Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

Innovation and collaboration - The Canadian agriculture perspective

SW10 International Cooperation for Innovation
Americas Innovation Forum
March 30-April 1, 2008, Puta del Este, Uruguay

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Canada

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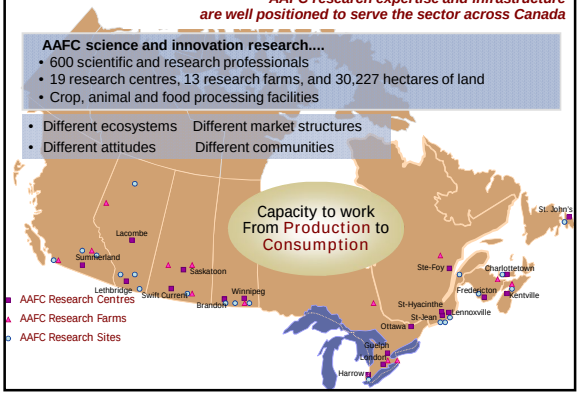
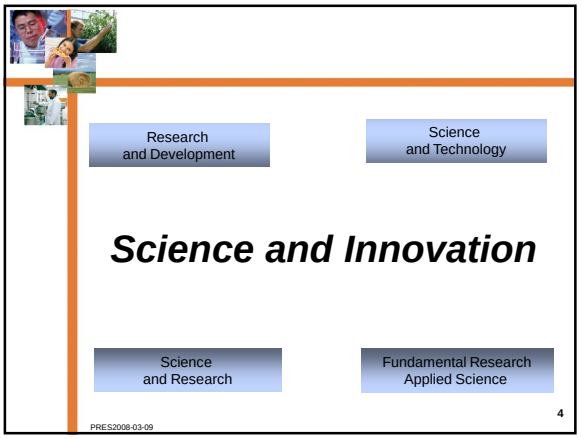
AAFC research expertise and infrastructure are well positioned to serve the sector across Canada

AAFC science and innovation research....
- 600 scientific and research professionals
- 19 research centres, 13 research farms, and 30,227 hectares of land
- Crop, animal and food processing facilities

- Different ecosystems
- Different attitudes
- Different market structures
- Different communities





Research and Development

Science and Technology

Science and Innovation

Science and Research

Fundamental Research Applied Science

PRES2008-03-09

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Science and Innovation for a Research Organization

- **Science**
  - Investing money to create knowledge
- **Innovation**
  - Investing knowledge to create money

"Research being market-driven
to
markets being science-driven"

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The federal policy context …

- ***Advantage Canada***
  - Focus is on industry competitiveness and economic growth achieved through innovation and productivity improvement. There is a strong focus on university-business science collaborations. The notion that excellence will be obtained through the competition of ideas is presented as a key theme.
- ***Budget 2007***
  - Continues the messaging from Advantage Canada. Government investment in universities through Granting Councils is increased only modestly. Granting Councils are essentially the means by which excellence through competition of ideas will be achieved. Innovation supported by a focus on entrepreneurship, knowledge development and management and enhancing HQP is a key thrust.
- ***Federal Laboratory Infrastructure Project***
  - Treasury Board is leading a multi-department review of federal laboratory infrastructure. It is apparent that significant reinvestment is required and this project is attempting to determine the current condition of federal laboratory capacity in the context of government science priorities.
- ***Federal S&T Strategy will put emphasis on:***
  - **Promoting world class excellence**
  - **Focusing on priorities**
  - **Encouraging partnerships**

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… is moving global

- **Budget 2008**
  - Recognizes the importance of developing focussed research alliances with leading foreigner R&D institutions
  - Vanier scholarship
    - 500 Phd scholarships to study in Canada for foreign excellent scholars: Total of 25M$
  - Global Excellence Chairs
    - 20 global excellence chairs in targetted S&T areas
    - 10M$ per chair over 7 years
  - Strategic networks
    - 8 national networks granted $400K for 2 years
    - To enhance linkages with international networks

Infusing global mind set into business, public policy, S&T and Innovation

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Agriculture Business

- Convert the energy of the sun into products useful for human kind.

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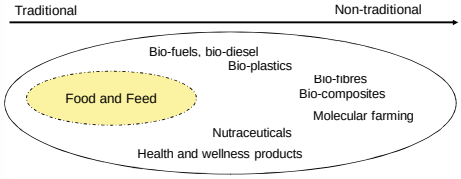
The Future for Innovation in Agriculture Extends Beyond Food Production



- Increasing demands for non-food, non-feed products include products that:
  - Address countries' rising health costs and meet needs for "wellness"
  - Provide new treatments for diseases
  - Replace fossil fuels through fuels based on biomass (ethanol, bio-diesel)
  - Produce fibre for construction and manufacturing

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The AAFC Science & Innovation Strategy outlined seven goals

Goal 1 — Focus science and innovation on national priorities

Goal 2 — Pursue excellence in science and science management

Goal 3 — Build partnerships that will lead to concrete results

Goal 4 — Extend the integrated national science and innovation capacity to the bioeconomy

Goal 5 — Accelerate the adoption and commercialization of scientific knowledge

Goal 6 — Enhance leadership and stewardship supported by enhanced cooperation and communication

Goal 7 — Improve decision-making through science knowledge and advice

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Goal 1 — Focus science and innovation on national priorities

AAFC has identified seven national priorities

1. Enhancing human health and wellness through food and nutrition and innovative products
2. Enhancing the quality of food and the safety of the food system
3. Enhancing security and protection of the food supply
4. Enhancing economic benefits for all stakeholders
5. Enhancing environmental performance of the agricultural system
6. Understanding and conserving Canadian bioresources
7. Developing new opportunities for agriculture from bioresources

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Goal 3 — Build partnerships that will lead to concrete results

AAFC has adopted and adapted various models

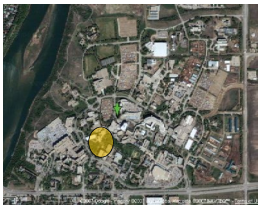
- co-locations
- embedded staff in universities
- joint institutes (joint building, equipment and staff) with other government departments

AAFC is enhancing international science and innovation Collaboration and partnership initiatives to:

- create opportunities
- extend Canada's international influence and improve our trade relations

Saskatoon Research Center

200 AAFC staff on the University of Saskatchewan campus



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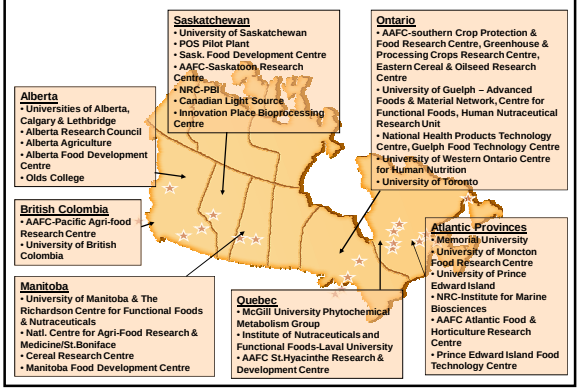
Canadian Research Clusters



Goal 4 — Extend science and innovation capacity to the bioeconomy

- AAFC announced the Agricultural Bioproducts Innovation Program (ABIP)
  - ABIP is a $145 million program designed to support research networks and encourage the development of clusters for the advancement of a sustainable and profitable Canadian bioeconomy.
  - As the Science and Innovation Strategy indicated, these new research efforts will put an increased emphasis on research partnerships that will allow for the creation of 15 multidisciplinary and multiparty networks along the innovation Chain, with the best research teams in Canada.
  - Close to $1 Billion of funding requests were received.

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Goal 5 — Accelerate the adoption and commercialization of scientific knowledge

- The Matching Investment Initiative (MII) program is being rejuvenated to enhance its effectiveness and flexibility and improve its delivery. Rebranding and rejuvenating the MII will:
  - Enhance innovation capacities across the value chain
  - Introduce a new funding formula to cater to a wider variety of industry needs
  - Build long-term AAFC-industry relationships
  - Simplify agreements will be put in place
  - Welcome applications throughout the year
- The MII program has been a success. For the period 1994-2002:
  - MII funded **3000 projects** involving **1400 industry groups** between 1994 and 2002
  - MII leveraged **$235 million AAFC direct cash investment** with matching industry cash and in-kind investment (50:50)
  - **Net economic benefits** from MII funded research have been estimated to be at least **$2.2 billion**

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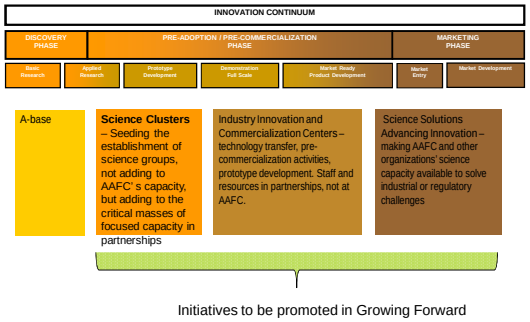
Three interrelated initiatives to deliver science and technology along the continuum in support of sector innovation and competitiveness



Initiatives to be promoted in Growing Forward

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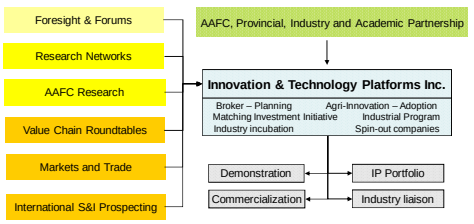
The Elements of Innovation Strategy



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Some challenges for Successful Innovation

1. Need increasingly skilled work force including qualified personnel to prepare business plan for agriculture opportunities
2. Need robust private sector investment and involvement in S&T matters to develop new products
3. Need harmonization of intellectual property guidelines between research organizations and commercialisation of publicly funded S&T matters
4. Need to address macroeconomic framework and regulations for new products to meet high cost for testing
5. Need to create incentives for scientists and companies

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Conclusion

- There is a global clearer understanding of the role of innovation in driving the economic growth and how it links to the S&T capacity of a country.
- The Canadian approach is to create the economic, politic, scientific and regulatory environment in order to be a facilitator and a catalyst to favor innovation.
- Innovation goes with partnerships and the Canadian government has set up various programs to support PPP.
- In Agriculture and agri-food, concreate actions are being taken such as a special funding ABIP to set up 15 networks, the MII to match with industry investment, review its infrastructure and improves on the communication.
- My role in the International Scientific Cooperation Bureau is to grab and create international research opportunities for AAFC scientists, attract the talented students in our laboratories, use the scientific capacity of the department to help the industry to develop new foreign markets

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Your contact point…

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Thank you!

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