

Technology Edge

Tech Triangle taps into wellspring of talent

Research park to open next year

By James Bow
Business Edge

Research in Motion (RIM) may be synonymous with Canada's Technology Triangle, but it's far from the only high-tech player in town.

It's just one of more than 1,000 companies operating in the region, according to Canada's Technology Triangle Inc. (CCT), a not-for-profit organization set up by the Region of Waterloo and the cities of Kitchener, Cambridge and Waterloo to promote the area.

CTT sees the Technology Triangle as an emerging brand. The 1,380-sq.-km. region, which has a longstanding reputation for industry, includes the three cities. Talent is also drawn from neighbouring Guelph.

In all, these areas are home to three universities, a community college and about 500,000 people. The University of Waterloo alone produces 10 per cent of Canada's 7,500 engineering graduates each year and also has more than 10,000 students participating in the country's largest co-operative education program.

While RIM Ltd.'s revenue in the 2004 fiscal year was almost \$600 million, the producer of the BlackBerry represents only a portion of the \$10 billion that Statistics Canada says is exported each year by businesses operating in the Waterloo Region.

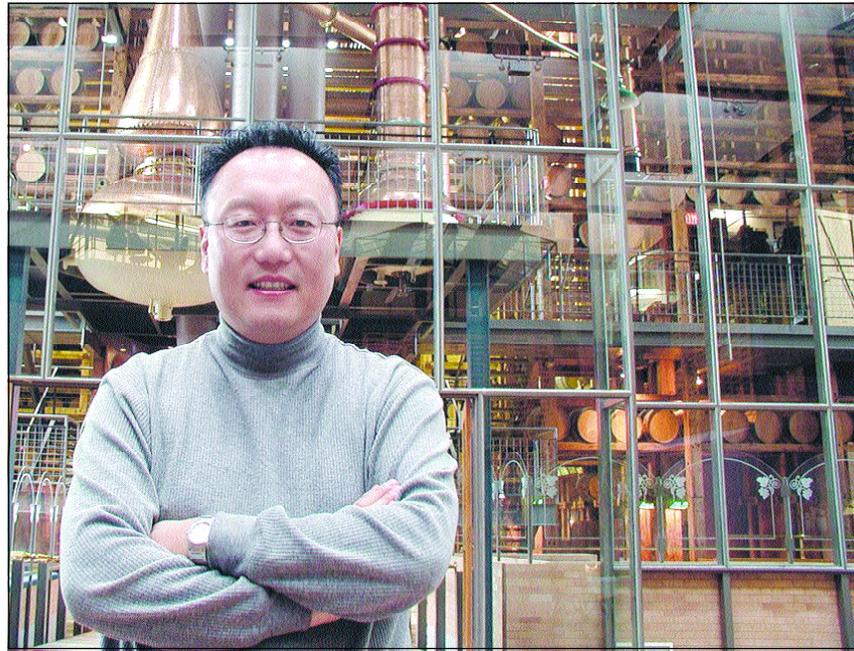
Among the companies contributing to that total is Maplesoft, which has been in Waterloo since the early days of the Tech Triangle. Founded in 1988 as Waterloo Maple Inc., the privately owned company may not have RIM's revenues, but its flagship software, Maple, can be found on computers in universities and advanced research institutes worldwide.

The company develops applications using complex mathematics, including heavy algebra and calculus. Distance education programs use the software to put math courses online and engineers rely on Maple to perform calculations impossible for even the best business spreadsheet.

The award-winning software has been used by the Canadian Space Agency to model the new robotic arms planned for the International Space Station.

Maplesoft sees itself as providing the right tool for the right job.

"We are not gunning for Microsoft," says Tom Lee, Maple's vice-president of marketing. "Excel is a valid business tool for budgets and accounting, but it has difficulty calculating the drag coefficient of an airplane wing. Some say that the space shuttle accident was caused because its engineering calculations were performed on a



James Bow, Business Edge

Maplesoft's Tom Lee is right at home in the company's new building.

QUOTE . . .

"We are not gunning for Microsoft. Excel is a valid business tool for budgets and accounting, but it has difficulty calculating the drag coefficient of an airplane wing. Some say that the space shuttle accident was caused because its engineering calculations were performed on a spreadsheet. Our product provides a stronger, more accurate tool."

— Tom Lee, Maplesoft's vice-president of marketing, on the firm's award-winning Maple software

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Maplesoft, which already counts employees at Toyota, Boeing and General Electric among its three million users, moved into a new building in north Waterloo last year. The facility, leased from property manager Waterloo Tech Campus Inc., boasts custom-designed space and a professional fitness centre for Maplesoft's 130 employees.

Maplesoft is proud of more than its new digs. The company has contributed to the industrial design process of dozens of firms and pushed back the frontiers of calculation in mathematics institutions around the world.

"What people did with math 20 years ago is nothing compared to what they do today," Lee says. "People know what the calculator has done for mathematics. With Maple, we've taken things further."

And Maplesoft isn't the triangle's only homegrown high-tech success.

Open Text Corp. was founded in 1991 to sell a search engine spun off from a U of Waterloo computer-indexing project.

But by the mid 1990s, the 20-employee company found it couldn't compete with Yahoo and Google, so it shifted focus.

Today, the firm maintains a workforce of more than 2,100 and has announced its 22nd consecutive profitable quarter. It boasts \$250 million in annual revenues and 17 million users of its enterprise content management software.

The software, known as LiveLink, is used by Lockheed Martin, RIM, the Royal Bank of Canada and other companies to manage their internal electronic documents and webpages, sharing them among employees, maintaining security and tracking changes.

Open Text's recent acquisition of IXOS Software AG makes Open Text the world's largest ECM software vendor, a market it expects will generate in excess of \$9 billion US in revenue by 2007.

While it has offices in Illinois, Germany and Australia, Open Text has maintained its home in Waterloo, breaking ground for a new headquarters in the U of Waterloo's Research and Technology Park. The new \$11.35-mil-

lion building, which will house 300 employees in 84,000 sq. ft. of office space, is expected to open next year.

Canada's Technology Triangle has also attracted investment from outside the region.

In September, San Jose-based Nuvation Research Corp. announced it plans to open a satellite office in Waterloo's city centre. The privately owned electronics design firm, which was founded in 1997, builds circuit boards and writes programs that are embedded in devices such as cellphones and personal data assistants. Clients include Hewlett-Packard, Lucent and JDS Uniphase.

Nuvation has hired four staff members for the Waterloo office and plans to expand its complement to 30 engineers. Also in the works is a move to the U of Waterloo's Research and Technology Park as soon as space becomes available.

Nuvation CEO Michael Worry is a graduate of the U of Waterloo, but it wasn't nostalgia that brought the company to Waterloo, says Alex Lyn, general manager of the Waterloo office and also a Waterloo alumnus.

Access to researchers, support from business organizations such as CTT, and research and development incentive programs offered by the Canadian government made Nuvation choose Waterloo over other possible locations in India and Romania.

California-based McAfee Inc., whose anti-virus and security software protects as many as five million users, also announced recently that it will expand its Canadian consumer product software research and development facility. The facility, which opened in Waterloo in 2000, tests the company's next generation of software and employs 50. The expansion will nearly triple the facility to about 13,000 sq. ft. and will allow the firm to double its Waterloo workforce when it opens in 2005.

Activity in the tech sector and other industries has given the region a median household income of more than \$55,000 and an unemployment rate of six per cent, better than the national averages of \$47,000 and 7.3 per cent, respectively.

And next year, the first tenants will move into the U of Waterloo park. Since 2001, businesses and local governments have been working to construct several buildings totalling 1.2 million sq. ft. of office space on 120 acres of previously undeveloped land on the north campus.

The \$214-million construction project includes space that will be leased specifically to new and developing high-tech companies. The park's first tenants include software producer Sybase Inc. and its mobile devices subsidiary iAnywhere Solutions Inc., as well as Open Text.

Web watch:

www.techtriangle.com
www.rtpark.uwaterloo.ca

(James Bow can be reached at james.bow@businessedge.ca)