

***PROOF OF PRINCIPLE RESEARCH
for ENVIRONMENTAL TECHNOLOGIES
that use INTELLIGENT SYSTEMS***

A Domain Alliance Program

OCETA - Precarn - OCE



To accelerate the commercialization of Canadian-made environmental technologies, **Precarn Incorporated**, the **Ontario Centre for Environmental Technology Advancement (OCETA)** and the **Ontario Centres of Excellence (OCE) Inc.** have formed a partnership to fund the research and development efforts of small- and medium-sized companies in Ontario.

The fund supports projects led by Ontario-based small and medium-sized companies that deliver environmental solutions to customers in Canada and around the world. Each project will involve collaborations between the company leading the development of the technology, an end user, and a university or college. To satisfy the objectives of the program, projects will incorporate intelligent systems in environmental technologies. To qualify for the funding, applicants will develop a research project that demonstrates the “proof-of-principle” of their technology, a key step in the progress of the technology toward full commercialization. The program concept, as illustrated in the diagram, is described below.

Under this important initiative – which will be administered by OCETA – Precarn will provide \$300,000 over three years, which will be matched by OCETA and OCE, together. Contributions by participating companies will augment the total investment to approximately \$1 million. Individual companies will be able to participate by providing about one third of the total for a project valued up to \$100,000.

Project Screening, Selection and Implementation

PRE-PROJECT: Screening and Approval, using a Tiered Approach

Potential projects will enter the program through various means of promotion and communication, including information sharing among the alliance partners. Then the company, who is the technology developer, and its partners – a university or college collaborator and an end user, will meet OCETA to discuss their project. If it meets the program criteria, the company will complete a brief Proposal Application. OCETA will submit projects that have passed this tier of screening to the Program Review Committee

(PRC). The PRC, with members from all partners in the alliance, will complete the next tier of review. Successful projects will move on to Phase One.

PHASE ONE: Full Proposal and Contract

The company is requested to prepare a full proposal describing a project for Proof of Principle Research. The goal of such a project is to design and implement a test program that will prove the key aspects of the new technology. In particular, this applied research project is intended to prove the core performance that demonstrates its value for full commercialization.

The proposal is expected to outline the basic elements of a test plan, showing how the proof of principle is to be achieved and showing the roles of all participants. OCETA has expertise in preparation of test designs and technology specific test plans, with the intent of proceeding to third party verification of performance, and will offer guidance during the proposal preparation. When the proposal meets the program criteria at this stage, it will be reviewed by the PRC. Upon PRC approval, the participants will enter a contractual arrangement that covers tasks, milestones, role of participants and financial arrangements.

PHASE TWO: Project Implementation

A full test protocol will be prepared by the company, with guidance from OCETA as required. This Technology Specific Test Plan will be examined by all participants and approved by them, prior to implementation. The demonstration of the technology in a user setting will support the business case for the company and it will develop measurements of performance that generate the data for the Proof of Principle. The Test Report is expected to include all aspects of the information that provides credibility to the test that was completed. This would include evidence of the qualifications of all participants in the testing, including the accreditation of the analytical laboratory, if such is involved. Also required would be evidence that the test plan was followed, and that the data acquired from the test are credible. These are the essential elements for third- party verification, and allow the project to enter the next and final phase.

PHASE THREE: Verification – Proof of Principle for the Technology

The Environmental Technology Verification (ETV) Program is designed to foster the growth and marketability of technologies and processes that are the product of innovative developments in the Canadian environment industry. The company that has led the Proof of Principle project will apply to ETV Canada for verification of the claims they make concerning the performance of their technology. There will be a contract with ETV Canada, the company and the Verification Entity, including a three-way confidentiality agreement. Upon award of the verified performance claim, ETV Canada issues three documents to the company:

- A Verification Certificate
- A Technology Fact Sheet
- A Final Verification Report

Assuming all requirements of the project contract are fulfilled, this completes the company's project with OCETA, Precarn and OCE.

POST-PROJECT: Commercialization

Supported by the results of the Proof of Principle project, the company undertakes the final steps toward full commercialization.