

RESEARCH & INNOVATION INVESTMENT SUMMARY

Prepared by: Robert Merson, March 28, 2023

These annual research and innovation summaries from the federal budget, typically highlight the new investments to support the life sciences and health economies of Canada. Unfortunately, the Budget 2023 has reported no new investments of relevance to these sectors.

The budget did highlight again the investment commitments made in previous years to "Modernizing Canada's Research Ecosystem". However, the new investments announced for 2023 are focused on clean technologies, along with some funding to support space and the agri-food sector.

I can only recommend referencing previous federal budget summaries to review the various investments that have been budgeted.

2022 Federal Budget Summary:

 $(\underline{https://www.mersoncorp.com/mci/wp-content/uploads/2022/04/BUDGET-2022-HIGHLIGHTS-ON-INNOVATION.pdf})$

2021 Federal Budget Summary:

(https://www.mersoncorp.com/mci/wp-content/uploads/2021/04/BUDGET-2021-HIGHLIGHTS-ON-INNOVATION.pdf)

The budget did provide a brief "shout-out" for the Biomanufacturing and Life Sciences Strategy, highlighting investments of "over \$1.8 billion in 32 vaccine, therapeutic, and biomanufacturing projects across Canada, alongside \$127 million for upgrades to specialized labs at universities across the country". With an additional "shout-out" to attracting investments from leading global companies, including Moderna, AstraZeneca, and Sanofi.

In summary, there is nothing new of great interest to highlight this year.

Direct highlights from the budget are included below.

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Excerpts on Innovation from the Canadian Federal Budget 2023

Compiled directly from budget (Source: Department of Finance, Budget 2023) Highlights and section title edits by R. Merson

Highlights from "A Made-In-Canada Plan: Affordable Energy, Good Jobs, and a Growing Clean Economy" (Section 3.5)

[The following has been announced in previous budgets]

Review of the Scientific Research and Experimental Development Tax Incentive Program

The Scientific Research and Experimental Development (SR&ED) tax incentive program continues to be a cornerstone of Canada's innovation strategy by supporting research and development with the goal of encouraging Canadian businesses of all sizes to invest in innovation that drives economic growth.

In Budget 2022, the federal government announced its intention to review the SR&ED program to ensure it is providing adequate support and improving the development, retention, and commercialization of intellectual property, including the consideration of adopting a patent box regime. The Department of Finance will continue to engage with stakeholders on the next steps in the coming months.

Modernizing Canada's Research Ecosystem

Canada's research community and world-class researchers solve some of the world's toughest problems, and Canada's spending on higher education research and development, as a share of GDP, has exceeded all other G7 countries.

Since 2016, the federal government has committed more than \$16 billion of additional funding to support research and science across Canada. This includes:

- Nearly \$4 billion in Budget 2018 for Canada's research system, including \$2.4 billion for the Canada Foundation for Innovation and the granting councils—the Natural Sciences and Engineering Research Council of Canada, the Social Sciences and Humanities Research Council of Canada and the Canadian Institutes of Health Research;
- More than \$500 million in Budget 2019 in total additional support to third-party research and science organizations, in addition to the creation of the Strategic Science Fund, which will announce successful recipients later this year;
- \$1.2 billion in Budget 2021 for Pan-Canadian Genomics and Artificial Intelligence Strategies, and a National Quantum Strategy;
- \$1 billion in Budget 2021 to the granting councils and the Canada Foundation for Innovation for life sciences researchers and infrastructure; and,
- The January 2023 announcement of Canada's intention to become a full member in the Square Kilometre Array Observatory, which will provide Canadian astronomers with access to its ground-breaking data. The government is providing up to \$269.3 million to support this collaboration.

In order to maintain Canada's research strength—and the knowledge, innovations, and talent it fosters—our systems to support science and research must evolve. The government has been consulting with stakeholders, including through the independent Advisory Panel on the Federal Research Support System, to seek advice from research leaders on how to further strengthen Canada's research support system.

The government is carefully considering the Advisory Panel's advice, with more detail to follow in the coming months on further efforts to modernize the system.



[The following are new funding commitments]

Using College Research to Help Businesses Grow

To help more Canadian businesses access the expertise and research and development facilities they need, Budget 2023 proposes to provide \$108.6 million over three years, starting in 2023-24, to expand the College and Community Innovation Program, administered by the Natural Sciences and Engineering Research Council.

Supporting Canadian Leadership in Space

- Budget 2023 proposes to provide \$1.1 billion over 14 years, starting in 2023-24, on a cash basis, to the Canadian Space Agency to continue Canada's participation in the International Space Station until 2030.
- Budget 2023 proposes to provide \$1.2 billion over 13 years, starting in 2024-25, to the Canadian
 Space Agency to develop and contribute a lunar utility vehicle to assist astronauts on the moon.
- Budget 2023 proposes to provide \$150 million over five years, starting in 2023-24, to the Canadian Space Agency for the next phase of the Lunar Exploration Accelerator Program to support the Canada's world-class space industry and help accelerate the development of new technologies.
- Budget 2023 also proposes to provide \$76.5 million over eight years, starting in 2023-24, on a cash basis, to the Canadian Space Agency in support of Canadian science on the Lunar Gateway station.

Investing in Canada's Forest Economy

Budget 2023 proposes to provide \$368.4 million over three years, starting in 2023-24, with \$3.1 million in remaining amortization, to Natural Resources Canada to renew and update forest sector support, including for research and development, Indigenous and international leadership, and data. Of this amount, \$30.1 million would be sourced from existing departmental resources.

Establishing the Dairy Innovation and Investment Fund

Budget 2023 proposes to provide \$333 million over ten years, starting in 2023-24, for Agriculture and Agri-Food Canada to support investments in research and development of new products based on SNF, market development for these products, and processing capacity for SNF-based products more broadly.

Supporting Farmers for Diversifying Away from Russian Fertilizers

Budget 2023 proposes to provide \$34.1 million over three years, starting in 2023-24, to Agriculture and Agri-Food Canada's On-Farm Climate Action Fund to support adoption of nitrogen management practices by Eastern Canadian farmers, that will help optimize the use and reduce the need for fertilizer.

Providing Interest Relief for Agricultural Producers

Budget 2023 proposes to provide \$13 million in 2023-24 to Agriculture and Agri-Food Canada to increase the interest-free limit for loans under the Advance Payments Program from \$250,000 to \$350,000 for the 2023 program year.

Maintaining Livestock Sector Exports with a Foot and-Mouth Disease Vaccine Bank

Budget 2023 proposes to provide \$57.5 million over five years, starting in 2023-24, with \$5.6 million ongoing, to the Canadian Food Inspection Agency to establish a FMD vaccine bank for Canada, and to develop FMD response plans. The government will seek a cost-sharing arrangement with provinces and territories.



Highlights from "Investing in Public Health Care" (Section 2.1)

Budget 2023 lays out the federal government's plan to provide an additional \$195.8 billion over ten years in health transfers to provinces and territories, including \$46.2 billion in new funding through new Canada Health Transfer measures, tailored bilateral agreements to meet the needs of each province and territory, personal support worker wage support, and a Territorial Health Investment Fund. This funding is to be used to improve and enhance the health care Canadians receive, and is not to be used by provinces and territories in place of their planned health care spending.

The federal government will also work with Indigenous partners to provide additional support for Indigenous health priorities by providing \$2 billion over ten years, which will be distributed on a distinctions basis through the Indigenous Health Equity Fund.

Among other improvements to health care services for Canadians, new funding of \$46.2 billion for provinces and territories will help provide Canadians with access to timely, equitable mental health and substance use services. To complement these investments:

- Budget 2023 proposes to provide a total of \$359.2 million over five years, starting in 2023-24, with \$5.7 million ongoing and \$1.3 million in remaining amortization, to support a renewed Canadian Drugs and Substances Strategy, which would guide the government's work to save lives and protect the health and safety of Canadians. This includes:
- \$144 million over five years, starting in 2023-24, to Health Canada for the Substance Use and Addictions Program to fund community-based supports, including safer supply, supervised consumption sites, and other evidence-based health interventions;
- \$20.2 million over five years, starting in 2023-24, to the Public Health Agency of Canada for a new community-based program to prevent substance use among young people;
- \$73.9 million over five years, starting in 2023-24, with \$4.6 million ongoing, to Health Canada to streamline authorizations for supervised consumption sites and drug checking services, scale-up access to safer supply, and evaluate innovative approaches;
- \$50.8 million over five years, starting in 2023-24, with \$1.1 million ongoing and \$1.3 million in remaining amortization, to Health Canada; and \$16 million over five years, starting in 2023-24, to the Public Health Agency of Canada to support vital data collection on substance-related harms and lab-based analysis of the illegal drug supply;
- \$4.6 million over five years, starting in 2023-24, to Public Safety Canada to develop an overdose monitoring app for paramedics and other first responders; and,
- \$42 million over five years, starting in 2023-24, to the Royal Canadian Mounted Police; \$6.2 million over five years, starting in 2023-24, to Public Services and Procurement Canada; and \$1.6 million over five years, starting in 2023-24, sourced from existing resources, to Global Affairs Canada to take further action to work with our partners to tackle drug trafficking and stem the global flow of these devastating substances.

Improving Canada's Readiness for Health Emergencies

Vaccines and other cutting-edge life-science innovations have helped us to take control of the COVID-19 pandemic. To support these efforts, the federal government has committed significant funding towards the revitalization of Canada's biomanufacturing sector through a Biomanufacturing and Life Sciences Strategy. To date, the government has invested more than \$1.8 billion in 32 vaccine, therapeutic, and biomanufacturing projects across Canada, alongside \$127 million for upgrades to specialized labs at universities across the country. Canada is building a life sciences ecosystem that is attracting major investments from leading global companies, including Moderna, AstraZeneca, and Sanofi.

To build upon the progress of the past three years, the government will explore new ways to be more efficient and effective in the development and production of the vaccines, therapies, and diagnostic tools that would be required for future health emergencies. As a first step, the government will further consult Canadian and international experts on how to best organize our readiness efforts for years to come.



Summary Investment Tables

Section 3.5 from Budget

	2022-	2023-	2024-	2025-	2026-	2027-	Total
	2023	2024	2025	2026	2027	2028	
3.5. Investing in Tomorrow's							
Technology	-24	53	129	196	210	196	759
Using College Research to Help							
Businesses Grow	0	39	36	33	0	0	109
Supporting Canadian Leadership in Space Less: Funds Sourced From Existing Departmental	0	17	53	119	174	146	508
Resources	0	0	-1	-40	-49	-48	-138
Investing in Canada's Forest Economy Less: Funds Sourced	0	85	130	153	0	0	368
From Existing Departmental Resources	0	-10	-10	-10	0	0	-30
Establishing the Dairy Innovation and Investment Fund ² Less: Funds Previously	0	0	1	21	81	94	196
Provisioned in the Fiscal Framework	-24	-100	-100	-100	0	0	-324
Supporting Farmers for Diversifying Away from Russian Fertilizers Less: Funds Previously Provisioned in the Fiscal Framework	0	5 -7	14	14	0 -7	0	34
Providing Interest Relief for Agricultural Producers	0	13	0	0	0	0	13
Maintaining Livestock Sector Exports with a Foot-and-Mouth Disease Vaccine Bank	0	12	12	12	12	12	58
Additional Investments – A Made-In-Canada Plan: Affordable Energy, Good Jobs, and a Growing Clean Economy	0	218	200	184	50	35	686



Section 2.1 from Budget

	2022- 2023	2023- 2024	2024- 2025	2025- 2026	2026- 2027	2027- 2028	Total
2.1. Investing in Public Health Care	2,000	3,255	3,336	4,399	4,899	5,473	23,362
Working Together to Improve Health Care for Canadians	2,000	3,060	3,068	4,116	4,702	5,280	22,226
Investing in Better Health Care Data	0	115	115	115	80	80	505
Encouraging More Doctors and Nurses to Practise in Rural and Remote Communities	0	0	11	11	12	12	46
Strengthening Retirement Saving for Personal Support Workers Less: Funds Sourced From	0	2	3	10	14	21	50
Existing Departmental Resources	0	0	0	0	0	0	- 7
Fighting Crime and Saving Lives: Combatting the Opioid Crisis	0	41	77	80	79	82	359
Less: Funds Sourced From Existing Departmental Resources	0	0	0	0	0	0	-2
Implementing the 988 Suicide Prevention Line	0	43	55	60	0	0	158
Less: Funds Sourced From Existing Departmental Resources	0	-5	-5	-5	0	0	-15
Safeguarding Access to Abortion and Other Sexual and Reproductive Health Care Services	0	0	12	12	12	0	36