

**\$1.9 Million Funding Boost for Intelligent Systems Projects  
Helps Small Companies Weather Economic Storm**

*Precarn funds 12 projects nationally to help  
businesses bring their products to market faster*

**Ottawa, Ontario – October 28, 2008** – In an effort to help small Canadian businesses prosper in spite of uncertain economic times, Ottawa-based Precarn Incorporated has announced \$1.9 million in funding for 12 companies nationally to help bring their intelligent systems products to market faster.

Precarn is providing \$668,000 of the total funding through its Industrial Technology Gap (iT-GAP) program – an initiative aimed at supporting small or start-up businesses with an infusion of up to \$60,000 per company – with the remaining funds provided by project partners.

From a unique portable patient monitor, to an innovative clean energy solution that recycles waste into healthy food products, to the creation of a better Internet image search engine, each of the projects being funded has strong commercial potential, said Tony Eyton, President and CEO of Precarn Incorporated.

Eyton explained that the funding is primarily intended to speed up commercial sale of the technologies, by supporting go-to market activities such as building engineering prototypes, refining and implementing designs, conducting scale-up activities, product-specific market research or field studies, or carrying out technical and market assessments.

“Even in the best of economic times, it’s difficult for small companies to commercialize their products largely due to financing challenges,” Eyton said, explaining that traditionally, there have been funding opportunities when it comes to research, but investment sources are harder to find when small companies reach the development stage. “As a result, many valuable ideas are needlessly shelved – there’s a black hole on the 'research to reality' road where innovative and viable technologies get lost.”

“With small business making up the bulk of companies in Canada, in an uncertain economy, it’s more important than ever to keep young, innovative businesses thriving and contributing to the financial health of the country as a whole,” Eyton emphasized.

Details of the 12 projects – which were selected from a pool of 56 proposals – follow:

***3D Face Recognition Software:*** Ottawa-based 3D Sherlock Inc. is making it easier for witnesses to identify potential crime suspects with the development of a three-dimensional software tool used by police force sketch artists to create virtual faces on a computer screen as opposed to flat images on paper. The intelligent system will strongly augment the current practice of using composite sketches and interviews. It relies on mathematical, statistical and software tools developed by the National Research Council over the past two decades, using a unique navigation algorithm to help witnesses reconstruct a human face by clicking on features generated from a three-dimensional database. The company aims to commercialize the technology for application in the security field.

***BioFusion™ Multi-Parameter Physiology Patient Monitor:*** Developed by Ottawa-based Biopeak Corp., the BioFusion monitor – which can be strapped to a patient’s chest – is designed to monitor patient health in a less intrusive and more cost-effective way than current technology. Typically, physiology monitors are hard to use, bulky, uncomfortable and observe only one parameter at a time. The BioFusion monitor measures multiple parameters, such as blood glucose, body hydration and electrolyte concentration, and is easier to wear for long periods. The goal of this go-to-market project is to develop a pre-production prototype that can be used by Original Equipment Manufacturers (OEMs) in the medical field.

***Remote Physiology Monitoring (RPM) System for Healthcare Patients:*** Currently in the final phase of commercialization, the Remote Physiology Monitoring (RPM) System created by Brytech Inc. of Ottawa will help nurses work more efficiently by wirelessly – and accurately – transmitting patient data such as ECG, blood oxygen level, blood pressure, temperature and respiration rate from a portable device to a remote display for alarm notification, trending and analysis. Not only does the system decrease the number of trips a nurse must make to a patient’s bedside in order to record vital signs, but it can also be used to assess a patient's condition and progress before and after hospitalization, thus shortening the stay and avoiding unnecessary visits. The device is currently undergoing final compliance verification and Health Canada approval, and will be launched within hospitals and long-term care home settings.

***eUnity Collaborative Platform for Medical Professionals:*** Waterloo-based Client Outlook Inc. is making it easier for medical professionals to collaborate no matter where in the world they are located. Using eUnity, physicians can interact face-to-face over the Web in order to author, manage and deliver medical information, promoting a team-based approach to healthcare that enables them to remain patient-focused while staying connected with their peers. As medical professionals are increasingly faced with tighter time constraints, higher patient workloads and more complex health conditions, they often find it difficult to make time for education, collaboration and professional development. The eUnity platform solves this challenge by giving them a cost-effective and less time-consuming way to collaborate.

***CREZ Sport Information Capture and Analysis Software:*** CREZ Basketball Systems Inc. (CBSI) of Waterloo, Ont., is changing the way high school, collegiate and professional basketball teams review their performance with the launch of its CREZ software line, based on research and development carried out at the University of Waterloo. The software provides seamless integration of scoring, statistics, video, play diagramming and scouting, and makes it possible to tag game video with game statistics for

a better overall view of performance. The new funding will be used to increase the software's target market to include additional sports such as American football.

***Non-Contact Rock Analyzer:*** Developed by Ottawa-based Heliocentric Technologies Inc., the non-contact rock analyzer will save both time and money in the mining industry by providing a real-time method for testing core samples on-site in a non-destructive manner. Unlike off-site analytical techniques, which typically take four to eight weeks, and are prone to contamination and tampering, the non-contact rock analyzer will provide accurate measurements of the base metal content of core samples within minutes and at one-third the cost. Ultimately, the real-time solution will increase productivity in the mining and exploration fields by providing more immediate analysis of digging sites. The company will conduct a comprehensive test campaign with actual core samples supplied by large mining companies.

***Visual Search Engine for the Web:*** An innovative, content-based search engine developed by Ottawa's Incogna Inc. is making it easier to search and navigate the billions of images publicly available on the Internet today. Most search engines operate "blindly" by searching text metadata only and not the actual images themselves. Incogna's search engine is unique in that it "sees" the pixels in each and every image, using state-of-the-art graphics processors and a method inspired by the human visual system to organize them accordingly. This technology has the potential to turn any cell phone camera into an instant product finder and price comparison utility.

***DecisionExpress™ automatic translation and summarization technology:*** Montreal-based NLP Technologies Inc., a North American leader in Natural Language Processing, Electronic Document Summarization, Qualitative Search Solutions and Automatic Translation, is extending its reach into the U.S. market with the development of an American version of its DecisionExpress automatic translation and summarization technology. Used by the federal courts of Canada since 2004, the main focus of the tool is to provide automatic summary capabilities to lawyers and other legal practitioners, associations, governments and courts. By adding automated analysis of U.S. legal information, the product will improve the way in research is carried out in judgments published by legal information providers.

***Clean Energy Solution Turns Food Waste into Healthy Food Products:*** Every day, tons of nutrient-rich culls, skins and pulp from fruits and vegetables – referred to as biomass – are discarded by farmers and food processors across Canada and throughout the world, causing environmental damage. Nutri-Loc Ingredients Corp. of Delta, B.C., has found an innovative way to harness those oxidants, minerals and fibres, using a revolutionary approach to food dehydration to turn food waste into high nutrient food ingredient powders that can then be used to produce healthy convenience foods like nutrition bars, snacks, instant soups and baked goods. Current drying practices such as freeze drying are either too expensive or end up destroying nutrients through thermal degradation. Nutri-Loc's low thermal, energy-efficient drying systems are modular and portable, and don't rely on chemicals or preservatives.

***Digital Light for Safer Surgery:*** OneLight® Corp. of Vancouver is creating advanced illumination and imaging systems for the healthcare and life science markets aimed at improving the quality of the images surgeons see when using medical instruments like endoscopes and surgical robots. The small image sensors used to look inside a patient typically produce lower-quality data than a hand-held digital camera. OneLight's digital illumination system augments that image data, combining it with real-time image processing software to enable much higher quality images, even with the smallest and lowest cost imaging devices. The goal is use digital illumination combined with low-cost sensors to develop inexpensive, disposable, digital endoscopes that will eliminate the need for cleaning and disinfection, while providing advanced diagnostic capabilities for safer surgery.

***New, Faster Computer Security Technology:*** PRATA Technologies Inc., a University of Toronto spin-off company, has developed a computer authentication algorithm expected to eliminate the speed bottleneck in current cryptography implementations. While today's computer networks operate at speeds in the Gigabit-per-second (Gbps) realm or higher, common authentication (or hash) algorithms – used to ensure the data integrity of information as it travels from point A to point B – are limited to speeds of 600 Megabits-per-second (Mbps). The hardware implementation of PRATA's Erindale bitstream algorithm, which is based on completely new design principles, has been shown to reach speeds as high as two Gbps in a lab setting and is considered a breakthrough in the world of cryptography. Other high-speed algorithms are based on design principles no longer considered secure by those in the industry.

***Portable, Scalable Biorefinery:*** In response to growing global demand for the production of renewable energy – or biofuels – at the local and small scale, SITTM Technologies Inc. of Sault Ste. Marie, Ont., is aiming to “democratize energy” with the creation of a unique (patent pending), compact, portable and scalable biorefinery that operates as a “mini-refinery.” The SITTM Biorefinery – which meets international quality and safety standards – supports the commercial production of biodiesel from virgin or recycled vegetable oils or animal fats. It is a safer, higher quality alternative to existing small-scale solutions that are prone to operator error and other hazards including methanol explosions. The company's decentralized approach brings the energy consumer closer to the source by supporting the use of locally available feedstock materials, and eliminates the high transportation costs and other challenges faced by larger refineries. The new funding will be used to complete the integration of the biorefinery's components into a simple automation system that will simplify operation and ensure consistent quality.

#### **About Precarn ([www.precarn.ca](http://www.precarn.ca))**

Precarn is an independent not-for-profit company that supports the pre-commercial development of leading-edge technologies. Precarn works with Canadian companies who are seeking to commercialize their new ideas to get an edge in global markets. Unlike other research funding programs, Precarn uses a collaborative model that includes a developer, a customer and an academic research partner in every project. This collaboration accelerates development, reduces risk and shares the cost of the R&D. Precarn provides access to an extensive national network of world-class researchers, innovative companies and sources of funding. Precarn receives support from Industry Canada, other federal departments and provincial government agencies, as well as private sources.

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#### **Media Information:**

Gail Bergman or Deena Nathanson  
Gail Bergman PR  
Tel: (905) 886-1340 or (905) 886-3345  
Email: [info@gailbergmanpr.com](mailto:info@gailbergmanpr.com)