

Ottawa firm makes splash in clean-water market EcoVu to tap into surging demand for 'new oil'

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As former president of the Ottawa Photonics Cluster, Ray Novokowsky was used to hearing about the latest technologies. But never quite like the one described by Bryan Hollebhone.

Mr. Hollebhone, now professor emeritus of chemistry at Carleton University, had worked for more than a decade on a method for concentrating tiny particles suspended in liquids.

The technology could improve the ability of municipalities to detect contaminants in water. Detecting such contaminants is like searching for ping pong balls in a swimming pool. Mr. Hollebhone's method would effectively shrink the pool to the size of a cup.

It took Mr. Novokowsky about six weeks to grasp the implications. When he did, he had two questions for Mr. Hollebhone: Who else have you told, and do you want to go into business together?

Three years later, their company, EcoVu Analytics, is attempting to push the technology to the commercial stage along with partners such as the Ontario Ministry of the Environment and the City of Ottawa.

EcoVu is part of a new wave of companies looking to tap into surging global demand for clean water, which some observers are calling the "new oil."

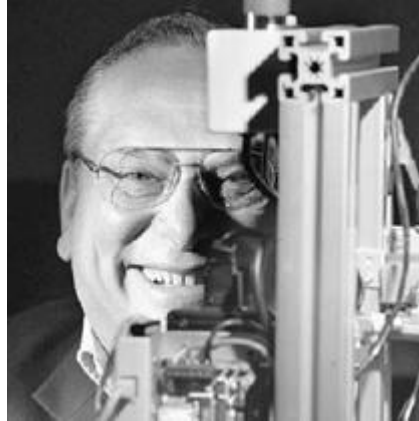
Certainly, some smart, deep-pocketed people have shown interest in water as a commodity. John Doerr, partner at Silicon Valley venture-capital firm Kleiner Perkins Caufield and Byers, recently said he would "love to find a company that can make a big-scale difference about clean water."

Meanwhile, General Electric chairman Jeffrey Immelt has predicted that revenues from GE's water purification and treatment segment should double to \$5 billion U.S. by 2010.

"People in the environmental business see this as the next big trend. We're currently focused on air quality and climate change, but water is every bit as precious a resource," said Vicky Sharpe, chief executive of Sustainable Development Technology Canada, a federal-government-backed fund that recently announced about \$750,000 in funding for a demonstration project led by EcoVu.

Ms. Sharpe said rising temperatures and rapid urban growth are placing greater stress on water supplies in parts of the world. Even in developed countries, ageing infrastructure is causing problems with water quality in some cities, she added.

EcoVu's technology addresses a common issue for municipal water-quality officials: the substances they test for are sometimes found in such low concentrations that they cannot be detected on site.



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EcoVu Analytics chief executive Ray Novokowsky says his firm's system for clean-water testing 'is faster, more sensitive and more economical than any previous generation of instrumentation.'

The City of Ottawa, for example, conducts more than 125,000 water-quality tests per year for everything from bacteria such as E. coli to metals such as mercury and lead. E. coli samples are sent to a city-run lab, where they are grown in a bacterial culture to produce higher concentrations. Testing usually takes about 24 hours, said city water-quality engineer Ian Douglas. But EcoVu believes it can cut testing times to a few hours and in some cases, minutes.

The key to the company's patented system is a "chemical trap" derived from years of research by Mr. Hollebhone, now the firm's chief science officer. While many devices use filters to mechanically trap the particles, EcoVu's concentration technology relies on chemical reactions to collapse the particles into a more compact, gel-like form. They can then be detected through several methods, including photonics technology that essentially beams a light through the sample.

EcoVu has developed versions of the device that combine all these elements into a handheld cartridge, which Mr. Novokowsky foresees being installed at water-purification plants. He says EcoVu's system enables simultaneous testing of multiple contaminants. The company also recently obtained a patent on technology to eliminate contaminants once they are detected. "The whole system is faster, more sensitive and more economical than any previous generation of instrumentation," said Mr. Novokowsky, EcoVu's chief executive.

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