From Discovery to Innovation...

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De la découverte à l'innovation...

Industrial Research Assistance Program (IRAP)

Region: British Columbia and Yukon Nanaimo

Inuktun Services Ltd.



Terry Knight, Founder, Inuktun Services Ltd.

"We are delighted by the entrepreneurial spirit and commitment to innovation that Inuktun has demonstrated and are pleased to be a partner in their success," said Industry Minister Alan Rock. "It is by building on these strengths that we will move Canada from the 14th to among the top 5 innovative countries in the world."

Industry Minister, Allan Rock

Mobile robotic vehicles take on tough tasks

When a major utility company needs to inspect thousands of feet of pipe underground, chances are it will find a robotic solution at Inuktun Services Ltd. This Nanaimo, B.C., company designs and builds modular mobile robotic systems for use within confined spaces and hazardous environments. The company, founded in 1989 by partners Terry Knight and Al Robinson, has since grown to 32 employees, and many of its customized robotic systems are one-of-a-kind.

The company's first partnership with the National Research Council (NRC) was in the early 90s, when it was investigating applications for remotely operated vehicles (ROVs) in the nuclear power industry. After that fact-finding mission, the NRC's Industrial Research Assistance Program (IRAP) supported several technology development projects over the years.

IRAP is a key component of a country-wide innovation system linking a diverse network of institutions, organizations, and programs to help small and medium-sized enterprises (SMEs) develop and exploit technology in a competitive, knowledge-based economy. The National Research Council is the federal government agency that supports scientific research, development and innovation in every region of Canada.

An early IRAP-supported project developed a selfpropelled MicroTrac Transportation Unit to transport sensor equipment. This powerful, remotely-operated crawler unit, equipped with a track, can operate at depths of up to 30 meters. "We had done some work on the system but needed to make it more robust and reliable, and develop better power management and control systems," Knight says. In those days, the



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Web site:

http://www.nrc-cnrc.gc.ca/irap-pari

company was operating out of a 3,000 square-foot facility; now it occupies a facility four times that size. Business has increased dramatically too. In the last five years, it grew by 25 percent each year.

IRAP Industrial Technology Advisor Warren Nagata has worked with the company from the beginning and Knight says he has been "a valuable and trusted advisor". Nagata helped the company locate the outside expertise it needed and links to other resources in the community. Knight says the company owes a "debt of gratitude" to the NRC for help during its early development years.

From nuclear power, the company branched out, designing and building systems for underwater operations, industrial and military applications, utilities, and government agencies. It is currently exploring potential in B.C.'s aquaculture industry.

Inuktun's systems are modular so that standard components can be combined and configured to suit a particular application and offer the client the most costeffective solution. The systems are manufactured by local machine shops that have computerized numerically controlled (CNC) programming procedures. Inuktun then handles the final system processing and assembly on site. "The quality of our systems is extremely high and targeted to sophisticated use," Knight says. "Several of our designs are unique as a result."

Industry Minister Allan Rock, Natural Resources Minister Herb Dhaliwal, and Secretary of State Stephen Owen (Western Economic Development) (Indian Affairs and Northern Development) congratulated the company on its cutting-edge innovations.

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"We are big supporters of the NRC's Industrial Research Assistance Program. They were there for us when we desperately needed help," said Terry Knight, CEO of Inuktun. ■

Contact:

Terry Knight, CEO Inuktun Services Ltd Tel (250) 729-8080 www.inuktun.com