

The following are just a few recent examples of state-of-the-art facilities located across Canada.

Canada's Synchrotron: Using light for business applications

The University of Saskatchewan's Light Source Synchrotron is an example of Canadian investment in basic R&D. The \$300-million football field-sized facility—the largest scientific laboratory built in Canada in a generation—uses powerful magnets to accelerate tiny particles to nearly the speed of light.

Some applications include burning computer chip designs into metal wafers, studying molecule shapes and protein crystals, analyzing the composition of environmental pollutants and documenting reactions by living cells to drugs used in cancer research.

MaRS: Commercializing biotech research the Canadian way

MaRS, a non-profit innovation centre with 2,000 employees, is another example of Canada's strength in the collaborative commercialization of R&D. The MaRS Centre aims to accelerate the creation of successful enterprises by connecting entrepreneurs with business skills and capital.

Located in Toronto's so-called Discovery District—a two-square-kilometre area designated as Toronto's centre of innovation—the MaRS Centre is the gateway to Canada's largest concentration of biotechnology research. The District is anchored by major teaching hospitals, the University of Toronto and more than two dozen affiliated research institutes.

National Institute for Nanotechnology: Big things come in small packages

Canada is solidifying its leadership in the global nanotechnology market through collaborative research being conducted at the National Institute for Nanotechnology (NINT) housed at the University of Alberta. Established in Edmonton in 2001, the \$52.2-million facility is part of Canada's nanotechnology nexus. NINT fosters collaboration by providing access to world-class R&D facilities and researcher expertise, and assisting companies with commercialization, licensing and other business activities.

The NINT facility is designed to provide the optimal conditions for nano-scale research and to foster collaboration between researchers. As "Canada's quietest space", NINT comprises a suite of characterization labs featuring ultra-low vibration and minimal acoustical noise and electro-magnetic interference—an essential environment for research at this scale.

Canada's Synchrotron, Saskatoon

