

# Foresight ARCTIC FPInnovations Challenge

## FAQ

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### The Challenge Competition

#### What is the application deadline?

Applications will be received by Foresight up to September 2, 2016, 5 PM Pacific Time.

#### Who is eligible to participate in the Challenge?

Any organization is eligible to participate in the program so long as there are demonstrable benefits to developing and commercializing the innovation in Western Canada.

Innovators applying to participate do not require a current working relationship with FPInnovations or any company in the forestry sector.

#### What Technology Readiness Levels are relevant?

Levels 4 through 7 are of interest in this Challenge. Technology Readiness Levels (TRLs) are a measure to evaluate the maturity of an evolving Innovation. This program references the Build in Canada Innovation Program definition of TRL: <https://buyandsell.gc.ca/initiatives-and-programs/build-in-canada-innovation-program-bcip/program-specifics/technology-readiness-levels>

#### What is the Evaluation Process?

Projects will be evaluated through four stage gates:

- **Stage Gate 1: Completeness.**  
Applications received by Foresight will be reviewed for completeness and their ability to provide relevant information to a technical reviewer.
- **Stage Gate 2: Technical Review.**  
Based on a review of submitted information, technical reviewers will assess the fit of the proposed technical solution against their ability to meet the criteria identified in the Challenge Application Package. Selected Applicants will be invited to Stage 3.
- **Stage Gate 3: Presentations.**  
Presentations to the selection team will be invited in early November, 2016. These presentations will be via videoconference or in person in the Foresight Offices. Stage 3 participants will receive more details on the specific elements their presentations need to address based on the feedback of reviewers.
- **Stage Gate 4: Shortlist Due Diligence.**  
Shortlisted applicants will be provided with supplementary questions and information requests to assist with the final selection committee decision. The focus of this stage of evaluation will be on the business and the project requirements.

A decision of the Selection Committee is anticipated in 2016Q4.

## Foresight ARCTIC FPIInnovations Challenge FAQ

### Where will the selection process meetings be on October 17<sup>th</sup>, and what meetings will be needed?

There will be a selection committee that will consist of individuals from FPIInnovations, and Foresight ARCTIC. We may also utilise the skillsets of NRC IRAP or Sustainable Development Technology Canada. Meetings of the selection committee will occur as necessary to review the proposals and finalise the 2-5 sprint participants. The presentation meetings from the individual companies would be scheduled either online or in person, with the location to be determined.

### Will there be feedback on submissions?

Participants interested in receiving feedback on their submission will have an opportunity for a debrief meeting with Foresight at the conclusion of the selection process.

## Participation

### What support do innovators receive for participation?

The total funding available for projects supported through each ARCTIC Challenge Sprint is up to \$610,000 Canadian Dollars (CAD), subject to the discretion of Foresight Cleantech Accelerator Centre/ARCTIC and its industry partner(s).

The range of funding available per Challenge Sprint is \$87,000 to \$305,000, with a requirement for innovator participants to commit a minimum of \$50,000 per project as an in-kind contribution. The per project allocation can vary based on the final number of projects in the Challenge Sprint.

The maximum contribution includes provision for lab space and overhead costs, marketing, a lab manager, equipment, materials, accelerator mentoring and cash.

The winner(s) of the sprint will be invited to undertake the next step in the development of the innovation/field trial (or equivalent) with the industry partners. This phase will have a maximum contribution from ARCTIC and industry partners at \$175,000, with a requirement for proponents to commit \$100,000 as an in kind contribution. The maximum contribution from ARCTIC and industry partners to this Phase includes support for a test site, test support, equipment, materials and cash.

### How will Intellectual Property be treated?

Background Intellectual property of an applicant will remain the property of the applicant. Phase 3 does not anticipate the development of any new intellectual property by applicants. Applicants participation in Phase 4 will be governed by an agreement with the industry partners that will address intellectual property development in the Phase 4 Field Trial.

## Foresight ARCTIC FPInnovations Challenge FAQ

### What is the overall ARCTIC FPInnovations Challenge program timeline?

The ARCTIC Program is designed to operate in 4 Phases of critical activity over a 18-24 month timeframe to produce relevant field trials that will validate solutions to resource sector defined challenges.

#### Phase 1: Challenge Definition (3 months) (Completed)

In conjunction with resource sector partners and ARCTIC participants, Foresight CAC defines a resource sector identified challenge in order to focus innovators on the most promising market opportunities. A broad community of innovators with the potential to provide solutions to the challenge is identified in this Phase.

#### Phase 2: Innovator Selection (3 months) (Underway)

Foresight CAC and the ARCTIC participants implement the Launch Plan for each Challenge and invite potential solution providers to respond. A panel made up of industry, investors, and selected experts will select 2 to 5 solutions from the pool of innovators that responded to the Challenge for a six to nine month development sprint.

#### Phase 3: Challenge Sprint (6 to 9 months) (2016Q4)

This Challenge Sprint will be sponsored by resource sector industry partners and will leverage the Foresight Accelerator and its mentorship program to further advance the development of proposed solutions through:

- testing in a laboratory or other environment.
- the use of lab space, business and technical expertise.
- moving participating innovators to a point where they can seek first funding.

One technology/solution will be selected for field trial and an industry showcase event delivered with a marketing partner.

#### Phase 4: Field Trial Preparation (12 months) (2017Q2)

Following the Challenge Sprint, one solution could be selected for field-testing, or for the next appropriate level of development. The field trial phase will focus on getting the technology field trial-ready, including equipment specification requirements.

### What consideration has been given to the possible impacts of snow conditions for the Sprint phase starting in or after 2016Q4?

There will be two test plots: one potentially with snow conditions on the interior, one without on the BC coast. There will be multiple solutions to overcome any snow impacts.

## Foresight ARCTIC FPIInnovations Challenge FAQ

### What role will past references play in the evaluation process?

We will use as much help as we can in evaluations of proposals. If there are references in the proposals, we would take advantage of talking to those references.

### What are eligible costs related to field campaigns and LiDAR capture?

The evaluation process will look at what is required during the sprint phase for each solution provider or team to prove how well their proposed technology/solution tackles the challenge. If there are costs with respect to LiDAR capture, they would be relevant costs that will be supported in the sprint phase.

FPI is organizing a test case with LiDAR data available to proponents. We don't want the lack of LiDAR to be a detriment to any application. We see it as definitely something that will probably exist across the province and so we want to build on top of that. For the challenge period we will only select blocks that have LiDAR available and LiDAR data will be available to the proponents.

With regards to software, individual cases would be examined to see if it was necessary to be able to show how the technology tackles the challenge.

### What is the size of the areas to be sensed?

Depending on the two cult blocks chosen, the two areas to be sensed will vary between 80ha to 250ha. Final details will be shared with Sprint participants.

### Is there a minimum point density coverage for LiDAR?

The current assumption is 8 point per square metres. We aren't looking for a specific point density; we are looking for the outcomes.

### Has the provided LiDAR dataset been validated against ground data?

Probably, yes.

### Are partnerships between potential solution providers actively encouraged?

Yes, we are looking for a complete solution that hits the objectives of the proposal.

### Does this project have anything to do with a BC timber sales RFP?

No, this has nothing to do with any RFP.

## Foresight ARCTIC FPIInnovations Challenge FAQ

### Will field plots be available for model calibration?

A minimal level of field data will be made available and will likely focus on cruise data and GPS location of plots.

### Can you clarify the financial information that would need to be provided to determine the amount of financing that is provided?

The amount of financing information that is included in the proposal does not determine the amount of financing that is received. The amount that each company receives will be made as close to equal as it can be, depending on the number of companies that go into the sprint. The information in the proposal is for evaluating the financial viability. We don't want companies without the cash flow needed to see them through the Challenge.

### What error percentage are you looking for to meet an intolerance?

Error tolerance is relatively high; refer to the PDF in the package for guidance for error tolerances per individual unit of measurement. The goal is to meet the general standards of the ministry.

The challenge is also to see if we can come up with a way of generating cutting permits. As this is more of a manual survey, the tolerance is relatively low. It's going to be very challenging to meet the BC cruising timber manual standards.

## The Challenge Sponsors and the ARCTIC Program

### What is ARCTIC?

The Advanced Resource Clean Technology Innovation Centre (ARCTIC) was established by Foresight in early 2015 to fulfill the need for a demand-pull approach to innovation targeting both specific environmental, operational and environmental challenges and potential sources of innovation from across Canada and marrying them to drive performance improvements and accelerate the commercialization of new technologies.

ARCTIC models a new approach for industry/innovator collaboration.

The ARCTIC program is funded with support from BC Innovation Council (BCIC), Western Economic Diversification (WD) and Canada's National Research Council's Industrial Research Assistance Program (NRC/IRAP). In this Challenge, the ARCTIC program is working with FPIInnovations to search for remote sensing technologies that target one of the forestry sector's challenges – forest inventory management.

## Foresight ARCTIC FPInnovations Challenge FAQ

### Where can I learn more about ARCTIC?

The website for ARCTIC is <http://arctic.foresightcac.com> where more information about the program and Open Challenges is available.

### Who is the Foresight Cleantech Accelerator Centre?

**Foresight Cleantech Accelerator Centre** is Western Canada's first clean technology accelerator, launched in March 2013 as a not-for-profit corporation to foster the growth of small and medium size businesses (SMEs) in the development and commercialization of viable technology solutions to create and produce energy more efficiently and responsibly.

Funded by the **BC Innovation Council (BCIC)** and **Canada's National Research Council's Industrial Research Assistance Program (IRAP)**, Foresight is dedicated to providing everything it takes to see the clients succeed. They believe start-up success requires an ecosystem of mentorship, like-minded entrepreneurs, and industry specific guidance.

Foresight helps clients discover sustainable and profitable business models through parallel processes of Customer Development and Agile Product Development. During this process they bring clean technology entrepreneurs together with corporate partners, universities, government agencies and local service providers.

Foresight is located in Surrey, British Columbia, Canada.

### Who is FPInnovations?

FPInnovations is a not-for-profit world leader that specializes in the creation of scientific solutions in support of the Canadian forest sector's global competitiveness and responds to the priority needs of its industry members and government partners.

It performs research and delivers state-of-the-art solutions for every area of the sector's value chain, from forest operations to consumer and industrial products. FPInnovations' staff numbers more than 525. Its R&D laboratories are located in Québec City, Ottawa, Montréal, Thunder Bay, Hinton and Vancouver, and it has technology transfer offices across Canada.

## Additional Background

### Where can I learn more about FPInnovations Research Priorities?

FPInnovations has developed a Strategic Action Plan, 2015-2020, which can be found here: <https://fpinnovations.ca/media/reports/documents/2015-2020-strategic-action-plan.pdf>