

Plenary Session: Challenges of Funding Science and Technology - Viewpoint of Funding Agencies/Universities/Research Institutes/Industries

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Science & Technology Strategy: The heart of the matter

In 2007, Canada launched its latest Science & Technology (S & T) Strategy under the banner of “Mobilizing Science and Technology to Canada’s Advantage”. The Strategy recognizes the importance of attracting and retaining talented, skilled, and creative people, as well as maintaining a strong and broad research base.

But it also recognizes, and I quote, that “Canada can and must do more to turn our ideas into innovations that provide solutions to environment, health and other important social challenges, and to improve our economic competitiveness.”

The Future of Basic Research

Is basic research endangered in Canada? The answer is clearly no, based on the evidence that over two thirds of the investments from our granting councils are being directed to basic research.

But the expectations for these investments are high, and getting higher. Increasingly, our researchers are challenged to demonstrate that their research programs are highly creative, at the leading edge of their fields and are internationally competitive. In the words of our S&T Strategy, world class research excellence is Canada’s standard”.

At the Natural Science and Engineering Research Council of Canada (NSERC), we do not talk about *basic research*, but rather, we use the phrase *Discovery Research*, emphasizing the importance of investing in talented people in ways that will unleash their creative potential.

Let me give you two examples of our commitment to discovery research:

NSERC's flagship, and indeed our biggest program, is our Discovery Grants program. This is a unique program that invests in individuals. It provides researchers with the freedom and flexibility to pursue the most promising avenues as they arise, encouraging creative and cutting edge approaches, and collaborations across disciplines, institutions and nations.

The second example is the Canada Research Chairs program. The goal of this program is to be a magnet for talent. Investments are made in talented people, leaving them with total freedom in the development of their research programs.

A common feature of the two programs is that they provide a stable base of funding to researchers over a reasonably long period of time to encourage leading edge and high risk research.

Turning Great Ideas into Innovations – How and Where?

Must we also respond to the challenge of doing even more to turn our ideas into innovations? My answer is absolutely yes. The questions for me are *how* and *where*.

It is important to be clear about the role that we, the research agencies, can and should play. In the case of NSERC, we see our role in innovation as promoting partnerships: partnerships between disciplines, institutions, sectors and nations.

Where we can make the most significant difference and have an impact is also an important question. In Canada, as in most nations, we have identified areas that are strategic to the future well-being of our country; areas such as energy and natural resources, environment, ICT and health. Some of our investments at NSERC are targeted to these areas.

An important point I would like to make is that *targeted* research does not necessarily equate with *applied* research. In fact, many of the partnerships we support span the entire spectrum of research, from discovery to applied research, as well as technology transfer.

Let me conclude by underlining the important challenges we need to confront.

We have in Canada, as in many nations, a complex, rich and dynamic system of Science and Innovation. The challenge for us is to understand our place in this system, play our distinct role to the best of our capacities and interact well with other parts of the system. Working as a system, sharing a common vision and common goals is key to ensuring that we can all reap the benefits of the tremendous investments that have been made, and will continue to be made in S&T for the benefit of society.

Increasingly, our own national systems are part of a larger global system of Science and Innovation. This presents the additional challenge of reconciling national competitiveness agendas with the need for international collaboration in addressing global challenges.

As we have heard through this forum, it is increasingly urgent for all of us to face these challenges.