

Dr. Gilles G. Patry President and CEO Canada Foundation for Innovation

t was not a likely partnership. But when Montréal-based Bombardier Inc. teamed up with researchers at a McGill University music lab, the end result was a quieter cabin for the company's new line of luxury jets.

Using a system of highly sensitive microphones and sophisticated computers, researchers in the lab were able to simulate the true acoustic experience a passenger would have in the jet, and then apply their knowledge to minimize the noise.

As a leader in Canada's aerospace

PUBLICLY FUNDED RESEARCH AND DEVELOPMENT IS HELPING BOOST CANADA'S ECONOMY

industry – an industry that employs some 85,000 people and had revenues of \$22.4 billion in 2011 – Bombardier plans to use the research results from McGill University as part of its sales strategy for the new aircraft. It is one of many companies turning to Canadian universities and colleges in an effort to build a research-driven business model that improves products and processes.

More than ever before, executives realize that they need to invest in research and development to remain globally competitive and maintain a healthy bottom line. Increasingly, this means turning to post-secondary institutions. Companies across the economic spectrum are partnering with academic institutions for research and development that will help them innovate and adapt to the demands of a globalized world. This is even happening in the most traditional of industries.

The forestry sector, for example, recognized the need to innovate and adapt after the global recession, slumping U.S. housing market and high Canadian dollar led to significant revenue and job losses. Since 2007, it has been boosting its investments in value-added pulp and paper products and wood manufacturing. New, innovative products such as nanocellulose, which can be used as additives in pharmaceuticals and cosmetics, are ensuring that the industry gets the most out of waste wood and makes its processes more environmentally friendly.

The mining industry is no different. Internationally recognized as top producers of some 60 minerals and metals, mining companies are looking for ways to become more efficient and sustainable. Universities and colleges are helping them head in this direction by developing mineral analysis labs that can be transported to remote exploration sites; building low-emission vehicles that operate deep inside mines; and creating computer models that lead to more accurate risk assessments.

Canadian researchers are also building relationships with companies in the oil and gas, communications and agriculture sectors. These relationships are made possible because the research capacity – the right people with the right equipment – exist at academic institutions to support industry-driven research.

Recognizing that research and

innovation is necessary to secure a strong economic future, the Government of Canada has made strategic investments with public funds that have created a vibrant research ecosystem in this country. Funding for federal granting councils, centres of excellence, scholarship programs and organizations such as the Canada Foundation for Innovation have provided Canadian universities and colleges with the labs, equipment and facilities needed to attract new talent, train the next generation of innovators, and generate interest from international research institutes

Federal investments to bolster research capacity at Canadian universities and colleges are having an impact and helping the business community and national economy

and businesses.

grow and adapt. But more needs to be done. Sustained, long-term investments are needed to further grow Canada's innovation system and keep this country competitive and prosperous.

Public opinion is on the federal government's side. A Nanos poll published last year indicated that three out of four Canadians agree that research and development are important to Canada's future prosperity. And eight out of ten Canadians support government-funded research support programs such as the Canada Research Chairs and other investments in universities.

By continuing to invest in research and innovation, the Government of Canada is betting on bright minds to make discoveries that help private enterprise stay ahead of the curve and lead to advances that benefit all Canadians. I'd say it's a pretty good bet.

Dr. Gilles G. Patry is the President and CEO of the Canada Foundation for Innovation, the country's only funding organization dedicated solely to supporting research infrastructure at Canadian universities, colleges and research hospitals.