

Submission to the Consultation on the Modernization of the Federal Research Support System

July 2024

The Canadian Association of University Teachers (CAUT) represents seventy-two thousand researchers, teachers, librarians, and professional staff at universities, colleges, and polytechnics across the country. We welcome the opportunity to comment on the proposed changes to the federal research support system. As this consultation is taking place over a short period of time during the summer, we request that the government continue to engage the research community as changes proceed.

Federal support for research is essential to growing our collective knowledge needed to address current and future challenges. Over time, we have seen changes to what research the federal government funds, who it funds, and on what basis.¹ From these changes, we have learned lessons about how best to distribute federal research funds so that science thrives, benefitting all Canadians, namely:

- Investigator-led research must be the focus of government funding;
- Programs must be inclusive of all disciplines and researchers; and,
- The integrity and independence of research and funding decisions must be respected.²

The proposed changes outlined in the [Annex to the letter](#) to the Presidents of the three research councils differ from that of the Report of the Advisory Panel on the Federal Research Support System, also known as the Bouchard report. The Panel proposed the creation of a fourth agency to help close perceived gaps around mission-driven, interdisciplinary, and international research. Instead, the government is proposing an amalgamation of the granting councils into a superagency, not unlike what happened in the United Kingdom (UK) with the creation of UK Research and Innovation in 2018.

CAUT is skeptical of the need to amalgamate the granting councils, but care must be taken to embed the principles of investigator-led, inclusive, and independent research funding into any streamlining efforts.

Both the Bouchard report and the 2017 Advisory Panel for the Review of Federal Support for Fundamental Science called for an independent advisory council to provide broad oversight and to develop and harmonize science and research strategies. Both reports' recommendations regarding composition, purpose and reporting lines should be taken into account when considering the proposed superagency board, the promised Council on Science and Innovation, and the role of the National Science Advisor.

Our submission elaborates on the principles, identifies some risks of the proposed approach, and makes some key recommendations.

Principle One – Investigator-led basic science

Fundamental science or basic research is the foundation of knowledge and innovation. History shows that most important discoveries are grounded in basic research driven by curiosity and a quest for knowledge. Fundamental research has led to such unanticipated innovations as X-rays, nylon, Teflon, GPS technology, informatics, superconductivity, medical imaging and the mRNA vaccine. In short, applied research cannot thrive if fundamental research is struggling.

The Advisory Panel for the Review of Federal Support for Fundamental Science suggested, at minimum, a 3:1 distribution of investments in research between basic and applied. Some experts suggest the ratio should be closer to 4:1 to reap the best rewards for society. As the recent Report of the Advisory Panel on the Federal Research Support System stated: "Fundamental, investigator-initiated research is the cornerstone of the research endeavour and must be supported at internationally competitive levels."

¹ Advisory Panel for the Review of Federal Support for Fundamental Science. (2017). Investing in Canada's Future: Strengthening the Foundations of Canadian Research. Chapter 1.

² Report of the Advisory Panel on the Federal Research Support System. (2023). Report pps. 19-20; and Ibid, pps.11-12.

The panel called for, as a first step, an increase of at least ten percent annually for five years to the granting councils' total base budgets for core grant programming.

The federal budget 2024 made significant investments in investigator-led research, committing \$1.8 billion over 5 years. This is a welcome investment, but with rising costs of research, fair wages needed to recruit and retain graduate students, and Canada's relative underperformance in investments in science compared to other countries, the federal government must continue to grow its fundamental science efforts.

Both the value and the number of grants awarded for investigator-led research must continue to increase. Since 2013, the success rate has averaged 38.2% for SSHRC Insight grants. CIHR's Project Grant program funded less than 20% of applications this past year. The NSERC Discovery Grant program had a 58% success rate in 2023, down from 67% in 2019.³ The New Frontiers in Research Fund Exploration program for interdisciplinary science has had an average success rate of 23% since its inception in 2018.

We know from our members that many grant applications are approved on merit but cannot proceed due to insufficient funding. Unfunded research means good ideas are left unexplored, ideas that would contribute to our collective knowledge and know-how.

If the government proceeds with the creation of a superagency, it should have as its primary mission the support of investigator-led basic research. It is critical that investigator-led fundamental science will be protected and continue to grow, particularly considering no new funding for the capstone agency and its mission-driven, interdisciplinary, and international focus has been promised.

Principle Two – Inclusivity

Most Canadian researchers work in the social sciences and humanities, yet SSHRC receives only about a fifth of federal research funding. There is a need to grow and re-balance funding across disciplines.

The housing of many inter-agency programs at SSHRC assists in ensuring that social sciences and humanities are part of the co-development and implementation of these programs. It will be critical if the international, mission-driven, and interdisciplinary programs are moved to the capstone agency as proposed, that all disciplines are well-represented in governance, and that there is transparency in decision-making and funding. The proposed downgrading of the Presidents of the granting councils and their advisory councils poses a risk to ensuring equal voice among the disciplines.

It is essential that the governing body and structure of the superagency reflect the diversity of the research and science community, including disciplinary fields, equity representation, and career stages.

The granting councils have done exemplary work in advancing reconciliation and equity, diversity, and inclusion in research. The importance of these efforts should be recognized in the preamble of any legislation, the governance, and the programming of the capstone agency. For example, the Dimensions program, launched by the Tri-Council in 2018 and overseen by NSERC, should be reinstated.

Principle Three – Independence and integrity

Protecting the integrity of federally supported science and research is critical and best done through independence from political and commercial interference. Any new legislative framework should clearly specify and protect the independence of federal research granting decisions.

Rather than allow the scientific community to determine what research merits funding, targeted initiatives in the past have required the granting agencies to direct funds toward industrial collaborations, specific disciplines, or topics, bypassing peer review processes. As John Polanyi, Canada's most prominent Nobel laureate, warned, when governments or industry try to direct scientific inquiry, our scientific horizons shrink, and our future is diminished.

³ SSHRC, CIHR, NSERC dashboards.

“It is an abiding mystery why, having failed so definitively to pick winners in the marketplace for goods, governments have been empowered to pick winners in the far more subtle marketplace for ideas.”⁴

The creation of the capstone agency and the proposed repeal of the existing legislation resulting in the subordination of the granting councils raises concerns about the independence and integrity of research funding decisions.

How the governing body of the capstone and the granting council advisory boards will relate to the proposed Council on Science and Innovation and the National Science Advisor also should be carefully considered. The goal should be to ensure that there is a vision driving science and research led by the scientific community, reporting to both Innovation, Science and Economic Development Canada (ISED) and Health Ministers and to Parliament. As well, the Office of the National Science Advisor should be made an independent officer and Chair the Council on Science and Innovation to provide advice and analysis to Parliament about the adequacy and effectiveness of the nation’s scientific policies, priorities, and funding.

Conclusion

The federal government’s interest in a thriving support system for science and research is much welcomed. The goal of improving Canada’s international, interdisciplinary and mission-driven efforts is commendable. This goal must be pursued in adherence to the principles of investigator-led, inclusive, and independent research.

- Investigator-led fundamental science, inclusive of all disciplines should be prioritized as the base of knowledge and innovation.
- Indigenous research and equity, diversity and inclusion initiatives should be embedded in federal research support.
- Science integrity should be maintained through rigorous peer review and majority representation of the research community in decision-making and advisory roles.

We look forward to ongoing engagement on proposed reforms to strengthen the strategic vision and coordination of science and research in Canada.

⁴ John Polanyi. Why our scientific discoveries need to surprise us, *The Globe and Mail*, 2011; and Hope lies in the scientific method, *The Globe and Mail*, 2009.