

# **Innovation and Commercialization Strategy**

## **Transforming Climate Action**

### **Canada First Research Excellence Fund**

**Introduction .....1**

**Background .....1**

**Training .....2**

**Opportunity .....3**

**Collaboration .....4**

**Governance .....5**

## **INTRODUCTION**

The Transforming Climate Action initiative will fund world-class research to advance the world’s understanding of ocean and climate science, climate mitigation opportunities, and human adaptation. This research will support the creation of a scientific framework to support new domestic and international climate policies.

Dalhousie is seeking to increase the impact of the Canada First Research Excellence Fund (CFREF) investment in research by creating new leadership, social, and economic benefits to Canada through a robust and proven Innovation and Commercialization (I&C) Strategy.

## **BACKGROUND**

Building on the demonstrated excellence of award-winning Canadian innovation and entrepreneurial programming, the I&C strategy develops a deep ecosystem of training, collaboration, and partner-funded support to create enriching opportunities for translation of the research to support economic growth and social innovation.

The I&C ecosystem is structured to inspire, initiate, and invest in open innovation from natural and social scientists to bring new commercial and social enterprises to market. The strategic ecosystem of training, commercialization opportunities, and academic-industry collaboration will facilitate knowledge mobilization and enhance the impact of CFREF-funded research findings.

The CFREF funding for I&C is forecast to be leveraged by more than 100% with external partner cash and in-kind contributions to accelerate the growth opportunities. The outcomes in new ventures creating community value, natural value, and economic value create the healthy economy that we desire in Canada and will be a global model in how research and private partnerships can create impact through innovation and commercialization.

The I&C strategy builds on past successes and fills gaps to deliver efficient and effective benefits to Canada. Ventures from Lab2Market (2020-2022) and Ready2Launch (2020-2021) have raised \$4.2 million in private and public funding and created 83 jobs. Over five years, the equity value created from ventures participating in CDL Oceans is over \$445 million. For the Transforming Climate Action CFREF proposal, generous letters of support from industry partners have committed to funding \$1.175 million for industry postdoctoral fellows and this will be leveraged to attract another \$1.5 million of matching funding from Mitacs.

The Transforming Climate Action Innovation and Commercialization Strategy is built on 3 pillars: Training, Opportunity, and Collaboration.

## **TRAINING**

- **Introduction to intellectual property (IP 101)** - This one-day program will be delivered to all researchers about how to understand, disclose, protect, or license IP. The training is customized to each partner university's IP rules and facilitates a level of understanding for all researchers that will be applied to present and future proposals, collaborations, and possible commercialization opportunities. The training will develop a common language for researchers to understand and practice when contemplating and negotiating IP agreements between themselves and external partners.
- **Path2Innovation (P2I)** -The Path2Innovation is a three-day program offered by Dalhousie University that has received international recognition and awards. The robust I&C outcomes will be enabled by facilitating all CFREF-related researchers to participate in the three-day program. P2I explores the value of entrepreneurial thinking as a means of developing careers and research of leading graduate students, post-docs and faculty, and also advancing their research, innovations and ideas into impacts, whether that be scientific, economic, social, cultural or environmental. P2I mobilizes knowledge, provides professional development of HQPs, and will help all researchers to think about how they can increase the impact of their work through social or commercial enterprises. The three-day program is a small investment in time, with an outsized impact, compared to the seven-year duration of the Transforming Climate Action work.

## OPPORTUNITIES

- **Lab2Market (L2M)** – L2M is a 16-week program led by founders and operators in the field of deep tech and entrepreneurship to help researchers validate their ideas with the purpose of finding social and/or commercial value. L2M teams include students, PIs, and successful social or commercial enterprise mentors. Funding is available to support students in the L2M program, and teams completing L2M may apply for additional funding to apply their learnings to develop their core research towards social or commercial enterprises. Student stipends are leveraged 100% with external Mitacs funding.
- **Ready2Launch (R2L)** – Teams completing L2M may continue their entrepreneurial journey through the R2L program thanks to support from the government of Canada's Atlantic Canada Opportunities Agency (ACOA). R2L prepares teams to launch into the innovation economy by developing innovation and entrepreneurial skills and empowering them to thrive in the innovation economy. R2L helps participants learn to transform new ideas into innovations – effectively, efficiently and expediently through the commercialization of research. Funding is available to support students in the R2L program and student stipends are leveraged 100% with external Mitacs funding.
- **Creative Destruction Lab (CDL) Oceans** – Teams completing the R2L program with scalable commercial opportunities can get mentorship to accelerate their commercialization in the CDL Oceans program, run by CDL-Atlantic based at Dalhousie University. CDL Oceans is a global, world-class seed-stage program that helps promising ocean ventures transition into high-growth companies by providing access to an experienced network of national and international entrepreneurs and mentors. Funding for research and commercialization is not provided through CDL but ventures completing the program frequently raise more than \$1 million in venture capital investments through organic connections with the CDL network.
- **Ocean Venture Studio (OVS)** – The OVS is a strategic and crucial pathway for the Transforming Climate Action CFREF to mobilize research discoveries from those researchers that develop valuable innovations but do not want to focus on commercialization activities. The OVS assembles a dedicated team of experienced entrepreneurs to identify innovations with commercial promise from the innovation pipeline that the I&C ecosystem creates through L2M, R2L, and SF. The OVS partners with researchers and teams to co-found or license the innovations to build new commercial or social enterprises by contributing funding with technical, strategic, entrepreneurial and operational expertise. The OVS will leverage CFREF funding with

industry and other federal and provincial funding sources to create a thriving venture studio that brings innovation to the market and value to the researchers and partner institutions.

- **Ocean Venture Fund (OVF)** – The OVF will be a privately funded venture capital fund aligned with the I&C innovation pipeline to provide access to seed and growth capital for ocean and climate tech startups that arise out of the I&C programming (R2L, CDL, and OVS). No CFREF funding is associated with the OVF.

## **COLLABORATIONS**

- **Industry Postdoctoral Fellowship (IndPDF)** - The IndPDF program will facilitate collaboration between researchers, industry, and policy makers to accelerate Canada's leadership position in oceans-climate science, technology and policy. The IPDF will match outstanding postdoctoral researchers with related organizations for 1-2 year work placements. IndPDFs will spend up to 75% of their time supporting the partner organization and 25% at their academic institute. Competitive compensation for the IndPDF placements is split between external industry partner organization funding, Mitacs funding, and funding through Transforming Climate Action.
- **Seed Fund (SF)** - The SF supports innovative early-stage research projects that offer high potential for social or commercial enterprise creation but need a small amount of funding to help them move forward and grow. The SF will provide small grants (\$10-30k) for one-year projects. All SF proposals must collaborate with a community or industry partner with a letter of support that defines the opportunity and offers in-kind support.
- **Climate Adaptation Convergence Accelerator (CACA)** - Climate and human adaptation challenges require the merging of innovative ideas and approaches. Based on the successful NSF program, the CACA will unite research partners across all disciplines from the four partner universities to form teams to develop and accelerate social and commercial enterprise solutions in two specific areas – climate mitigation and human adaptation – with a goal of creating two financially-sustaining organizations that can create long-lasting societal impact. The CACA will be organized by bringing together the diverse researchers in two workshops to explore the frontiers of policy, science, and engineering and propose the development sustainable organizations that mobilize the outcomes of their work to create social impact. The collaborative proposals will be funded by Transforming Climate Action to complete the research and organizational development to bring the programs to life.

- Industry Pitches** - Industry pitch events will facilitate opportunities for researchers to mobilize their knowledge and research outcomes by providing short innovation pitches to industry partners. The industry pitches will be coordinated at a wide range of industry partner events, such as monthly, quarterly, and annual stakeholder meetings. Our industry partners will provide in-kind value for hosting the events (in-person and virtual) by offering the stage in front of a global network of interested parties.

## GOVERNANCE

The I&C strategy will be led by the Chief Innovation Officer with oversight from the Transformative Action Committee. There will be one member at each of the four partner institutes responsible for supporting and facilitating the I&C program and to ensure that the KPIs are met or exceeded.

The complete I&C strategy is divided into three pillars - **Training, Opportunity, and Collaboration** – and structured so that they add value to each other, and like a healthy ecosystem, allow for people to interact with the programming however is best suited for their interests and requirements.



