

Ideas on the Edge



Absolutely Fab

A NEW FABRICATION FACILITY IN OTTAWA IS POSITIONING ONTARIO ON THE CUTTING EDGE OF PHOTONICS.

Ontario is now competing globally in terms of opto-electronic components due to a unique new Ottawa facility: the Canadian Photonics Fabrication Centre.

“There’s nothing like it in North America,” says Carleton University’s Dr. Garry Tarr, a leading photonics researcher who has spearheaded Carleton’s involvement in the Centre. “The closest similar facility is in Scotland.”

The fabrication centre, located at the National Research Council, enables companies and researchers to prototype and test components related to emerging photonics technologies that exploit light or photon dynamics. These technologies have application in sectors as diverse as communications, health, energy, environment and security.

The facility, a joint federal and provincial collaboration—and built with the help of a significant investment from the Ontario Innovation Trust—fills a major void in Canada’s high-tech landscape. “The CPFC shows what can happen when organizations join forces for a common good,” says Dr. Sylvain Charbonneau, Manager of the CPFC and Director at the NRC-Institute for Microstructural

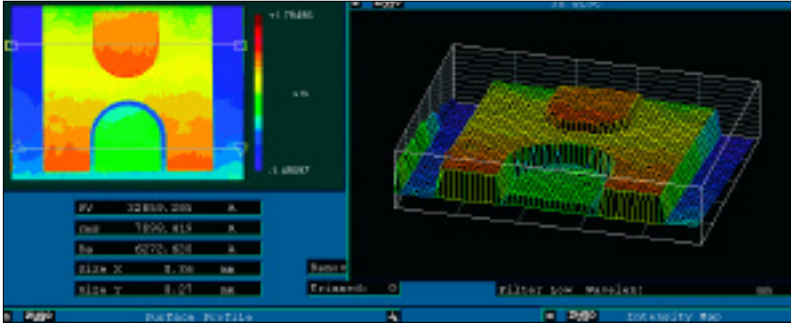
Sciences. “Our alliance will help Canadian researchers and firms access specialized facilities and equipment and ultimately commercialize leading edge technologies.”

With the opening of the Centre, Canadian companies can now do their prototyping work in Canada, instead of going abroad. And because of the

RESEARCH THAT MATTERS REAL-WORLD BENEFITS FOR ONTARIANS:

- new technologies for a wide range of applications
- world-class facilities for Ontario technology companies
- jobs and prosperity in the future through technological leadership in the global information technology sectors

BECAUSE OF THE UNIQUE NATURE OF THE FACILITY, SEVERAL U.S. AND EUROPEAN COMPANIES HAVE ALSO CHOSEN TO DO BUSINESS WITH THE CENTRE.



unique nature of the facility, several U.S. and European companies have also chosen to do business with the CPFC. For Ontario, the Centre offers another key benefit. It's keeping highly-trained photonics personnel in the province—and providing a context for the world-class training of a new generation of photonics specialists.

“De-risking” investment and technology.

The Canadian Photonics Fabrication Centre is a unique way to connect strengths in Canada's high tech sector. “You can't make a private business case for a photonics fabrication facility in Canada,” says the Centre's Director, Dr. Sylvan Charbonneau, explaining the facility's need for public funding. Instead, the Centre serves as a resource for business. “One of our mandates is to ‘de-risk’ investment and technology.” In other words, the Centre enables small but innovative Canadian companies to avoid the expense and risk of funding their own fabrication plants, or relying on the facilities of large American electronics firms where they may lose their intellectual property. “We're enabling a new wave of businesses.”



**Carleton University
Ottawa**

Project: Canadian Photonics Fabrication Centre
Institution: Carleton University
Research Discipline: Engineering/Photonics
Principal Investigator: Feridun Hamdullahpur
Trust Investment: \$10,000,000
Total research investment from all sources: \$34,300,000



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Infrastructure for Innovation About the Ontario Innovation Trust

The Ontario Innovation Trust was created in 1999 by the Government of Ontario to invest in research equipment and facilities at Ontario's universities, colleges, hospitals and other non-profit research institutions. The Trust is governed by a volunteer Board of Directors, according to the terms of a Trust agreement established by the Ontario government. A small permanent staff looks after day-to-day operations.

Since its inception, the Trust has committed almost \$843 million to strengthen Ontario's position in the global marketplace of ideas. This represents more than a third of the \$2.44 billion in total funding that has been invested in Trust-supported projects.