



National
Defence

Défense
nationale

CANADIAN
ARMED FORCES



FORCES ARMÉES
CANADIENNES



IDEaS

INNOVATION FOR DEFENCE
EXCELLENCE AND SECURITY



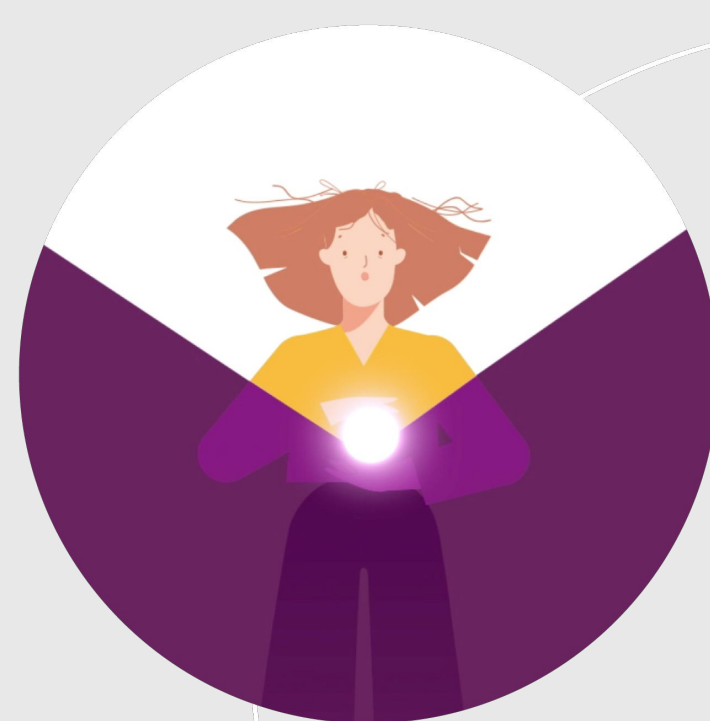
Canada



Your ideas. Our support. Unlimited possibilities.

IDEaS connects Canada's toughest defence and security challenges with creative thinkers, providing them with the resources and guidance they need to bring new solutions to light.

\$1.6 Billion over 20 years to tap into external innovation.

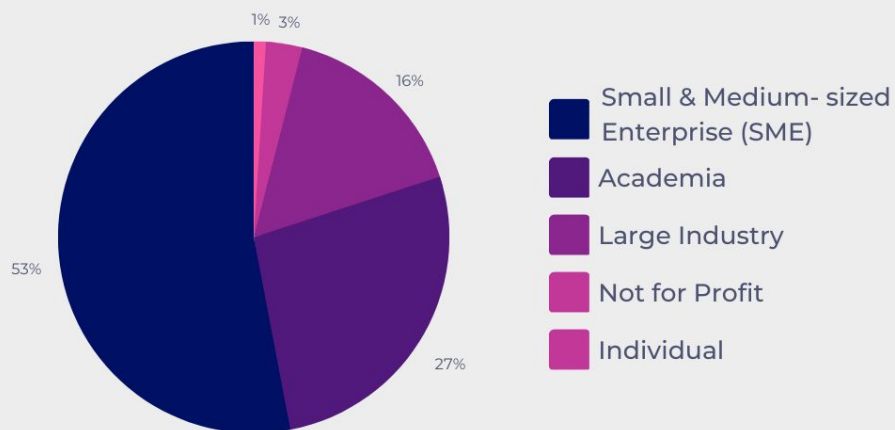




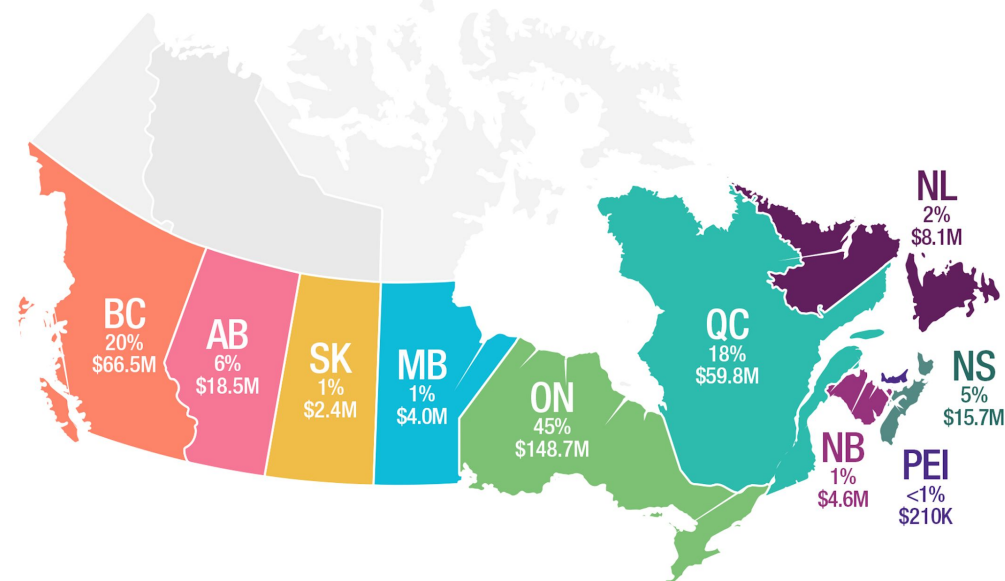
Program participation

- Across all **75 challenges**, IDEaS has so far committed and spent **\$330.4M**.
- The program has funded **664 projects** with over **298 unique Canadian organizations** across all 10 provinces.

TOTAL FUNDED PROJECTS BY INNOVATOR TYPE



Total \$ Committed & Spent per Province





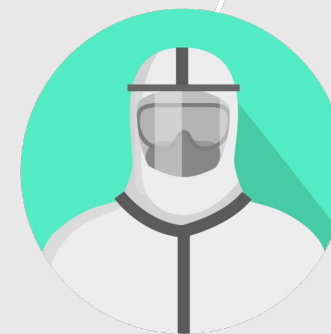
IDEaS is preparing for the next generation of threats and risks...to leap ahead of what's next

Some of our areas of interest:

- Autonomous vehicles
- Space defence
- Sustainable operations
- Enhanced camouflage

And many, many more...

- Data analytics
- Cyber defence
- Network security
- Drone technology





3 pillars of IDEaS

BUILD AN INNOVATION COMMUNITY



Vibrant innovation community

Bring industry, researchers and academics together.

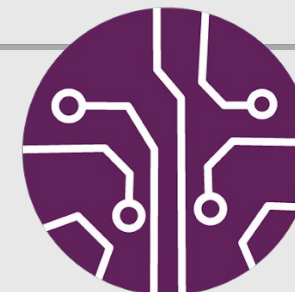
FIND SOLUTIONS



Open competition of ideas

Find multiple solutions to challenges faced by DND/CAF.

PUSH TECHNOLOGY FORWARD



Validated innovative solutions

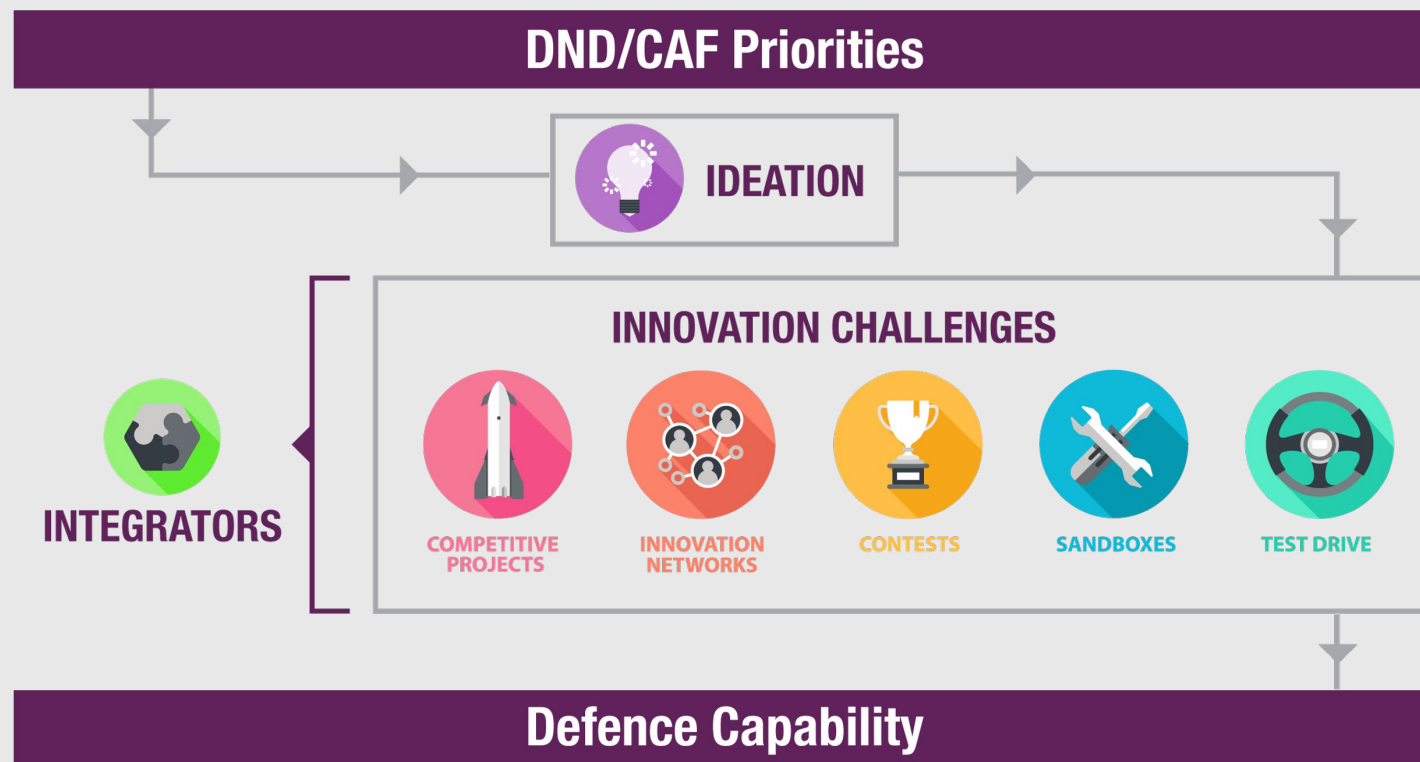
Advance the most promising technologies along the innovation continuum.



How IDEaS delivers

IDEaS is intended to help foster solutions at any stage of development that have potential defence and security focus and align with DND/CAF priorities.

From early research and development to prototyping and testing your concepts, we help advance your technology.



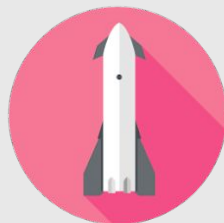


Benefits to you: Funding and support

- IDEaS has around \$85 million in funding annually to develop, test or build your concepts
- Post-IDEaS support: Partnerships with other government funding organizations enables referrals of IDEaS projects



**FUNDING
AVAILABLE**



COMPETITIVE PROJECTS

Phased procurement advances your technology through the innovation pipeline.



INNOVATION NETWORKS

Collaborate with academic and private sector partners to build a network of expertise.



CONTESTS

Compete against your peers for prizes while building your network.



SANDBOXES

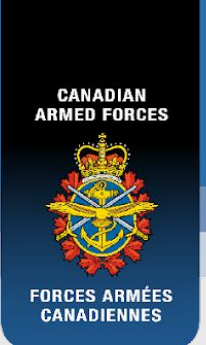
Get your product in front of national defence experts and demonstrate its capabilities.



TEST DRIVE

Take your product through the final stage of the innovation journey towards commercialization





Benefits to you: Intellectual Property

- Innovators own the IP they develop under this program.
- The Crown gets a license to use and have used for its own purpose but cannot exploit it commercially. Standard Government of Canada contract conditions apply.
- You are able to further commercialize your products after they've been through the program.

Support during IDEaS projects

- Partnership with the Canadian Intellectual Property Office delivers training to our innovators on IP, and helps innovators get their questions answered to protect their IP.





Artificial Intelligence is everywhere...

- Of the 75 challenges released through IDEaS, around 65% - 70% of all proposed solutions involve AI components
- No AI Challenges were released - until now...
- **Current Contest** – Robotics and Artificial Intelligence (AI)

Proactive Deterrence

**AI Deterrence: Science,
Theory, and Practice**

Detection of Concealed Explosives

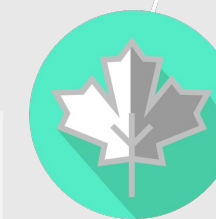
**Combining AI with SWIR Camera
for Automatic Detection of
Explosives**

Staying Four Steps Ahead – Understanding & Predicting
the Behavior of Adversaries

**AI Support for Behaviour Understanding and
Prediction in Naval Operations**

All Systems Go! Predicting & Optimizing Maintenance for
Military Platforms

**Advanced AI-based Service to Predict and Optimize
the Availability of Military Systems**





Pushing Technology Forward:

Advanced robotics platforms and control solutions

The Robot Round-up contest calls for Canadian innovators to demonstrate to DND/CAF how advancements in robotic platforms and methods of control can be leveraged to help CAF members accomplish high risk tasks.

IDEaS has invited five participants to demonstrate their solutions to DND/CAF stakeholders in the Robot Round-up contest.

Contestants will demonstrate their technologies at a live later in the year with the best technologies being awarded a cash prize and the possibility of additional funding.

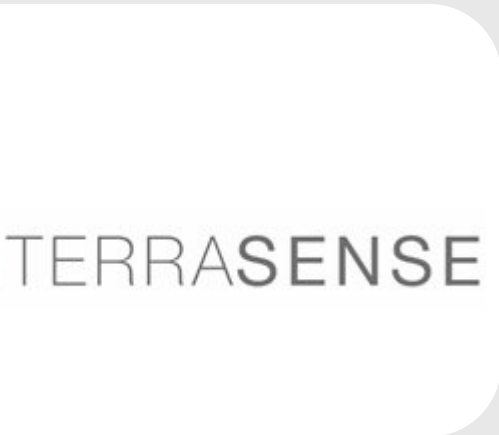




Pushing Technology Forward: Testing Solutions for DND/CAF

Challenge: What is in Full Motion Video?
Monitoring and interpreting the high volume of Full Motion Video (FMV) feeds.

Multimodal Input Surveillance & Tracking (MIST)
MIST is an integrated hardware and software **AI solution** that detects, tracks, and identifies multiple objects, person and events of interest across multiple sensors.





COMPETITIVE PROJECTS

10 Innovators awarded \$200K
3 Innovators awarded \$1M
18 months of solution development



TEST DRIVE

TerraSense MIST solution selected to be acquired by IDEaS **TEST DRIVE** for CJOC and CANSOFCOM testing
\$10.5 Million

OUTCOME FOR CAF:

- Multiple sensors and multi-client integration
- Processes high volume of FMV with less demand on CAF/DND
- “Make Sense” | Decide | Act in real-time

CJOC - CANSOFCOM



Key updates

- The second IDEaS CUAS Sandbox took place in September 2022. A new one is planned for 2024.
- New Innovation Networks call on Quantum Technology has closed, 50 applicant proposals are now being evaluated.
- Our next Call for Proposals under Competitive Projects is slated for Fall 2023.





How to participate

- Visit our Website: **Canada.ca/defence-ideas**
- Subscribe to our mailing list (on our homepage)
- Follow **DRDC** Twitter/LinkedIn and look for **#DefenceIDEaS**
- Email us with any questions: **DND.IDEaS-IDEeS.MDN@forces.gc.ca**
- Don't forget to read the applicant guide and apply when a challenge is right for you!

