

Defense and security

The September 11 attacks brought issues of public safety, national defense and border security to the forefront. Our collective sense of security has been shaken by the rise of terrorism and the threat of pandemics, compounded by a series of natural disasters (tsunamis, hurricanes, earthquakes, ice storms, etc.) posing a major challenge to governments and other decision makers.

The Canadian and U.S. defense budgets for 2004-2005 were approximately \$12 billion and \$425 billion respectively. In that same period, the Government of Canada allocated some \$630 million to implement its public safety program.

Quebec City: defense and security center

OUR STRENGTHS

For over half a century, the Quebec City region has been home to a strategic Canadian Forces Base (CFB-Valcartier), together with DRDC-Valcartier, Canada's leading national Defense Research and Development Center.

- 80 companies
- 6,000 employees
- 6 R&D centers: \$100 million annual operating budget
- 800 research positions
- Market leaders: CGI Group, DMR Consulting, ABB Analytical Solutions, DAP Technologies, General Dynamics, Thales, Olympus NDT Canada

Strong growth in the sector led to the founding of Technopole Defense and Security, an essential partner fostering technological innovation and providing small and medium-sized businesses with access to major contractors.

AREAS OF EXPERTISE

- Fiber optics and specialized components for military and aerospace applications
- Advanced vision, infrared, image processing and 3D modeling systems
- Advanced military radar and radio communication systems
- Highly specialized measurement/analytical instruments for space and remote monitoring applications
- Biometric systems
- Knowledge management and information processing using decision-making tools and systems
- Management and integration of geo-referenced databases and cartographic representations
- Energy materials, aerodynamics/propulsion

"Quebec City forms the hub of a unique region in which companies are developing cutting-edge technologies through proximity to leading research facilities. Technopole is also working to promote contacts and partnerships between researchers and businesses – the key to sustaining our industry's competitive edge."

Marc-André Soucy
Manager, Remote Sensing
ABB Analytical Solutions

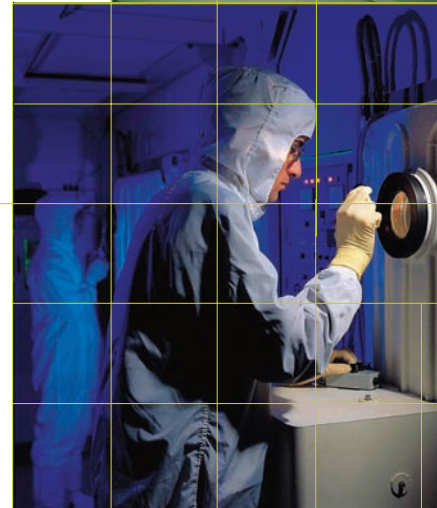
Companies in the Quebec City region have unparalleled command and control experience. In military contexts, this expertise can be leveraged to upgrade troop management systems and, in civilian settings, to enhance the flow of information to decision makers and stakeholders.



State-of-the-art infrastructure

Industry has access to specialized product testing and characterization facilities:

- open-circuit and trisonic wind tunnels
- mobile detonics, command and control, intelligence, surveillance and reconnaissance (ISR) laboratories and an integrated combat laboratory
- aeroballistic tunnel
- experimental complex for energy material testing
- facilities for aerosol characterization/propagation and passive remote monitoring of chemical vapors



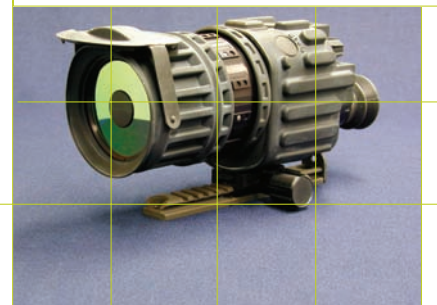
"A company like ours could not have developed active imaging technology from its origins to its current form without being able to conduct initial R&D in major lab facilities."

Denis Bonnier
President
Obzerv Technology

Research excellence

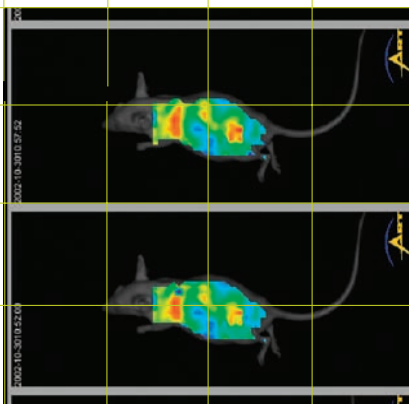
- DRDC-Valcartier: world-renowned research center with 400 employees (including 280 researchers) working on over 130 international-cooperation projects; \$63 million annual operating budget
www.valcartier.drdc-rddc.gc.ca
- Laval University's Center for Optics, Photonics and Laser Technology: Canada's leading university optics/photonics research facility www.copl.ulaval.ca
- National Optics Institute: world-class center of expertise in applied optics and photonics with 205 employees, 300 research contracts and \$27 million in annual revenues per year www.ino.qc.ca

In conjunction with DRDC-Valcartier, the National Optics Institute developed an innovative ultra-light catadioptrical lens built into an infrared detector. Operational night and day, this device is used to identify long-range targets and transmit images to the local command center via a digital RF link.



Business and networking opportunities

- Quebec Electronics Manufacturers Association: promoting development and representing industry interests
- Quebec Photonics Network
- Technopole Defense and Security: fostering high-tech innovation and providing small and medium-sized businesses with access to major contractors



Developed by Labcal Technologies, Be.U Mobile is a portable battery-powered device that analyzes fingerprints by matching them against a biometric profile stored on a "smart" card.



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