



Remarks to the Standing Committee on Industry, Science and Technology

Dr. Nigel D. Lloyd, Executive Vice-President, NSERC
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First, I would like to thank you for inviting me to meet with you today. I am honored to have this opportunity to talk to you about NSERC and its role in the implementation of the S&T Strategy.

About NSERC

The Natural Sciences and Engineering Research Council (NSERC) manages nearly \$1 billion in grants and scholarships programs for research and advanced training in post-secondary institutions. NSERC's vision is to make Canada a country of discoverers and innovators for the benefit of all Canadians. We invest in people, discovery and innovation with the aim of advancing prosperity and quality of life in Canada. To that end, we support the creation and transfer of knowledge in the natural sciences and engineering (NSE) and ensure that people are trained to discover, develop and use that knowledge.

- NSERC invests in **people** by supporting 25,000 undergraduate and graduate students and postdoctoral fellows each year. These highly skilled people form the human capital for Canada's competitiveness and economic growth. Graduates in the natural sciences and engineering have among the lowest unemployment rates and highest salaries in the country.
- NSERC promotes **discovery** by funding more than 11,000 research professors at Canadian universities and colleges. Their discoveries advance knowledge and form the foundation of technological development by businesses as well as improvements in our quality of life.
- NSERC helps make **innovation** happen by encouraging 1,400 Canadian companies to invest in academic research and training. Last year, Canadian firms invested more than \$75 million in public-private research partnerships supported by NSERC. These partnerships strengthen companies' ability to adopt and adapt discoveries and new technologies leading to commercial products and they also mobilize university researchers to address the needs of industry.

(The above figures do not include the impact of the Networks of Centres of Excellence (NCEs))



NSERC and the S&T Strategy

All nations now recognize that they are part of a global research and innovation race. They have reached the same conclusion: investments in science and technology are key to their future societal well-being and economic prosperity. The S&T Strategy has given Canadians a plan for creating a new climate of discovery and making us world leaders in S&T.

NSERC's programs and priorities are perfectly aligned with the S&T Strategy's goals of creating a **People Advantage**, a **Knowledge Advantage** and an **Entrepreneurial Advantage** for Canada. Supporting research that leads to innovation starts with supporting people – our human capital. In keeping with the S&T Strategy, this is exactly what the federal granting agencies do.

Thanks to investments by the granting agencies, and others, Canada is currently first among the G-7 in terms of its investments in higher education R&D. Canada also benefits from a strong research base and is at the forefront of important scientific developments in many fields, ranking first in the G-7 in the number of scientific publications produced on a per-capita basis.

Since the Strategy was released in May of last year, NSERC has embraced its vision and worked proactively to carry out its agenda. The strategy's four principles have been internalized into NSERC's planning and decision-making. These principles are also solidly embedded in NSERC's way of doing business. This includes a competitive, peer reviewed evaluation system to ensure world class levels of **excellence** and value for money, a blend of targeted and broad-based programs to ensure that **priority** research topics are addressed as well as a broad spectrum of science from discovery to applied research and commercialization, a suite of collaborative research programs that foster **partnerships** between industry and universities and, lastly, appropriate and effective controls that are proven and recognized to ensure **accountability**.

NSERC's response to the Strategy

NSERC, together with the Canadian Institutes of Health Research (CIHR) and the Social Sciences and Humanities Research Council (SSHRC), has been assigned an important role in *Mobilizing Science and Technology to Canada's advantage*. We are committed to achieving its goals and meeting its commitments.



In the last 12 months, NSERC has focused its efforts and investments with the goals of:

- Mobilizing the science & engineering research community to focus on the **priority areas** of Energy and Natural Resources, the Environment, Health and Information and Communications Technology. For example, we have accelerated our support to outstanding researchers in the priority areas who have or are on the verge of making a breakthrough discovery that will have a significant impact on the world stage. We are also devoting more resources to strategic public-private partnerships that support projects and networks of researchers working together to solve problems in these areas. Furthermore, in its most recent budget, the government has asked us to help solve immediate problems in the automotive sector, manufacturing, forestry and fisheries. We are busy designing initiatives to accomplish this goal.
- Extending **international research linkages** and making Canada a destination of choice for students and for research. We are facilitating linkages between Canadian research networks and international efforts, allowing Canada to be connected at a global level. Furthermore, through Budget 2008, the government has announced funding to the granting agencies to support new Canada Graduate Scholarships for 500 top Canadian and international doctoral students per year, dedicated to the memory of Georges Philias Vanier, as well as a new Canada Global Excellence Research Chairs program to attract to Canada some of the world's leading researchers in the four priority areas of the S&T Strategy.
- **Advancing research in areas of Canadian strength.** We are funding new researchers, enhanced training opportunities and international linkages in key emerging technology areas such as nanotechnology and quantum computing.
- **Translating knowledge and technology into practical applications** to improve the wealth, wellness and well-being of Canadians through integration. It is well recognized that the best way to flow ideas and knowledge from universities to industry, and ensure that these are turned into a competitive advantage in the marketplace, is through people.

We continue to work closely with our sister agencies to maximize the impact of Canada's investment in S&T. We have worked diligently and moved swiftly to implement the new programs introduced in the Strategy. For example, new initiatives, announced in Budget 2007, will foster public-private research and commercialization partnerships. These include: Centres of Excellence in Commercialization and Research, Business-led Networks of Centres of Excellence and Industrial Research and Development Internships.



These programs are managed by a joint Secretariat of the three granting agencies (CIHR, NSERC and SSHRC) and have been implemented very swiftly.

It is important to point out that the new programs and additional funding have been enthusiastically received by the research community. Canada has an extremely vibrant capacity for public-sector research, which offers a strong potential to boost private-sector R&D through leveraged funding in partnership with universities.

Budget 2007 has put in place instruments and Budget 2008 provides for further strategic investments that, taken together, allow a rapid implementation of the Strategy. These commitments provide a very powerful tool to help us mobilize the research community towards advancing the goals of the Strategy.

We welcome the commitment made by the government in the S&T Strategy to maintain Canada's G-7 leadership in public sector R&D performance and to continue to support excellence in research and the development of talent.