



2020 

WHAT WE HEARD, WHERE WE'RE GOING

Summary of
NSERC 2020 Consultations
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Natural Sciences and Engineering
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Conseil de recherches en sciences
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Canada 

SUMMARY OF NSERC 2020 CONSULTATIONS: WHAT WE HEARD, WHERE WE'RE GOING

INTRODUCTION

NSERC invests in, partners, and collaborates with institutions, researchers, the private sector and other stakeholders to promote excellence in science and engineering across Canada. The following document summarizes key themes that emerged from consultations with these stakeholders on the NSERC 2020 Strategic Plan. While publication of the plan in its final form is targeted for Fall, 2015, this document highlights several areas where NSERC intends to adjust the Strategic Plan in response to feedback from the community. We warmly thank NSERC's community for their input and continue to welcome dialogue concerning the Strategic Plan.

WHAT WE HEARD

Sharpen NSERC Vision

The original vision of NSERC 2020 (*To be a global leader in strengthening the dynamic between discovery and innovation for the societal and economic benefit of Canada*) was perceived as unclear and duplicative of Goal 3 of the Strategic Plan which also discussed the discovery-innovation dynamic.

The community also suggested that the vision failed to adequately reflect NSERC's impact on society. For example: there were questions about how improving the process or dynamic between discovery and innovation could create benefits.

Summary of the Consultation Process

- Launched in February 2015 and closed in June.
- An online survey resulted in over 1,600 responses.
- 19 town hall meetings across Canada attracted 1,100 participants.
- 13 submissions from institutions and associations accounting for numerous individual stakeholders.
- Additional presentations to a number of groups, including Universities Canada, U15, the Partnership Group for Science and Engineering, Genome Canada, Science, Technology and Innovation Council, la Conférence des recteurs et des principaux des universités du Québec (CREPUQ), and Colleges and Institutes Canada.

Discovery Sets the Foundation

The importance of discovery research stood out in the feedback about NSERC 2020. Both in person and online, participants voiced clear and unambiguous support for continued and increased investment in the Discovery Grants program.

The concept that discovery provides a strong foundation for science and technology in Canada resonated strongly with respondents, and many felt it should be NSERC's main value proposition.

Although there was skepticism from some respondents about the efforts to conduct partnership activities to help drive the back-and-forth dynamic between discovery and innovation, a number of the collective written responses from institutional partners and other stakeholders underlined the rich dynamic between discovery and innovation and the validity of each as a goal. In addition, responses from industry stakeholders were fully in support of the practice. However, many other opinions on the outcome of discovery were articulated. *"The history of science has taught us that the path from fundamental, basic (or discovery) research to application (or innovation) is unpredictable, non-linear and usually serendipitous. Articulating innovation as the logical outcome of discovery is problematic and should be avoided."*

"To add to the evidence of 'buy-in', I was happy to respond to NSERC's survey. The concern I expressed to you was the fear that our 'discovery' community might compromise its ambitions in the attempt to be, concurrently, leaders in 'Innovation' -- both marvelous goals but each making its own demands." Dr. John Polanyi

Diversity Yields Strength

The 2020 consultations played a key role in helping shed light on the core concept of diversity in research.

Stakeholders fully supported the idea that diversity is and will be a source of strength and competitive advantage for Canada.

Stakeholders also endorsed efforts to increase diversity and pointed out that NSERC is well positioned to play a role in realizing the potential of this diversity. *"NSERC has a significant role to play in terms of your ability to have a line of sight into*

"I'm happy, now that you've seen the need for this, that you can go back and look at the University Faculty Award program and see if you, like me, believe that it was a success. Maybe you can bring it into other areas. For example, the drop from post-docs to assistant professors was very steep. There are lots of female students in the audience today, and I would love to see them continue in the academic train."

world-leading basic and applied research capacity. Linking universities, colleges and polytechnics with the private sector can be the purview of NSERC partnership grants.”

The feedback has clarified that this diversity is built across three distinct dimensions: demographic (women and underrepresented groups, such as Aboriginal Canadians); institutional (universities of different sizes, colleges, and polytechnics); and professional (there is no single, “right” career path for science-based training). *“Establishing opportunities for recent graduates to explore scientific career paths outside of the traditional academic or industrial sectors would be a pioneering move and set NSERC ahead of the pack.”*

Stakeholders from colleges reflected a strong desire to be involved more often in collaborations with universities and to play a greater role in building links to partners. They also wanted more support to be able to play this role more effectively.

Going Global: Make it Happen

The concept of going global triggered a number of questions amongst respondents. The most pressing question involved funding to support the strategy, to make it happen.

Many stressed that to move into significant bi-lateral partnerships on strategic initiatives, as opposed to ad-hoc research-researcher international partnerships, required additional financial backing.

Stakeholders also wanted more details about specific themes to be addressed by a going global strategy and suggested that this strategy also needed to make it easier to form links with international industrial partners.

“To improve international partnerships, NSERC must develop and maintain international collaborations in its programs, offer funding specifically for Canadian researchers, and work towards lightening the administrative load. NSERC must continue participating in areas of research focussing on issues that transcend borders and where the contribution of world-renowned, Canadian researchers is essential.”

Science Has Application

The community expressed widespread support for NSERC's commitment to build science culture. It is worth noting that some stakeholders stressed that the commitment must also include engineering.

The community also suggested that culture-building activities must promote science as having concrete applications.

"In order to 'increase the dynamic flow of idea, talent, and technologies between academia, industry, and other agencies' we need to attract more young people into NSE careers where both discovery and innovation are components."

Mend the Generational Gap

In the context of the discussion about diversity, many respondents consistently made reference to importance of people as a key resource in the research enterprise and, in a number of cases, they drew attention to the generational gap in Canada's research community. NSERC 2020 did not touch on this subject; however, it did appear unprompted in responses from the community.

"With the increasing number of young investigators working at the boundaries of traditional disciplines, many find that they don't have a clear home in one of the Tri-Agencies."

Several respondents expressed the need for new funding tools to support early-career researchers. The younger generation was also seen as critical to the topic of interdisciplinary research, and respondents stressed the need for NSERC to support more research of this nature.

WHERE WE ARE GOING?

Based on the feedback from consultations, NSERC has begun to map out the final version of its 2020 Strategic Plan, which is targeted for release in the Fall of 2015. Preliminary steps in this process include revising the vision and the mission statements. We have also listed the key goals of 2020, of which there are now five (5) instead of four (4).

Revised 2020 Vision

Our vision is to make Canada a country of discoverers and innovators for the benefit of all Canadians.

Mission

We are the focal point for discovery and innovation in natural sciences and engineering for Canada.

- *We back bold, high-impact ideas.* Supported by a robust system of quality assurance, we give researchers the freedom to aim high and explore the frontiers of science and engineering to produce world-firsts in knowledge.
- *We invest in the future.* We invest in science culture and people. We provide students at all levels the chance to gain valuable hands-on research experience as they build the foundation for a science-based career.
- *We connect communities.* We establish relationships between sectors and across borders, we build consensus, and we deliver informed opinion that guides industrial and societal needs.

NSERC 2020 Goals

- Foster a science and engineering culture in Canada
- Build a diversified and competitive research base
- Bridge the generational gap (*new*)
- Strengthen the dynamic between discovery and innovation
- Go Global