



KIER GILMOUR, THE OTTAWA CITIZEN

Adam Chowaniec, chief executive of Tundra Semiconductor and chairman of the Ontario Research and Innovation Council, speaks yesterday at a ceremony marking the official launch of Algonquin College's bachelor of applied technology in photonics program.

Tech sector back in vogue

Algonquin College deserves plaudits for recognizing the cyclical nature of the industry, an insider tells **KRISTIN GOFF**.

Some may have wondered at the wisdom of Algonquin College's decision to start up its first program in photonics in 2000, just when the technology industry hit a steep downdraft, wiping out tens of thousands of jobs in Ottawa alone.

But Adam Chowaniec, who heads up a new Ontario advisory council on technology, congratulated the Ottawa college for its courage and foresight at a ceremony yesterday marking an expansion of its academic program.

Its decision to move ahead with a new technology training program is an example of a valuable lesson Canada needs to understand, said Mr. Chowaniec, who is also chief executive office of Tundra Semiconductor.

"We are in the knowledge-based economy of the 21st century ... (where) the most valuable resources are simply skilled and motivated people," he said. "So we need to do a much better job of understanding these cycles and convincing young people to enter these professions."

Mr. Chowaniec, who was recently named chair of the Ontario Research and Innovation Council, a government advisory group looking at ways to enhance Ontario's technology sector, is one of a growing number of officials who worry the slowdown in students en-

tering technology studies could create skills shortages in the future.

But he tempered his warnings with a good-news message to a handful of students attending a ceremony yesterday to mark Algonquin's four-year program for a bachelor of applied technology in photonics. There are about 20 students enrolled in that program, which was started a year ago but officially recognized in a ceremony yesterday. Another 30 students are enrolled in separate two- and three-year diploma photonics programs which were started in 2000 and 2001, according to Algonquin officials.

"The cycle is turning and Ottawa job growth is accelerating," Mr. Chowaniec said. "In certain particular technology skills there are shortages already in the city. We are going to be back shortly, with many, many companies chasing relatively few skills."

Mr. Chowaniec's message that the cyclical nature of technology needs to be understood so that students don't abandon careers in the field is one that others, including the Ottawa Centre for Research and Innovation (OCRI), have also been trying to promote. In a report last month on growth in Ottawa's technology sector, OCRI noted that only 60 University of Ottawa students enrolled in first-year

computer science courses this year, down from more than 200 several years ago. Across Canada, enrolment in graduate computer science programs has dropped by 30 per cent in the past two years, according to the Software Human Resources Council.

The technology industry operates in cycles which since the 1960s have gone through radical changes about every 10 years, said Mr. Chowaniec. A cycle based on integrated circuits in the 1960s gave way to growth driven by microprocessors in the 1970s, personal computers in the 1980s and, most recently, growth in the Internet and related technologies in the 1990s.

The most recent cycle had higher highs and lower lows than previous ones, but it didn't destroy the fundamental importance of technology in our knowledge-based economy, he said.

"Far from a shrunken part of our economy, it is more important than ever," Mr. Chowaniec said.

While he couldn't predict where the next cycle will eventually go, he said it is a safe bet that wireless communications and the basic foundations photonics that go into building broadband connections will play a key role.

Algonquin's first diploma program and its expansion into an applied bachelor degree program in 2004 are twinned with programs at Niagara College, which are supported by funding from the provincial government and a variety of private companies.