



Integrated Federal S&T Response to National Challenges: **A Blueprint for Action**

Follow up to “Beyond the Horizon”: Identifying
Emerging Priorities for Science and Technology
Integration Workshop

PIPSC 2007 Science Policy Symposium
Gatineau, QU, *September 6-7, 2007*



Science and Policy

Beyond the Horizons 2005

- **Thoughts on the Science – Policy Interface:**
 - Stronger vision is required on value of, and need for Science and Technology within federal government
 - Recognition of role of national S&T sectors
 - At times, Policy may lead Science; other times Science will lead Policy
 - Policy decisions/legislation will have more strength and rationale if they are based on sound science and technology
 - Increasingly complex policy issues demand an integrated science response





Beyond the Horizon – Sept. 2005



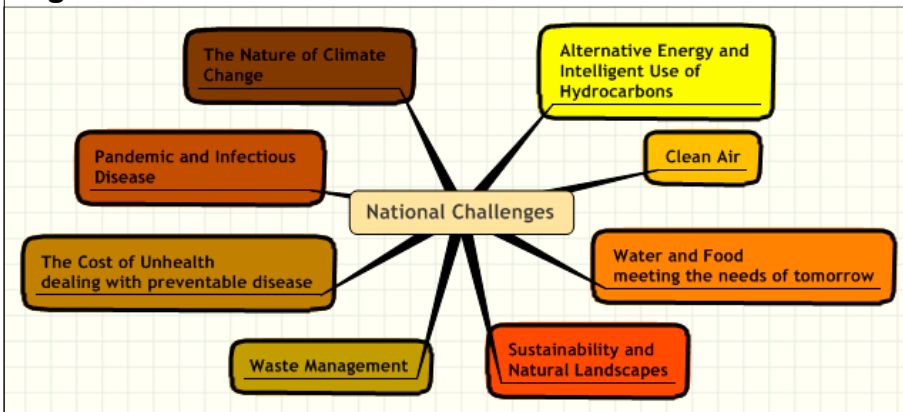
Outcomes from the Workshop

- Identified eight National Challenges needing S&T
- Identified emerging S&T enablers
- Described three pillars for success
- Outlined a Road Map to the Future for integration



National Challenges

All Challenges require S&T; Challenges go beyond departmental and governmental boundaries; often global in nature





Emerging S&T examples

Not challenges – but enablers

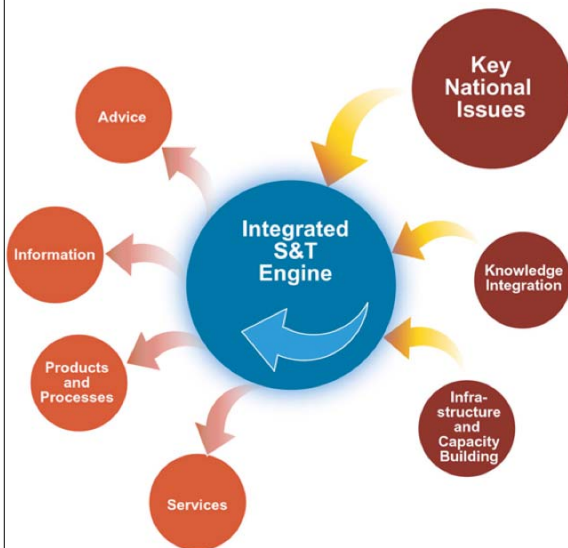
- Nanotechnology
- Genomics, proteomics, metabonomics
- High capacity computing, artificial intelligence
- Remote sensing, *in situ* sensing technologies
- Robotics automation
- S&T Infrastructure - need to secure, maintain, and enhance access for scientists

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Map to the Future – Three pillars



To deliver the Science:

- Identify Challenges; building a culture of integration
- Integrate knowledge
- Integrate available infrastructure and capacity building

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Refined Road Map (Blueprint for Action)

Fundamental Principles for a Culture of Integration

- A clear common shared vision and goal statement
- Trust and Transparency
- Flexible, rationally-allocated funds
- Champions at senior political and public service levels
- Simple, logical, and flexible management
- Strong communications
- Applicable to Long-term and emergency needs
- Accountability mechanisms
- Always evolving with feedback

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Refined Road Map (Blueprint for Action)

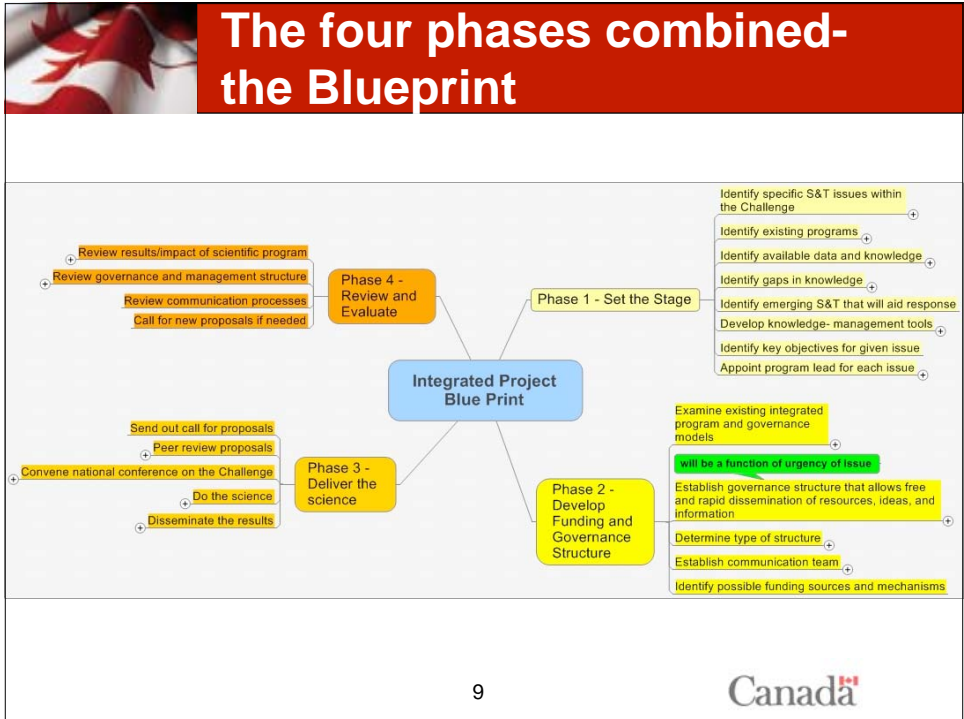
How do we get there?

Four Phase Program

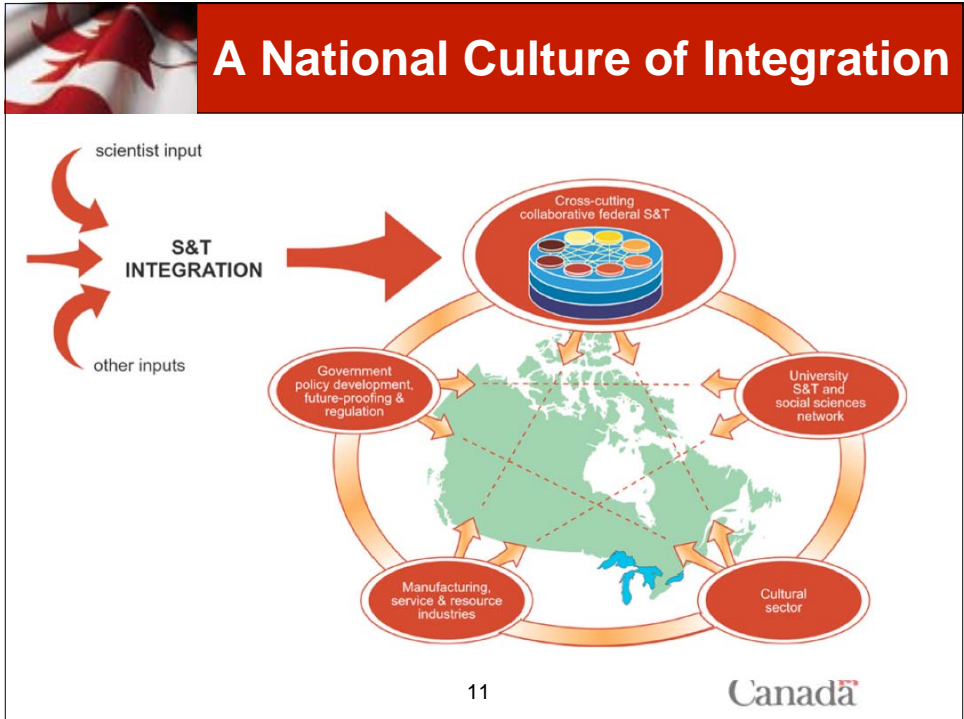
1. Set the stage – identify the S&T issues within the challenge
2. Develop funding and governance mechanisms
3. Deliver the science to respond to National Challenges
4. Review, evaluate, define next steps

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- ## Highlights
- Need to nurture and support a culture of integration within federal S&T and national scene
 - Efficient and effective integration will:
 - Drive discovery and innovation
 - Optimize value for government investment in S&T
 - Minimize response time to National challenges
 - Blueprint for Action (four-phased approach)
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- ## Building Support for Public Science
- Continue to demonstrate the value of and need for S&T
 - National S&T requires strong partners from all sectors
 - Integration within federal S&T and among the national S&T community is key to success
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The Core Group

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