submission Requirements

Applicants interested in participating in this challenge must submit a proposal using the **Launch the North: Accelerating Canada's Sovereign Access to Space** proposal form. For details on submission process see the instructions below. Please note, 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.

Proposals must be submitted through CPC Connect; email submissions will not be accepted. Applicants are responsible for creating a CPC Connect account and requesting their submission conversation well in advance of the CFP closing date. Classified proposals will not be accepted.

It is also the applicant's responsibility to clarify any requirements before submission. Enquiries must be sent to the IDEaS mailbox at ideascontests.ideesconcours@forces.gc.ca at least five (5) calendar days before the CFP closing date. Enquiries received after that deadline may not be answered. Applicants must reference the relevant numbered section of the Applicant Guide and provide sufficient detail to allow an accurate response. Questions and answers received during the CFP may be shared with all applicants.

Section 6: Proposal Instructions

6.1 Proposal submission

Applicants are required to register and submit their proposal(s) using the CPC Connect 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 create an account with CPC Connect and complete all required steps to submit the proposal. Applicants must request their Connect conversation at least five (5) days prior to the CFP closing.

Classified proposals will not be accepted for this CFP.

6.2 Submission Steps

Step	Action	Details
Step 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.
Step 2:	Request a Connect Conversation	**How to Request**: - Send an email to ideascontests.ideesconcours@forces.gc.ca requesting a Connect conversation. - The email must be sent at least five (5) business days prior to the CFP closing date. - Once requested, the IDEaS Program will initiate the Connect conversation. **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. **Important**: - Each proposal must have a unique title and file number (assigned by IDEaS). - When requesting a conversation, indicate the number of proposals to ensure individual file numbers are assigned.
Step 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 with a file number will be provided within the Connect conversation after submission or after the CFP closes. - Ensure the proposal includes the applicant's full contact information.

6.3 Transmission issues or late submissions

DND/CAF is not responsible for any proposal failures related to transmission or receipt, including but not limited to garbled, corrupted, or incomplete submissions; delays; equipment incompatibility; illegibility; e-post Connect service issues; security of proposal data; or inability to establish an electronic conversation. Late proposals will not be accepted. The only evidence of submission date and time accepted by DND/CAF is the CPC Connect service record in conversation history.

Section 7: Evaluation Procedures and Basis of Selection

7.1 Evaluation procedures

DND/CAF are committed to a consistent, fair, and transparent process for selecting projects that align with program objectives. Application will undergo a two-step evaluation process, beginning with a compliance check to ensure all **mandatory criteria** have been met. Eligible applications will then be evaluated by DND/CAF representatives and/or other SMEs, who will assess each proposal against established **point-rated criteria** and assign a numerical score. Final selections will be made by the Challenge Selection Committee.

7.2 Step 1: Mandatory criteria

Each proposal will be evaluated against the mandatory criteria, which applicants must meet to proceed to the next evaluation phase. Only proposals satisfying all mandatory requirements will advance to Step 2 for further assessment. Proposals that fail to meet any mandatory criteria will be deemed ineligible and will not move forward in the selection process.

7.3 Step 2: Point-rated criteria

Proposals that meet all mandatory criteria will advance to Step 2, where they will be evaluated and scored according to point-rated criteria. To be deemed a pre-qualified proposal, submissions must achieve a minimum overall score of **70** out of a possible **100** points.

7.4 Challenge pool of pre-qualified proposals

The challenge pool aims to compile a list of potential solutions for each challenge topic that DND/CAF may consider selecting. Proposals meeting all requirements outlined in this document will be deemed pre-qualified and placed in the challenge pool. However, inclusion in the pre-qualified pool does not obligate DND/CAF to award grants, nor does it guarantee that a proposal will be selected or funded.

7.5 Proposal selection

DND/CAF will consider the evaluation results of the pre-qualified proposals and will make funding decisions based on multiple parameters, such as:

- Special consideration will be given to submissions that consider Indigenous populations, including impacts on lands and communities, understanding of Indigenous perspectives, and engagement strategies.
- Alignment with some or all of the DND Strategic Selection Parameters:
    - DND/CAF Alignment – Integrates with DND/CAF systems, doctrines, and practices.
    - Operational Investment – Justifies operational resource investment (personnel, equipment, data, budget).
    - Solution Distinction – Avoids duplicating existing or planned work by Canada or Allies.
    - Application Strength & Risk – Assesses solution strength and risk, allowing for high-risk, high-impact innovations.
    - Impact Potential – Potential to disrupt or advance the Challenge/S&T field significantly.
    - Solution Type – Enables selection across various solution types, methodologies, and military environments.
    - Technology & Socio-Economic Benefits – Contributes to technological advancement and economic growth in Canada, Departmental and/or Government of Canada priorities

Funding decisions made by the challenge selection committee are considered final. There is no appeal process. DND/CAF may select one proposal, multiple proposals, or no proposal under a specific challenge. The decision to select a proposal is at the sole discretion of DND/CAF. Feedback on proposals is provided at the discretion and availability of the IDEaS Team.

Section 8: Evaluation Criteria

8.1 Mandatory criteria

The Applicant must complete the Proposal form with sufficient detail to enable DND/CAF to assess the proposal against the established criteria and the Evaluation Matrix. The submission should clearly demonstrate how each mandatory criterion is met.

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 Matrix (Pass/Fail)**
Eligible recipients	**Pass:** The applicant must be a legal entity duly incorporated under Canadian federal or provincial law and validly existing in Canada, including: - Canadian universities and educational institutions chartered in Canada. - Incorporated Canadian not-for-profit organizations or associations. - Incorporated Canadian for-profit companies, organizations or associations. - Canadian provincial/territorial, or municipal government organizations. **Fail:** The applicant **is NOT** a legal entity duly incorporated under Canadian federal or provincial law and validly existing in Canada as listed above; or is a federal department, agency, or crown corporation.
Proposal form	**Pass:** Applicant's submission used the IDEaS provided template. **Fail:** Applicant's submission did not use the IDEaS provided template.
Technology readiness level	**Pass:** TRL Levels 4-8 (at the time of submission) **Fail:** TRL Levels 1-3, 9 (at the time of submission)
Attestation	**Pass:** The Applicant has signed the attestation included in the Proposal form. **Fail:** The Applicant **has NOT** signed the attestation included in the Proposal form.
Alignment with challenge statement	**Pass:** The proposal addresses the core intent of the challenge and responds to the stated themes and objectives. **Fail:** The proposal does not address the challenge, is off-topic, or does not engage meaningfully with the required themes.

8.2 Point rated criteria

A point scale is utilized to assess the rated criteria. If the proposal provides insufficient or no information for any of the criteria, it may result in a failing score or zero points being awarded.

Insufficient: 0 points
Poor: 1 point
Fair: 3 points
Good: 6 points
Excellent: 10 points

Point-Rated Criteria	
Criteria	**Evaluation Criteria**
Project summary	Applicants must provide a clear, concise summary outlining the project objectives, implementation plan, and expected outcomes. The summary should demonstrate the project's potential impact and, where relevant, its scalability or broader application. When applicable, it should also address considerations related to Indigenous populations, including impacts on lands and communities, understanding of Indigenous perspectives, and engagement strategies with Indigenous stakeholders throughout the project.
Canadian content and domestic capabilities	Applicants must demonstrate the degree to which the project leverages Canadian resources, expertise, and infrastructure. This includes identifying Canadian team members, suppliers, and partners, as well as estimating the percentage of project activities and expenditures that will occur in Canada. Proposals should describe how the project contributes to strengthening Canada's industrial base, supply chains, and innovation ecosystem. Proposals should identify potential ITAR components and plans to minimize their usage in their proposed solution.
General expenditure summary	Applicants must provide a brief summary describing how the prize funding would be used to advance the project. The summary should highlight key areas of expenditure, explain how the funds will support further development or accelerate progress, and outline any expected benefits.
Challenge relevance & strategic fit	Applicants must clearly demonstrate how their proposed solution responds to the challenge statement. This includes articulating a strong understanding of the problem, explaining how the proposed approach aligns with the objectives and context of the challenge, and showing why the solution is a meaningful fit. Applicants should provide sufficient detail on planned and ongoing activities to show that the challenge has been thoughtfully interpreted and that the proposed solution addresses its specific needs and priorities.
Scientific/technical quality & Innovation	Applicants must demonstrate the scientific or technical merit of the project and clearly explain the innovation it brings. This includes describing how the solution offers a novel approach or advancement beyond existing technologies or methods and why current solutions are insufficient. A feasibility assessment should confirm that the proposed science or technology is realistically achievable and capable of delivering the intended capabilities and benefits. Applicants must clearly demonstrate the current TRL of their solution and a credible plan for advancing technology readiness according to the challenge timeline. Where applicable, applicants must clearly outline the intended flight termination system, including its design, functionality, and relevance to safety and mission success.

Scalability, market potential, & risk management	Applicants must demonstrate how the project can be scaled, replicated, reused, and sustained beyond initial proof of concept. This includes outlining key performance indicators, market or operational potential, resource requirements, and an assessment of operational feasibility. The proposal should identify risks associated with scaling and development and present credible strategies for mitigating those risks, appropriate to the project's maturity level. For mid-TRL (4, 5, 6) projects, applicants should provide preliminary scalability considerations, basic performance measures, and initial risk identification, recognizing that detailed plans may evolve as the project advances.
Project management and technical expertise	Applicants must clearly demonstrate their managerial skills and scientific or technical expertise relevant to successfully executing the proposed project. The proposal should highlight key accomplishments, prior experience, and the capacity of the team to deliver results on time and within scope. Emphasis should be placed on qualifications that ensure effective project planning, coordination, risk management, and technical problem-solving throughout a fast-paced project lifecycle. Applicants must also clearly demonstrate their capacity to integrate the required sub-systems, components, and technologies necessary to meet the challenge objectives.
Benefits to Canada	Applicants must clearly explain how the project will deliver meaningful benefits to Canada, including contributions to national strategic priorities such as innovation leadership, economic growth, and technological advancement. The proposal should describe how the project supports the development of competitive Canadian industries, creates jobs, and fosters a highly skilled workforce. Consideration should also be given to long-term socio-economic impacts across regions and sectors, including underserved or strategically important communities.

Section 9: General Information

9.1 IDEaS background

As part of Strong, Secure, Engaged: Canada's Defence Policy, the DND has launched the Innovation for Defence Excellence and Security (IDEaS) Program. The IDEaS Program supports, increases and sustains S&T community capacity external to DND/CAF 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. Innovators willing to develop solutions to emerging problems from their own unique perspectives are encouraged to participate in the IDEaS Program.

IDEaS aims to encourage and progress innovative solutions along the Technology Readiness Level (TRL) maturity scale, as described on the [IDEaS website](#).

9.2 IDEaS Contests

IDEaS contests offer a competitive arena for participants to showcase their innovative solutions to defence and security challenges. Whether it's a hackathon, a pitch event, or a design competition, these events provide an opportunity for individuals and teams to directly engage with military experts. Cash prizes are awarded to the most exceptional submissions, fostering a culture of innovation and excellence.

9.3 Terminology

This table outlines the terminology employed throughout this Call for Proposals (CFP).

Term/Acronym	Definition
Authorized Officials	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.
CAF	Canadian Armed Forces
CFP	Call for Proposals
DND	Department of National Defence
DRDC	Defence Research and Development Canada
Grant	A transfer payment 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.
HQP	Highly Qualified Personnel
IDEaS	Innovation for Defence Excellence and Security
IP	Intellectual Property
LEO	Low Earth Orbit (160 Km – 2000 Km Altitude)
Prize	A grant awarded to recipients who meet pre-established challenge criteria, providing a cash prize to recognize achievements and innovation in their field
R&D	Research and Development
Recipient	An applicant whose project has been selected for funding
S&T	Science and Technology
SC	Selection Committee
SME	Subject Matter Expert
TRL	Technology Readiness Level

9.4 Intellectual property

All Intellectual Property rights that arise as a result of this challenge shall vest in the Recipient.

9.5 Public announcements

The Government of Canada retains the right to make primary announcements about the challenge Canada and the applicant shall consult with each other, after the selection process, about all proposed news releases or public announcements relating to the projects. This is to provide all parties sufficient notice of key communications, and, where appropriate, the time to determine a course of action (including a mutually agreed date and location), line up representatives and prepare joint material. Notwithstanding the advance notice requirement, consent shall not be unreasonably withheld by either party if a news release or public announcement must be issued in less than 15 working days as the result of unforeseeable circumstances, including matters of public safety or where an emergency response is required.

9.6 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, IP, and knowledge development. Members of the joint Government of Canada–Universities Working Group are 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/CAF in support of research and development initiatives.

In the meantime, recipients are encouraged to identify and mitigate potential security risks by utilizing existing tools available through the Safeguarding Your Research portal and Safeguarding Science 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.

9.7 Privacy notice statement

DND/CAF will comply with the federal *Access to Information Act* and *Privacy Act* with respect to essays received. By submitting personal information, an applicant is consenting 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/CAF'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. This data is 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 their data by making an official privacy request through DND/CAF 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/CAF] 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/CAF from disclosure. First, the Applicants' documents supplied to DND/CAF must contain financial, commercial, scientific or technical information. Second, the Applicant must consistently treat such information in a confidential manner. In other words, DND/CAF 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 payments (e.g., amount and name of the recipient) will be made available to the public on DND/CAF website.

9.8 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 Quebec. 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 Quebec before signing an agreement and receiving funds from DND/CAF.

Annex A
Relevant Challenge Topics

Focus Area	Key innovation objectives	Key areas of R&D interest
Propulsion systems	- Fuels - Fuel handling and storage in the rocket - Nozzle design - Propellant isolation - Casing, materials and packaging - Thrust vectoring - Multiple-stage-to-orbit and interstage interface design - Multi-orbit capability for rideshare missions	- Increase thrust, lower fuel consumption, and/or improve efficiency of propulsion systems - Reduce time-to-launch or launch-to-launch (system readiness) through propulsion system design - Increase propulsion system volumetric efficiency - Build test facilities that enable propulsion systems development
Guidance, navigation, & control (GNC)	- Nozzle actuators design and control - Thrusters and diverters design and control - Thrust vectoring and aerodynamic fin controls - Trajectory optimization for obit injection - Robust control technics for bending modes and fuel sloshing mitigation - Automatic failure detection and mitigation - High-accuracy and tactical grade navigation systems based on Global Navigation Satellite Systems (GNSS), star tracker, magnetic, Earth's horizon or inertial sensors, - Semi-autonomous and autonomous launches - Rendezvous guidance and control capabilities - Reaction control system for terminal attitude maneuvers	- Enable semi-autonomous and autonomous launches to reduce mission reliance on ground tracking and remote communication - Development of guidance, navigation and control technologies for high-accuracy orbit injection and rendezvous missions in contested environment - Develop ground or onboard systems for improved trajectory control and trajectory optimization. - Enhanced accuracy and reliability of flight path and corrections
Launch vehicle design	- Different types of payloads for debris removal, satellite, Propellant sloshing analysis and prediction (Pogo oscillation) - Nose cone and fairing design - Antenna and communication system design - Communication security - Jettison system for single and multiple payloads - Aero loads, max q, aeroelasticity, structure validation - Power supply and distribution	- Advanced geometry and material for space launchers - Multi-mission and reliable payload deployment and protection - Integrated uplink/downlink communication system for launcher telemetry - Improve system reliability and redundancy to mitigate risks of mission failure - Design and build resilient avionics for space operations

Ground infrastructure & launch operations	- Wide range of launch platforms - Launch locations & desired orbits - Vertical launch pad infrastructure (terrestrial or maritime) and location - Launch control & operations - Commissioning & mission operations - Ground station scheduling and tasking capabilities - Mobile launch platforms. Land/ maritime launch pads	- Develop mobile, horizontal, or fixed launch platforms - Determine optimal launch locations and orbits for the stated mission - Enable vertical and horizontal launch pad infrastructure (terrestrial or maritime) and location - Support launch control & operations - Allow commissioning & sustain mission operations - Maximize utility of ground station scheduling and tasking capabilities for all onboard payloads
Hosted payloads & space operations	- Payload integration - Size, weight, and power (SWaP) - Payloads addressing CAF priorities - SDA - ISR - SATCOM - Operations of the space mission	- Simplify payload integration by optimizing SWaP - Support CAF priorities with payloads addressing Space Control, SDA, ISR, and SATCOM - Support and maintain the operations of the space mission, including the commissioning and calibration phases, and the operation of the hosted payloads for the lifetime of the mission