

# Talking Technology Disability marketplace invested in

By Steve Burns, Capital News contributor

This week we go inside Synectic Innovations Inc., a unique company located in Kelowna that provides innovative technology solutions for the disabled marketplace.

Under the direction of Jeff Hoogveld, the company's president and CEO, and in partnership with the National Research Council's IRAP program, Synectic Innovations has invested significantly in research and development.

As a result of this research, Synectic has created three technology products, which will be released in 2003 and has a significant market opportunity to leverage their core voice and voice/vision technology.

It was interesting to learn more about the disability marketplace in North America.

I didn't realize that this is a \$4 billion US industry, with more than \$400 million US of this related to the North American marketplace.

There are hundreds of private and public insurance companies that are responsible for providing solutions to the disabled marketplace.

In addition, there are thousands of non-profit disabled organizations that assist individuals.

Here are some very interesting facts:

- There are approximately 4.2 million Canadians of all ages (15.5 per cent of the population) with some form of disability. Of this approximately 420,000 or 10 per cent have severe disabilities to which the company's robotics product line would be applicable.



Under the direction of Jeff Hoogveld, president and CEO of Synectic Innovations, the Kelowna company has invested significantly in research and development. Photo Gordon Bazzana

- According to the U. S. Census, the 49 million Americans with disabilities represent nearly one out of every five Americans. Approximately half those over the age of 65 are disabled. The more the population ages, the more likely it will be that the number of persons with disabilities will increase.
- The 49 million Americans with disabilities currently control \$175 billion in discretionary income, despite the fact that only 52 per cent of the working-age population, 15.3 million persons with disabilities, is employed. People with disabilities who are unemployed receive public and private direct income support totaling \$109 billion. As more and more individuals with disabilities enter the workforce, their purchasing power will increase.

As Hoogveld puts it, "Except for products geared specifically to disability-related needs, this segment of the consumer market has been largely ignored.

"Only in recent years have advertisers of general merchandise begun to recognize persons with disabilities as an important market segment."

The first product that Synectic developed was a Robotic Workcell for the disabled, which had been developed under the Samson Industries name.

This robotic workcell allows a disabled person to work effectively in an office environment with full voice recognition and vision capabilities.

"In partnership with the Canadian Institute for Market Intelligence ([www.cimi.ca](http://www.cimi.ca)), a National Research Council IRAP group, we conducted extensive primary consumer research in 2002 for our robotics product line," Hoogveld said.

"This confirmed two things for us. First, that a market did exist for the robotics product line for the disabled, and second, that we had a significant opportunity to leverage the voice and vision technology that we had developed as part of robotics project into other markets.

"The market research was very valuable to us as it helped to shape the future direction of our company."

One of the opportunities that Hoogveld is excited about that was identified as a direct result of the research was that the market need to develop a comprehensive knowledge based repository for insurance professionals, government organizations, disabled persons and persons with limitations to purchase assistive devices for daily living.

According to Hoogveld "this is now the company's highest priority project, with the greatest market potential.

"We will be ready to launch our new product in the third quarter of 2003.

"What makes this repository unique is that it will represent the first time disabled persons and those with physical or cognitive impairment will be able to find everything that they need for daily living at their fingertips."

Synectic expects to launch this repository initially in North America in June 2003 and then in South America in September 2003.

The company continues to work with investors interested in exploiting this market opportunity.

The market research also identified the need for one stop shopping for disabled persons.

Synectic wants to build the online, comprehensive repository that will achieve this goal.

This will provide the disabled person with an intuitive, interactive approach to obtaining information on assistive devices, adaptive environments, community resources, educational, career and employment opportunities, service providers as well as case management conditions.

This will also address the increasing population of consumers who are experiencing functional limitations as a result of aging or disabling conditions.

Currently, the suppliers of aids to daily living provide some form of online experience but only for their product line.

Rehabilitation professionals and insurance companies do not want to spend their time identifying the potential adaptive aid solutions and sourcing the right suppliers.

They would rather research online at a comprehensive portal that brings all suppliers into one marketplace.

This would allow them to take less time researching and more time reviewing a range of potential solutions for their particular case needs.

In partnership with Industry Canada and with the participation from the National Research Council of Canada, Simple Abilities drafted the design of an information Web portal that connected product with consumer's requirements.

The project involved removing the complexity associated with locating the most appropriate device for individual requirements—in work and/or in life.

It brought together community service providers, community support agencies and charitable self-help centres.

All were focused on the same concerns surrounding the same obstacles.

As a direct result from these partnerships the development of this Intelligent Repository is underway.

"Another exciting opportunity for us is the ability to take our core technology of accurate voice and vision capability and leverage this into the robotics industry, likely in the area of smaller robotic arms," Hoogveld says.

To give you a sense of this market opportunity, the Robotics Industry Association estimates that the North American robotics sales for 2001 were approximately \$680 million US.

In addition, they also estimate that 120,000 robots are now at work in United States factories, making the U.S. the world's second largest robot user, trailing only Japan.

Robotic trends indicate that customers are demanding smaller robotics with greater flexibility.

Another example Hoogveld provided me was with CRS Robotics, the leading robotics manufacturer of small robots and the Company's key robotic arm supplier, which has approached his company to voice-enable the teach pendant of all of its robots.

CRS has sales of over \$28 million US a year and has recently been acquired by Thermo Electron, based in Waltham, Mass.

Thermo reported \$2.2 billion in revenues in 2001 and employs approximately 12,000 people worldwide.

There may also be opportunities to work with other robotics suppliers to voice-enabled their robots for general manufacturing applications.

According to Hoogveld, his company has already leveraged its accurate voice capability as they have been approached by the law enforcement industry in Canada to develop a solution for their need for highly accurate transcription of information from their officers.

It is estimated that officers spend 40 per cent of their time completing paperwork.

As a result of this need, the company utilized its highly accurate voice recognition technology to develop a device, named the PIRAT, for use by police forces across Canada.

This device allows a police officer with dual user voice recognition to assist them, to document discussions, interviews and reports.

There are approximately 19,000 police forces in the United States and Canada, representing approximately 694,000 police officers, all of which would be actively involved in documenting traffic accidents.

The majority of these police officers do not use any transcription tool designed to assist them in recording verbal information that they obtain from a crime scene.

"We have been overwhelmed with the positive response of the marketplace to our solutions," Hoogveld says.

"We are driven to take these products to market profitability and to keep our innovations coming.

"We look forward to continuing our partnership with NRC, which has helped us get this far."

In terms of advice to the start up company, Hoogveld offers this comment from his experience: "As with any early stage company, we have been careful to preserve our cash.

"We have invested wisely in the short term while building our long term capabilities.

"(And we) continue to seek out investors who are looking to invest in a ground breaking opportunity with significant potential."

Next week: Inside Intrinsic Software.

Steve Burns, CA, CMC, CFP, is the president and CEO of the Burns Innovation Group Inc. If you would like your technology company profiled here, contact Steve at 763-4716 or e-mail:

[steve@burnsinnovation.com](mailto:steve@burnsinnovation.com)