



Status Update on CSA's Lunar Exploration Accelerator Program

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DEVELOPMENT

Canada is going to the Moon

Providing Canadarm3 to the Gateway

Creating a Lunar Exploration
Accelerator Program



Lunar Exploration Accelerator Program

- Health
- AI & Robotics Technologies
- Autonomous Science Payloads





LEAP Health

Focuses on identifying opportunities where space and health partners could work together to solve shared healthcare challenges; particularly in remote regions and Canada's North.



Implementation of LEAP Health activities will include:

1. Partnerships: Collaborative development of a shared national vision on addressing healthcare challenges;
2. Early demonstration missions in medically isolated communities (remote, rural, harsh environments)
3. R&D initiatives developed with the health and biomedical sector to identify Canadian technology capabilities to solve space healthcare challenges.

Lunar Exploration Accelerator Program

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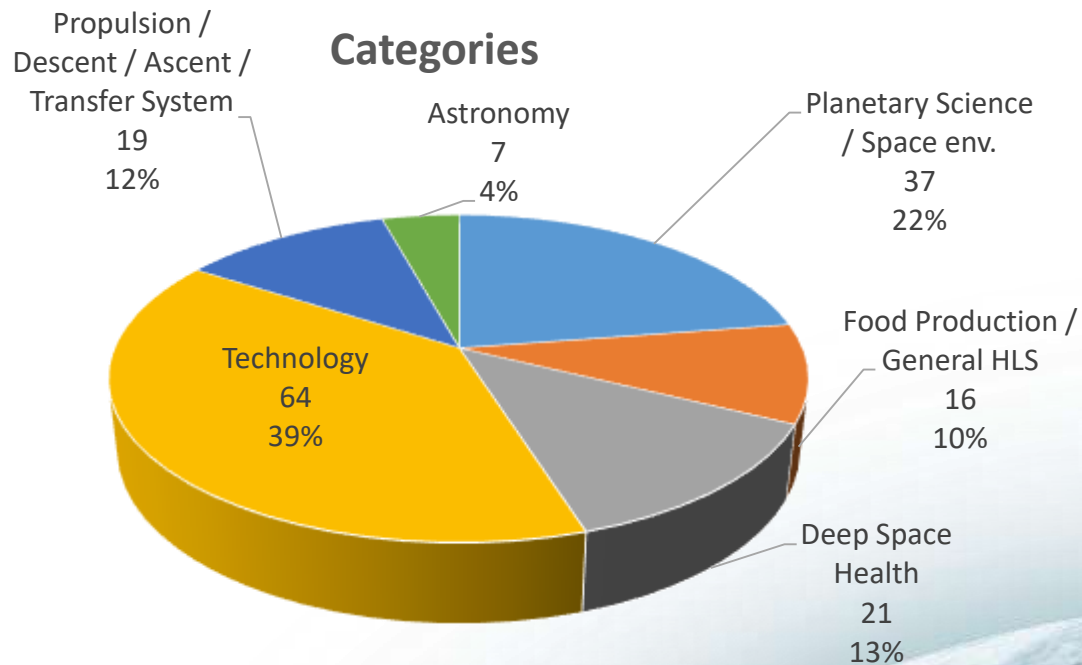


LEAP Call for Ideas – June 2019

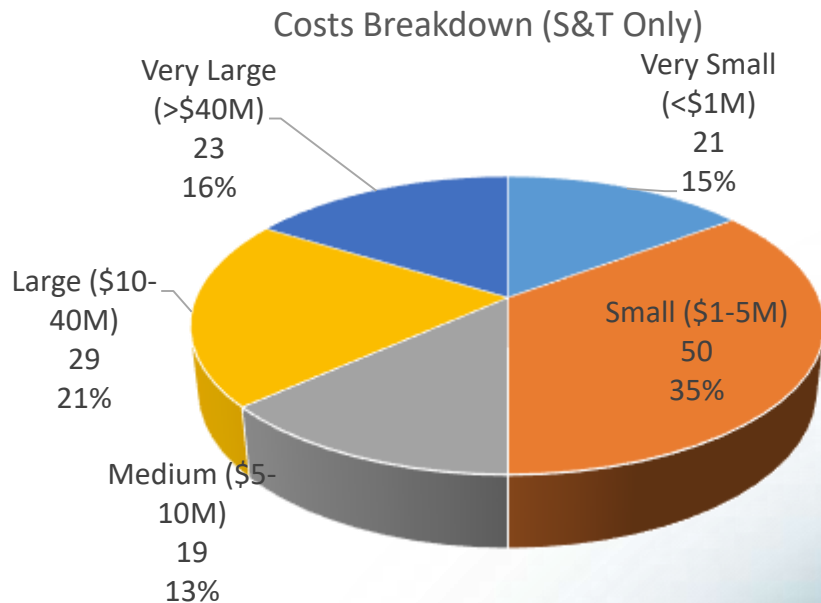
- 164 Submissions for Future Lunar Exploration Activities
 - Responses from 8 provinces and from outside Canada
- 11 Submissions from Lunar Delivery Service Providers
- Results have been used to compose portfolio and support business case analysis



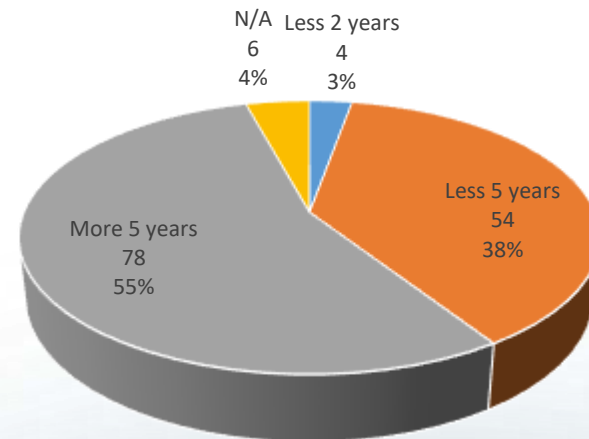
LEAP Call for Ideas June 2019



LEAP Call for Ideas June 2019



Readiness (S&T Only)



Portfolio Composition

	Description
1	Contribution to partner agencies' selected missions
2	Contributions to Lunar Science & Technology Capability Demonstration
3	Lunar science support
4	Planning and preparation for future mission and technologies
5	Technology development for the lunar supply chain
6	Lunar science/technology payloads



Recent Awards

- STDP AO5 (Industrial Capacity Building)
 - 3 awards, \$1M, April/May 2019
- Concept Studies and Technology Development for Lunar Autonomous Science Payloads
 - 7 contracts, \$4.36M, February 2020
- Business Case and Value Proposition Analysis to Identify Possible Canadian Contributions to Future International Lunar Exploration Initiatives
 - 1 contract, \$285k, March 2020

On-going Opportunities

- STDP Supply Chain Announcement of Opportunity
 - Objective: Develop technologies to allow Canadian companies to insert themselves in supply chain of lunar delivery service providers.
- AO posted February 21, 2020.
- Submissions accepted since May 1, 2020.
- Closing date March 21, 2022.



On-going Opportunities

- Capability Demonstration Announcement of Opportunity
 - Objective: support the development of a proto-flight model, and its adaptation, delivery, integration, and launch as a Canadian payload on a lunar launch or lander vehicle
- AO posted February 21, 2020.
- First submission window closed May 22, 2020.
- AO Closing August 26, 2022. Windows every 6 months

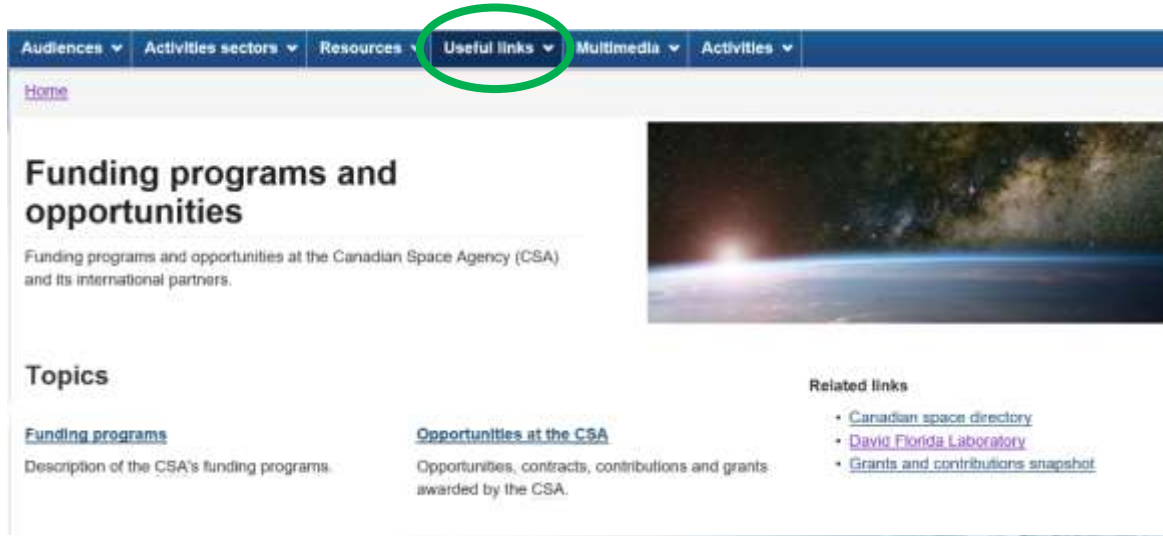


On-going Opportunities

- Phase 0 Studies for Science Instruments
 - The objective of the scientific instruments Phase 0 studies will be to demonstrate and confirm the feasibility, value and benefits of the instruments for the LEAP, and to demonstrate the validity of the mission requirements as well as the project readiness, so as to proceed with the development of the system requirements.
- Letter of Interest (LOI): Closing on May 22, 2020
- RFP posting: End of May / Early June 2020
- Contract Award: Summer 2020

CSA funding programs and opportunities

- Every year, a sizable portion of the CSA's budget is dedicated to funding opportunities for the Canadian space sector.
- Funding opportunities can be found on the CSA's website.



Future Opportunities – Lunar Payloads

- Analysis based on inputs from Call for Ideas using criteria for
 - Strategic Alignment with Portfolio Objectives
 - Affordability
 - Schedule Feasibility
 - Identification of a Host Mission
 - Commercial Potential
 - Customer Base



Future Opportunities – Lunar Payloads

- Technology Payload:
 - Micro-rover on CLPS mission hosting Cdn and US payloads
 - Expect RFP for Phase A fall 2020
- Science Payloads:
 - 1-2 science instruments on CLPS missions
 - Selection informed by outcomes of upcoming Phase 0 studies
 - Procurement Model to be established.
 - Phase A Start 2021
- Portfolio composition and specifications will be constrained by LEAP funding envelope.

A composite image of space. The top left shows a curved horizon of Earth with blue oceans and dark landmasses. The bottom center features a bright yellow sun with a lens flare effect. The rest of the background is a dark field of stars and a faint Milky Way galaxy.

Lunar Exploration Accelerator Program

Questions ?

Canadian Space Agency



Agence spatiale canadienne