




# ***AAFC Science & Innovation Framework and Proposed Strategic Directions***



Agriculture and  
Agri-Food Canada

Agriculture et  
Agroalimentaire Canada

Canada

- 
1. Context
  2. Challenges and Opportunities
  3. AAFC Science and Innovation:  
Framework, Capacity & Governance
  4. Consultation Questions



# ***1. Context***

***Minister Mitchell announced a review of science priorities and an AAFC approach to launch the next phase of its Science Strategy...***

***... as well as core principles to guide AAFC decision-making in the conduct and management of science and innovation***



## **news release**

### **REVIEW OF SCIENCE PRIORITIES**

**OTTAWA, June 23, 2005** - Further to Minister Mitchell's statement to the Standing Committee on Agriculture and Agri-Food on May 17, 2005, Agriculture and Agri-Food Canada (AAFC) has developed an approach to launch the next phase of its science strategy. This will include a comprehensive consultation with communities, stakeholders, industry representatives, provincial and territorial governments, universities and research institutes over the following months to identify key priorities and to suggest strategies to maximize our current investments.

# ***AAFC Science & Innovation: Five Core Principles (1)***

1. National investment in science will be maintained at its current level or better
2. R&D activities will be generally maintained in all provinces at current levels
3. Science undertaken will meet the needs of industry, and take into account regional variances

## ***AAFC Science & Innovation: Five Core Principles (2)***

4. Departmental initiatives will be integrated with the research and development planning and delivery done by government partners, universities and industry in Canada and abroad
5. Departmental initiatives will work to ensure synergy between researchers and to create state-of-the-art facilities



## ***2. Challenges and Opportunities facing the Agriculture and Agri-food Sector***



# *In OECD countries, producers are served by excellent public agricultural research*

## **Expenditures in Science**

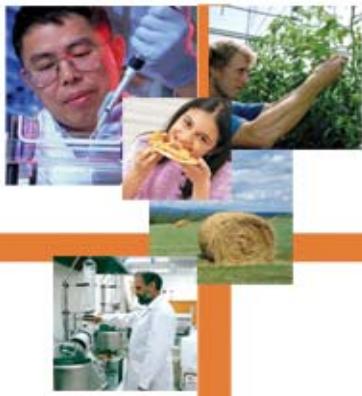
- In 2002, Canada reported an expenditure of 1.87% of GDP in science

## **Public Expenditures on Agricultural R&D**

- In 2003, OECD countries spent an estimated total of \$9.0 billion (\$CDN)
- In 2003, Canada ranked 5<sup>th</sup> among OECD countries in terms of Public Agricultural R&D expenditures after:
  - United States (1<sup>st</sup>)
  - European Union (2<sup>nd</sup>)
  - Japan (3<sup>rd</sup>)
  - Australia (4<sup>th</sup>)



# *The federal government is a major player in agricultural R&D ...*



## Source of Agriculture R&D Spending in Canada (2000\*)

<b>AAFC</b>	<b>47 %</b>
Other federal government	14 %
Provincial governments	22 %
Private sector	17 %

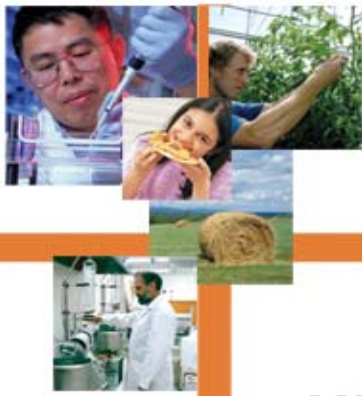
\*Funding to universities is included

*...and has a significant research capacity in every province*

## AAFC science and innovation research....

- 600 scientific and research professionals;
- 19 research centres, 13 research farms, and 20 other sites spread over 30,227 hectares of land;
- total annual budget approaching \$300 M;





***AAFC needs to ensure that it has the capacity required to help producers & sector meet current and future needs and challenges over time***

## **HUMAN RESOURCES:**

***Ensuring Canada's capacity to develop and attract world-class scientists***

## **CAPITAL INVESTMENT:**

***Ensuring Canada's capacity to develop and maintain state-of-the-art science infrastructure and equipment in support of world-class research***

## **FUNDING:**

***Ensuring access to adequate funding in a way that promotes collaboration and partnerships***



***Profitability in the sector will depend on its responses to the challenges of the 21<sup>st</sup> century***

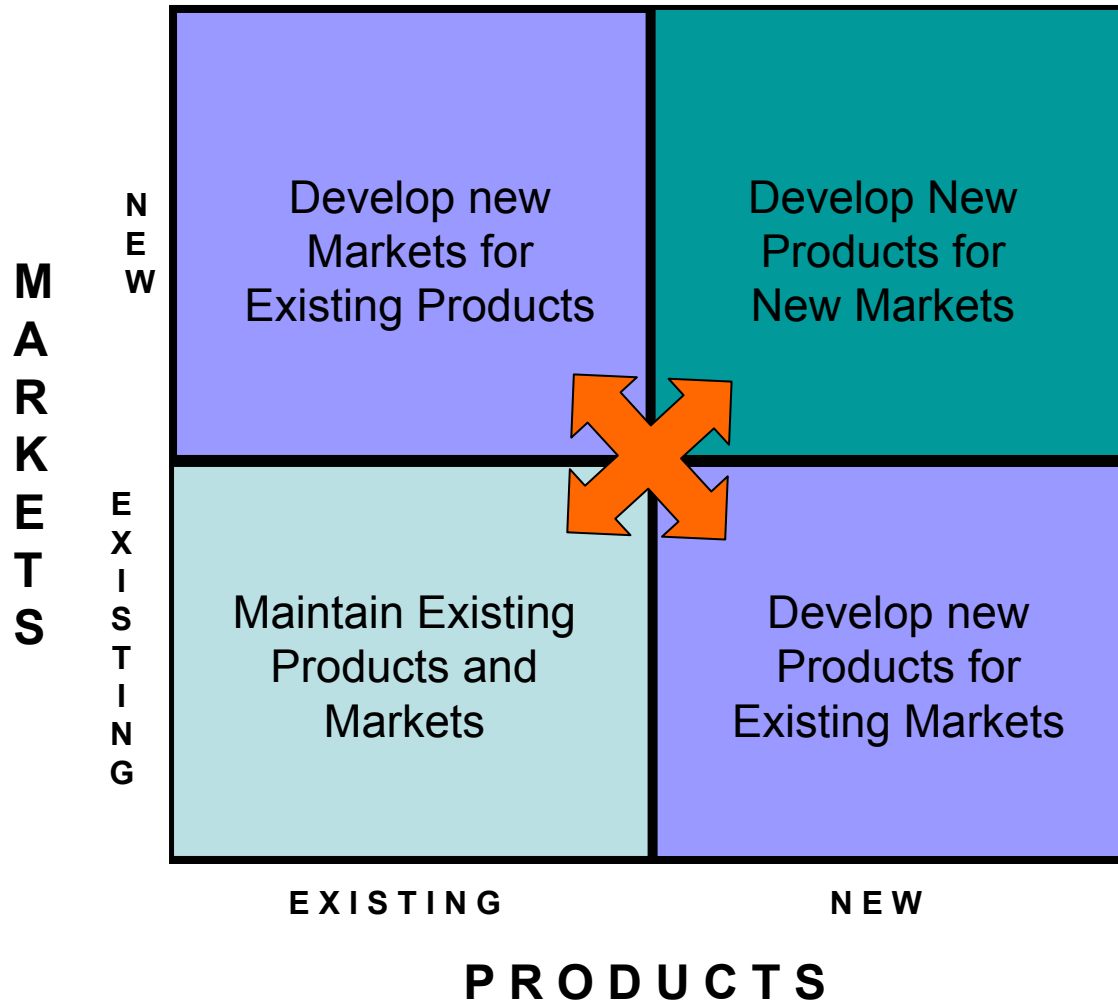
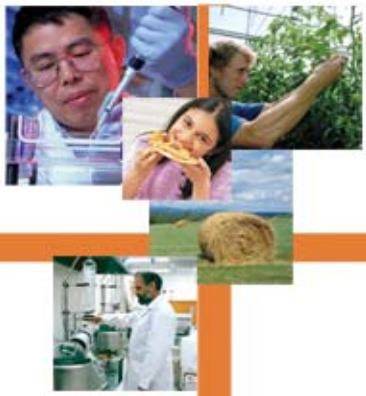
- Declining real prices for agricultural commodities
- Consumers preferences for food safety and quality
- Concerns regarding agriculture's environmental performance
- Globalization of agriculture
- Increasing densities of animal and human populations

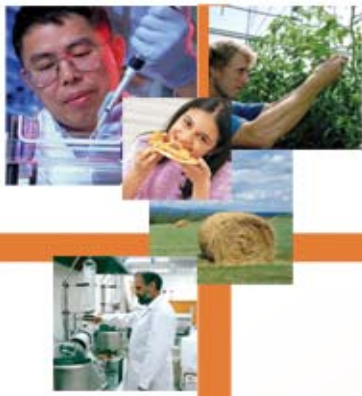


## ***Therefore we need to invest in opportunities for agriculture that increase wealth at the farm gate***

- A number of new opportunities are emerging :
  - The production of foods with functional properties to improve health
  - Pharming of high value products
  - Identity preserved marketing of specific products
  - Renewable energy
  - Economic development based on renewable resources

*To succeed, we must achieve an appropriate balance in the focus of science and research efforts*

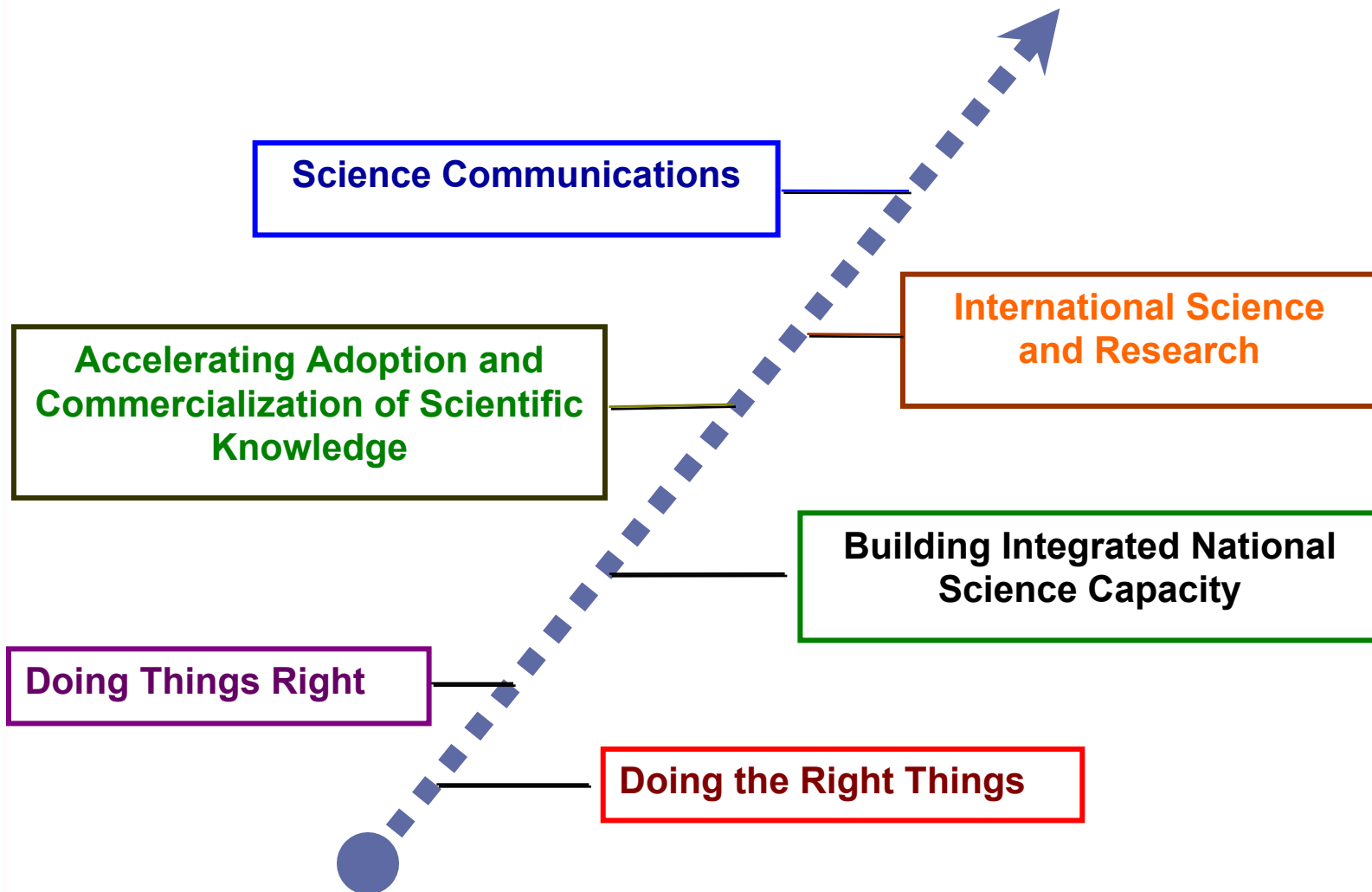




### ***3. AAFC Science and Innovation: Framework, Capacity & Governance***

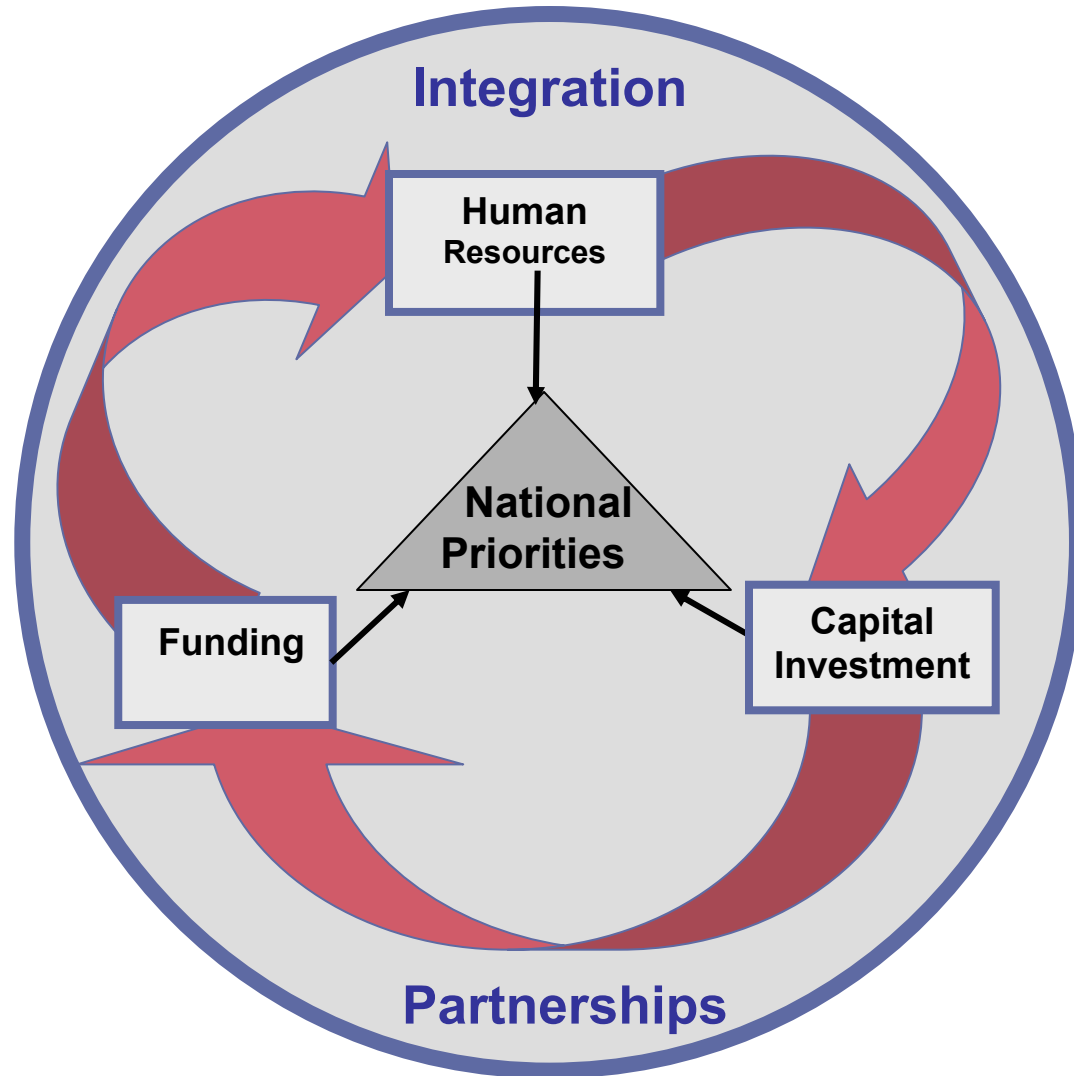
# Recommendations from a 2003 Science Advisory Panel became the foundation of the AAFC Science & Innovation Framework

## Road Map to Deliver the Best Science





# ***Building Integrated National Science Capacity to support the agriculture and agri-food sector***



# ***AAFC has committed to build Canadian science capacity for agriculture and agri-food through partnerships ...***

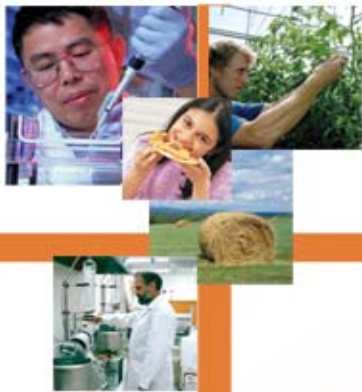
## Putting Canada First

- Under the Agricultural Policy Framework, AAFC will build national science capacity for agriculture and agri-food
- Minister Mitchell has committed to continue transforming AAFC science capacity within the context of a federal and national science framework

*... to ensure that the best minds, facilities and equipment are used for the greatest benefit to the sector and Canadians*

## OPTIONS AVAILABLE FOR CONDUCTING RESEARCH

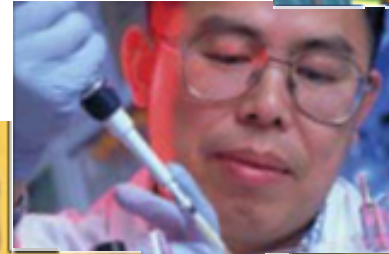
- **Location-independent research**
  - Research hubs with significant critical mass and infrastructure.
- **Location-dependent research**
  - Network of facilities
- **Integrated Multidisciplinary research**
  - Various models of co-location, partnerships and alliances



*Consultations with the sector and governments  
have already established a number of priorities  
within the APF*

- **Food Safety and Food Quality**
- **Environment**
- **Science and Innovation**
- **Renewal**
- **Business Risk Management**

**Gaining recognition of Canada at home and abroad  
as the best in the world**





# ***AAFC has identified 3 strategic outcomes for focused attention***



## ■ **Security of the Food System**


- Risk management
- Secure market access
- Consumer confidence in food safety and quality

## ■ **Health of the Environment**

- Awareness of environmental issues and options
- Stewardship through improved management practices

## ■ **Innovation for Growth**

- Discovery science
- Skills development and continuous learning
- Market development



***Science efforts are focused and delivering results for producers, the sector and Canadians***

- AAFC science and research professionals are organized into four groups of expertise, each reporting to a **Director General**:

**1. Bioproducts and Bioprocesses**

**2. Food Safety and Quality**

**3. Environment**

**4. Sustainable Production Systems**

Research Branch is responsible for developing and maintaining the appropriate mix of expertise within these functional communities



***AAFC has implemented a new governance structure to improve management of its science programs and projects***

- **10 Science Directors** manage teams of scientists and research professionals
- Science Directors report to **Director Generals** who ensure that research efforts are aligned with sector, government and departmental priorities
- **20 Research Managers** oversee the research operations at the various locations across Canada



## ***4. Consultation Questions***





## ***Question 1: Vision for the agriculture and agri-food sector***

What do you think the agriculture and agri-food sector in your region needs to do over the next 10-15 years to achieve sustainable profitability and growth?

- **What are the key drivers of change?**
- **What are the principal challenges?**
- **What are the principal opportunities?**



## **Question 2: Ongoing Regional Consultation**

In establishing an ongoing Agriculture and Agri-food Sector Regional Consultation mechanism, what is your advice as to how this could best be accomplished in a way that identifies regional research priorities of greatest benefit to the sector?

- **Who should be engaged in ongoing regional consultations?**
- **How should this consultation be done?**
- **How often should consultations be held?**
- **How should consultation advice be channeled to the Department?**



***A Web-based questionnaire offers the opportunity for all Canadians to participate in this consultation process***



***[www.agr.gc.ca/science-consultations](http://www.agr.gc.ca/science-consultations)***



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