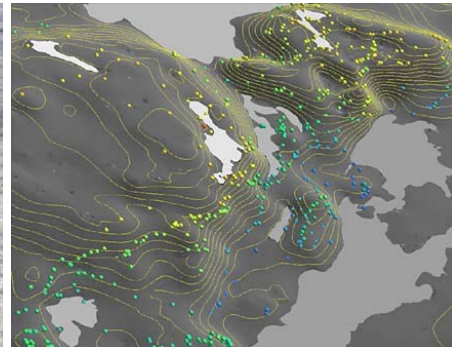


Public Geoscience: Examples of the benefits of sharing practical, relevant knowledge



2

What is Public Geoscience?



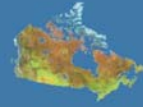
- Data and information about the tectonic history of Canada and its offshore regions
 - Expected result is new knowledge and understanding
-
- A Public Good
 - Non-rival (use does not diminish or consume it)
 - Non-excludable (no one can be prevented from using it)

An idea or understanding



3

Why is Public Geoscience needed?



- The Earth's crust
 - Source of all resources,
 - Source of all nutrients,
 - Contains our water,



- Poses hazards for our communities, and
- Contains our waste.



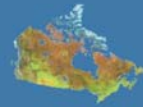
Natural Resources
Canada

Ressources naturelles
Canada

Canada

4

Why is Public Geoscience successful?



- A Model: New Growth Theory
 - Economics is not just the exercise of allocating scarce resources
 - Creativity and Sharing Knowledge drives growth



“No amount of savings and investment, no policy of macroeconomic fine-tuning, no set of tax and spending incentives can generate sustained economic growth unless it is accompanied by the countless large and small discoveries that are required to create more value from a fixed set of natural resources.”
(Paul Romer 1993)



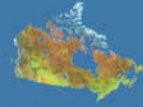
Natural Resources
Canada

Ressources naturelles
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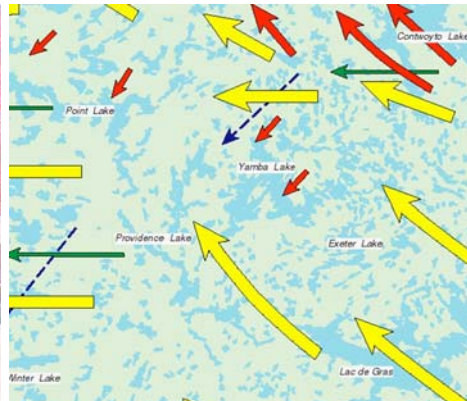
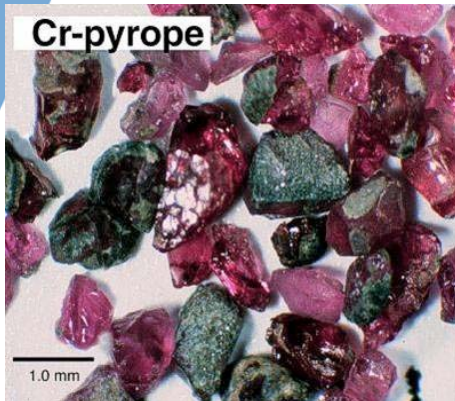
Canada

5

Example: NWT Diamond Discoveries



- Integrate the existence of indicator minerals with ice flow information from recent glaciations



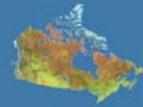
Natural Resources
Canada

Ressources naturelles
Canada

Canada

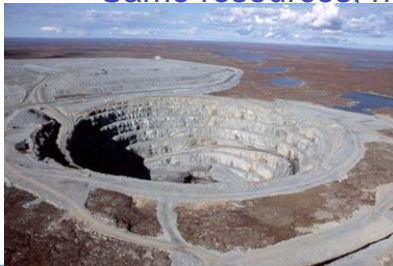
6

Example: NWT Diamond Discoveries



- Key events
 - Mineralogy and glaciation concepts exist
 - Exploration context led to integrating the concepts
 - Integrated model was tested and published
 - Industry began using the integrated model

Same resources, new idea = more value



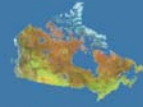
Natural Resources
Canada

Ressources naturelles
Canada

Canada

7

What is needed?



- High quality science
- Publicly accessible
- Integrative
- Appropriate within the context of the current problem
- Receptor capacity exists to use the data and information



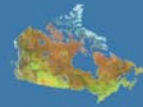
Natural Resources
Canada

Ressources naturelles
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Canada

8

Future Example: A Groundwater Inventory



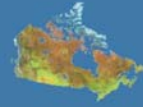
- Roughly 30% of Canadians rely on groundwater
 - At current rates it will take until 2030 to complete an inventory of 30 key Canadian aquifers
- Integrate concepts, e.g.,
 - Energy development
 - Economics
 - Societal norms
- Ensure receptors can use the data and information



Natural Resources
Canada

Ressources naturelles
Canada

Canada



Public Science:

Relevant

Shared

Used



Natural Resources
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Canada

Canada