CANADA FOUNDATION FOR INNOVATION

Research in Canada, for Canada: A value proposition

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About the Canada Foundation for Innovation

With a bold, future-looking mandate, the Canada Foundation for Innovation equips researchers to be global leaders in their fields and to respond to emerging challenges. Our investments in state-of-the-art tools, instruments and facilities at universities, colleges, research hospitals and non-profit research institutions underpin both curiosity- and missiondriven research that cuts across disciplines and bridges all sectors. The research infrastructure we fund mobilizes knowledge, spurs innovation and commercialization, and empowers the talented minds of a new generation.

The Canada Foundation for Innovation respectfully recognizes and acknowledges the traditional relationship that the First Nations, Inuit and Métis across Canada have with the land all Canadians share.

"The foundations of a democratic nation and the way it will continue to prosper are the library, the schools, universities and labs. People need the hope that they can build a better future. They need to know that they can participate in the development of their nation through the development of their mind."

— John Kenneth Galbraith¹

Message

This document is the result of a consultation among research, business and civil society leaders. Its purpose is to highlight the importance and value of the research supported by governments, academic research institutions, and the private and not-for-profit sectors in Canada.

It outlines a value proposition for the sustained federal investment in research in a wide spectrum of disciplines from health and engineering to the natural sciences and the environment, and from the social sciences to the arts and humanities.

Today the world faces an unprecedented series of crises, including geopolitical instability, severe flooding, fires and pandemics. Each of these challenges requires research to discover solutions. The recent pandemic demonstrated the value of basic and applied research that, together, enabled the creation and production of needed analyses of epidemiological data, vaccines and a ventilator made from universally available parts. Our hopes for the future include long-term prosperity, improved health and social welfare, and safe, vibrant, culturally rich communities in a sustainable environment like that created by the Cree in Oujé-Bougoumou, Quebec.²

These challenges, goals and hopes all demand research. This document aims to illustrate the direct and tangible benefits of research to Canadians, to provide a common narrative to communicate its intrinsic and essential value, and to demonstrate that national investment in research is an investment from which every sector and all people will benefit.

We also hope this text will contribute to a broader discussion on the importance and value of federal investment in research.

Roseann O'Reilly Runte

President and CEO Canada Foundation for Innovation

John Kenneth Galbraith in conversation with Roseann Runte on the subject of John Kenneth Galbraith, *The Good Society: The Humane Agenda* (Boston: Houghton Mifflin, 1996). See in particular pages 55, 69, 72, 97 and 134.

² This community was recognized in 2015 by UNESCO with an award for having applied sustainable development principles to designing a community offering a better quality of life.

Introduction

People around the world share the basic human desire and need to discover and understand the unknown. We are motivated by the desire to enhance our quality of life. Improving human health, remediating climate change, making life economically sustainable and ensuring that knowledge and the ability to learn, enjoy and pursue life in a peaceful, supportive community are goals that can be attained through research that combines discovery and innovation.

In this context, Canadian researchers are profoundly aspirational as they represent the very best of our talent and express the creative ambition of our nation to do better. They seek to improve the lives of not just current but future generations. They want to be proud of their country, supporting and enhancing health and the economy and building safe, healthy, creative and inclusive communities where a sense of belonging resides in a shared vision of an ethical and fair society. Canadians support research for the same reasons. As a nation of builders, we are motivated by the desire to improve the conditions of life for ourselves and for generations to come. The possibilities offered by unlocking the secrets of the world around us and of understanding how to extract, transform and use judiciously the resources needed to better the human condition constitute indeed a powerful incentive for support.

The desire to gain knowledge and understanding is a way to affirm our humanity and enable our contributions to people in Canada from coast to coast to coast. Discovery and understanding lead to enlightenment, satisfaction, pride and hope. We need only think of Frederick Banting and the discovery of insulin, the Canadarm or the role researchers in Canada play today in making our industry greener, more efficient and cost effective.

Research inspires youth to pursue their studies and explore new and emerging areas of inquiry, such as genomics, artificial intelligence and quantum computing, which will define their future. It equips them with the skills needed to secure meaningful employment in the businesses they will attract. The new generation of researchers aspires to create not only a world that reflects their image and values, but one built on ethics, knowledge, discovery and the most recent developments in technology.



Climate emergency: the most pressing issue facing humankind

Environmental protection and responding to climate change are essential to survival. In Canada, intense forest fires decimate forests, displacing people, destroying homes and businesses, and affecting air quality across a vast area of North America.

From heat domes associated with intense drought and atmospheric rivers on the West Coast causing flooding, to tornadoes affecting Eastern Canada and hurricanes devastating the Atlantic coast, no region of Canada escapes the effects of human-induced climate change. All aspects of our lives are affected by climate change. Research enables us not only to understand its causes, but also — and most importantly - to develop adaptation and mitigation strategies as well as the products and technologies that will enable us to meet this challenge.

Research builds stronger Canadian communities

The *outputs* of research are the academic results that find their ways into publications and other forums in which they are discussed, debated and critiqued. They are also essential in the training of the next generation of innovative thinkers. Far reaching across all spheres of society, the *impacts* of research take the form of



change or benefit to the economy, society, public policy or services, health, the environment, culture or quality of life.³ Research's tangible and measurable *impacts*⁴ have been documented in many studies over the years.⁵ Businesses and industry gravitate to regions where there are organizations active in research and the dissemination of knowledge. Researchers fuel the economy, which in turn creates the demand for increased discovery and opportunities for development. It also promotes social change in response to shared goals around caring for an aging population, for example. The region of Estrie in Quebec offers an illustration of the positive effects of investment in the development and production of devices to allow senior citizens to remain independent for a longer time.⁶

Targeting Canada's research dollar

All levels of government depend on and invest in a robust ecosystem of highly qualified researchers working in departments such as agriculture, transportation, fisheries and the National Research Council Canada, as well as in the universities, colleges and hospitals across the country. These investments are leveraged by academic and not-for-profit agencies, academic and research institutions, and the private sector.

How much research can we afford to support is a frequently asked question that presumes the funding for research can be separated from its impact. The question does not fully recognize the strategic importance of research as *both* an essential driver of the economy *and* the means to succeed or to

^{6 &}quot;Socioeconomic Benefits of Funding for University Research in Quebec's Estrie Region. Final report." Prepared for the Canada Foundation for Innovation, Fonds de recherche du Québec and the Ministère de l'Économie et de l'Innovation by Goss Gilroy Inc. (May 5, 2021).



³ Brian Belcher and Janet Halliwell, "Conceptualizing the Elements of Research Impact: Towards Semantic Standards," *Humanities and Social Sciences Communications*, 8, 183 (2021), https://doi.org/10.1057/s41599-021-00854-2.

⁴ Universities Canada and Statistics Canada report that in 2022, universities performed \$16 billion in research and development, including \$1.2 billion in research for businesses and \$1.5 billion in research for not-for-profits. They employed 410,000 people and the various companies they started employed 65,000. Universities, colleges and research hospitals constitute an important part of the economy. Growth in this sector automatically contributes to increased economic growth and contributes to the tax base that supports communities, while bringing new concepts and possibilities for improvement to them.

⁵ For example, the Saskatoon Regional Economic Development Authority's 2022 "Economic Impact Study" conducted on VIDO, the University of Saskatchewan's Vaccine and Infectious Disease Organization, concluded that operations and construction projects at the facility contributed more than \$511 million to the economy in the last decade. This figure did not include commercialized vaccines. SNOLAB, in Sudbury, Ont., operated by a consortium of universities, reports that for every dollar of government investment, the lab generated \$3 of economic impact. A study of TRIUMF by HAL Innovation Policy Economics indicates an economic impact of \$424.9 million over the last decade. An economic impact study of the Canadian Light Source for the years 2009–10 and 2010–11 showed that it had added \$45 million per annum to the Canadian GDP or about \$3 for every dollar of operating funding.

improve on almost all other areas of public investment, including human lives, healthy communities and societal productivity and well-being. In order to advance in any field and to improve our lives, we need knowledge and research that will spark and test new ideas and offer us the means to succeed. We need researchers like Dr. Jennifer Leason (Pine Creek Band), University of Calgary, whose work focuses on the social determinants of health and Dr. Catherine Girard, Université du Québec à Chicoutimi, who researches ecosystemic health and the microbial contents of food in the Arctic to support the health of the population. We need well-educated researchers in all fields, like Dr. Alan Bernstein, former president and CEO of the Canadian Institute for Advanced Research, who provide necessary advice during crises, as well as researchers like Nobel laureate Dr. Michael Houghton, University of Alberta, whose work to develop a vaccine for hepatitis C will save lives and reduce the expense of treatment.

At the end of the day, it is not an either/or question. We need to dispense with opposing choices and simply draw a circle instead of a straight line. People want to live in a country where the economy is strong and possibilities for meaningful employment exist. We also know that to attract business and employment, one needs a healthy, educated workforce as well as the necessary conditions, regulations and tax regime that will encourage the growth of industry and business. Research is fundamental to our success as a nation and must be sustained in the long term.

We must regard the economy, research, environment, health and communities as parts of a system of systems. Just as the human body has a nervous system and neural networks, a muscular system and a circulatory system, which requires all to function at once, so too can we regard industry, research, economic and human development as fundamental parts of society. They are at once interdependent and mutually supportive.

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La recherche en français: an advantage for Canada

Research is a vector of development and prosperity for society and, in the Canadian context, research conducted in French is crucial to the vitality and development of Quebec and of French-speaking minority communities across the country. It ensures training at the graduate and post-graduate levels is available in French and enables the development of a professional vocabulary in French to disseminate knowledge, particularly to the media, business, politicians, public services and young people.

Francophone researchers play a key role in the vitality of their respective communities. They advise community groups, sit on their boards of directors and offer expert advice to governments on policy development. They also train the next generation of researchers in crucial fields such as education, the arts, engineering and health, actively contributing to the development of the population. They create critical and innovative citizens, capable of working in both of Canada's official languages.

- * Soutenir la production et la diffusion des savoirs en français partout au pays, https://www.acfas.ca/sites/default/files/ documents_utiles/MemoireAcfasConsultationsPancanadiennes2022Final.pdf
- ** Portrait and challenges of research in French in the minority context in Canada https://www.acfas.ca/sites/default/files/ documents_utiles/rapport_francophonie_sommaire_en_final_0.pdf

How research builds Canada

Canadian researchers participate in international science and compete globally. Their work has benefited the country in many ways. However, while our economy has fared quite well over the years, Canada is currently facing a decline in productivity. This can be addressed, in part, through investment in research by business, investors and governments, coupled with an approach that recognizes the contribution of research to all areas of importance to Canadians.

Our natural resources

Despite gains in areas such as sustainable agriculture and fisheries, financial services, aerospace and manufacturing, the most significant sources of revenue for Canada over the years have been based on natural resources. All sectors are bolstered by, and increasingly rely on, scientific research, knowledge transfer and the training

of highly skilled employees.⁷

Employment in these sectors and the raw resources exported are of direct and significant value to Canada. Research can help develop the technologies and industrial processes to ensure the environmentally sound extraction of resources and enhance their value prior to export.

A resource-rich country, Canada has many of the minerals required today to support the technologies that will be at the core of tomorrow's economy. There are untold riches buried beneath our feet. We have the opportunity to discover, extract and develop our mineral wealth, increasing its value to the economy, protecting the environment and providing employment for highly skilled workers.

Canada needs to invest in clean energy and green technology as well as in the research that will ensure its continued leadership in the creation and development of new environmental technologies that can become marketable. Research helps add value to Canadian products and exports for world markets. Canada should be known not only as a country with immense natural resources but one with a wealth of ideas and talent — a country that values innovation and ingenuity as essential drivers of our future well-being.





⁷ Idem. See note 5.



Our human capital

People are our most precious asset. However, Canada's population is aging, relatively small and spread over a large landmass. We need only consider, for example, that the entire population of Canada is approximately that of a single city, like Mumbai, India. While we have begun to rely on immigration as the means of increasing the population on our vast land, this is a long-term project.

Labour costs are also generally higher in Canada than in other parts of the world. Therefore, to ensure its competitive edge, Canada needs to invest in new methods and smart technologies so our smaller population can accomplish work of the highest quality.

Many of today's graduate students work at the cutting edge of science and use evidence-based research as a tool. Many end up in high tech and other technology-intensive industries where they are most valuable because they have the skills to recognize breakthroughs and enable business innovation at the frontier of knowledge. At times, their innovation involves adapting and improving off-the-shelf products and at others, developing new products, services and technologies that can be commercialized around the world.⁸ 2

A perspective from abroad

In a recent article*, the Ambassador of Japan to Canada wrote that Canada is a resource-rich country. Canada has traditionally accounted for approximately 60% of Japan's potassium chloride imports. Due to sanctions on Russia, Japan is experiencing a 30% shortfall and Canada is "the only country that can realistically be expected to supply... the shortfall." He notes that this is only one example. "Canada... boasts approximately 250% food self-sufficiency on a calorie basis and 190% energy self-sufficiency... Japan's food self-sufficiency rate is 38% and its energy self-sufficiency rate is 13%." Touching on critical minerals, he added they "are not just the building blocks of clean technology... they are a key ingredient for creating middle class jobs and growing a strong, globally competitive Canadian economy."

 From "Evolution of Japan-Canada Relations into a 'New Chapter': The Increasing Geo-Political Strategic Importance of Our Relationship," *Gaiko Forum*, Vol. 78 (Mar/Apr 2023): 66–71, https:// www.ca.emb-japan.go.jp/2023_ shared_images/202304-GAIKOprovisional-translation.pdf

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⁸ Nobel laureate Dr. Arthur B. McDonald reports after having surveyed students who worked at the frontiers of science that in physics, for example, 75% go on to careers in high tech, and they report using evidence-based research as a tool. See also *Degrees of Success*, Council of Canadian Academies <u>https://cca-reports.ca/reports/the-labour-market-transition-of-phd-graduates/</u>



Advancing Indigenous research capacity and reconciliation

In 2015, the Truth and Reconciliation Commission of Canada released its report *Honouring the Truth, Reconciling for the Future*, which identified 94 Calls to Action, and highlighted the important role of research to advance understanding and reconciliation.

Strengthening Indigenous self-determination, leadership and capacity in research and research training, and respecting the value of Indigenous Knowledge systems must be our priorities.

Indigenous Research is described as research in any field or discipline that is conducted by, grounded in or engaged with First Nations, Inuit, Métis or other Indigenous communities, societies or individuals, and their wisdom, cultures, experiences or knowledge systems, as expressed in their dynamic forms, past and present. It can also embrace the intellectual, physical, emotional and/or spiritual dimensions of knowledge in creative and interconnected relationships with people, places and the natural environment.*

From finding new cancer treatments, to building a digital record of Canada's residential school history, to creating research spaces that inspire the next generation, Indigenous Knowledge and research practices provide innovative solutions to contemporary issues and lend another way of understanding science, the arts and ourselves.

* Indigenous Research, https://www.sshrc-crsh.gc.ca/society-societe/community-communite/indigenous_researchrecherche_autochtone/index-eng.aspx

Our small- and mediumsized businesses and innovation

Small- and medium-sized enterprises (SMEs) make up a very successful sector of the economy that not only provides employment but strengthens and gives back to the community.

Innovation, Science and Economic Development Canada's "Key Statistics Report" shows that "as of 2021, small businesses employed 8.2 million individuals in Canada or 67.7% of the total private labour force. By comparison, medium-sized businesses employed 2.5 million individuals (20.4%) of the private labour force and large businesses employed 1.4 million



individuals (11.8%) of the private labour force. They [SMEs] contributed 42.7% of goods exported. They [SMEs] are spread across the country in every province. As of December 2021, there were 1.21 million employer businesses in Canada. Of this number, 97.9% were SMEs with 1-99 employees."⁹

^{9 &}quot;Key Small Business Statistics, 2022," Innovation, Science and Economic Development Canada, Small Business Branch, Research and Analysis Directorate, <u>https://ised-isde.canada.ca/site/sme-research-statistics/en/key-small-business-</u> statistics/key-small-business-statistics-2022.

SMEs include the majority of high-tech companies (mostly small enterprises), many start-ups that are on a strong growth curve, manufacturers, investors, consultants, service providers and specialized service organizations as well as not-for-profits. For example, in 2020, the British Columbia life science business AbCellera Biologics, a small but rapidly growing company, received the Fast Company Innovative Team of the Year Award and was named the best workplace for innovators.

Canada's population is distributed over a very large territory. In regions across the country, communities thrive where people want to reside and work, and offer an environment respecting Indigenous priorities and rights. With flourishing small businesses, schools, and sporting and cultural centres, these communities are themselves sources of employment, wealth and health, and are part of the circular economy.

Numerous publications tout the advantages of small businesses that extend far beyond the tax revenues and employment opportunities to include getting involved in local charities; sponsoring, organizing and hosting local events; innovating and diversifying the local marketplace; and using local products and services.

There are two important roles research plays in this context. First, research is needed to define and understand fully sustainable and successful communities and how they are supported by small business as they interface with the services and educational, cultural and health facilities available. Second, universities and colleges across the country are working with businesses of all sizes, helping them find solutions and develop innovative approaches, processes, services or technologies that can be commercialized in Canada and around the world. Centres like the DMZ at Toronto Metropolitan University, the e@UBCO Accelerator in Kelowna's

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Preserving the fabric of our communities

Small businesses are financially important to the communities where they are located. Joe Minicozzi, an urban planner and principal of Urban3, has demonstrated the value of investment in mixed-use development as opposed to big-box expansion. Forbes magazine reported that, using the city of Asheville, North Carolina as an example, downtown mixed-use development produced a return 1,000% greater on a per-acre basis than that of a sprawling retail centre. SMEs yielded \$150,000 more in annual tax revenue to the local government than an acre of strip malls or big-box stores. Minicozzi states that "a strong small business presence - especially one that thrives in the context of a busy, livable, walkable downtown — is what gives a community its character." Big-box stores are usually characterized by windowless facades and the owners are, with the profits, located elsewhere.* Canada's own Chamber of Commerce echoes the link between living and livelihood and sets out "thriving business opportunity, a strong economy and a better life for all" as its goals.**

- Darren Dahl, Why Downtown Development May Be More Affordable than the Suburbs, *Forbes*, March 14, 2014.
- ** "Our Vision and Mission," Canadian Chamber of Commerce, <u>Chamber.ca/about</u>

Innovation Centre and the Centres collégiaux de transfert de technologies et de pratiques innovantes, in Quebec, are among the growing number of facilities that support commercial and industrial development that ranges from wood products in the Chantiers Chibougamau Ltée to a re-engineered kiteboard for Ocean Rodeo, a product now internationally marketed by this B.C. company.

In addition, municipal and regional governments often turn to their local university or college to find solutions to real-life issues such as environmental change, public transportation or water quality. Local

research institutions are sources of skilled workers that will attract and welcome newcomers to this country. The Université du Québec network, for instance, keeps young people rooted in their regions where they have access to postsecondary education, find meaningful employment in local firms or create innovative businesses and support cultural life. Research in topics like urban and suburban planning, the impact of green spaces and even hospital architecture that promotes healing has contributed to the success of many communities across the country.

Around the world, countries are investing in regional development, the creation of livable, sustainable communities and employment. All are interrelated and require research to support these efforts, by understanding their unique challenges and inspiring the creative solutions that will ensure their success.





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Key conditions underlying successful communities

Vibrant communities offer:

- Access to natural resources and a growing pool of technically trained workers
- Attraction and retention of top notch researchers and their ideas
- Best and broadest education system and stateof-the-art research facilities
- Freedom to discover and innovate in a creative and supportive research and training environment
- Access to international markets, global expertise and networks
- A business- and researchfriendly environment that promotes social networking and collaboration
- Commitment to environmental safety, sustainability and protection
- Recognition of cultural and linguistic values
- Respect, equity, diversity, inclusion and ethics
- Good schools, health care, a safe environment, arts and sports facilities, and good transportation

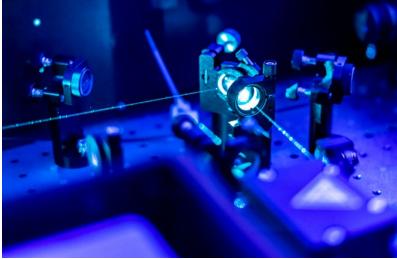
Investing in the next promising areas of science

Just as research and the mining of lithium led to a new generation of batteries that power electric vehicles, the next advances in photonics and quantum technologies or the next treatment for disease may result from the support offered today for our country's best minds.¹⁰

Advances and technological progress are the result of the creativity of our population and the outstanding training they receive in an atmosphere of free and open inquiry. In a world where competitiveness is defined by a nation's ingenuity and capacity to innovate, a single idea can make Canada a leader. If we do not invest in bold possibilities — moonshot science — we risk losing the potential we have and with it, the people who are developing these ideas.

In the global race for talent, the best people and the brightest minds will go to countries where they are able to pursue their ambitions. It is a bit





like a gold rush. If you do not stake a claim, you will never strike it rich and someone else will hire the best prospectors and the geologists who will leave with the gold from that claim. We will never know what we lost.

In addition, with two official languages among the most spoken on the planet and the intellectual diversity they promote, Canada is ideally positioned to attract the best talent.

The potential for economic development in areas such as clean tech, artificial intelligence, quantum computing, precision medicine, physics and advanced manufacturing, to name a few, is significant. These sectors tend to grow by leaps and bounds. A period of new ideas is followed by technical development and then by applications that can be manufactured and commercialized. They require a commitment to innovation and continued, wise investment.

The secret for success is to invest in brilliant research even before we fully understand its true potential. Before the potential of artificial intelligence was recognized, the Canada Foundation for Innovation supported researchers, like Dr. Geoffrey Hinton at the University of Toronto and Dr. Yoshua Bengio at the Université de Montréal, who are today recognized as world leaders in the field and whose work led to the cities of Toronto and Montréal becoming major business hubs in this field.

¹⁰ See Dalhousie University's Dr. Jeff Dahn's innovative work on batteries; the University of Ottawa's and NRC's Dr. Paul Corkum's work on photonics as well as the University of Waterloo's Nobel laureate in medical photonics, Dr. Donna Strickland; the quantum research by the Perimeter Institute's Dr. Elie Wolfe or Dr. Roger Melko (also at Waterloo); and the University of Toronto's PRiME Next-Generation Precision Medicine led by co-directors Dr. Carolyn Cummins and Dr. Keith Pardee.

At present, Canada does not have sufficient population to be able to manufacture and market some products solely within our borders. International markets and partnerships must be identified and developed. Competing in global markets requires not only innovative products and clever marketing, but also a higher tolerance for risk. A low-risk portfolio is unlikely to deliver spectacular returns, so the wise investor seeks a balanced portfolio that includes some elements of higher promise, but also higher risk. As a country we need to emulate the wise investor and invest not only in proven ideas but also in the researchers who push back the frontiers of knowledge.

A nation that does not invest in its people and their ideas foregoes the opportunity for greater achievement. In this context, the emerging talents of First Nations, Inuit and Métis researchers must also be recognized and supported. Their success is not only a source of wealth but of inspiration for the next generation. It also offers the potential to unite the country in a way that transcends our geographical expanses and cultural differences. One need only think of Nobel laureates Art McDonald, who hails from Sydney, Cape Breton, and Donna Strickland, who was born and raised in Guelph, Ontario. They share with young Canadians their passion for science and the knowledge that they too can aspire to change the world through their ideas and hard work.

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Elements of a roadmap to help address continuing challenges for Canada

- Augment investments to add value to resources extracted
- Increase adoption of technology to address decline in productivity and bolster competitiveness
- Attract and retain talent, preventing a brain drain and its associated loss of expertise and talent
- Encourage the scale-up of homegrown businesses by making risk capital available
- Develop and implement strategies aimed at attracting new ideas and international investment to Canada
- Encourage calculated risk-taking and a desire to win among Canadian businesses

Conclusion

Research is the activity of our most precious asset — our people. There is a global race for talent and Canada must not be left behind as the effect will be felt on all sectors, from the economy to health and the quality of life in communities across the country.

Research depends on the ability of Canadians to take advantage of education and resources, and to thrive freely in a country known for its ethical values and principles of fairness. Research is essential to the health and well-being of the population, a strong economy and vibrant, vital communities that encourage the arts, culture and enlightened discourse. Research enables the development of green technologies and processes that will preserve the environment while supporting the development of natural resources. Research paves the way to new discoveries and understanding of our universe and is a source of pride and inspiration to our diverse, inclusive, ethical and equitable society.

And, if channelled properly, research can also be a fundamental part of our national identity and provide a key driver to Canada's success in the years ahead.

In support of our population, we also need to support communities, SMEs, the arts, sports and environmental programs that will make Canada productive, safe and attractive. In addition to smart and connected cities, it is time to think about sustainable communities to raise our living standards and grow a healthy population that is capable of supporting economic growth.

Canada's investment across all fields of research is essential to respond to crises and to permit the growth of creative and innovative concepts. Ensuring we have the capacity to mobilize many fields of inquiry to respond to new challenges or seize emerging opportunities requires a diverse portfolio of excellent research made possible with federal support. No one can predict where the next breakthrough will occur. This means investing not only in the black swans but in the areas that will serve and sustain all areas of endeavour such as data, digital resources, scholarships and fellowships to support the next generation of researchers, entrepreneurs and innovators, and the equipment and labs that will allow them to thrive.

We must today create the conditions for success in Canada. We are writing our history today. Let us learn from the past and build for the future.

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