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## From Ivory Tower to International Chessboard



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The Canadian approach to research, and the resulting innovation, has evolved at an accelerated pace over the past few decades. While research was once a field reserved for scholars, often confined to their ivory towers and employing a language understood by a select few, it has now become in a way everyone's concern. Scientists used to answer only to their peers and were judged solely on newly-acquired knowledge. They are now not only required to answer to their funding partners whether they are private or public, but also must generally demonstrate their contribution to the development of economy and well-being of society.

This trend is not unique to Canada and has become the norm the world over. Does this mean better results? It is possible; however, it is imperative that fundamental research be preserved and that academic and industrial partners be willing to engage with one another.

However, on its own, this is not enough. A second important component in the evolution of research and innovation is the internationalization of knowledge development and the structuring of international theme-based networks. University researchers have always collaborated amongst themselves and shared their research in peer-reviewed scientific publications and at international conferences. As such these publications and events are the main performance criteria in academia. However, they are rarely motivated by short-term gains and meeting users' immediate needs. And while the relationship between academia and industry remains difficult within Canada, it is in its early stages on the international scene.

The difficult economic situation in most countries following the economic crisis of 2008 has had a negative impact on the development of research as well as international partnerships. Some developed countries have even adopted a free-rider strategy, counting on the development of research and innovation in other countries and hoping to reap the rewards. This strategy, while it may be beneficial for some developing countries, has proved to be very harmful for developed countries. Canada has invested significantly in research and innovation in the recent past and this positions our country as a leader and ideal partner in a number of fields relevant to our social and economic development. We have the status and talent to play a very important role internationally. The establishment of the Canada Foundation for Innovation more than 17 years ago has provided Canada with leading edge research infrastructures among the best in the world in a number of key sectors. We are a partner of choice.

Yet in Canada the support for international partnerships has been rather low key while the European Union has established an ambitious program of innovation and research support over the next six years for a total investment of 80 billion euros. Our country has continued in a more traditional approach with few means of support for our inclusion in large-

scale projects of international scope.

Canada cannot excel in each and every field. We can, however, develop and hone our strengths. all the while favouring universityindustry partnerships on an international scale. Perhaps we could make real breakthroughs, relevant to both academia and industry on the international chessboard, yet seemingly of less interest locally. Establishing such financing for structured international collaboration allows for innovative research, motivated by industry-specific needs and achieving international impact. This type of research can be nothing if not beneficial for everyone involved. Pooling together niched innovations, targeting support for small and medium businesses, training highly-qualified students in growth sectors, all have both short and longterm benefits.

Should we let support for developing countries, unlikely to be considered in such an approach, simply fall to the wayside? Absolutely not. We must go from an approach far too often philanthropic to that of genuine partnership and collaboration. We must favour, for foreign students, an approach based on research that can have concrete benefits for their countries and can create fertile ground for the emergence of new business partnerships.

Canadian researchers have to play an even greater role on the world stage to further strengthen Canada's connection to the global supply of ideas, talent, and technology and be positioned at the forefront of science. International collaborations must be encouraged and supported since international knowledge and intercultural skills are indispensable to meet globalization's challenges.

The international chessboard of science is where the mutually beneficial research game must be played.