Envisioning a World-Class Commercialization System for Canada

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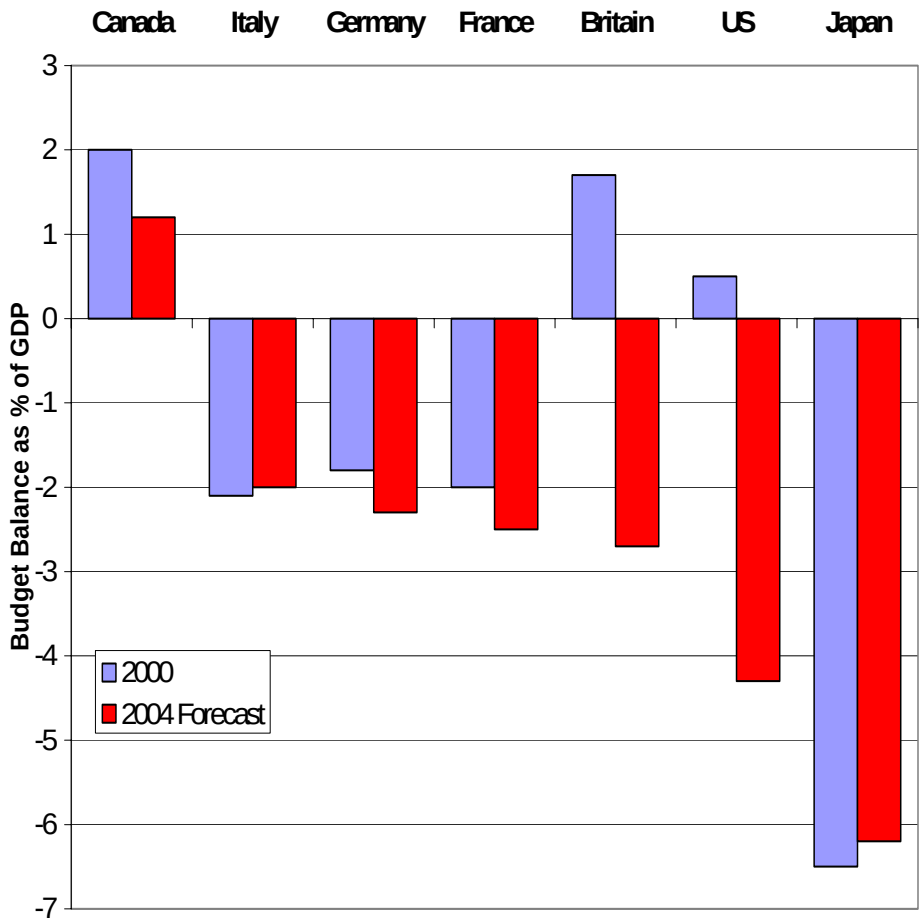
Getting the Fundamentals Right

- Government has worked hard to get fundaments right
- Government has injected $13 Billion over past 7 years
- R&D spending per capita in univesities and research institutions is highest in G8[1]
- One of the highest R&D tax credits world-wide through SR&ED

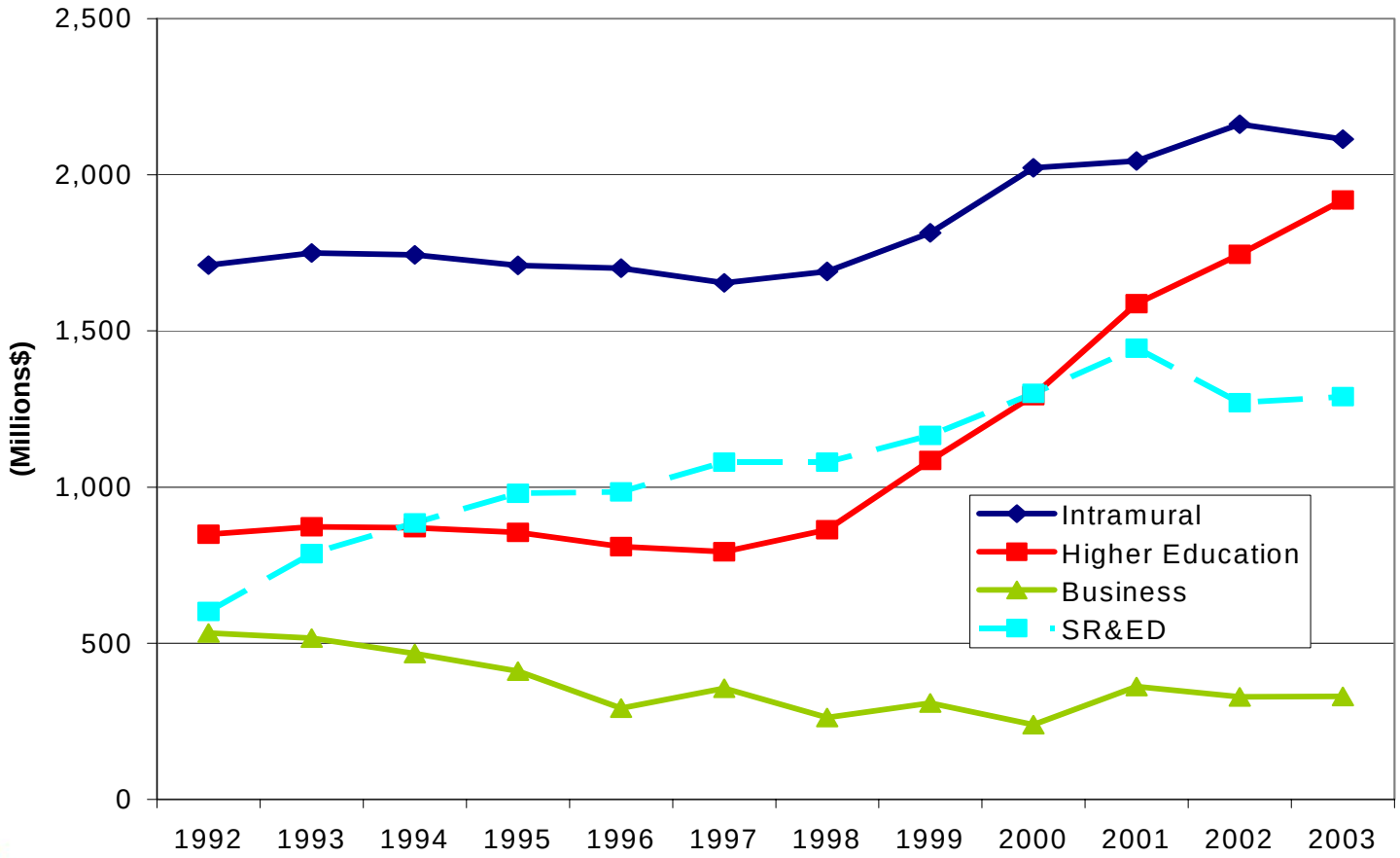


Source: IMF and *The Economist*

1. Source: IMD World Competitiveness Yearbook 2004

Federal R&D support

Federal direct and indirect expenditures on R&D, by performing sector (1992-2003)*



* projected

Source Statistics Canada Cat No. F88-0006XIE and Finance Canada

Canada in the 21st Century

Our challenge: Canada must consistently play at the top of its game in science and innovation …

- Canada is a small, highly trade-dependent nation
- Emergence of new economic powers – China
  - Moving quickly from low-cost manufacturer to knowledge-based competition
- Challenges of a Resource-based Economy
  - Decreasing value of commodities
  - Need to gain competitive edge through innovations in extraction and production to harness value added benefits

Commercialization of Research Results: We are not alone

"The future of the British economy depends on the future of British science. A Government that fails to invest in science is a Government failing to equip Britain for the new economy."

- Gordon Brown, Chancellor of the Exchequer, July 2004

Strategy:

- Knowledge transfer as an embedded core activity in universities;
- Bridge the funding gaps between research and the market;
- Increase business collaboration with the UK science base;
- Increase business investment in R&D
- Higher Education Innovation Fund to develop the capacity of universities to interact with business and support technology transfer, entrepreneurship training and seed funding for commercial ventures

Moving Ahead

A Vision for the Future

- Competitive Business Environment
- Solid Research Base
- Strong Linkages between researchers and industry
- Global-focused Economy
- Talented Graduates and Highly Skilled People
- Eco-system of Risk Financing
- Smart Regulatory System

Moving Ahead

Change in Mind-set

- Providing incentives for private sector investment over subsidies
- Building highly qualified workforce
  - Highly qualified scientists and engineers
  - People with strong base of commercialization skills
- Moving towards early adoption incentives, procurement and shared risk management
- Build on strengths and invest strategically

Not another centralized big government program but a series of well-coordinated and cohesive activities.

Speech from the Throne

"The Government will develop policies to foster Canadian capabilities in key enabling technologies-such as biotechnology, information and communications, and advanced materials-which will be drivers of innovation and productivity in the 21st century economy."

-Speech from the Throne, October 2004

Innovation & Commercialization:

- Build on R&D investment
- Focus and coordinate investments
- Early stage venture capital
- Emphasis on key enabling technologies
  - Biotechnology
  - Information and Communications
  - Advanced Materials

New Directions

Risk Financing

BDC budget announcement (March 2004)

- $100 million for fund of funds
- $100 million for direct investments in “A” round financing
- $50 million for direct investment in start-up and seed stage funding

ACST paper recommendations (July 2004)

- Implementation of BDC’s $100 million fund of funds in 2004
- Addition of $140 million in 2005 Budget
- $65 million in Budget 2005 for training and mentoring
- Second Roundtable to discuss proposal with institutional investors

New Directions

Task Force on early stage venture financing

- Led by Daniel Muzyka (UBC Sauder School of Business), supported by Mike Raymont (NRC)
- Involves complete risk financing eco-system: angels, entrepreneurs, VCs, institutional investors, policy analysts, universities and professional advisors
- Part of Federal-Provincial-Territorial study on risk financing
- Draft priorities and recommendations:
  - Harmonize SR&ED rules
  - Concentrate on Angels as mentors through tax credits
  - Simplify “Qualified Limited Partnership” rules to encourage pension fund participation
  - Clarify Federal Income Tax Act provisions that discourage foreign investment

New Directions

Commercialization Funds

- Additional $25 M to IRAP for SME innovation
- Two funds announced in 2004 Budget
  - $50 M/5 years for commercialization of University and Hospital Research
  - $25 M/5 years for commercialization of federal lab research
- Advisory Committee, representing private sector expertise (VC, angel, entrepreneurs, scientific experts) to adjudicate competitive process
  - Committee met in October 2004 to agree on ToR
  - First call for proposals in 2005
  - Process managed by Industry Canada

Smart Regulation

- External Advisory Report released in September
- Comprehensive (73 recommendations)
- Integration, unification and coordination of Federal-provincial regulations
- Elimination of “unique to Canada” regulations
- Strive for a North American regulatory regime
- Focus on clarity, consistency and efficiency of regulations

Building An Innovative Economy

Looking Ahead

- High expectations; multitude of ideas; need to pull out best practices, workable solutions.
- Initial progress likely to be incremental, but will move forward steadily over time.
- Need to maintain and build dialogue and partnerships between key stakeholders (industry, government, academia, 4th pillars)

Building a high performing commercialization system

Key Points to Remember

- Technology pull market place - technology push from labs: we need both
- Build a dynamic interface between the two through collaboration and partnerships
- Not looking for one big program; seeking a comprehensive range of measures that will improve the innovation system
- Needs to be coordinated, coherent and kept relevant to Canada's changing needs
- Build on strengths – invest strategically

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