

December 2019

# **PROJECT IDEAS**

### Connecting Communities Through Research on Vancouver Island

#### **PROPOSED CARTI PROJECTS**

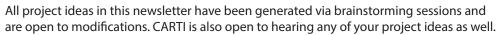
Dear Colleagues,

Thank you for all your positive feedback regarding the October newsletter for NIC's Centre of Applied Research, Technology & Innovation (CARTI).

The newsletter is an excellent opportunity to share with you a few examples of the diverse projects that CARTI is working on as well as let you know about upcoming applied research funding opportunities.

Based on your interest, we'd like to share with you a few project ideas that have been proposed by community partners.

If you are interested in working on one of these initiatives, please contact me (naomi.tabata@nic.bc.ca) to discuss how you might be involved and what supports could be available to you.



We look forward to hearing from you.

Best Regards,

#### UPCOMING FUNDING DEADLINES

Please contact CARTI to discuss your ideas for research submissions in advance of the funder deadline or regarding any projects that may involve NIC. There may be additional funding programs that will suit your initiative. CARTI can search our database for funding that may align with your project idea. Additional information is available on the NIC CARTI portal site. You can contact CARTI at 250-923-9771 or carti@nic.bc.ca.

FUNDING PROGRAM	DEADLINE
NSERC - Engage and Applied Research Development Grant	Ongoing
INNOVATE BC - ISI Program: Hire A Student	Ongoing
Telus - Community Action Grants	Ongoing
LifeLabs - Community Investment Program	Ongoing
Social R&D Demonstration Fund	Jan. 5, 2020
First Peoples' Cultural Council - Language Revitalization Planning	Jan. 31. 2020

## Plastics in the Marine Environment

Several marine industry segments use PVC tubing and other types of plastic infrastructure in their operations.

Although there is data that suggests that this material degrades in the marine environment, it is unclear what the rate of degradation might be, and how long these materials can be safely utilized by industry.

It is also unclear if these materials leach out toxic chemicals into the marine environment.

The shellfish industry is interested in achieving some clarity on these topics and would like to collaborate with an interested researcher.

#### Non-Plastic Packaging

A local organic food producer is interested in investigating alternative packaging options to plastic clamshell containers.

This research project could involve some preliminary literature research and market analysis, followed by product testing.

#### CONTACT US:

Naomi Tabata naomi.tabata@nic.bc.ca 250-923-9719

www.nic.bc.ca/research



Applied Research, Technology & Innovation



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## Artifial Intelligence in Salmon Farming

Salmon swimming patterns and movements can indicate when fish are hungry.

A salmon farming company would like to quantify those specific movements to enable better data collection on salmon and ensure that fish are fed immediately upon demonstrating feeding behaviour, leading to a more efficient feeding process and less waste.

This project could involve observing and digitizing fish swimming behaviour to identify and differentiate the behaviour of hungry animals, followed by developing a program that utilizes artificial intelligence that would then identify these behaviours in net pens and release food accordingly.



ATLANTIC SALMON BY NOAA GLERL/CC BY-SA

### **Kelp Food Products**

Vancouver Island based First Nations are interested in developing new markets and new products for kelp aquaculture.

This project could be in collaboration with a local First Nation to explore new recipe ideas, investigate processing technologies, or identify new market opportunities.

#### Environmental Conditions Analysis

Twenty years of data exist for localized marine environmental parameters and weather conditions.

A local salmon aquaculture company would like to analyze this data to develop correlations between the environmental conditions and events that create stressful environments to fish.

For example: are there environmental conditions that might predict an algae bloom?

## Your Project Ideas

Do you have a project idea that you might like to pursue?

Please feel free to talk with CARTI staff. We can help you to create a project description, identify partners, look for funding, investigate teaching release options, hire student assistants, and many other tasks related to getting your project off the ground.



Seasons Greetings from the CARTI Staff



#### Cannabis Labour Market Analysis

The Province of BC is seeking proposals from experienced proponents to gather labour market information on the emerging and newly legalized cannabis sector in British Columbia, with a focus on Indigenous and small-scale industry participants.

This research project will develop detailed labour market information about the cannabis sector, identifying the cannabis workforce profile, occupational needs for sub-sectors, regional dimensions, labour market/ skills gaps, and workforce opportunities specific to the sector.

The new regulations for the cannabis sector enable many new opportunities for applied research in a number of subject areas.

## Distillery Automation

A local distillery is interested in automating the feed inputs in their fermentation process.

This project may involve integrating sensors with automated control systems.

ARE YOU INTERESTED IN ANY OF THESE PROJECTS? PLEASE CONTACT APRIL WHALEN APRIL.WHALEN@NIC.BC.CA